TABLE OF CONTENTS

Home .................................................................................................................. 5
Academic Plans ................................................................................................. 7
Accounting ........................................................................................................ 8
  Accounting Clerk (CP) .................................................................................... 8
  Accounting (AAS) ......................................................................................... 8
Addiction Counselor Education ...................................................................... 10
  Addiction Counselor Education (CP) .......................................................... 10
  Addiction Counselor Education (AAS) ......................................................... 11
  Addiction Counselor Education (AA) .......................................................... 11
Art ....................................................................................................................... 13
  Graphic Design (AFA) .................................................................................. 13
  Graphic Design Concentration AA ............................................................... 14
  Studio Art (AFA) .......................................................................................... 15
  Studio Arts Concentration .......................................................................... 17
Associate in Arts (AA) - General Transfer ................................................. 19
  Associate in Arts - Direct Transfer (AA) ..................................................... 19
Associate in Science – Track 1 (AST1) ......................................................... 22
  Associate in Science - Track - General (AST1) ............................................ 22
Associate in Science – Track 2 (AST2) ......................................................... 24
  Associate in Science - General (AST2) ....................................................... 24
Automotive Technology ................................................................................. 27
  T-TEN Automotive (CP) ............................................................................ 27
  T-TEN Automotive (AAT) .......................................................................... 27
  HITECC Automotive Technology (CP) ....................................................... 28
  HITECC Automotive Technology (AAT) ..................................................... 29
Bioengineering and Chemical Engineering ............................................... 30
  Bioengineering and Chemical Engineering (AST2) ................................... 30
Biological Sciences ......................................................................................... 32
  Biological Sciences (AST1) ....................................................................... 32
  Biology DTA/MRP (AA) ............................................................................ 33
Business Administration ............................................................................... 36
  Business Administration (AAS) ................................................................. 36
  Business DTA/MRP (AA) ......................................................................... 37
Business/Applied Management .................................................................... 40
  Bachelor of Applied Science in Applied Management (BAS) .................... 40
Business/Supervisory Management ............................................................. 42
  Supervisory Management (CP) .................................................................. 42
  Supervisory Management (AAS) ................................................................. 42
Chemistry ......................................................................................................... 44
  Chemistry (AST1) ...................................................................................... 44

Computer Science .......................................................................................... 46
  Computer Science (AST2) ......................................................................... 46
Computer Technology .................................................................................... 48
  Information Technology Skills (CP) ............................................................ 48
  Web Development (CP) ............................................................................. 48
  Computer Support (AAT) ......................................................................... 49
  Web Development (AAT) ......................................................................... 50
Culinary Arts .................................................................................................... 51
  Baking and Pastry Arts Fundamentals (CA) ............................................... 51
  Professional Baking & Pastry Arts Management (AAT) .............................. 51
  Cuisine Fundamentals (CA) ...................................................................... 52
  Cuisine Management (AAT) ..................................................................... 52
Dental Hygiene ................................................................................................. 54
  Dental Hygiene (BAS) ............................................................................. 54
Diesel Technology ........................................................................................... 56
  Diesel Technician (CP) .......................................................................... 56
  Diesel Technologies (AAS) ..................................................................... 56
  Diesel Technologies (AAT) ..................................................................... 57
Digital Media Arts ............................................................................................ 59
  Digital Media Arts (AAT) ........................................................................ 59
Early Childhood Education ............................................................................ 60
  State Initial Early Childhood Education Certificate (Statewide) (CC) ......... 60
  Short State Early Childhood Education Certificate of Specialization-
    General (Statewide) (CC) ..................................................................... 60
  Short State Certificate of Specialization-Infants and Toddlers
    (Statewide) (CO) .................................................................................. 61
  Short State Certificate of Specialization-School Age Care (Statewide)
    (CC) ....................................................................................................... 61
  Short State Certificate of Specialization-Family Child Care (Statewide)
    (CC) ....................................................................................................... 61
  Short State Certificate of Specialization-Administration (statewide)
    (CC) ....................................................................................................... 61
  State Early Childhood Education Certificate (Statewide) (CP) ............... 62
  Early Childhood Education (AAS) ............................................................... 62
  Early Childhood Education (AAS-T) ......................................................... 63
Education .......................................................................................................... 65
  Elementary Education - Transfer to WSU Vancouver (AA) ....................... 65
  Electrical and Computer Engineering ....................................................... 67
  Electrical and Computer Engineering (AST2) ........................................... 67
  Emergency Medical Services ...................................................................... 69
  Emergency Medical Technician (Accelerated) (CC) .................................. 69
  Engineering ................................................................................................. 70
  Engineering (AST2) .................................................................................. 70
<table>
<thead>
<tr>
<th>Program Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Science ........................................</td>
<td>72</td>
</tr>
<tr>
<td>Environmental Science (AST1) ..................................</td>
<td>72</td>
</tr>
<tr>
<td>Geology ..........................................................</td>
<td>74</td>
</tr>
<tr>
<td>Geology (AST1) ..................................................</td>
<td>74</td>
</tr>
<tr>
<td>Honors Program ..................................................</td>
<td>75</td>
</tr>
<tr>
<td>Honors Concentration (AC) ......................................</td>
<td>75</td>
</tr>
<tr>
<td>Human Services ...................................................</td>
<td>76</td>
</tr>
<tr>
<td>Bachelor of Applied Science in Human Services (BAS) ....</td>
<td>76</td>
</tr>
<tr>
<td>International Studies ..........................................</td>
<td>77</td>
</tr>
<tr>
<td>International Studies (AC) ....................................</td>
<td>77</td>
</tr>
<tr>
<td>Journalism ..................................................................</td>
<td>78</td>
</tr>
<tr>
<td>News Media Studies (AC) .........................................</td>
<td>78</td>
</tr>
<tr>
<td>Marketing ..................................................................</td>
<td>79</td>
</tr>
<tr>
<td>Marketing (CP) .....................................................</td>
<td>79</td>
</tr>
<tr>
<td>Marketing (AAS) ....................................................</td>
<td>79</td>
</tr>
<tr>
<td>Math Education ....................................................</td>
<td>81</td>
</tr>
<tr>
<td>Math Education - DTA/MRP (AA) .................................</td>
<td>81</td>
</tr>
<tr>
<td>Mathematics ................................................................</td>
<td>83</td>
</tr>
<tr>
<td>General - Mathematics (Suggested) (AA) ......................</td>
<td>83</td>
</tr>
<tr>
<td>Mechanical, Civil &amp; Aeronautical Engineering ...............</td>
<td>84</td>
</tr>
<tr>
<td>Mechanical, Civil &amp; Aeronautical Engineering (AST2) ......</td>
<td>84</td>
</tr>
<tr>
<td>Mechatronics ..........................................................</td>
<td>86</td>
</tr>
<tr>
<td>Mechatronics Fundamentals (CC) ..................................</td>
<td>86</td>
</tr>
<tr>
<td>Mechanical Automation (CA) ......................................</td>
<td>86</td>
</tr>
<tr>
<td>Mechanical Automation (AAT) .....................................</td>
<td>86</td>
</tr>
<tr>
<td>Medical Assistant ..................................................</td>
<td>88</td>
</tr>
<tr>
<td>Medical Assistant (CP) ..........................................</td>
<td>89</td>
</tr>
<tr>
<td>Medical Assisting (AAT) .........................................</td>
<td>90</td>
</tr>
<tr>
<td>Medical Billing and Coding .....................................</td>
<td>91</td>
</tr>
<tr>
<td>Medical Billing/Coding Professional (AAT) ....................</td>
<td>91</td>
</tr>
<tr>
<td>Medical Billing/Coding Specialist (CP) .......................</td>
<td>92</td>
</tr>
<tr>
<td>Music .......................................................................</td>
<td>94</td>
</tr>
<tr>
<td>Associate in Music DTA/MRP (AA) ...............................</td>
<td>94</td>
</tr>
<tr>
<td>Network Technology .................................................</td>
<td>96</td>
</tr>
<tr>
<td>Cisco Technician (CA) .............................................</td>
<td>96</td>
</tr>
<tr>
<td>Cisco Technologies (AAT) ...........................................</td>
<td>96</td>
</tr>
<tr>
<td>Microsoft Technician (CA) .......................................</td>
<td>97</td>
</tr>
<tr>
<td>Network Technologies (AAT) ......................................</td>
<td>97</td>
</tr>
<tr>
<td>Nursing ...............................................................</td>
<td>99</td>
</tr>
<tr>
<td>Pre-Nursing - DTA/MRP (AA) .....................................</td>
<td>99</td>
</tr>
<tr>
<td>Nursing (AA) .......................................................</td>
<td>101</td>
</tr>
<tr>
<td>Pharmacy Technician ...............................................</td>
<td>103</td>
</tr>
<tr>
<td>Pharmacy Technician (CP) .......................................</td>
<td>103</td>
</tr>
<tr>
<td>Pharmacy Technician Leadership (AAT) .......................</td>
<td>104</td>
</tr>
<tr>
<td>Phlebotomy ..................................................................</td>
<td>106</td>
</tr>
<tr>
<td>Phlebotomy (CA) ...................................................</td>
<td>106</td>
</tr>
<tr>
<td>Physics .....................................................................</td>
<td>107</td>
</tr>
<tr>
<td>Physics (AST2) .....................................................</td>
<td>107</td>
</tr>
<tr>
<td>Power, Privilege, and Inequity ...................................</td>
<td>108</td>
</tr>
<tr>
<td>Power, Privilege, and Inequity (AC) ............................</td>
<td>108</td>
</tr>
<tr>
<td>Small Business Management ......................................</td>
<td>109</td>
</tr>
<tr>
<td>Small Business Management (CP) ................................</td>
<td>109</td>
</tr>
<tr>
<td>Surveying &amp; Geomatics .............................................</td>
<td>110</td>
</tr>
<tr>
<td>Survey &amp; Geomatics Technician - GIS (CP) ....................</td>
<td>110</td>
</tr>
<tr>
<td>Survey &amp; Geomatics Technician - Boundary (CP) ............</td>
<td>110</td>
</tr>
<tr>
<td>Surveying/Geomatics (AAS) ......................................</td>
<td>111</td>
</tr>
<tr>
<td>Welding Technology ................................................</td>
<td>113</td>
</tr>
<tr>
<td>Welded Sculpture/Fabrication (CC) .............................</td>
<td>113</td>
</tr>
<tr>
<td>Flux Core Arc Welding (CA) ......................................</td>
<td>113</td>
</tr>
<tr>
<td>Gas Metal Arc Welding (CA) ......................................</td>
<td>113</td>
</tr>
<tr>
<td>Gas Tungsten Arc Welding (CA) ..................................</td>
<td>114</td>
</tr>
<tr>
<td>Shielded Metal Arc Welding (CA) ...............................</td>
<td>114</td>
</tr>
<tr>
<td>Welding Technician (CP) .........................................</td>
<td>114</td>
</tr>
<tr>
<td>Welding Technologies (AAT) ......................................</td>
<td>116</td>
</tr>
<tr>
<td>Women's Studies ....................................................</td>
<td>118</td>
</tr>
<tr>
<td>Women's Studies (AC) .............................................</td>
<td>118</td>
</tr>
<tr>
<td>World Languages ...................................................</td>
<td>119</td>
</tr>
<tr>
<td>American Sign Language (AC) ....................................</td>
<td>119</td>
</tr>
<tr>
<td>Course Descriptions ..............................................</td>
<td>120</td>
</tr>
<tr>
<td>Accounting (ACCT) ..................................................</td>
<td>122</td>
</tr>
<tr>
<td>Addiction Counselor Education (ACED) .......................</td>
<td>123</td>
</tr>
<tr>
<td>American Sign Language (ASL) ..................................</td>
<td>125</td>
</tr>
<tr>
<td>Anthropology (ANTH) .............................................</td>
<td>126</td>
</tr>
<tr>
<td>Art (ART) .............................................................</td>
<td>127</td>
</tr>
<tr>
<td>Astronomy (ASTR) ..................................................</td>
<td>132</td>
</tr>
<tr>
<td>Automotive Technology (AUTO) ..................................</td>
<td>133</td>
</tr>
<tr>
<td>BAS Applied Management (BASAM) .............................</td>
<td>137</td>
</tr>
<tr>
<td>BAS Human Services (BASHS) ....................................</td>
<td>139</td>
</tr>
<tr>
<td>Biology (BIOL) ......................................................</td>
<td>140</td>
</tr>
<tr>
<td>Business Administration (BUS) .................................</td>
<td>143</td>
</tr>
<tr>
<td>Business Technology (BTEC) .....................................</td>
<td>145</td>
</tr>
<tr>
<td>Business Technology Medical Office (BMED) ..................</td>
<td>148</td>
</tr>
<tr>
<td>Chemistry (CHEM) ..................................................</td>
<td>152</td>
</tr>
<tr>
<td>College and Academic Preparation (CAP) ......................</td>
<td>155</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>----------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>COLL</td>
<td>College Preparation</td>
</tr>
<tr>
<td>CMST</td>
<td>Communication Studies</td>
</tr>
<tr>
<td>CADD</td>
<td>Computer Aided Design and Drafting Technology</td>
</tr>
<tr>
<td>CSE</td>
<td>Computer Science &amp; Engineering</td>
</tr>
<tr>
<td>CTEC</td>
<td>Computer Technology</td>
</tr>
<tr>
<td>HONS</td>
<td>Honors</td>
</tr>
<tr>
<td>HEOC</td>
<td>Health Occupations</td>
</tr>
<tr>
<td>DH</td>
<td>Dental Hygiene</td>
</tr>
<tr>
<td>DIES</td>
<td>Diesel Technology</td>
</tr>
<tr>
<td>DMA</td>
<td>Digital Media Arts</td>
</tr>
<tr>
<td>DRMA</td>
<td>Drama</td>
</tr>
<tr>
<td>ECE</td>
<td>Early Childhood Education</td>
</tr>
<tr>
<td>ECED</td>
<td>Early Childhood Education</td>
</tr>
<tr>
<td>ECON</td>
<td>Economics</td>
</tr>
<tr>
<td>EDUC</td>
<td>Education</td>
</tr>
<tr>
<td>EMT</td>
<td>Emergency Medical Technician</td>
</tr>
<tr>
<td>ENGR</td>
<td>Engineering</td>
</tr>
<tr>
<td>ESL</td>
<td>English as a Second Language</td>
</tr>
<tr>
<td>ENVS</td>
<td>Environmental Science</td>
</tr>
<tr>
<td>GEOG</td>
<td>Geography</td>
</tr>
<tr>
<td>GEOL</td>
<td>Geology</td>
</tr>
<tr>
<td>HPE</td>
<td>Health &amp; Physical Education</td>
</tr>
<tr>
<td>HLTN</td>
<td>Health</td>
</tr>
<tr>
<td>HI</td>
<td>Health Informatics</td>
</tr>
<tr>
<td>HEOC</td>
<td>Health Occupations</td>
</tr>
<tr>
<td>HIST</td>
<td>History</td>
</tr>
<tr>
<td>HONS</td>
<td>Honors</td>
</tr>
<tr>
<td>HDEV</td>
<td>Human Development</td>
</tr>
<tr>
<td>HSSA</td>
<td>Human Services Substance Abuse</td>
</tr>
<tr>
<td>IELP</td>
<td>Intensive English Language Program (IELP)</td>
</tr>
<tr>
<td>JAPN</td>
<td>Japanese</td>
</tr>
<tr>
<td>JOUR</td>
<td>Journalism</td>
</tr>
<tr>
<td>MACH</td>
<td>Machining Technology</td>
</tr>
<tr>
<td>MGMT</td>
<td>Management</td>
</tr>
<tr>
<td>MATH</td>
<td>Mathematics</td>
</tr>
<tr>
<td>MTX</td>
<td>Mechatronics</td>
</tr>
<tr>
<td>METR</td>
<td>Meteorology</td>
</tr>
<tr>
<td>MUSC</td>
<td>Music</td>
</tr>
<tr>
<td>NTSC</td>
<td>Network Technology</td>
</tr>
<tr>
<td>NURS</td>
<td>Nursing</td>
</tr>
<tr>
<td>NUTR</td>
<td>Nutrition</td>
</tr>
<tr>
<td>PHAR</td>
<td>Pharmacy Technician</td>
</tr>
<tr>
<td>PHIL</td>
<td>Philosophy</td>
</tr>
<tr>
<td>PHLE</td>
<td>Phlebotomy</td>
</tr>
<tr>
<td>PE</td>
<td>Physical Education</td>
</tr>
<tr>
<td>PEDNC</td>
<td>Physical Education Dance</td>
</tr>
<tr>
<td>PEEXS</td>
<td>Physical Education Exercise Science</td>
</tr>
<tr>
<td>PEMAR</td>
<td>Physical Education Martial Arts</td>
</tr>
<tr>
<td>PTCS</td>
<td>Professional Technical Computational Skills</td>
</tr>
<tr>
<td>PTWR</td>
<td>Professional Technical Writing</td>
</tr>
<tr>
<td>PSYC</td>
<td>Psychology</td>
</tr>
<tr>
<td>SOC</td>
<td>Sociology</td>
</tr>
<tr>
<td>SPAN</td>
<td>Spanish</td>
</tr>
<tr>
<td>SURV</td>
<td>Surveying &amp; Geomatics</td>
</tr>
<tr>
<td>TUTR</td>
<td>Tutoring</td>
</tr>
<tr>
<td>WELD</td>
<td>Welding</td>
</tr>
<tr>
<td>WS</td>
<td>Women's Studies</td>
</tr>
<tr>
<td>WSC</td>
<td>Women's Studies Center</td>
</tr>
<tr>
<td>AD</td>
<td>Academic Standards Policy</td>
</tr>
<tr>
<td>CR</td>
<td>Advising</td>
</tr>
<tr>
<td>CS</td>
<td>Career Services</td>
</tr>
<tr>
<td>CL</td>
<td>College Life</td>
</tr>
<tr>
<td>ES</td>
<td>Credential Evaluations Office</td>
</tr>
<tr>
<td>ESRS</td>
<td>Enrollment Services</td>
</tr>
<tr>
<td>EL</td>
<td>eLearning</td>
</tr>
<tr>
<td>FA</td>
<td>Financial Aid</td>
</tr>
<tr>
<td>REG</td>
<td>Registration</td>
</tr>
<tr>
<td>SPI</td>
<td>Special Instructional Programs and Locations</td>
</tr>
<tr>
<td>SO</td>
<td>Student Orientation</td>
</tr>
<tr>
<td>SS</td>
<td>Student Success Programs</td>
</tr>
<tr>
<td>DCR</td>
<td>Degree &amp; Certificate Requirements</td>
</tr>
<tr>
<td>GI</td>
<td>General Information</td>
</tr>
<tr>
<td>TD</td>
<td>Transfer Degree Distribution List</td>
</tr>
<tr>
<td>TDOD</td>
<td>Transfer Degree Overview</td>
</tr>
<tr>
<td>CTDD</td>
<td>Career and Technical Degrees and Certificates</td>
</tr>
<tr>
<td>BAC</td>
<td>Bachelor of Applied Sciences</td>
</tr>
<tr>
<td>PRAC</td>
<td>Procedure for Requesting AP Credits</td>
</tr>
<tr>
<td>NT</td>
<td>Non-Traditional Credit</td>
</tr>
<tr>
<td>CHC</td>
<td>Credit Hours and Credit Load</td>
</tr>
<tr>
<td>CI</td>
<td>College Information</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>History</td>
<td>332</td>
</tr>
<tr>
<td>Accreditation</td>
<td>333</td>
</tr>
<tr>
<td>College Assessment</td>
<td>334</td>
</tr>
<tr>
<td>Student Rights and Responsibilities</td>
<td>335</td>
</tr>
<tr>
<td>Nondiscrimination and Equity</td>
<td>336</td>
</tr>
<tr>
<td>Behavioral Intervention and Threat Assessment (BITA)</td>
<td>337</td>
</tr>
<tr>
<td>Notification of Students’ Rights Under the Family Educational Rights and Privacy Act</td>
<td>338</td>
</tr>
<tr>
<td>Limitation of Liability</td>
<td>339</td>
</tr>
<tr>
<td>Graduation Rates</td>
<td>340</td>
</tr>
<tr>
<td>Equity in Athletics</td>
<td>341</td>
</tr>
<tr>
<td>Consumer Information</td>
<td>342</td>
</tr>
<tr>
<td>Locations and Campuses</td>
<td>343</td>
</tr>
<tr>
<td>Faculty and Administration</td>
<td>344</td>
</tr>
<tr>
<td>Board of Trustees</td>
<td>345</td>
</tr>
<tr>
<td>Executive Cabinet</td>
<td>346</td>
</tr>
<tr>
<td>Administration</td>
<td>347</td>
</tr>
<tr>
<td>Faculty</td>
<td>351</td>
</tr>
<tr>
<td>Foundation</td>
<td>359</td>
</tr>
<tr>
<td>Directories and Academic Calendar</td>
<td>361</td>
</tr>
<tr>
<td>Phone Directory</td>
<td>362</td>
</tr>
<tr>
<td>Academic Calendar</td>
<td>363</td>
</tr>
<tr>
<td>Corrections</td>
<td>364</td>
</tr>
<tr>
<td>Catalog Corrections</td>
<td>365</td>
</tr>
<tr>
<td>Course Corrections</td>
<td>366</td>
</tr>
<tr>
<td>Degrees and Certificate Corrections</td>
<td>367</td>
</tr>
<tr>
<td>Catalog Archives</td>
<td>368</td>
</tr>
<tr>
<td>Index</td>
<td>369</td>
</tr>
</tbody>
</table>
2019-2020 Catalog

Vision
Clark College inspires learners to excel, transforms lives, and strengthens our increasingly diverse community.

Mission
Clark College, in service to the community, guides individuals to achieve their educational and professional goals.

Core Themes

Academic Excellence
Facilitate student learning by providing the conditions for intellectual growth through scholarship, discovery, application, creativity, and critical thinking.

- Implement and institutionalize practices that increase academic performance, retention, and completion.
- Create and sustain an inclusive and dynamic curriculum and environment that reflect our diverse college community.
- Integrate active learning strategies within and across courses, disciplines, and programs with a global perspective.
- Create and advance accessible, integrated, and technology-enriched learning environments.
- Engage faculty, administrators, and staff in professional development experiences that enhance student learning.
- Align curriculum with learning outcomes and apply outcomes assessment evidence to continually advance student learning.

Social Equity
Facilitate student learning by providing the conditions that improve educational outcomes and eliminate systemic disparities among all groups.

- Create and sustain an accessible and inclusive environment by utilizing principles of universal design and social justice so that all students can achieve equitable outcomes.
- Demonstrate improved intercultural competency among employees and students through comprehensive professional development and curricular transformation.
- Institutionalize hiring and retention practices that challenge systems of power, privilege, and inequity.

Economic Vitality
Facilitate student learning by providing programs, services, and conditions that improve the economic well-being of the students, college, and community.

- Improve college affordability for students by expanding access to and information about financial resources, clarifying career and educational goals, providing pathways to success, improving college readiness, increasing financial literacy, and managing costs.
- Align program offerings with regional workforce needs to include technical and work-readiness skills.
- Align, expand, and enrich the relationships with regional industry leaders to increase internships, advisory committee participation, financial support for students’ education and programs, hiring pipelines, grant partnerships, mentorships, and apprenticeships.
- Maximize the college’s return on investment by responsibly allocating available resources.
- Leverage resources to create and sustain future innovations.

Environmental Integrity
Facilitate student learning by providing the conditions that continually improve the college’s physical, virtual, and social environment.

- Incorporate environmental sustainability priorities into all college systems.
- Improve the college’s physical and virtual environment to maximize access and appropriate use of space and technology.
- Integrate principles of mutual respect, collaboration, clear communication, and inclusivity in all interactions.

Values

- Social Justice: Institutional commitment to produce equitable outcomes and challenge systems of power, privilege, and inequity.
- Partnerships: Collaboration with individuals, organizations, and businesses to increase student success and improve the community.
- Innovation: Development and implementation of creative and agile strategies to enhance student learning and respond to market needs.
- Sustainability: Effective and efficient stewardship of all college resources.
- Continuous Improvement: Evaluation and enhancement of all college operations based on data-informed planning and resource allocation.
- Shared Governance: Clear communication, inclusive consultation, and respectful consideration of multiple perspectives guide decision-making throughout the college.

Disability Support Services
Clark College and the Disability Support Services (DSS) staff assist those with disabilities in pursuing their educational goals. The DSS staff is committed to assuring Clark College, its services, programs, and activities are accessible to individuals with disabilities. The institution takes seriously its responsibility to follow both the spirit and letter of all pertinent federal and state mandates.

If you are in need of accommodation due to a disability during any of the entry processes to Clark College or for your classes, contact DSS for assistance. Early contact with DSS personnel is essential.

360-992-2314
360-991-0901 VP
www.clark.edu/DSS (http://www.clark.edu/campus-life/student-support/disability_support/)

Locations

Main Campus
1933 Fort Vancouver Way
Vancouver, WA 98663

Columbia Tech Center
18700 SE Mill Plain Blvd.
Vancouver, WA 98683

Clark College at WSU Vancouver
14204 NE Salmon Creek Ave.
Disclaimer
The information in this catalog is effective as of summer term 2019. Clark College has made reasonable efforts to ensure the accuracy of the information throughout this catalog. However, the college reserves the right to make appropriate changes in procedures, policies, calendars, requirements, programs, courses, and fees. When feasible, changes will be announced prior to their effective dates, but the college assumes no responsibility for giving any particular notice of any such changes. Changes may apply not only to prospective students, but also to those who are currently enrolled. Nothing contained in this website shall be construed to create any offer to contract or any contractual rights. We encourage readers to contact the college or appropriate office to obtain current information.
ACADEMIC PLANS

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.
ACCOUNTING

Accounting is an essential component of every institution and business organization. Basic accounting skills provided by the one-year certificate or the two-year degree will prove to be valuable in managing financial resources, policies and decisions.

- Accounting Clerk (CP) (p. 8)
- Accounting (AAS) (p. 8)

Accounting Clerk (CP)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

This Accounting Clerk Certificate of Proficiency is designed to prepare the student for an entry-level position as an accounting clerk or bookkeeper. The student records transactions and prepares the basic essential financial statements which contribute to vital operational policies and decisions. Student learning takes place in both manual and computerized environments.

Students must complete all specifically listed courses in Major Area Requirements with a minimum grade of “C” or better in order to successfully complete the program and earn the award.

Consult with a business academic advisor for recommended course, program planning.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTEC 135</td>
<td>10-Key Calculator</td>
<td>1</td>
</tr>
<tr>
<td>BUS 199</td>
<td>Cooperative Work Experience ^1</td>
<td>1-5</td>
</tr>
<tr>
<td>BUS 130</td>
<td>Computerized Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUS 036</td>
<td>Accounting Applications</td>
<td>3</td>
</tr>
<tr>
<td>BUS 029</td>
<td>Basic Accounting Procedures</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 101</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>ECON 101</td>
<td>Introduction to Economics</td>
<td>3</td>
</tr>
<tr>
<td>BTEC 150</td>
<td>Computer Business Applications</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 100</td>
<td>Keyboarding</td>
<td>3</td>
</tr>
<tr>
<td>BUS &amp; 101</td>
<td>Introduction to Business</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 028</td>
<td>Basic Accounting Procedures</td>
<td>3</td>
</tr>
<tr>
<td>COMM 120</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>BUS 200</td>
<td>Business Math Applications</td>
<td>5</td>
</tr>
<tr>
<td>BUS 102</td>
<td>Business Math Applications</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 148</td>
<td>Business Professional Self Development</td>
<td>3</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits/Units: 56-58

1 Minimum of 5 credits/units must be earned in Cooperative Work Experience.
2 Prior completion of BTEC 169 or instructor permission required. Funding sources do not pay for courses specifically called out as a requirement.

To learn more about this program’s employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (http://www.clark.edu/academics/catalog/gainful-employment/505A/Gedt.html).

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Accurately prepare, interpret, and analyze financial statements for service and merchandising businesses manually as well as using computer systems.
- Perform all steps of the accounting cycle, using both general and specialized journals.
- Accurately create and maintain payroll records required under federal and state laws.

Accounting (AAS)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

The Accounting Associate of Applied Science degree is a two-year degree designed to provide knowledge in accounting to prepare the graduate for entry-level employment in private or public sectors as a bookkeeper or para-accountant. The student records, analyzes, and interprets transactions, including preparation of essential financial statements. In addition, the student will learn how to assist decision makers in understanding and applying payroll, tax, and legal rules and regulations. Student learning takes place in both manual and computerized environments.

Students must complete all specifically listed courses in Major Area Requirements with a minimum grade of “C” or better in order to successfully complete the program and earn the award.

Consult with a business academic advisor for recommended course, program planning.
Completion of Certificate of Proficiency in Marketing, Small Business Management, Accounting Clerk or Supervisory Management accounts for 56-60 of necessary credits.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Education Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Communication Skills</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMST&amp;220</td>
<td>PUBLIC SPEAKING</td>
<td>5</td>
</tr>
<tr>
<td>or CMST&amp;230</td>
<td>SMALL GROUP COMMUNICATION</td>
<td></td>
</tr>
<tr>
<td><strong>Health &amp; Physical Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 322)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Humanities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 323)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Natural Sciences</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 324)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Human Relations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfied in the CPs</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Social Sciences</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfied in the CPs</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Computational Skills</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfied in the CPs</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Major Area Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCT&amp;201</td>
<td>PRINCIPLES OF ACCOUNTING I</td>
<td>5</td>
</tr>
<tr>
<td>ACCT&amp;202</td>
<td>PRINCIPLES OF ACCOUNTING II</td>
<td>5</td>
</tr>
<tr>
<td>ACCT&amp;203</td>
<td>PRINCIPLES OF ACCOUNTING III</td>
<td>5</td>
</tr>
<tr>
<td>BUS 130</td>
<td>COMPUTERIZED ACCOUNTING</td>
<td>3</td>
</tr>
<tr>
<td>BUS&amp; 201</td>
<td>BUSINESS LAW</td>
<td>5</td>
</tr>
<tr>
<td>BUS 203</td>
<td>DESCRIPTIVE STATISTICS</td>
<td>3</td>
</tr>
<tr>
<td>BTEC 135</td>
<td>10-KEY CALCULATOR</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 170</td>
<td>EXCEL FOR BUSINESS</td>
<td>3</td>
</tr>
<tr>
<td><strong>Additional Major Area Electives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select a minimum of three to five additional credits/units from the following areas:</td>
<td>3-5</td>
<td></td>
</tr>
<tr>
<td>Accounting (ACCT) (p. 122)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Administration (BUS) (p. 143)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economics (ECON) (p. 181)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervisory Management (MGMT) (p. 216)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Applications (BTEC) (p. 145)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Credits/Units</strong></td>
<td></td>
<td>90-102</td>
</tr>
</tbody>
</table>

1 Six credit/unit maximum.

**Program Outcomes**

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Accurately prepare, interpret, and analyze financial statements for service and merchandising businesses manually as well as using computer systems.
- Accurately analyze financial data and information to make business decisions.
- Provide accounting data and information for all types and sizes of businesses, including sole proprietorships, partnerships, and corporations.
- Accurately create and maintain payroll records required under federal and state laws.
ADDICTION COUNSELOR EDUCATION

The Clark College Addiction Counselor Education Department (ACED) program offers an AAS, for students pursuing the Chemical Dependency Professional (CDP) certification, an AA for students wishing to transfer to a state college or university and a Certificate of Proficiency for students who already possess a degree and plan to sit for the CDP state exam. The ACED program is certified by the National Association of Alcohol and Drug Abuse Counselors (NAADAC), as well as the National Addiction Studies Accreditation Commission (NASAC).

Addiction counselors work with families and individuals of all ages who are experiencing problems with addictive behaviors. Counselors may work as members of treatment teams in inpatient or outpatient settings, with schools, or in businesses. They provide group, individual, and couples therapy as well as assessments and interventions. Addiction counselors also work as liaisons for their clients to judicial systems, schools, state services, and communities. Counselors may serve as educators in their communities, acquainting community members with treatment options and prevention strategies for the community. Please contact the Addiction Counselor Education Department (ACED) program advisor for current Washington state certification requirements.

Students must complete all specifically listed courses and Major Area Requirements with a minimum grade of ‘C’ or better in order to successfully complete the program and be awarded the award.

Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

- Addiction Counselor Education (CP) (p. 10)
- Addiction Counselor Education (AAS) (p. 11)
- Addiction Counselor Education (AA) (p. 11)

Addiction Counselor Education (CP)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

The Certificate of Proficiency in Addiction Counselor Education equips members of the helping professions as well as other professions with knowledge of the addiction disorders and behaviors in order to assist them in the delivery of services to their clients and patients. Knowledge of addictive processes can greatly assist members of law enforcement, teachers, health care workers, corrections and social services workers, among others, in performing their jobs in a more comprehensive manner. This certificate is intended only for those students already holding an associate degree or above.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>PSYC&amp;100</td>
<td>GENERAL PSYCHOLOGY</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>PSYC&amp;200</td>
<td>LIFESPAN PSYCHOLOGY</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>PSYC&amp;101</td>
<td>SURVEY OF ADDICTIONOLOGY 1</td>
<td>3-5</td>
</tr>
<tr>
<td>or HSSA&amp;101</td>
<td>INTRO TO ADDICTIVE DRUGS</td>
<td>3</td>
</tr>
<tr>
<td>ACED 122</td>
<td>INTRODUCTION TO ADDICTIONS COUNSELING SKILLS</td>
<td>3</td>
</tr>
<tr>
<td>ACED 125</td>
<td>GROUP COUNSELING IN ADDICTIONS</td>
<td>3</td>
</tr>
<tr>
<td>ACED 132</td>
<td>INTRODUCTION TO COUNSELING FAMILY MEMBERS</td>
<td>3</td>
</tr>
<tr>
<td>ACED 136</td>
<td>LAW AND ETHICS IN ADDICTIONS COUNSELING</td>
<td>3</td>
</tr>
<tr>
<td>ACED 137</td>
<td>ADDICTIONS AND MENTAL ILLNESS</td>
<td>3</td>
</tr>
<tr>
<td>ACED 138</td>
<td>PREVENTION AND EDUCATION IN THE COMMUNITY</td>
<td>3</td>
</tr>
<tr>
<td>ACED 160</td>
<td>PHARMACOLOGY OF DRUGS OF ABUSE</td>
<td>3</td>
</tr>
<tr>
<td>ACED 164</td>
<td>ADOLESCENT ADDICTION ASSESSMENT &amp; TREATMENT</td>
<td>3</td>
</tr>
<tr>
<td>ACED 170</td>
<td>AIR- AND BLOOD-BORNE PATHOGENS</td>
<td>3</td>
</tr>
<tr>
<td>ACED 201</td>
<td>THEORIES OF COUNSELING 1</td>
<td>3</td>
</tr>
<tr>
<td>ACED 202</td>
<td>MULTI-CULTURAL ADDICTIONS COUNSELING</td>
<td>3</td>
</tr>
<tr>
<td>ACED 203</td>
<td>CASE MANAGEMENT IN ADDICTION MEDICINE</td>
<td>3</td>
</tr>
<tr>
<td>ACED 205</td>
<td>ADVANCED TECHNIQUES FOR ADDICTION COUNSEL</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits/Units: 60-62

1 For non-majors also.

To learn more about this program’s employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (http://www.clark.edu/academics/catalog/gainful-employment/437B/Gedt.html).

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Communicate effectively, accurately, and professionally, using verbal, non-verbal, and written language with diverse populations of clients, patients, colleagues, the public, and other healthcare providers.
- Demonstrate professional and ethical behaviors when working with clients, patients, other professionals, and the public.
- Successfully complete Washington State Chemical Dependency Professional exam.
• Understand and participate in addiction placement, continuing care, and discharge of patients and clients with addictions.
• Treat substance abuse clients in multiple settings including individual and group counseling situations.

**Addiction Counselor Education (AAS)**

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>ENGL101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>ENGL102</td>
<td>ENGLISH COMPOSITION II</td>
<td>5</td>
</tr>
<tr>
<td>Course Options (p. 321)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Health &amp; Physical Education</strong></td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 322)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Computational Skills</strong></td>
<td></td>
</tr>
<tr>
<td>MATH 092</td>
<td>APPLIED ELEMENTARY ALGEBRA (or any higher level Math course)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Human Relations</strong></td>
<td></td>
</tr>
<tr>
<td>PSYC100</td>
<td>GENERAL PSYCHOLOGY 1</td>
<td>5</td>
</tr>
<tr>
<td>Course Options (p. 323)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Social Sciences</strong></td>
<td></td>
</tr>
<tr>
<td>PSYC200</td>
<td>LIFESPAN PSYCHOLOGY</td>
<td>5</td>
</tr>
<tr>
<td>Course Options (p. 324)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Major Area Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>ACED 101</td>
<td>SURVEY OF ADDICTIONOLOGY</td>
<td>3-5</td>
</tr>
<tr>
<td></td>
<td>or HSSA 101</td>
<td></td>
</tr>
<tr>
<td>ACED 122</td>
<td>INTRODUCTION TO ADDICTIONS COUNSELING SKILLS</td>
<td>3</td>
</tr>
<tr>
<td>ACED 125</td>
<td>GROUP COUNSELING IN ADDICTIONS</td>
<td>3</td>
</tr>
<tr>
<td>ACED 132</td>
<td>INTRODUCTION TO COUNSELING FAMILY MEMBERS</td>
<td>3</td>
</tr>
<tr>
<td>ACED 136</td>
<td>LAW AND ETHICS IN ADDICTIONS COUNSELING</td>
<td>3</td>
</tr>
<tr>
<td>ACED 137</td>
<td>ADDICTIONS AND MENTAL ILLNESS</td>
<td>3</td>
</tr>
<tr>
<td>ACED 138</td>
<td>PREVENTION AND EDUCATION IN THE COMMUNITY</td>
<td>3</td>
</tr>
<tr>
<td>ACED 160</td>
<td>PHARMACOLOGY OF DRUGS OF ABUSE</td>
<td>3</td>
</tr>
<tr>
<td>ACED 164</td>
<td>ADOLESCENT ADDICTION ASSESSMENT &amp; TREATMENT</td>
<td>3</td>
</tr>
<tr>
<td>ACED 170</td>
<td>AIR- AND BLOOD-BORNE PATHOGENS</td>
<td>3</td>
</tr>
<tr>
<td>ACED 201</td>
<td>THEORIES OF COUNSELING 2</td>
<td>3</td>
</tr>
<tr>
<td>ACED 202</td>
<td>MULTI-CULTURAL ADDICTIONS COUNSELING</td>
<td>3</td>
</tr>
<tr>
<td>ACED 203</td>
<td>CASE MANAGEMENT IN ADDICTION MEDICINE</td>
<td>3</td>
</tr>
<tr>
<td>ACED 205</td>
<td>ADVANCED TECHNIQUES FOR ADDICTION COUNSEL</td>
<td>3</td>
</tr>
<tr>
<td>ACED 210 &amp; ACED 211</td>
<td>FIELD PLACEMENT I &amp; FIELD PLACEMENT II</td>
<td>12</td>
</tr>
</tbody>
</table>

**General Electives**

Complete as many courses as necessary to reach 90 credits

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>90</td>
</tr>
</tbody>
</table>

1 May count for both Human Relations or Social Science distribution.
2 For non-majors also.

**Program Outcomes**

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
• Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
• Demonstrate progress toward healthier behaviors. (GE)
• Demonstrate interpersonal/human relations skills. (GE)
• Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
• Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
• Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
• Understand and participate in addiction placement, continuing care, and discharge of patients and clients with addictions.
• Communicate effectively, accurately, and professionally, using verbal, non-verbal, and written language with diverse populations of clients, patients, colleagues, the public, and other healthcare providers.
• Demonstrate professional and ethical behaviors when working with clients, patients, other professionals, and the public.
• Successfully complete Washington State Chemical Dependency Professional exam.
• Treat substance abuse clients in multiple settings including individual and group counseling situations.

**Addiction Counselor Education (AA)**

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

Students who earn Clark College’s Associate in Arts degree qualify to transfer to most Washington colleges and universities with junior standing. Lower-division course requirements will vary depending on the transfer institution. Contact an advisor at the transfer institution to determine required coursework as soon as possible.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>ENGL101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>
### Oral Communication

<table>
<thead>
<tr>
<th>Course Options (p. 311)</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subtotal</strong></td>
<td>5</td>
</tr>
</tbody>
</table>

### Quantitative Skills

<table>
<thead>
<tr>
<th>Course Options (p. 311)</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subtotal</strong></td>
<td>5</td>
</tr>
</tbody>
</table>

### Health & Physical Education

<table>
<thead>
<tr>
<th>Course Options (p. 311)</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subtotal</strong></td>
<td>3</td>
</tr>
</tbody>
</table>

### Humanities

<table>
<thead>
<tr>
<th>Course Options (p. 311)</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subtotal</strong></td>
<td>15</td>
</tr>
</tbody>
</table>

### Social Sciences

- **PSYC&100**  
  GENERAL PSYCHOLOGY  
  5 credits/units

Select 10 additional credits/units from two other departments (p. 312)  
10 credits/units

| **Subtotal** | 15 |

### Natural Sciences

<table>
<thead>
<tr>
<th>Course Options (p. 312)</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subtotal</strong></td>
<td>15</td>
</tr>
</tbody>
</table>

### Major Area Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACED 101</td>
<td>SURVEY OF ADDICTIONOLOGY</td>
<td>3-5</td>
</tr>
<tr>
<td>or HSSA&amp;101</td>
<td>INTRO TO ADDICTIVE DRUGS</td>
<td></td>
</tr>
<tr>
<td>ACED 122</td>
<td>INTRODUCTION TO ADDICTIONS COUNSELING SKILLS</td>
<td>3</td>
</tr>
<tr>
<td>ACED 125</td>
<td>GROUP COUNSELING IN ADDICTIONS</td>
<td>3</td>
</tr>
<tr>
<td>ACED 136</td>
<td>LAW AND ETHICS IN ADDICTIONS COUNSELING</td>
<td>3</td>
</tr>
<tr>
<td>ACED 160</td>
<td>PHARMACOLOGY OF DRUGS OF ABUSE</td>
<td>3</td>
</tr>
<tr>
<td>ACED 201</td>
<td>THEORIES OF COUNSELING</td>
<td>3</td>
</tr>
<tr>
<td>PSYC&amp;200</td>
<td>LIFESPAN PSYCHOLOGY</td>
<td>5</td>
</tr>
</tbody>
</table>

**Additional Specified Electives**  
4 credits/units

**Total Credits/Units**  
90-92

---

1. Select courses from at least two (2) subject areas for a minimum of fifteen (15) credits/units. You may include no more than 10 credits/units from any one subject area. A maximum of five (5) credits/units of “B” list coursework may be applied. A maximum of five (5) credits/units of 100-level world language can be applied.

2. Must include a lab science.

3. For non-majors also.

Refer to the Degree and Certificate Requirements section in the Clark College Catalog to identify the courses needed to satisfy the general education requirements.

### Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Communicate effectively, accurately, and professionally, using verbal, non-verbal, and written language with diverse populations of clients, patients, colleagues, the public, and other healthcare providers.
- Demonstrate professional and ethical behaviors when working with clients, patients, other professionals, and the public.
- Successfully complete Washington State Chemical Dependency Professional exam.
- Understand and participate in addiction placement, continuing care, and discharge of patients and clients with addictions.
- Treat substance abuse clients in multiple settings including individual and group counseling situations.
ART

The Clark College Art Department offers many classes to help students prepare for advanced studies at a four-year institution, enter an art profession directly, or simply enrich their spirit. Clark’s Art faculty is composed of a complementary blend of highly qualified instructors possessing advanced degrees, as well as recognized working professionals who bring with them a practical knowledge of the art marketplace.

It is imperative that students planning to transfer to a college, university or art school and seek a B.A. (Bachelor of Arts) or B.F.A. (Bachelor of Fine Arts) in a design-related field see an Art Department faculty member as early as possible to plan an individualized program. Call 360-992-2370 or 360-992-2639 for an appointment.

• Graphic Design (AFA) (p. 13)
• Graphic Design Concentration AA (p. 14)
• Studio Art (AFA) (p. 15)
• Studio Arts Concentration (p. 17)

Graphic Design (AFA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

The Art Department is offering this specialized, two-year degree intended to prepare students wishing to transfer into competitive-entry design programs at baccalaureate institutions. The degree may also well serve those looking to acquire a solid foundation in graphic design with the goal of seeking employment opportunities with just the associate degree, including those already holding a degree in another field who are looking to change careers.

Completion of the following recommended courses does not guarantee admission as an art major with junior standing at the transfer institution. A competitive GPA and a quality portfolio are also essential. Due to the AFA degree’s heavy emphasis on art and graphic design foundation courses, upon acceptance, the AFA student should expect to complete further general education courses at the baccalaureate institution in addition to the major area coursework. Students are strongly advised to select and plan courses in collaboration with their Art Department advisor, and to contact the intended transfer institution to determine required coursework as early as possible.

Also, please see the Computer Graphics Technology (CGT) department’s career and technical degrees in Web and Graphic Design, including an Associate of Applied Technology in Web and Graphic Design, the Graphic Design Certificate of Proficiency or the Web Design Certificate of Proficiency.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>MATH107</td>
<td>MATH IN SOCIETY (recommended)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Communication Skills</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Quantitative Skills</strong></td>
<td></td>
</tr>
</tbody>
</table>
successful completion of this program, students will be able to:

Program Outcomes
Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)

Graphic Design Concentration AA

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 123</td>
<td>PHOTOGRAPHY I</td>
<td>5</td>
</tr>
<tr>
<td>or ART 124</td>
<td>PHOTOGRAPHY II</td>
<td>4</td>
</tr>
<tr>
<td>ART 204</td>
<td>THE HUMAN FIGURE II</td>
<td>4</td>
</tr>
<tr>
<td>ART 208</td>
<td>DIGITAL PAINTING &amp; ILLUSTRATION</td>
<td>4</td>
</tr>
<tr>
<td>ART 257</td>
<td>PAINTING I</td>
<td>5</td>
</tr>
<tr>
<td>or ART 258</td>
<td>PAINTING II</td>
<td>5</td>
</tr>
<tr>
<td>ART 260</td>
<td>WATERCOLOR I</td>
<td>4</td>
</tr>
<tr>
<td>or ART 261</td>
<td>WATERCOLOR II</td>
<td>4</td>
</tr>
<tr>
<td>DMA 104</td>
<td>MOTION GRAPHICS AND ANIMATION I</td>
<td>4</td>
</tr>
<tr>
<td>DMA 114</td>
<td>PROFESSIONAL PRACTICES AND PORTFOLIO I</td>
<td>4</td>
</tr>
<tr>
<td>DMA 199</td>
<td>COOPERATIVE WORK EXPERIENCE</td>
<td>4</td>
</tr>
<tr>
<td>DMA 201</td>
<td>VIDEO AND SOUND PRODUCTION I</td>
<td>4</td>
</tr>
<tr>
<td>DMA 202</td>
<td>VIDEO AND SOUND PRODUCTION II</td>
<td>4</td>
</tr>
<tr>
<td>DMA 204</td>
<td>MOTION GRAPHICS AND ANIMATION II</td>
<td>4</td>
</tr>
<tr>
<td>DMA 214</td>
<td>PROFESSIONAL PRACTICES AND PORTFOLIO II</td>
<td>4</td>
</tr>
<tr>
<td>DMA 215</td>
<td>PROFESSIONAL STUDIO EXPERIENCE</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 128</td>
<td>GRAPHIC FICTION WRITING</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 277</td>
<td>LITERARY PUBLICATION</td>
<td>5</td>
</tr>
</tbody>
</table>

Total 94-99

1 World Languages 121, 122 or 123 recommended if you do not have two years of high school foreign language or equivalent.
Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Recognize and apply the elements and principles of design in works of visual art and communications.
- Obtain, evaluate, and ethically use information. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)

Studio Art (AFA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

The Art Department offers this specialized degree primarily for students intending to pursue a Bachelor of Fine Arts in Studio Art at a baccalaureate institution with competitive portfolio entry. The program also provides a suggested framework of study for those who, although they may not wish to transfer, still want a well-rounded educational experience in studio art for personal enrichment or to develop their skills as a commercial or fine artist. The degree places emphasis on fine art foundations courses and also requires the student to specialize in a particular studio area (painting, drawing, photography, ceramics, or metals). Students will document a body of artwork in the culminating Portfolio class and create related written materials to demonstrate their skills and to carry them to the next step on their pathway within the fine arts.

Completion of the following recommended courses does not guarantee admission as an art major with junior standing at the transfer institution. A competitive GPA and a quality portfolio are also essential. Due to the AFA degree's heavy emphasis on studio art and art foundation courses, upon acceptance, the AFA student should expect to complete further general education courses at the baccalaureate institution in additional to upper-level course work in their major area. Students are strongly advised to select and plan courses in collaboration with their Art Department advisor and to contact the intended transfer institution to determine required coursework as early as possible.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 103</td>
<td>DRAWING I</td>
<td>3</td>
</tr>
<tr>
<td>ART 173</td>
<td>GRAPHIC DESIGN STUDIO I</td>
<td>4</td>
</tr>
<tr>
<td>ART 174</td>
<td>TYPOGRAPHY I</td>
<td>3</td>
</tr>
<tr>
<td>ART 272</td>
<td>GRAPHIC DESIGN HISTORY</td>
<td>5</td>
</tr>
<tr>
<td>DMA 102</td>
<td>ILLUSTRATOR VECTOR GRAPHICS</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major Area Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete enough courses to reach 90 credits</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete enough courses to reach 90 credits</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 104</td>
<td>OBSERVATIONAL DRAWING</td>
<td>4</td>
</tr>
<tr>
<td>ART 105</td>
<td>CONTEMPORARY DRAWING PRACTICES</td>
<td>4</td>
</tr>
<tr>
<td>ART 110</td>
<td>CREATIVITY AND CONCEPT</td>
<td>3</td>
</tr>
<tr>
<td>ART 118</td>
<td>TIME-BASED ART AND DESIGN</td>
<td>4</td>
</tr>
<tr>
<td>ART 120</td>
<td>INTRODUCTION TO PRINTMAKING</td>
<td>3</td>
</tr>
<tr>
<td>ART 121</td>
<td>PRINTMAKING II</td>
<td>3</td>
</tr>
<tr>
<td>ART 123</td>
<td>PHOTOGRAPHY I</td>
<td>5</td>
</tr>
<tr>
<td>ART 124</td>
<td>PHOTOGRAPHY II</td>
<td>5</td>
</tr>
<tr>
<td>ART 172</td>
<td>GRAPHIC DESIGN EXPLORATION</td>
<td>3</td>
</tr>
<tr>
<td>ART 203</td>
<td>THE HUMAN FIGURE I</td>
<td>4</td>
</tr>
<tr>
<td>ART 204</td>
<td>THE HUMAN FIGURE II</td>
<td>4</td>
</tr>
<tr>
<td>ART 208</td>
<td>DIGITAL PAINTING &amp; ILLUSTRATION</td>
<td>4</td>
</tr>
<tr>
<td>ART 215</td>
<td>PORTFOLIO DEVELOPMENT</td>
<td>3</td>
</tr>
<tr>
<td>ART 257</td>
<td>PAINTING I</td>
<td>5</td>
</tr>
<tr>
<td>ART 258</td>
<td>PAINTING II</td>
<td>5</td>
</tr>
<tr>
<td>ART 260</td>
<td>WATERCOLOR I</td>
<td>4</td>
</tr>
<tr>
<td>ART 261</td>
<td>WATERCOLOR II</td>
<td>4</td>
</tr>
<tr>
<td>ART 270</td>
<td>PUBLICATION PRODUCTION</td>
<td>9</td>
</tr>
<tr>
<td>ART 271</td>
<td>TYPOGRAPHY II</td>
<td>5</td>
</tr>
<tr>
<td>ART 273</td>
<td>GRAPHIC DESIGN STUDIO II</td>
<td>4</td>
</tr>
<tr>
<td>ART 274</td>
<td>GRAPHIC DESIGN STUDIO III</td>
<td>4</td>
</tr>
<tr>
<td>DMA 101</td>
<td>PHOTOSHOP RASTER GRAPHICS</td>
<td>4</td>
</tr>
<tr>
<td>DMA 104</td>
<td>MOTION GRAPHICS AND ANIMATION I</td>
<td>4</td>
</tr>
<tr>
<td>DMA 114</td>
<td>PROFESSIONAL PRACTICES AND PORTFOLIO I</td>
<td>4</td>
</tr>
<tr>
<td>or DMA 214</td>
<td>PROFESSIONAL PRACTICES AND PORTFOLIO II</td>
<td>4</td>
</tr>
<tr>
<td>DMA 199</td>
<td>COOPERATIVE WORK EXPERIENCE</td>
<td>4</td>
</tr>
<tr>
<td>DMA 201</td>
<td>VIDEO AND SOUND PRODUCTION I</td>
<td>4</td>
</tr>
<tr>
<td>or DMA 202</td>
<td>VIDEO AND SOUND PRODUCTION II</td>
<td>4</td>
</tr>
<tr>
<td>DMA 202</td>
<td>VIDEO AND SOUND PRODUCTION I</td>
<td>4</td>
</tr>
<tr>
<td>DMA 204</td>
<td>MOTION GRAPHICS AND ANIMATION II</td>
<td>4</td>
</tr>
<tr>
<td>DMA 214</td>
<td>PROFESSIONAL PRACTICES AND PORTFOLIO II</td>
<td>4</td>
</tr>
<tr>
<td>DMA 215</td>
<td>PROFESSIONAL STUDIO EXPERIENCE</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>General Education Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Skills</td>
</tr>
<tr>
<td>ENGL&amp;101</td>
</tr>
<tr>
<td>Subtotal</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quantitative Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Options (p. 311)</td>
</tr>
<tr>
<td>Subtotal</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
</tr>
<tr>
<td>--------</td>
</tr>
</tbody>
</table>
### Studio Art (AFA)

**Course Options (p. 312)**

Subtotal 5

**Humanities**

Select five credits/units from the AA distribution list of Humanities A-list classes (p. 311)¹

Subtotal 5

**Natural Sciences**

Course Options (p. 312)²

Subtotal 5

**Health & Physical Education**

Course Options (p. 311)

Subtotal 3

**Major Area Requirements**

**Fine Art Foundations**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 101</td>
<td>2D ART AND DESIGN</td>
<td>5</td>
</tr>
<tr>
<td>ART 103</td>
<td>DRAWING I</td>
<td>3</td>
</tr>
<tr>
<td>ART 110</td>
<td>CREATIVITY AND CONCEPT</td>
<td>3</td>
</tr>
<tr>
<td>ART 117</td>
<td>THREE-DIMENSIONAL DESIGN</td>
<td>4</td>
</tr>
<tr>
<td>ART 118</td>
<td>TIME-BASED ART AND DESIGN</td>
<td>4</td>
</tr>
<tr>
<td>ART 104</td>
<td>OBSERVATIONAL DRAWING</td>
<td>4</td>
</tr>
<tr>
<td>or ART 203</td>
<td>THE HUMAN FIGURE I</td>
<td></td>
</tr>
<tr>
<td>or ART 105</td>
<td>CONTEMPORARY DRAWING PRACTICES</td>
<td></td>
</tr>
<tr>
<td>ART 215</td>
<td>PORTFOLIO DEVELOPMENT</td>
<td>3</td>
</tr>
</tbody>
</table>

**Art History**

Select two from List A and one more from either list A or B: 15

List A:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 220</td>
<td>ART HISTORY. ANCIENT TO LATE ANTIQUE</td>
<td></td>
</tr>
<tr>
<td>ART 221</td>
<td>ART HISTORY. MEDIEVAL-RENAISSANCE</td>
<td></td>
</tr>
<tr>
<td>ART 222</td>
<td>ART HISTORY. BAROQUE-MODERN</td>
<td></td>
</tr>
<tr>
<td>ART 223</td>
<td>ART IN THE TWENTIETH CENTURY</td>
<td></td>
</tr>
</tbody>
</table>

List B:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 225</td>
<td>ART HISTORY. ASIAN ART</td>
<td></td>
</tr>
<tr>
<td>ART 226</td>
<td>SURVEY OF NON-WESTERN ART</td>
<td></td>
</tr>
<tr>
<td>ART 250</td>
<td>WOMEN ARTISTS THROUGH HISTORY</td>
<td></td>
</tr>
<tr>
<td>ART 272</td>
<td>GRAPHIC DESIGN HISTORY</td>
<td></td>
</tr>
</tbody>
</table>

**Studio Concentrations**

**Metal Arts**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 189</td>
<td>METAL ARTS I</td>
<td>4</td>
</tr>
<tr>
<td>ART 190</td>
<td>METAL ARTS II</td>
<td>4</td>
</tr>
<tr>
<td>ART 191</td>
<td>METAL ARTS III</td>
<td>4</td>
</tr>
</tbody>
</table>

**Photography**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 123</td>
<td>PHOTOGRAPHY I</td>
<td>5</td>
</tr>
<tr>
<td>ART 124</td>
<td>PHOTOGRAPHY II</td>
<td>5</td>
</tr>
<tr>
<td>ART 125</td>
<td>PHOTOGRAPHY III</td>
<td>5</td>
</tr>
</tbody>
</table>

**Ceramics**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 180</td>
<td>CERAMICS I</td>
<td>5</td>
</tr>
<tr>
<td>ART 181</td>
<td>CERAMICS II</td>
<td>5</td>
</tr>
<tr>
<td>ART 182</td>
<td>CERAMICS III</td>
<td>5</td>
</tr>
</tbody>
</table>

**Drawing/Painting**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 104</td>
<td>OBSERVATIONAL DRAWING</td>
<td>4</td>
</tr>
<tr>
<td>ART 105</td>
<td>CONTEMPORARY DRAWING PRACTICES</td>
<td>4</td>
</tr>
<tr>
<td>ART 120</td>
<td>INTRODUCTION TO PRINTMAKING</td>
<td>3</td>
</tr>
<tr>
<td>ART 121</td>
<td>PRINTMAKING II</td>
<td>3</td>
</tr>
<tr>
<td>ART 122</td>
<td>PRINTMAKING III</td>
<td>3</td>
</tr>
<tr>
<td>ART 203</td>
<td>THE HUMAN FIGURE I</td>
<td>4</td>
</tr>
<tr>
<td>ART 204</td>
<td>THE HUMAN FIGURE II</td>
<td>4</td>
</tr>
<tr>
<td>ART 257</td>
<td>PAINTING I</td>
<td>5</td>
</tr>
<tr>
<td>ART 258</td>
<td>PAINTING II</td>
<td>5</td>
</tr>
<tr>
<td>ART 259</td>
<td>PAINTING III</td>
<td>5</td>
</tr>
<tr>
<td>ART 260</td>
<td>WATERCOLOR I</td>
<td>4</td>
</tr>
<tr>
<td>ART 261</td>
<td>WATERCOLOR II</td>
<td>4</td>
</tr>
<tr>
<td>ART 262</td>
<td>WATERCOLOR III</td>
<td>4</td>
</tr>
</tbody>
</table>

**Illustration**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 105</td>
<td>CONTEMPORARY DRAWING PRACTICES</td>
<td>4</td>
</tr>
<tr>
<td>ART 208</td>
<td>DIGITAL PAINTING &amp; ILLUSTRATION</td>
<td>4</td>
</tr>
<tr>
<td>ART 260</td>
<td>WATERCOLOR I</td>
<td>4</td>
</tr>
</tbody>
</table>

**Program Outcomes**

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

---

¹ Cannot be an Art class.

² Must include a lab course.

³ Must not include those listed in the Foundations requirements.
• Identify and utilize the elements and principles of design in works of art.
• Analyze works and ideas in the visual arts within appropriate historical, cultural, and stylistic contexts.
• Demonstrate technical skill, care in handling of materials, awareness of process, and purposeful execution appropriate to discipline.
• Use discipline appropriate vocabulary.
• Synthesize design skills, contextual awareness, technique and craftsmanship to create innovative, coherent works.
• Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
• Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
• Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
• Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
• Evaluate claims about the natural world using scientific methodology. (GE)
• Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
• Analyze patterns of power, privilege, and inequity in the United States. (GE)
• Obtain, evaluate, and ethically use information. (GE)
• Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
• Demonstrate progress toward healthier behaviors. (GE)
• Apply communication theory to demonstrate effective oral communication skills.(GE)

### Studio Arts Concentration

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

This is a suggested program for the first two years of study for those wanting a general AA/DTA degree with an emphasis in Studio Art. Lower division course requirements will vary depending on the transfer institution, but this program is specifically designed to fulfill all lower division requirements for students wishing to obtain a BA with a minor in Fine Arts at Washington State University, Vancouver.

This pathway fulfills all the academic requirements of the general AA/DTA degree at Clark College, while still allowing students to gain a solid foundation in art practice and theory. The AA/DTA with a concentration in Studio Art may be the best pathway for students with a strong interest in art, and the intent to pursue their art practice through a related area such as business, education, or social services, for example. Students who earn Clark College’s Associate in Arts (DTA) degree will normally be able to transfer to most Washington (and several Oregon) public colleges and universities with junior standing, having met all the lower-division (100- and 200- level) academic course requirements. This does not guarantee entry into a specific major area at the transfer school, however.

Contact an advisor at the transfer institution to determine required coursework and specific entry requirements as early as possible.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 101</td>
<td>2D ART AND DESIGN</td>
<td>5</td>
</tr>
<tr>
<td>ART 110</td>
<td>CREATIVITY AND CONCEPT</td>
<td>3</td>
</tr>
<tr>
<td>ART 257</td>
<td>PAINTING I</td>
<td>5</td>
</tr>
<tr>
<td>ART 258</td>
<td>PAINTING II</td>
<td>5</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>THREE-DIMENSIONAL DESIGN</td>
<td>4</td>
</tr>
<tr>
<td>ART 180</td>
<td>CERAMICS I</td>
<td>5</td>
</tr>
<tr>
<td>ART 181</td>
<td>CERAMICS II</td>
<td>5</td>
</tr>
<tr>
<td>ART 189</td>
<td>METAL ARTS I</td>
<td>4</td>
</tr>
<tr>
<td>ART 190</td>
<td>METAL ARTS II</td>
<td>4</td>
</tr>
</tbody>
</table>

### Additional Requirements

### General Education Requirements

<table>
<thead>
<tr>
<th>Communication Skills</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
</tr>
<tr>
<td>ENGL&amp;102</td>
<td>ENGLISH COMPOSITION II</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quantitative Skills</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH&amp;107</td>
<td>MATH IN SOCIETY (recommended)</td>
</tr>
<tr>
<td>or any qualifying college level math course</td>
<td></td>
</tr>
</tbody>
</table>

| Health and Physical Education | 3 |
| Course Options (p. 311) |

| Humanities | 10 |
| ART 220 | ART HISTORY: ANCIENT TO LATE ANTIQUE | 5 |
| or ART 221 | ART HISTORY: MEDIEVAL-RENAISSANCE | 5 |
| or ART 222 | ART HISTORY: BAROQUE-MODERN | 5 |
| Social Sciences | |
| CMST&230 | SMALL GROUP COMMUNICATION (recommend) | 5 |
| Course Options (p. 312) |
| Natural Sciences | |
| Course Options (p. 312) |

### Studio Arts Concentration

### Art CORE Courses: Drawing Focus

- ART 103 DRAWING I (3 units)
- ART 104 OBSERVATIONAL DRAWING (4 units)
- or ART 105 CONTEMPORARY DRAWING PRACTICES (4 units)
- or ART 203 THE HUMAN FIGURE I (4 units)

### Art CORE Courses: 2D Focus (chose a minimum of 5 credits from the following list)

- ART 101 2D ART AND DESIGN (5 units)
- ART 110 CREATIVITY AND CONCEPT (3 units)
- ART 257 PAINTING I (5 units)
- ART 258 PAINTING II (5 units)
- or

### Art CORE Courses: 3D-Focus (choose two of the following)

- ART 117 THREE-DIMENSIONAL DESIGN (4 units)
- ART 180 CERAMICS I (5 units)
- ART 181 CERAMICS II (5 units)
- ART 189 METAL ARTS I (4 units)
- ART 190 METAL ARTS II (4 units)
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Art Choice Courses</td>
<td>6-10</td>
</tr>
<tr>
<td></td>
<td>Choose any two additional ART-prefix classes. Cannot be classes used to satisfy other areas of this degree</td>
<td>6-10</td>
</tr>
<tr>
<td></td>
<td>General Electives</td>
<td>0-7</td>
</tr>
<tr>
<td></td>
<td>Any additional courses of 100 level or higher may apply. Physical Education activity credits are limited to a maximum of three (3) credits regardless of distribution area in the DTA degree.</td>
<td>0-7</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td>90</td>
</tr>
</tbody>
</table>

\(^1\) Fulfills Oral Communication (OC) requirement
ASSOCIATE IN ARTS (AA) - GENERAL TRANSFER

The Associate in Arts (AA) degree is designed for students planning to transfer to a four-year institution to pursue a bachelor's degree program. The degree, in most cases, meets the first two (2) years of general education requirements at the senior institution. There are exceptions; please check with the transfer institution for additional information. Most students transferring with the AA degree will be granted junior standing upon entry to the senior institution.

The standard Associate in Arts degree is also known as a Direct Transfer Agreement (DTA) Associate degree. The AA-DTA is a statewide agreement between the Washington State community and technical colleges and Washington State public universities as well as some private colleges and universities. The agreement outlines transferability of coursework and standing; in most cases students who have completed an AA-DTA will also have satisfied general education requirements at the baccalaureate institution and will have junior standing. Students should review their baccalaureate institution to see if they are part of the DTA in Washington State.

AA – DTA Degree Options

Students are advised to carefully examine the differences in the degree requirements where there is more than one choice within a major field and be sure that their transfer intent is in line with the degree chosen.

Transfer of Grades

The grades assigned in transferable courses by the sending institution shall not be altered by the receiving institution. They also are not used in calculating students’ Clark GPA. Courses completed with a grade of ‘D’ or above shall normally be accepted in transfer (except at The Evergreen State College, where a minimum of 2.0 or ‘C’ is required for transfer). Nontraditional grading practices require special handling, depending on the nature and circumstances of the program from which and to which a student is transferring, but receiving institutions shall take steps to assure all students equitable treatment.

General Requirements for All Associate in Arts Degrees

- Complete a minimum of ninety (90) college-level credits.
- Maintain a minimum cumulative college-level GPA of 2.00 or higher.
- Thirty (30) credits minimum must be completed at Clark College to meet Academic Residency.
- Submit a graduation application by the appropriate deadline.

General Credit Restrictions

- Credit by Department: Ten (10) credits maximum from any single department can be used to fulfill Humanities, Social Sciences and Natural Sciences distribution requirements.
- World Language: Five (5) credits maximum in 100-level world language can be used to fulfill Humanities distribution requirements. Additional 100-level world language coursework can be used to meet Specified or General Elective requirements.
- Physical Education Activity: Three (3) credits maximum in PE activity can apply toward the degree.

Other Applicable Credit Options

- Advanced Placement (AP) and/or International Baccalaureate (IB): A maximum of sixty (60) credits from AP, IB or a combination of both, can be applied to a degree.
- College Level Examination Program (CLEP): Students may request up to fifteen (15) CLEP credits to be applied to a degree. Credits will be used to fulfill general elective requirements only.
- Course Challenge: Students may use credits earned from successful course challenges toward 25% of the degree or certificate. Credit by course challenge will meet academic residency requirements.
- Tech Prep/Direct Credit: Tech Prep/Direct Credit courses that are part of a professional program and fall into the restricted area in the DTA degree are limited to 15 credits. If Tech Prep/Direct Credit courses apply to a professional technical degree or certificate, there is no limit to the number of credits that can be applied.
- Cooperative Work Experience: No more than fifteen (15) credits may be applied to the associate degree.
- Special Projects: No more than fifteen (15) credits in Special Projects will be allowed toward the Associate in Arts degree.
- Military Experience: Credits may earned by previous military experience. Please contact the Veterans Affairs Office at Clark College for further information. Credit awarded for military experience may be granted for up to 25% of the degree and/or certificate.
- Pass/Fail Grading Option: Sixty (60) credits maximum in courses with Pass/Fail grading option can apply toward the degree, with the exception of the AA Nursing degree which exceeds this limit because of clinical requirements.

General Restrictions

1. A course can apply toward only one (1) distribution requirement (i.e., Communication Skills, Quantitative Skills/Symbolic Reasoning Skills, Humanities, Social Sciences and Natural Sciences). The exception is for Oral Communications, which is a local degree requirement. When meeting the Oral Communications requirement, the same course can be applied to the degree requirement and to the distribution area.
2. Excess credits earned in distribution areas (i.e., Communication Skills, Quantitative Skills/Symbolic Reasoning Skills, Humanities, Social Sciences and Natural Sciences) can be used to fulfill the Elective requirements.
3. Credit by Challenge coursework will meet academic residency requirements.

• Associate in Arts - Direct Transfer (AA) (p. 19)

Associate in Arts - Direct Transfer (AA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communication Skills</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select an option:</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Option One</td>
<td></td>
</tr>
</tbody>
</table>
**Option Two**

**Quantitative Skills/Symbolic Reasoning Skills**

Choose from the courses below to complete the minimum of five (5) credits/units:

- MATH 103 COLLEGE TRIGONOMETRY
  - or MATH 10; COLLEGE TRIG WITH SUPPLEMENTAL INSTRUCTION
- MATH 105 FINITE MATHEMATICS
  - or MATH 10; FINITE MATH WITH SUPPLEMENTAL INSTRUCTION
- MATH 111 COLLEGE ALGEBRA
  - or MATH 11; COLLEGE ALGEBRA WITH SUPPLEMENTAL INSTRUCTION
- MATH 122 MATH FOR ELEMENTARY TEACHERS
- MATH 123 MATH FOR ELEMENTARY TEACHERS
- MATH 124 MATH FOR ELEMENTARY TEACHERS
- MATH 140 CALCULUS FOR LIFE SCIENCES
- MATH 215 LINEAR ALGEBRA
- MATH 221 DIFFERENTIAL EQUATIONS
- MATH&107 MATH IN SOCIETY
- MATH&146 INTRODUCTION TO STATISTICS
- MATH&148 BUSINESS CALCULUS
- MATH&151 CALCULUS I
- MATH&152 CALCULUS II
- MATH&153 CALCULUS III
- MATH&254 CALCULUS IV
- PHIL&117 TRADITIONAL LOGIC
- PHIL&120 SYMBOLIC LOGIC

**Health & Physical Education**

Select an option: 3

- Option One
- Option Two

**Oral Communications**

- CMST&210 INTERPERSONAL COMMUNICATION 5
  - or CMST&220 PUBLIC SPEAKING
  - or CMST&230 SMALL GROUP COMMUNICATION

**Additional Requirements**

- COLL 101 COLLEGE ESSENTIALS: INTRODUCTION TO CLARK 2

**Distribution Requirements**

**Humanities**

- Course Options (p. 311) 2

**Social Sciences**

- Course Options (p. 312) 3

**Natural Sciences**

- Course Options (p. 312) 4

**Elective Requirements**

**Specified Electives**

- Course Options (p. 313) 6

**General Electives**

- Course Options (p. 313) 7

**Total Credits/Units**

For admission to the institution, the University of Washington requires completion of the course designated Algebra II at either the high school or community college. However, UW recognizes the new QSR as fulfilling the DTA QSR requirement.

To qualify for QSR, college level math and logic courses must require intermediate algebra course work (high school or college) with a grade of 2.0 or higher as a prerequisite.

The University of Washington accepts Mathematics for Elementary Education for elective credits/units, but not as meeting its QSR requirement, since UW offers no degree pathway for which it is appropriate.

Select courses from at least two (2) subject areas for a minimum of fifteen (15) credits/units. You may include no more than ten (10) credits/units from any one subject area. A maximum of five (5) credits/units of “B” list coursework may be applied. A maximum of five (5) credits/units of 100-level world language can be applied.

Select courses from at least three (3) subject areas for a minimum of fifteen (15) credits/units. You may include no more than ten (10) credits/units from any one subject area.

Select courses from at least two (2) subject areas for a minimum of fifteen (15) credits/units. You may include no more than ten (10) credits/units from one subject area. You must include at least one lab science.

Complete a total of twenty-seven (27) credits/units from courses numbered 100 and above. No more than 15 credits/units can be taken from the General Elective area.

Approved courses that apply: C, Q, HA, HB, SS, NS, SE, HE, HPE, PE, OC.

A maximum of two (2) credits/units in PE activity can apply toward this area. Courses coded as HPE count as one (1) credit/unit of PE activity.

These courses may be vocational in nature from Career and Technical education courses. The transferability of the Career-Technical courses and any ENL 100-level courses is determined by the receiving baccalaureate institution.

Note: Coursework in ESL or FLPC cannot apply to the AA degree program.

Oral Communications courses may fulfill an additional distribution area.

COLL 101 can fulfill 2(two) credits/units of general electives

**Communication Skills Options**

**Option One**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp;102</td>
<td>ENGLISH COMPOSITION II</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp;235</td>
<td>TECHNICAL WRITING</td>
<td></td>
</tr>
<tr>
<td>ENGL 110</td>
<td>COMPOSITION FOR LITERATURE</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits/Units**

10

**Option Two**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 103</td>
<td>ADVANCED ENGLISH COMPOSITION</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one from the following: 3-5
ENGL 108   WRITING ABOUT FILM
ENGL 110   COMPOSITION FOR LITERATURE
BUS 211   BUSINESS COMMUNICATIONS

Select one from the following: 5
CMST&210   INTERPERSONAL COMMUNICATION
CMST&220   PUBLIC SPEAKING
CMST&230   SMALL GROUP COMMUNICATION

- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)

Total Credits/Units 11-13

Health & Physical Education Options

Option One

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 100</td>
<td>FOOD AND YOUR HEALTH</td>
<td>2-3</td>
</tr>
<tr>
<td>HLTH 101</td>
<td>HEALTH FOR ADULT LIVING</td>
<td></td>
</tr>
<tr>
<td>HLTH 103</td>
<td>ENVIRONMENTAL HEALTH</td>
<td></td>
</tr>
<tr>
<td>HLTH 104</td>
<td>WEIGHT AND YOUR HEALTH</td>
<td></td>
</tr>
<tr>
<td>HLTH 108</td>
<td>HAPPINESS AND YOUR HEALTH</td>
<td></td>
</tr>
<tr>
<td>HLTH 206</td>
<td>HUMAN SEXUALITY</td>
<td></td>
</tr>
<tr>
<td>HLTH 207</td>
<td>WOMEN'S HEALTH</td>
<td></td>
</tr>
<tr>
<td>HLTH 208</td>
<td>MEN'S HEALTH</td>
<td></td>
</tr>
<tr>
<td>HLTH 210</td>
<td>MULTICULTURAL HEALTH</td>
<td></td>
</tr>
<tr>
<td>HLTH 212</td>
<td>CANNABIS AND YOUR HEALTH</td>
<td>2</td>
</tr>
<tr>
<td>PE activity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Credits/Units 4-5

Option Two

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE 258</td>
<td>FITNESS-WELLNESS</td>
<td>3</td>
</tr>
<tr>
<td>or HPE 266</td>
<td>MIND BODY HEALTH</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits/Units 3

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Obtain, evaluate, and ethically use information. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
ASSOCIATE IN SCIENCE – TRACK 1 (AST1)

Associate in Science – Track 1 is for students intending to transfer into programs in:

AST1 - Concentration Options:
- Biological Sciences
- Chemistry
- Earth Science
- Environmental/Resources Sciences
- Geology
- Associate in Science Transfer - General (AST1) (p. 22)

Associate in Science Transfer - General (AST1)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communication Skills</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one from the following:</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>ENGL&amp;101 ENGLISH COMPOSITION I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>College-Level Composition Course (p. 311)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Quantitatives Skills</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH&amp;151 CALCULUS I¹</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>MATH&amp;152 CALCULUS II²</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Health &amp; Physical Education</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one option (p. 311)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities (HA) (HB) and Social Sciences (SS) course(s)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Humanities (HA) Course (p. 311)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Social Sciences (SS) Course (p. 312)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Select an additional five credits/units from Humanities (HA) or (HB) or Social Science (SS) courses (p. 311)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Pre-major Program Requirements ³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Chemistry Sequence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM&amp;141 GENERAL CHEMISTRY I</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>CHEM&amp;142 GENERAL CHEMISTRY II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>CHEM&amp;143 GENERAL CHEMISTRY III</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>CHEM&amp;151 GENERAL CHEMISTRY LABORATORY I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CHEM&amp;152 GENERAL CHEMISTRY LABORATORY II</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CHEM&amp;153 GENERAL CHEMISTRY LABORATORY III</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Additional Sequence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one sequence from the following:</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Biology Sequence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physics Sequence (100 level)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physics Sequence (200 level)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Additional mathematics course(s) ⁴</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>MATH&amp;153 CALCULUS III</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or MATH&amp;146 INTRODUCTION TO STATISTICS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Additional requirements for intended major</td>
<td>10-15</td>
</tr>
<tr>
<td></td>
<td>Select one from the following:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL 101 ENVIRONMENTAL BIOLOGY</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL 105 SMALL WORLD ANTIBIOTICS RESEARCH 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL 139 INTRODUCTION TO WILDLIFE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL 140 MAMMALS OF THE NORTHWEST</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL 141 BIRDS OF THE PACIFIC NORTHWEST</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL 142 FRESHWATER FISHES OF THE PACIFIC NORTHWEST</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL 143 INTRODUCTION TO FORESTRY</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL 145 REPTILES &amp; AMPHIBIANS OF THE PACIFIC NW</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL 167 HUMAN GENETICS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL 208 FIELD STUDIES IN BIOLOGY</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL&amp;221 MAJORS ECOLOGY/EVOLUTION</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL&amp;222 MAJORS CELL/MOLECULAR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL&amp;223 MAJORS ORGANISMAL PHYS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL 224 FLOWERING PLANTS OF THE PACIFIC NORTHWEST</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL&amp;241 HUMAN ANATOMY AND PHYSIOLOGY I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL&amp;242 HUMAN ANATOMY AND PHYSIOLOGY II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL&amp;251 HUMAN A &amp; P I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL&amp;252 HUMAN A &amp; P II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL&amp;253 HUMAN A &amp; P III</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL&amp;260 MICROBIOLOGY</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM&amp;241 ORGANIC CHEMISTRY I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM&amp;242 ORGANIC CHEMISTRY II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM&amp;243 ORGANIC CHEMISTRY III</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM&amp;251 ORGANIC CHEMISTRY LABORATORY I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM&amp;252 ORGANIC CHEMISTRY LABORATORY II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM&amp;253 ORGANIC CHEMISTRY LABORATORY III</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENVS 218 INTRODUCTION TO ECOLOGICAL RESTORATION</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GEOL 102 INTRO TO GEOL II: EARTH’S SURFACE PROCESSES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GEOL 218 FIELD STUDIES IN GEOLOGY</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GEOL&amp;101 INTRO PHYSICAL GEOLOGY</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 215 LINEAR ALGEBRA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 221 DIFFERENTIAL EQUATIONS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH&amp;254 CALCULUS IV</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHYS&amp;124 GENERAL PHYSICS LAB I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHYS&amp;125 GENERAL PHYSICS LAB II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHYS&amp;126 GENERAL PHYSICS LAB III</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHYS&amp;134 GENERAL PHYSICS I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHYS&amp;135 GENERAL PHYSICS II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHYS&amp;136 GENERAL PHYSICS III</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHYS&amp;231 ENGINEERING PHYSICS LAB I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHYS&amp;232 ENGINEERING PHYSICS LAB II</td>
<td></td>
</tr>
</tbody>
</table>
Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Apply scientific methodologies to develop and answer questions about the natural world.
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Analyze and solve multi-step problems using techniques through single-variable calculus.
- Acquire scientific information from appropriate sources to analyze issues, claims or situations.

Pre-Major Program Requirements

Biology Sequence

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL221</td>
<td>MAJORS ECOLOGY/EVOLUTION</td>
<td>5</td>
</tr>
<tr>
<td>BIOL222</td>
<td>MAJORS CELL/MOLECULAR</td>
<td>5</td>
</tr>
<tr>
<td>BIOL223</td>
<td>MAJORS ORGANISMAL PHYS</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total Credits/Units</strong></td>
<td></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

Physics Sequence (100 level)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS124</td>
<td>GENERAL PHYSICS LAB I</td>
<td>1</td>
</tr>
<tr>
<td>PHYS125</td>
<td>GENERAL PHYSICS LAB II</td>
<td>1</td>
</tr>
<tr>
<td>PHYS126</td>
<td>GENERAL PHYSICS LAB III</td>
<td>1</td>
</tr>
<tr>
<td>PHYS134</td>
<td>GENERAL PHYSICS I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS135</td>
<td>GENERAL PHYSICS II</td>
<td>4</td>
</tr>
<tr>
<td>PHYS136</td>
<td>GENERAL PHYSICS III</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Credits/Units</strong></td>
<td></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

Physics Sequence (200 level)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS231</td>
<td>ENGINEERING PHYSICS LAB I</td>
<td>1</td>
</tr>
<tr>
<td>PHYS232</td>
<td>ENGINEERING PHYSICS LAB II</td>
<td>1</td>
</tr>
<tr>
<td>PHYS233</td>
<td>ENGINEERING PHYSICS LAB III</td>
<td>1</td>
</tr>
<tr>
<td>PHYS241</td>
<td>ENGINEERING PHYSICS I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS242</td>
<td>ENGINEERING PHYSICS II</td>
<td>4</td>
</tr>
<tr>
<td>PHYS243</td>
<td>ENGINEERING PHYSICS III</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Credits/Units</strong></td>
<td></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>
ASSOCIATE IN SCIENCE – TRACK 2 (AST2)

Associate in Science – Track 2 is for students intending to transfer into programs in:

AST - Concentration Options:
- Atmospheric Science
- Computer Science
- Engineering
- Physics
- Associate in Science – General (AST2) (p. 24)

Associate in Science – General (AST2)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Communication Skills</strong></td>
<td></td>
</tr>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Quantitative Skills/Symbolic Reasoning Skills</strong></td>
<td></td>
</tr>
<tr>
<td>MATH&amp;151</td>
<td>CALCULUS I $^1$</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;152</td>
<td>CALCULUS II $^2$</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td></td>
<td><strong>Health &amp; Physical Education</strong></td>
<td></td>
</tr>
<tr>
<td>Select one option (p. 311)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Humanities &amp; Social Sciences</strong></td>
<td></td>
</tr>
<tr>
<td>Humanities (HA) Course Options (p. 311)</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Social Sciences (SS) Course Options (p. 312)</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Select an additional five credits/units from Humanities (HA) or (HB) or Social Science (SS) courses (p. 311) $^3$</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td><strong>Additional Math Courses</strong></td>
<td></td>
</tr>
<tr>
<td>MATH&amp;153</td>
<td>CALCULUS III</td>
<td>5</td>
</tr>
<tr>
<td>or MATH&amp;146 INTRODUCTION TO STATISTICS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Pre-Major Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>Select one sequence from the following: $^4$</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>Engineering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Engineering</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Elective Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>Select one from the following:</td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>Engineering Major</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Non-Engineering Major

Complete one of the Physics sequences — Consult with the baccalaureate institution to see which sequence is required.

<table>
<thead>
<tr>
<th>Sequence One Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS&amp;124</td>
<td>GENERAL PHYSICS LAB I</td>
<td>1</td>
</tr>
<tr>
<td>PHYS&amp;125</td>
<td>GENERAL PHYSICS LAB II</td>
<td>1</td>
</tr>
<tr>
<td>PHYS&amp;126</td>
<td>GENERAL PHYSICS LAB III</td>
<td>1</td>
</tr>
<tr>
<td>PHYS&amp;134</td>
<td>GENERAL PHYSICS I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS&amp;135</td>
<td>GENERAL PHYSICS II</td>
<td>4</td>
</tr>
<tr>
<td>PHYS&amp;136</td>
<td>GENERAL PHYSICS III</td>
<td>4</td>
</tr>
<tr>
<td>Non-Engineering Additional MATH Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH&amp;153</td>
<td>CALCULUS III</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total Credits/Units</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sequence Two Code</strong></td>
<td>Title</td>
<td>Credits/Units</td>
</tr>
<tr>
<td>PHYS&amp;231</td>
<td>ENGINEERING PHYSICS LAB I</td>
<td>1</td>
</tr>
<tr>
<td>PHYS&amp;232</td>
<td>ENGINEERING PHYSICS LAB II</td>
<td>1</td>
</tr>
<tr>
<td>PHYS&amp;233</td>
<td>ENGINEERING PHYSICS LAB III</td>
<td>1</td>
</tr>
</tbody>
</table>

Pre-Major Program Requirements

Engineering Major

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM&amp;141</td>
<td>GENERAL CHEMISTRY I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;151</td>
<td>GENERAL CHEMISTRY LABORATORY I</td>
<td>1</td>
</tr>
<tr>
<td>PHYS&amp;231</td>
<td>ENGINEERING PHYSICS LAB I</td>
<td>1</td>
</tr>
<tr>
<td>PHYS&amp;232</td>
<td>ENGINEERING PHYSICS LAB II</td>
<td>1</td>
</tr>
<tr>
<td>PHYS&amp;233</td>
<td>ENGINEERING PHYSICS LAB III</td>
<td>1</td>
</tr>
<tr>
<td>PHYS&amp;241</td>
<td>ENGINEERING PHYSICS I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS&amp;242</td>
<td>ENGINEERING PHYSICS II</td>
<td>4</td>
</tr>
<tr>
<td>PHYS&amp;243</td>
<td>ENGINEERING PHYSICS III</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Credits/Units</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MATH&151 (Calculus I) requires the successful completion of both MATH 103 (trigonometry) and MATH 111 (college algebra), or recommending score on an approved placement test prior to registration. These prerequisite courses can be used to fulfill elective requirements within the Associate in Science (AS) degree program.

Or select from math courses that have MATH&152 as a prerequisite.

A maximum of five (5) credits/units of Humanities B (HB) coursework may be applied.

All students planning to earn the Associate in Science – Track 2 degree are required to complete the following course sequences. Please note that there are different sequences for Engineering and Non-engineering majors. The sequences taken are dependent on the major of the student. Sequences should be started and finished at the same institution to ensure proper transfer. Students MUST consult with faculty or advising staff to pick the correct sequences.

Non-Engineering Major

<table>
<thead>
<tr>
<th>Total Credits/Units</th>
<th>90</th>
</tr>
</thead>
</table>

$^1$ MATH&151 (Calculus I) requires the successful completion of both MATH 103 (trigonometry) and MATH 111 (college algebra), or recommending score on an approved placement test prior to registration. These prerequisite courses can be used to fulfill elective requirements within the Associate in Science (AS) degree program.

$^2$ Or select from math courses that have MATH&152 as a prerequisite.

$^3$ A maximum of five (5) credits/units of Humanities B (HB) coursework may be applied.

$^4$ All students planning to earn the Associate in Science – Track 2 degree are required to complete the following course sequences. Please note that there are different sequences for Engineering and Non-engineering majors. The sequences taken are dependent on the major of the student. Sequences should be started and finished at the same institution to ensure proper transfer. Students MUST consult with faculty or advising staff to pick the correct sequences.

$^5$ The prerequisite courses can be used to fulfill elective requirements within the Associate in Science (AS) degree program.
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS&amp;241</td>
<td>ENGINEERING PHYSICS I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS&amp;242</td>
<td>ENGINEERING PHYSICS II</td>
<td>4</td>
</tr>
<tr>
<td>PHYS&amp;243</td>
<td>ENGINEERING PHYSICS III</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;141</td>
<td>GENERAL CHEMISTRY I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;151</td>
<td>GENERAL CHEMISTRY LABORATORY I</td>
<td>1</td>
</tr>
<tr>
<td>MATH&amp;153</td>
<td>CALCULUS III</td>
<td>5</td>
</tr>
<tr>
<td>ENGR 252</td>
<td>ELECTRICAL CIRCUITS AND SIGNALS</td>
<td></td>
</tr>
<tr>
<td>ENGR 253</td>
<td>SIGNALS AND SYSTEMS</td>
<td></td>
</tr>
<tr>
<td>ENGR 270</td>
<td>DIGITAL SYSTEMS AND MICROPROCESSORS</td>
<td></td>
</tr>
<tr>
<td>ENGR 280</td>
<td>SELECTED TOPICS</td>
<td></td>
</tr>
<tr>
<td>MATH 215</td>
<td>LINEAR ALGEBRA</td>
<td></td>
</tr>
<tr>
<td>MATH 221</td>
<td>DIFFERENTIAL EQUATIONS</td>
<td></td>
</tr>
</tbody>
</table>

**Elective Requirements**

**Engineering Major**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 32 credits/units from the following:</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;142</td>
<td>GENERAL CHEMISTRY II</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;143</td>
<td>GENERAL CHEMISTRY III</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;152</td>
<td>GENERAL CHEMISTRY LABORATORY II</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;153</td>
<td>GENERAL CHEMISTRY LABORATORY III</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;241</td>
<td>ORGANIC CHEMISTRY I</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;242</td>
<td>ORGANIC CHEMISTRY II</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;243</td>
<td>ORGANIC CHEMISTRY III</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;251</td>
<td>ORGANIC CHEMISTRY LABORATORY I</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;252</td>
<td>ORGANIC CHEMISTRY LABORATORY II</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;253</td>
<td>ORGANIC CHEMISTRY LABORATORY III</td>
<td></td>
</tr>
<tr>
<td>CSE 101</td>
<td>ENGINEERING AND COMPUTER SCIENCE ORIENTATION</td>
<td></td>
</tr>
<tr>
<td>CSE 120</td>
<td>INTRO TO ELECTRICAL/COMPUTING</td>
<td></td>
</tr>
<tr>
<td>CSE 121</td>
<td>INTRODUCTION TO C</td>
<td></td>
</tr>
<tr>
<td>CSE 215</td>
<td>DISCRETE STRUCTURES</td>
<td></td>
</tr>
<tr>
<td>CSE 222</td>
<td>INTRODUCTION TO DATA STRUCTURES</td>
<td></td>
</tr>
<tr>
<td>CSE 223</td>
<td>DATA STRUCTURES &amp; OBJECT-ORIENTED PROGRAMMING</td>
<td></td>
</tr>
<tr>
<td>CSE 224</td>
<td>PROGRAMMING TOOLS</td>
<td></td>
</tr>
<tr>
<td>CSE 290</td>
<td>SPECIAL PROJECTS</td>
<td></td>
</tr>
<tr>
<td>ENGR&amp;104</td>
<td>INTRODUCTION TO DESIGN</td>
<td></td>
</tr>
<tr>
<td>ENGR&amp;215</td>
<td>DYNAMICS</td>
<td></td>
</tr>
<tr>
<td>ENGR&amp;224</td>
<td>THERMODYNAMICS</td>
<td></td>
</tr>
<tr>
<td>ENGR&amp;225</td>
<td>MECHANICS OF MATERIALS</td>
<td></td>
</tr>
<tr>
<td>ENGR 101</td>
<td>ENGINEERING AND COMPUTER SCIENCE ORIENTATION</td>
<td></td>
</tr>
<tr>
<td>ENGR 107</td>
<td>INTRO TO AEROSPACE ENGINEERING</td>
<td></td>
</tr>
<tr>
<td>ENGR 109</td>
<td>INTRODUCTION TO ENGINEERING</td>
<td></td>
</tr>
<tr>
<td>ENGR 113</td>
<td>ENGINEERING SKETCHING AND VISUALIZATION</td>
<td></td>
</tr>
<tr>
<td>ENGR 115</td>
<td>GEOMETRIC DIMENSIONING AND TOLERANCING</td>
<td></td>
</tr>
<tr>
<td>ENGR 120</td>
<td>INTRO TO ELECTRICAL/COMPUTER SCI &amp; ENGINEERING</td>
<td></td>
</tr>
<tr>
<td>ENGR 121</td>
<td>FIELD SURVEY I</td>
<td></td>
</tr>
<tr>
<td>ENGR 150</td>
<td>BASIC SOLIDWORKS</td>
<td></td>
</tr>
<tr>
<td>ENGR 208</td>
<td>FUNDAMENTALS OF FLIGHT</td>
<td></td>
</tr>
<tr>
<td>ENGR 221</td>
<td>MATERIALS SCIENCE</td>
<td></td>
</tr>
<tr>
<td>ENGR 239</td>
<td>MANUFACTURING PROCESSES</td>
<td></td>
</tr>
<tr>
<td>ENGR 240</td>
<td>APPLIED NUMERICAL METHODS FOR ENGINEERS</td>
<td></td>
</tr>
<tr>
<td>ENGR 250</td>
<td>DIGITAL LOGIC DESIGN</td>
<td></td>
</tr>
<tr>
<td>ENGR 252</td>
<td>ELECTRICAL CIRCUITS AND SIGNALS</td>
<td></td>
</tr>
<tr>
<td>ENGR 253</td>
<td>SIGNALS AND SYSTEMS</td>
<td></td>
</tr>
<tr>
<td>ENGR 270</td>
<td>DIGITAL SYSTEMS AND MICROPROCESSORS</td>
<td></td>
</tr>
<tr>
<td>ENGR 280</td>
<td>SELECTED TOPICS</td>
<td></td>
</tr>
<tr>
<td>MATH 215</td>
<td>LINEAR ALGEBRA</td>
<td></td>
</tr>
<tr>
<td>MATH 221</td>
<td>DIFFERENTIAL EQUATIONS</td>
<td></td>
</tr>
</tbody>
</table>

**Non-Engineering Major**

Select 32 credits/units from the following: 32

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL&amp;100</td>
<td>SURVEY OF BIOLOGY</td>
<td></td>
</tr>
<tr>
<td>BIOL&amp;221</td>
<td>MAJORS ECOLOGY/EVOLUTION</td>
<td></td>
</tr>
<tr>
<td>BIOL&amp;222</td>
<td>MAJORS CELL/MOLECULAR</td>
<td></td>
</tr>
<tr>
<td>BIOL&amp;223</td>
<td>MAJORS ORGANISMAL PHYS</td>
<td></td>
</tr>
<tr>
<td>BIOL&amp;251</td>
<td>HUMAN A &amp; P I</td>
<td></td>
</tr>
<tr>
<td>BIOL&amp;252</td>
<td>HUMAN A &amp; P II</td>
<td></td>
</tr>
<tr>
<td>BIOL&amp;253</td>
<td>HUMAN A &amp; P III</td>
<td></td>
</tr>
<tr>
<td>BIOL&amp;260</td>
<td>MICROBIOLOGY</td>
<td></td>
</tr>
<tr>
<td>BIOL 101</td>
<td>ENVIRONMENTAL BIOLOGY</td>
<td></td>
</tr>
<tr>
<td>BIOL 164</td>
<td>HUMAN BIOLOGY</td>
<td></td>
</tr>
<tr>
<td>BIOL 165</td>
<td>HUMAN BIOLOGY LAB</td>
<td></td>
</tr>
<tr>
<td>BIOL 167</td>
<td>HUMAN GENETICS</td>
<td></td>
</tr>
<tr>
<td>BIOL 208</td>
<td>FIELD STUDIES IN BIOLOGY</td>
<td></td>
</tr>
<tr>
<td>BIOL 224</td>
<td>FLOWERING PLANTS OF THE PACIFIC NORTHWEST</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;142</td>
<td>GENERAL CHEMISTRY II</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;143</td>
<td>GENERAL CHEMISTRY III</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;152</td>
<td>GENERAL CHEMISTRY LABORATORY II</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;153</td>
<td>GENERAL CHEMISTRY LABORATORY III</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;241</td>
<td>ORGANIC CHEMISTRY I</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;242</td>
<td>ORGANIC CHEMISTRY II</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;243</td>
<td>ORGANIC CHEMISTRY III</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;251</td>
<td>ORGANIC CHEMISTRY LABORATORY I</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;252</td>
<td>ORGANIC CHEMISTRY LABORATORY II</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;253</td>
<td>ORGANIC CHEMISTRY LABORATORY III</td>
<td></td>
</tr>
<tr>
<td>CSE 101</td>
<td>ENGINEERING AND COMPUTER SCIENCE ORIENTATION</td>
<td></td>
</tr>
<tr>
<td>CSE 120</td>
<td>INTRO TO ELECTRICAL/COMPUTING</td>
<td></td>
</tr>
<tr>
<td>CSE 121</td>
<td>INTRODUCTION TO C</td>
<td></td>
</tr>
<tr>
<td>CSE 215</td>
<td>DISCRETE STRUCTURES</td>
<td></td>
</tr>
<tr>
<td>CSE 222</td>
<td>INTRODUCTION TO DATA STRUCTURES</td>
<td></td>
</tr>
<tr>
<td>CSE 223</td>
<td>DATA STRUCTURES &amp; OBJECT-ORIENTED PROGRAMMING</td>
<td></td>
</tr>
<tr>
<td>CSE 224</td>
<td>PROGRAMMING TOOLS</td>
<td></td>
</tr>
<tr>
<td>CSE 290</td>
<td>SPECIAL PROJECTS</td>
<td></td>
</tr>
<tr>
<td>ENGR&amp;104</td>
<td>INTRODUCTION TO DESIGN</td>
<td></td>
</tr>
<tr>
<td>ENGR&amp;215</td>
<td>DYNAMICS</td>
<td></td>
</tr>
<tr>
<td>ENGR&amp;224</td>
<td>THERMODYNAMICS</td>
<td></td>
</tr>
<tr>
<td>ENGR&amp;225</td>
<td>MECHANICS OF MATERIALS</td>
<td></td>
</tr>
<tr>
<td>ENGR 101</td>
<td>ENGINEERING AND COMPUTER SCIENCE ORIENTATION</td>
<td></td>
</tr>
<tr>
<td>ENGR 107</td>
<td>INTRO TO AEROSPACE ENGINEERING</td>
<td></td>
</tr>
<tr>
<td>ENGR 109</td>
<td>INTRODUCTION TO ENGINEERING</td>
<td></td>
</tr>
<tr>
<td>ENGR 113</td>
<td>ENGINEERING SKETCHING AND VISUALIZATION</td>
<td></td>
</tr>
<tr>
<td>ENGR 115</td>
<td>GEOMETRIC DIMENSIONING AND TOLERANCING</td>
<td></td>
</tr>
<tr>
<td>ENGR 120</td>
<td>INTRO TO ELECTRICAL/COMPUTER SCI &amp; ENGINEERING</td>
<td></td>
</tr>
<tr>
<td>ENGR 121</td>
<td>FIELD SURVEY I</td>
<td></td>
</tr>
<tr>
<td>ENGR 150</td>
<td>BASIC SOLIDWORKS</td>
<td></td>
</tr>
<tr>
<td>ENGR 208</td>
<td>FUNDAMENTALS OF FLIGHT</td>
<td></td>
</tr>
<tr>
<td>ENGR 221</td>
<td>MATERIALS SCIENCE</td>
<td></td>
</tr>
<tr>
<td>ENGR 239</td>
<td>MANUFACTURING PROCESSES</td>
<td></td>
</tr>
<tr>
<td>ENGR 240</td>
<td>APPLIED NUMERICAL METHODS FOR ENGINEERS</td>
<td></td>
</tr>
<tr>
<td>ENGR 250</td>
<td>DIGITAL LOGIC DESIGN</td>
<td></td>
</tr>
</tbody>
</table>


**Program Outcomes**

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate progress toward healthier behaviors. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.
- Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.
- Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.
- Analyze and solve multi-step problems using techniques through single-variable calculus.

*Check with chosen 4-year school*
AUTOMOTIVE TECHNOLOGY

Clark College has two automotive program offerings:

• Toyota T-TEN
• HiTECC (Dealer Ready)

Toyota T-TEN

Clark College is an award-winning Toyota Technical Education Network (T-TEN) training center. Our T-TEN program requires a Toyota Dealer sponsorship prior to admission. Entry into the program is yearly, beginning summer term; the format is a two-year program of a term of instruction on campus followed by a term of on-the-job learning. This means that for the two years that they are in the program, students alternate one term of full-time classroom and lab practice with one term as a full-time dealership apprentice.

HiTECC (Dealer Ready)

The Hannah initiative for Technician Education with Clark College, or HiTECC automotive program prepares students for maintenance and repair employment opportunities in automotive dealerships nationwide. This program provides a broad overview of technology used in modern vehicles. The program structure is patterned after the successful Toyota program and will require a dealership sponsor prior to entry. Students will participate in a cooperative work experience at a dealership while attending school.

For all programs, students must complete all Major Area Requirements with a minimum grade of 'C' or better in order to successfully complete the program and earn the award.

Refer to the Degree & Certificate Requirements Section in the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

• T-TEN Automotive (CP) (p. 27)
• T-TEN Automotive (AAT) (p. 27)
• HiTECC Automotive Technology (CP) (p. 28)
• HiTECC Automotive Technology (AAT) (p. 29)

T-TEN Automotive (CP)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Communication Skills</em></td>
<td></td>
</tr>
<tr>
<td>BTEC 106</td>
<td>APPLIED OFFICE ENGLISH</td>
<td>1</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><em>Computational Skills</em></td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 322)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><em>Human Relations</em></td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 322)</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

T-TEN Automotive (AAT)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Communication Skills</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Subtotal 3

Major Area Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 150</td>
<td>INTRODUCTION TO TOYOTA</td>
<td>7</td>
</tr>
<tr>
<td>AUTO 151</td>
<td>TOYOTA ELECTRICAL I</td>
<td>7</td>
</tr>
<tr>
<td>AUTO 152</td>
<td>TOYOTA ELECTRICAL II</td>
<td>7</td>
</tr>
<tr>
<td>AUTO 153</td>
<td>TOYOTA BRAKES</td>
<td>7</td>
</tr>
<tr>
<td>AUTO 154</td>
<td>TOYOTA INTERNSHIP I</td>
<td>8</td>
</tr>
<tr>
<td>AUTO 155</td>
<td>TOYOTA STEERING AND SUSPENSION</td>
<td>7</td>
</tr>
<tr>
<td>AUTO 156</td>
<td>TOYOTA ENGINE PERFORMANCE I</td>
<td>7</td>
</tr>
<tr>
<td>AUTO 157</td>
<td>TOYOTA ENGINE PERFORMANCE II</td>
<td>7</td>
</tr>
<tr>
<td>AUTO 250</td>
<td>TOYOTA CLIMATE CONTROL</td>
<td>7</td>
</tr>
<tr>
<td>AUTO 251</td>
<td>TOYOTA INTERNSHIP II</td>
<td>4</td>
</tr>
<tr>
<td>AUTO 252</td>
<td>TOYOTA ENGINE MECHANICAL</td>
<td>7</td>
</tr>
<tr>
<td>AUTO 253</td>
<td>TOYOTA MANUAL TRANSMISSION</td>
<td>7</td>
</tr>
<tr>
<td>AUTO 254</td>
<td>AUTOMATIC TRANSMISSIONS</td>
<td>7</td>
</tr>
</tbody>
</table>

Total Credits/Units 98

1 Recommended.

To learn more about this program’s employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (http://www.clark.edu/academics/catalog/gainful-employment/712A/Gedt.html).

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
• Demonstrate interpersonal/human relations skills. (GE)
• Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
• Use Toyota’s 6-step process to verify customer vehicle concern, determine related symptoms, analyze symptoms, isolate cause of concern, correct the concern, and verify proper vehicle operation.
• Represent Toyota/Lexus and their dealers by being competent, highly trained, and ethical Toyota technicians.
• Achieve, maintain, and advance in the Toyota/Lexus technician certification process.
• Work as an effective team member in a Toyota dealership environment.

T-TEN Automotive (AAT)
ENGL&101  ENGLISH COMPOSITION I  
Subtotal 5

Computational Skills
Select one from the following:
MATH 103  COLLEGE TRIGONOMETRY  
MATH&107  MATH IN SOCIETY  
Subtotal 5

Human Relations
SOC& 101  INTRO TO SOCIOLOGY  
Subtotal 5

Major Area Requirements
AUTO 150  INTRODUCTION TO TOYOTA  
AUTO 151  TOYOTA ELECTRICAL I  
AUTO 152  TOYOTA ELECTRICAL II  
AUTO 153  TOYOTA BRAKES  
AUTO 154  TOYOTA INTERNSHIP I  
AUTO 155  TOYOTA STEERING AND SUSPENSION  
AUTO 156  TOYOTA ENGINE PERFORMANCE I  
AUTO 157  TOYOTA ENGINE PERFORMANCE II  
AUTO 250  TOYOTA CLIMATE CONTROL  
AUTO 251  TOYOTA INTERNSHIP II  
AUTO 252  TOYOTA ENGINE MECHANICAL  
AUTO 253  TOYOTA MANUAL TRANSMISSION  
AUTO 254  AUTOMATIC TRANSMISSIONS  
Total Credits/Units 104

1  Recommended.
2  College-Level Math Required.

Program Outcomes
Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Use Toyota’s 6-step process to verify customer vehicle concern, determine related symptoms, analyze symptoms, isolate cause of concern, correct the concern, and verify proper vehicle operation.
- Represent Toyota/Lexus and their dealers by being competent, highly trained, and ethical Toyota technicians.
- Achieve, maintain, and advance in the Toyota/Lexus technician certification process.
- Work as an effective team member in a Toyota dealership environment.

HiTECC Automotive Technology (CP)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTEC 106</td>
<td>APPLIED OFFICE ENGLISH 1</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits/Units 98

1  Recommended.

To learn more about this program’s employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (http://www.clark.edu/academics/catalog/gainful-employment/712D/Gedt.html).

Program Outcomes
Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Use a 6-step process to verify customer vehicle concern, determine related symptoms, analyze symptoms, isolate cause of concern, correct the concern, and verify proper vehicle operation.
- Represent sponsoring dealers by being competent, highly trained, and ethical dealership technicians.
Achieve, maintain, and advance in the ASE technician certification process.

HiTECC Automotive Technology (AAT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communication Skills</td>
<td></td>
</tr>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Computational Skills</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 322)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Human Relations</td>
<td></td>
</tr>
<tr>
<td>SOC&amp; 101</td>
<td>INTRO TO SOCIOLOGY</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Major Area Requirements</td>
<td></td>
</tr>
<tr>
<td>AUTO 160</td>
<td>INTRODUCTION TO DEALERSHIP OPERATIONS</td>
<td>7</td>
</tr>
<tr>
<td>AUTO 161</td>
<td>ELECTRICAL I</td>
<td>7</td>
</tr>
<tr>
<td>AUTO 162</td>
<td>ELECTRICAL II</td>
<td>7</td>
</tr>
<tr>
<td>AUTO 163</td>
<td>BRAKES</td>
<td>7</td>
</tr>
<tr>
<td>AUTO 164</td>
<td>INTERNSHIP I</td>
<td>8</td>
</tr>
<tr>
<td>AUTO 165</td>
<td>STEERING AND SUSPENSION</td>
<td>7</td>
</tr>
<tr>
<td>AUTO 166</td>
<td>ENGINE PERFORMANCE I</td>
<td>7</td>
</tr>
<tr>
<td>AUTO 167</td>
<td>ENGINE PERFORMANCE II</td>
<td>7</td>
</tr>
<tr>
<td>AUTO 260</td>
<td>CLIMATE CONTROL</td>
<td>7</td>
</tr>
<tr>
<td>AUTO 261</td>
<td>INTERNSHIP II</td>
<td>4</td>
</tr>
<tr>
<td>AUTO 262</td>
<td>ENGINE MECHANICAL</td>
<td>7</td>
</tr>
<tr>
<td>AUTO 263</td>
<td>MANUAL TRANSMISSION</td>
<td>7</td>
</tr>
<tr>
<td>AUTO 264</td>
<td>AUTOMATIC TRANSMISSIONS</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Total Credits/Units</td>
<td>104</td>
</tr>
</tbody>
</table>

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Use a 6-step process to verify customer vehicle concern, determine related symptoms, analyze symptoms, isolate cause of concern, correct the concern, and verify proper vehicle operation.
- Represent sponsoring dealers by being competent, highly trained, and ethical dealership technicians.
- Achieve, maintain, and advance in the ASE technician certification process.
- Work as an effective team member in a dealership environment.
BIOENGINEERING AND CHEMICAL ENGINEERING

The following is a degree program designed by a consortium of two-year and four-year colleges in Washington. Students should be aware that baccalaureate institutions may have slightly different requirements for these degrees, and students should consult the transfer institution for exact questions.

Students should complete the entirety of any science sequence at the same school for best transferability. These degrees are not DTA degrees, and there are some general education requirements that students will need to finish upon transfer.

Though this degree does not require such, Clark College students should know that the standard Clark AST degree path has this difference from the Major Related Program (MRP) defined below:

- Clark requires 3 credits of Health-Physical Education coursework.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students completing this Associate of Science will receive the same priority consideration for admission to the baccalaureate institution as they would for completing the direct transfer associate degree and will be given junior status by the receiving institution.

It is critical that you work with an Engineering faculty advisor to ensure your program will give you the maximum benefit when you transfer.

- Bioengineering and Chemical Engineering (AST2) (p. 30)

Bioengineering and Chemical Engineering (AST2)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

Clark College Equivalents

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communication Skills</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH151</td>
<td>CALCULUS I</td>
<td>5</td>
</tr>
<tr>
<td>MATH152</td>
<td>CALCULUS II</td>
<td>5</td>
</tr>
<tr>
<td>MATH153</td>
<td>CALCULUS III</td>
<td>5</td>
</tr>
<tr>
<td>MATH 221</td>
<td>DIFFERENTIAL EQUATIONS</td>
<td>5</td>
</tr>
<tr>
<td><strong>Physics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete the following Physics sequences with the required concurrent enrollment:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sequence One</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS241</td>
<td>ENGINEERING PHYSICS I</td>
<td>4</td>
</tr>
</tbody>
</table>

Chemistry with Lab

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM141</td>
<td>GENERAL CHEMISTRY I</td>
<td>5</td>
</tr>
<tr>
<td>&amp; CHEM151</td>
<td>and GENERAL CHEMISTRY LABORATORY I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM142</td>
<td>GENERAL CHEMISTRY II</td>
<td>5</td>
</tr>
<tr>
<td>&amp; CHEM152</td>
<td>and GENERAL CHEMISTRY LABORATORY II</td>
<td>5</td>
</tr>
<tr>
<td>CHEM143</td>
<td>GENERAL CHEMISTRY III</td>
<td>6</td>
</tr>
<tr>
<td>&amp; CHEM153</td>
<td>and GENERAL CHEMISTRY LABORATORY III</td>
<td>5</td>
</tr>
<tr>
<td>CHEM241</td>
<td>ORGANIC CHEMISTRY I</td>
<td>5</td>
</tr>
<tr>
<td>&amp; CHEM251</td>
<td>and ORGANIC CHEMISTRY LABORATORY I</td>
<td>5</td>
</tr>
<tr>
<td>Select one from the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM242</td>
<td>ORGANIC CHEMISTRY II</td>
<td>5</td>
</tr>
<tr>
<td>&amp; CHEM252</td>
<td>and ORGANIC CHEMISTRY LABORATORY II</td>
<td>5</td>
</tr>
<tr>
<td>BIOL221</td>
<td>MAJORS ECOLOGY/EVOLUTION</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits/Units 95


1. Required at Clark: MATH254 (Five credits/units) – Calculus IV. Other electives as advised dependent on transfer institution.
2. MATH 103 and MATH 111 are required prerequisites for MATH151 that may be needed if calculus placement is not met via COMPASS.
3. Clark requires concurrent enrollment of completion in MATH254 when taking MATH 221.
4. Requires concurrent enrollment in PHYS 094.
5. Requires concurrent enrollment in PHYS 095.
6. Requires concurrent enrollment in PHYS 096.

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
• Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
• Analyze patterns of power, privilege, and inequity in the United States. (GE)
• Analyze and solve multi-step problems using techniques through single-variable calculus.
• Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.
• Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
• Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.
• Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.
BIOLOGICAL SCIENCES

Biological sciences are the basic foundation for many professions. Upper-division requirements at the transfer institution will determine the area of specialization. Students should work with a faculty advisor to develop a specific program.

Professional Opportunities

Following completion of a Bachelor of Arts or Science Degree at a four-year institution of the student’s choice, several avenues of employment or advancement are open. A few of these are:

- Food Processing
- Commercial Fisheries
- Graduate School
- State and Federal Wildlife agencies
- Science teaching at elementary or secondary level
- Environmental Sciences
- Transfer into professional health programs (medical, dental, pharmacy, physical therapy or optometry)
- Veterinary/Animal Science

Clark’s Biological Sciences majors have had excellent success in finding placement in graduate programs, health science programs, and professional areas. Clark College offers the first two years of most Biological Sciences majors: Biology, Botany, Forestry, Genetics, Marine Biology, Microbiology, Wildlife, and Zoology. Special emphasis is placed on small class size, individual instruction, field experiences, and undergraduate research opportunities. There is good exchange between the support areas of Chemistry, Geology, and Physics to aid in developing relevant courses.

- Biological Sciences (AST1) (p. 32)
- Biology DTA/MRP (AA) (p. 33)

Biological Sciences (AST1)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

This is a suggested program for the first two years of major study in Biological Sciences. Lower-division course requirements will vary depending on the transfer institution. Contact an advisor at the transfer institution to determine required coursework as early as possible.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;151</td>
<td>CALCULUS I</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;152</td>
<td>CALCULUS II</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>

General Education Requirements

Communication Skills

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

Quantitative Skills

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH&amp;151</td>
<td>CALCULUS I</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;152</td>
<td>CALCULUS II</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>

Health & Physical Education

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

Humanities & Social Sciences

Select one from the following:

- CMST&220  PUBLIC SPEAKING
- CMST&230  SMALL GROUP COMMUNICATION
- CMST&210  INTERPERSONAL COMMUNICATION

Select 10 credits/units from the following:

- Humanities Course Options (p. 311)
- Social Sciences Course Options (p. 312)

Subtotal 5

Pre-Major Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL&amp;221</td>
<td>MAJORS ECOLOGY/EVOLUTION</td>
<td>5</td>
</tr>
<tr>
<td>BIOL&amp;222</td>
<td>MAJORS CELL/MOLECULAR</td>
<td>5</td>
</tr>
<tr>
<td>BIOL&amp;223</td>
<td>MAJORS ORGANISMS PHYS</td>
<td>5</td>
</tr>
<tr>
<td>CHEM&amp;141</td>
<td>GENERAL CHEMISTRY I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;142</td>
<td>GENERAL CHEMISTRY II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;143</td>
<td>GENERAL CHEMISTRY III</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;151</td>
<td>GENERAL CHEMISTRY LABORATORY I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM&amp;152</td>
<td>GENERAL CHEMISTRY LABORATORY II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM&amp;153</td>
<td>GENERAL CHEMISTRY LABORATORY III</td>
<td>2</td>
</tr>
</tbody>
</table>

Select one from the following:

- MATH&146  INTRODUCTION TO STATISTICS  | 5
- MATH&153  CALCULUS III                | 5
- PHYS&124  GENERAL PHYSICS LAB I       | 5
- PHYS&134  and GENERAL PHYSICS I      | 5
- PHYS&125  GENERAL PHYSICS LAB II      | 5
- PHYS&135  and GENERAL PHYSICS II     | 5
- PHYS&126  GENERAL PHYSICS LAB III     | 5
- PHYS&136  and GENERAL PHYSICS III    | 5

Science Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 101</td>
<td>ENVIRONMENTAL BIOLOGY</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 208</td>
<td>FIELD STUDIES IN BIOLOGY</td>
<td>1-10</td>
</tr>
<tr>
<td>or BIOL 224</td>
<td>FLOWERING PLANTS OF THE PACIFIC NORTHWEST</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 139</td>
<td>INTRODUCTION TO WILDLIFE</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 140</td>
<td>MAMMALS OF THE NORTHWEST</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 141</td>
<td>BIRDS OF THE PACIFIC NORTHWEST</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 143</td>
<td>INTRODUCTION TO FORESTRY</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 145</td>
<td>REPTILES &amp; AMPHIBIANS OF THE PACIFIC NW</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits/Units 90

1 Minimum of five (5) credits/units of coursework in both Humanities and Social Sciences with the additional five (5) credits/units from either Humanities or Social Sciences.

2 Check with chosen 4-year school.

Recommended Science and Composition Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM&amp;241</td>
<td>ORGANIC CHEMISTRY I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;242</td>
<td>ORGANIC CHEMISTRY II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;243</td>
<td>ORGANIC CHEMISTRY III</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;251</td>
<td>ORGANIC CHEMISTRY LABORATORY I</td>
<td>1</td>
</tr>
</tbody>
</table>
Program Outcomes
Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequality. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Acquire scientific information from appropriate sources to analyze issues, claims or situations.
- Apply scientific methodologies to develop and answer questions about the natural world.

Biology DTA/MRP (AA)
Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

This pathway is applicable to students planning to prepare for upper-division bachelor's degree majors in Biology. Many students transfer to baccalaureate institutions after completing the Associate Degree Direct Transfer Agreement (DTA); this pathway does not alter that agreement or the possibility that students may continue to follow this path. This Biology MRP streamlines and facilitates preparation for upper-division coursework in Biology across the state.

This document represents an agreement between the following baccalaureate institutions offering bachelor's degrees in Biology or a related field and the community and technical college system. Baccalaureate institutions party to this agreement include: Central Washington University; Eastern Washington University; The Evergreen State College; University of Washington Seattle; Washington State University Pullman; Western Washington University; Saint Martin's University; Seattle University; and Whitworth University.

Where the degree below allows for choice in courses, students are urged to contact potential transfer institutions to ensure that the courses chosen are best for the pathway.

Though this degree does not require such, Clark College students should know that the standard Clark AA degree path has these differences from the MRP defined below:

- Clark requires 3 credits of Health-Physical Education coursework, and
- As of Fall 2011, Clark requires a course in Oral Communication, and
- Clark's Social Science distribution requirement stipulates that students take courses from at least three different departments.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students are responsible for researching and preparing for specific major requirements of baccalaureate institutions as early as possible prior to transferring.

**Generic DTA Requirement**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Basic Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Communications Skills</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 311)</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td><strong>Quantitative/Symbolic Reasoning</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 311)</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>Distribution Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Humanities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 311)</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td><strong>Social Sciences</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 312)</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td><strong>Natural Sciences</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 312)</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td><strong>Total Credits/Units</strong></td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

1 Select Communication Skills (C) courses as identified and approved in the General AA DTA; may be individualized based on transfer intent.

2 Intermediate algebra proficiency is required.

3 Consistent with the requirements in all DTA degrees - no more than 10 credits/units per discipline area; 5 credits/units maximum in world languages or ASL. No more than 5 credits/units of performance/skills (HB) classes are allowed.

4 Select coursework from at least two (2) areas of discipline; no more than 10 credits/units per discipline area.

**MRP Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Basic Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>English Composition</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Check with chosen 4-year school.
Course Options (p. 311)  

**Mathematics or Statistics**
- Calculus I  

**Distribution Requirements**

**Humanities**
- Course Options (p. 311)  

**Social Sciences**
- Course Options (p. 312)  

**Chemistry/Biology**
- Select 30 term credits/units from the following:
  - General Chemistry Sequence
    - CHEM&141 GENERAL CHEMISTRY I
    - CHEM&142 GENERAL CHEMISTRY II
    - CHEM&143 GENERAL CHEMISTRY III
    - CHEM&151 GENERAL CHEMISTRY LABORATORY I
    - CHEM&152 GENERAL CHEMISTRY LABORATORY II
    - CHEM&153 GENERAL CHEMISTRY LABORATORY III
  - Biology Sequence
    - BIOL&221 MAJORS ECOLOGY/EVOLUTION
    - BIOL&222 MAJORS CELL/MOLECULAR
    - BIOL&223 MAJORS ORGANISMAL PHYS

**Electives**
- Select additional term credits/units (p. 313)  

Total Credits/Units  

Clark College Equivalents

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Basic Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communication Skills</td>
<td></td>
</tr>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp;102</td>
<td>ENGLISH COMPOSITION II</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Quantitative/Symbolic Reasoning Requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one from the following:</td>
<td>5-6</td>
</tr>
<tr>
<td>MATH&amp;151</td>
<td>CALCULUS I</td>
<td></td>
</tr>
<tr>
<td>MATH&amp;146</td>
<td>INTRODUCTION TO STATISTICS 1</td>
<td></td>
</tr>
<tr>
<td>MATH&amp;148</td>
<td>BUSINESS CALCULUS</td>
<td></td>
</tr>
<tr>
<td>MATH 140</td>
<td>CALCULUS FOR LIFE SCIENCES</td>
<td></td>
</tr>
</tbody>
</table>

**Distribution Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Humanities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 311)</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Social Sciences</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 312)</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Natural Sciences</td>
<td></td>
</tr>
<tr>
<td>BIOL&amp;221</td>
<td>MAJORS ECOLOGY/EVOLUTION</td>
<td>5</td>
</tr>
<tr>
<td>BIOL&amp;222</td>
<td>MAJORS CELL/MOLECULAR</td>
<td>5</td>
</tr>
<tr>
<td>BIOL&amp;223</td>
<td>MAJORS ORGANISMAL PHYS</td>
<td>5</td>
</tr>
<tr>
<td>CHEM&amp;141</td>
<td>GENERAL CHEMISTRY I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;142</td>
<td>GENERAL CHEMISTRY II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;143</td>
<td>GENERAL CHEMISTRY III</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;151</td>
<td>GENERAL CHEMISTRY LABORATORY I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM&amp;152</td>
<td>GENERAL CHEMISTRY LABORATORY II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM&amp;153</td>
<td>GENERAL CHEMISTRY LABORATORY III</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 14 additional term credits/units</td>
<td>14</td>
</tr>
</tbody>
</table>

Total Credits/Units 90

1. Check with transfer institution to see if MATH 147 will also be necessary.
2. Notes: Clark's chemistry sequence has 16 credits/units.

**Notes**

**Basic Requirements**

1. May be individualized based on baccalaureate college of choice.
2. Statistics (a course that includes descriptive and inferential statistics) may substitute for Calculus I at some institutions; students are encouraged to check with the transfer institution early in their decision process to confirm requirements.
3. Intermediate Algebra proficiency may be demonstrated by successful completion of a Calculus and/or Statistics course for which Intermediate Algebra is a prerequisite.

**Distribution Requirements**

1. In order to better prepare for successful transfer, students are encouraged to consult with the institution(s) to which they wish to transfer regarding the humanities courses that best support or may be required as prerequisites to their Biology curriculum.
2. In order to better prepare for successful transfer, students are encouraged to consult with the institution(s) to which they wish to transfer regarding the social science courses that best support or may be required as prerequisites to their Biology curriculum.
3. A full year sequence at a single college is the best preparation for the baccalaureate biology degree.

**Electives**

1. Electives allow students to include additional courses to prepare for the biology major based on college selection. Examples include a full year sequence of organic chemistry for majors; a full year sequence of physics for science majors; or further math at the pre-calculus level or above or statistics.

Students should check with the transfer institution prior to taking any further biology courses beyond the one-year sequence. Some colleges require all continuing biology courses be taken at the 300 level.
Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequality. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Acquire scientific information from appropriate sources to analyze issues, claims or situations.
- Apply scientific methodologies to develop and answer questions about the natural world.

* Check with transfer institution to see if MATH 147 will also be necessary
BUSINESS ADMINISTRATION

The Business Administration program teaches individuals how to maintain a competitive edge in business today through theory and practical applications. There is special emphasis on utilizing technology to solve problems and improve productivity, teamwork, interpersonal skills, and professional workforce behavior.

Whether owning, operating, and/or managing a small or large business, Clark’s Business Administration and technical education programs allow the student to specialize in a particular area of business. Graduates have found successful positions in accounting, sales and services, merchandising and management.

Students must complete all specifically listed courses in Major Area Requirements with a minimum grade of ‘C’ or better in order to successfully complete the program and earn the award.

Consult with a business academic advisor for recommended course, program planning.

• Business Administration (AAS) (p. 36)
• Business DTA/MRP (AA) (p. 37)

Business Administration (AAS)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

This program is designed for the student who wishes to complete a general, broad-based program. This degree requires a balanced core of business courses to introduce professional careers in business, with additional courses that can be structured to meet a student’s individual needs. This program enables a student to acquire skills for entry-level positions in both the profit and non-profit sectors.

Students must complete all specifically listed courses in Major Area Requirements with a minimum grade of “C” or better in order to successfully complete the program and earn the award.

Consult with a business academic advisor for recommended course, program planning.

Completion of Certificate of Proficiency in Marketing, Small Business Management, Accounting Clerk or Supervisory Management accounts for 56-60 of necessary credits.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Communication Skills</strong></td>
<td></td>
</tr>
<tr>
<td>CMST&amp;220</td>
<td>PUBLIC SPEAKING</td>
<td>5</td>
</tr>
<tr>
<td>or CMST&amp;230</td>
<td>SMALL GROUP COMMUNICATION</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Health &amp; Physical Education</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 322)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Natural Sciences</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 324)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td>3</td>
</tr>
</tbody>
</table>

**Course Options** (p. 323)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 029</td>
<td>BASIC ACCOUNTING PROCEDURES</td>
<td>3</td>
</tr>
<tr>
<td>BUS 036</td>
<td>ACCOUNTING APPLICATIONS</td>
<td>3</td>
</tr>
<tr>
<td>BUS 110</td>
<td>CUSTOMER SERVICE</td>
<td>3</td>
</tr>
<tr>
<td>BUS&amp; 201</td>
<td>BUSINESS LAW</td>
<td>5</td>
</tr>
<tr>
<td>BUS 211</td>
<td>BUSINESS COMMUNICATIONS</td>
<td>3</td>
</tr>
<tr>
<td>BUS 260</td>
<td>PRINCIPLES OF MARKETING</td>
<td>5</td>
</tr>
</tbody>
</table>

**Additional Major Area Electives**

Select a minimum of eight to nine additional credits/units from the following areas:

- Accounting (ACCT) (p. 122)
- Business Administration (BUS) (p. 143)
- Economics (ECON) (p. 181)
- Supervisory Management (MGMT) (p. 216)
- Computer Applications (BTEC) (p. 145)

Complete as many General Elective (GE) courses as needed to reach the total of 90 credits/units required by the degree

**Total Credits/Units** 90-94

1 Six credit/unit maximum.

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
• Demonstrate customer skills (internal and external) to establish a customer-centered business organization.
• Identify and demonstrate professional traits and behaviors that apply to job performance in real-world environments.
• Use micro- and macroeconomic concepts to analyze domestic and global business situations.
• Communicate effectively, using business terminology in written and verbal language.
• Analyze a target market and develop product, pricing, promotion, and distribution strategies to meet customers’ needs at a profit.

Business DTA/MRP (AA)

Students need to make early contact with their potential transfer institutions regarding the specific course choices in each area of the agreement where options are listed (Humanities, Social Science, and Business Law or Introduction to Law) and for electives. Students also need to check with their potential transfer institutions regarding the requirement for overall minimum GPA, a higher GPA in a selected subset of courses, or a specific minimum grade in one or more courses such as math or English.

Though this degree does not require such, Clark College students should know that the standard Clark AA degree path has these differences from the MRP defined below:

1. Clark requires 3 credits of Health-Physical Education coursework,
2. As of Fall 2011, Clark requires a course in Oral Communication, and
3. Clark’s Social Science distribution requirement stipulates that students take courses from at least three different departments.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students are responsible for researching and preparing for specific major requirements of baccalaureate institutions as early as possible prior to transferring.

Generic DTA Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Basic Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Communications Skills</strong></td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 311)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Quantitative/Symbolic Reasoning Requirement</strong></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 311)¹</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Distribution Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Humanities</strong></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 311)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Social Sciences</strong></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 312)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Natural Sciences</strong></td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 312)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Business Courses</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td></td>
</tr>
</tbody>
</table>

Elective courses (p. 313)

Total Credits/Units 45

¹ Intermediate algebra proficiency is required.

MRP Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Basic Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>English Composition</strong></td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 311)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Quantitative/Symbolic Reasoning Requirement</strong></td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 311)¹</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Distribution Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Humanities</strong></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 311)²</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Social Sciences</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Microeconomics</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Macroeconomics</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Additional social science - not economics (p. 312)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Natural Sciences</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Statistics ²</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 312)³</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Business Courses</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financial Accounting</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Financial Accounting II</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Managerial Accounting</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Business Law or Introduction to Law</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Electives</strong></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 313)</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits/Units 90

¹ Must include five credits/units of business calculus, calculus one or a higher level math that included calculus as a prerequisite. May include finite math or precalculus prerequisites for calculus or other courses to prepare for business calculus.

² Consistent with the requirements in all DTA degrees - no more than 10 credits/units per discipline area, five credits/units maximum in world languages or ASL. No more than five credits/units of performance/skills classes are allowed.

³ Physical, biological, and/or earth science, including at least one lab course

⁴ Business statistics preferred

⁵ Physical, biological, and/or earth science, including at least one lab course

Clark College Equivalents

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp;102</td>
<td>ENGLISH COMPOSITION II</td>
<td>5</td>
</tr>
</tbody>
</table>

1. Intermediate algebra proficiency is required.

2. Consistent with the requirements in all DTA degrees - no more than 10 credits/units per discipline area, five credits/units maximum in world languages or ASL. No more than five credits/units of performance/skills classes are allowed.

3. Physical, biological, and/or earth science, including at least one lab course

4. Business statistics preferred

5. Physical, biological, and/or earth science, including at least one lab course
or ENGL&235 TECHNICAL WRITING

Quantitative/Symbolic Reasoning

Course 1:
Select one from the following: 5
MATH&148 BUSINESS CALCULUS
MATH&151 CALCULUS I
MATH&152 CALCULUS II
MATH&153 CALCULUS III
MATH 215 LINEAR ALGEBRA
MATH 221 DIFFERENTIAL EQUATIONS
MATH&254 CALCULUS IV

Course 2:
MATH 102 COLLEGE TRIG WITH SUPPLEMENTAL INSTRUCTION 5
or MATH 103 COLLEGE TRIGONOMETRY
or MATH 104 FINITE MATH WITH SUPPLEMENTAL INSTRUCTION
or MATH 105 FINITE MATHEMATICS
MATH 110 COLLEGE ALGEBRA WITH SUPPLEMENTAL INSTRUCTION 5
or MATH 111 COLLEGE ALGEBRA

Select one from the following: 5
MATH&152 CALCULUS II
MATH&153 CALCULUS III
MATH 215 LINEAR ALGEBRA
MATH 221 DIFFERENTIAL EQUATIONS
MATH&254 CALCULUS IV

Distribution Requirements

Humanities
Select 15 term credits/units of Humanities (p. 311) 1 15

Social Sciences
ECON&201 MICRO ECONOMICS 5
ECON&202 MACRO ECONOMICS 5
Select a Social Science from outside Economics (p. 312) 5

Natural Sciences
BUS 203 DESCRIPTIVE STATISTICS 2 3
BUS 204 INFERENTIAL STATISTICS 2 3
Select Natural Science coursework, including one lab as defined by 9-10 Clark College (p. 312)

Major Requirements

Business Courses (for all schools except UW)
ACCT&201 PRINCIPLES OF ACCOUNTING I 5
ACCT&202 PRINCIPLES OF ACCOUNTING II 5
ACCT&203 PRINCIPLES OF ACCOUNTING III 5
BUS& 201 BUSINESS LAW 5

Electives
Elective Courses (p. 313) 5

Total Credits/Units 100-101

1 CMST&220 is strongly recommended.
2 Students can apply up to six credits/units in statistics coursework toward the natural sciences requirement.

Notes

Basic Requirements

Communication Skills
ENGL&102 is required at Eastern Washington University.

Distribution Requirements

Humanities
Students intending the international business major should consult their potential transfer institutions regarding the level of world language required for admission to the major. Five credits in world languages may apply to the Humanities requirement.

CMST&220 is specifically required for WSUV business transfer.

Natural Sciences
Students intending the manufacturing management major at WWU should consult WWU regarding the selection of natural science courses required for admission to the major.

Major Requirements

Business Courses
Universities with a lower division Business Law requirement: UW (all campuses), WSU (all campuses), EWU, CWU, WWU, Gonzaga, SMU, SPU, and Whitworth.

The following institutions do not require a lower division Business Law course and agree to accept the course taken as part of this degree as a lower division elective, but generally not as an equivalent to the course required at the upper division: Heritage, PLU, SU, and Walla Walla University.

International students who completed a business law course specific to their home country must take a business law course at a U.S. institution in order to demonstrate proficiency in in U.S. business law.

Electives

Elective Courses
Five institutions have requirements for admission to the major that go beyond those specified above. Students can meet these requirements by careful selection of the elective University Course Equivalent to:

- WSU (all campuses): Management Information Systems MIS 250
- Gonzaga: Management Information Systems BMIS 235
- PLU: Computer applications CSCE 120, either an equivalent course or skills test
- SPU: Spreadsheet BUS 1700, either an equivalent course or skills test
- WWW: Introduction to Business Computer Systems MIS 220 (for transfer students entering fall 2014)

Total Required Credits: 90 Minimum

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
• Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
• Analyze patterns of power, privilege, and inequity in the United States. (GE)
• Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
• Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
• Obtain, evaluate, and ethically use information. (GE)
• Evaluate claims about the natural world using scientific methodology. (GE)
• Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
• Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
• Demonstrate progress toward healthier behaviors. (GE)
• Apply communication theory to demonstrate effective oral communication skills. (GE)
BUSINESS/APPLIED MANAGEMENT

The Bachelor of Applied Science (BAS) in Applied Management is a two-year, 90-credit program that combines technical and academic courses. This degree is designed for professional and technical education (PTE) students, to qualify them for the program with a junior standing, after completing an associate degree. The BAS in Applied Management program combines 300-and 400-level general education and managerial courses, to prepare technically skilled students to enter their respective career fields with a bachelor’s degree, allowing them to obtain managerial-level positions or to start their own businesses.

Application Process & Preliminary Requirements

Preliminary requirements must be satisfied to qualify to apply prior to program entry. Clark College reserves the right to determine admissions status. Please note: completion of the preliminary requirements does not guarantee entrance into the Bachelor of Applied Science in Applied Management Program.

To meet preliminary program entrance requirements, candidates must:

• Complete an associate (AAS, AAT) degree (90 credits or higher) or higher from an accredited domestic college or university, or international equivalent, with a minimum cumulative GPA of 2.0.

• Complete the following preliminary courses with a 2.0 grade point average or above:

  1. Communication skills
     a. English Composition (ENGL&101), 100 college-level or higher
     b. Oral Communications (CMST&210, CMST&220, CMST&230)
  2. College-level Math (5 credits required)
     a. Introduction to Statistics (MATH&146) or equivalent math course(s)

• Submit official college transcripts from all previous colleges attended to the Credential Evaluations Office for complete transcript evaluation and continue to send updated transcripts quarterly, as additional courses are completed. If you earned your degree or all your credits from Clark College, you do not need to include a transcript.

• Apply to the program by completing the Clark College application packet for BAS in Applied Management. Submit the packet to the Clark College Enrollment Services in Gaiser Hall before the enrollment deadline, along with the non-refundable program application fee.

Upon completion of the preliminary requirements, all qualified applicants will be notified in writing of final acceptance into the program. The payment of a non-refundable deposit will reserve a position for the program’s next entry date. Students not selected for entry are welcome to reapply for the next cohort start date but are encouraged to seek advising before doing so. Students must formally comply with the published application and admission criteria for that year and cohort.

Selective criteria and current fee amounts are subject to change.

For complete, updated information, please visit the Applied Management (BAS) website (http://www.clark.edu/academics/programs/basam/).

• Bachelor of Applied Science in Applied Management (BAS) (p. 40)

Bachelor of Applied Science in Applied Management (BAS)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan requirements for complete course information.

All BASAM specifically listed courses must be completed with a grade of “C” or higher.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communication Skills</td>
<td></td>
</tr>
<tr>
<td>CMST 310</td>
<td>ORGANIZATIONAL COMMUNICATION</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>SOC 315</td>
<td>ORGANIZATIONAL BEHAVIOR</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>ECON 405</td>
<td>MANAGERIAL AND GLOBAL ECONOMICS</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>PHIL 420</td>
<td>ETHICS IN MANAGEMENT</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>ENVS 430</td>
<td>SUSTAINABILITY &amp; ENVIRONMENTAL PRACTICES</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Major Area Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BASAM301</td>
<td>FOUNDATIONS OF MANAGEMENT</td>
<td>5</td>
</tr>
<tr>
<td>BASAM305</td>
<td>SOCIAL MEDIA IN BUSINESS</td>
<td>5</td>
</tr>
<tr>
<td>BASAM320</td>
<td>BUSINESS RESEARCH APPLICATIONS</td>
<td>5</td>
</tr>
<tr>
<td>BASAM325</td>
<td>BUSINESS PRINCIPLES</td>
<td>5</td>
</tr>
<tr>
<td>BASAM330</td>
<td>ACCOUNTING PRINCIPLES FOR MANAGERS</td>
<td>5</td>
</tr>
<tr>
<td>BASAM335</td>
<td>LEGAL ISSUES IN MANAGEMENT</td>
<td>5</td>
</tr>
<tr>
<td>BASAM340</td>
<td>MARKETING FOR MANAGERS</td>
<td>5</td>
</tr>
<tr>
<td>BASAM400</td>
<td>HUMAN RESOURCE MANAGEMENT</td>
<td>5</td>
</tr>
<tr>
<td>BASAM410</td>
<td>PRINCIPLES OF PROJECT MANAGEMENT</td>
<td>5</td>
</tr>
<tr>
<td>BASAM415</td>
<td>FINANCIAL MANAGEMENT</td>
<td>5</td>
</tr>
<tr>
<td>BASAM425</td>
<td>OPERATIONS AND LOGISTICS</td>
<td>5</td>
</tr>
<tr>
<td>BASAM440</td>
<td>CAPSTONE: STRATEGIC MANAGEMENT &amp; POLICY</td>
<td>5</td>
</tr>
<tr>
<td>BASAM450</td>
<td>APPLIED MANAGEMENT INTERNSHIP</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>90</td>
</tr>
</tbody>
</table>

1 Please note that in addition to the 90 credits required in upper division courses a student must have completed 90 additional credits from an associate degree for a total of 180 credits.

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be
able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Describe the complexities that affect successful trading in domestic and global markets, utilizing information, data, and technologies to support effective decision making.
- Recognize and apply effective communication strategies, appropriate to organizational settings.
- Analyze and apply managerial functions, roles, styles, and effective strategies for stability and change, to be used in various managerial and leadership situations.
- Analyze legal issues for risk management and responsible oversight.
- Interpret financial models for business decision-making to support organizational goals.
- Evaluate and develop organizational structures and operating procedures to foster continuous improvement, innovation, and quality results.
- Balance theoretical and practical strategies and policies for a productive, quality, and motivated workforce, including managing diversity, ethics, and social responsibility.
- Develop and apply a marketing strategy, based on an integrated marketing plan, to produce and distribute products at optimum operational levels.
BUSINESS/SUPERVISORY MANAGEMENT

The supervisory manager has the important role of getting work completed by leading, managing, and motivating people. Clark College offers a comprehensive training program that leads to a Certificate of Achievement in Supervisory Management and provides a major base for the Associate in Applied Science degree. Courses deal with solutions to supervisory problems regularly encountered on the job. This program provides an opportunity for current and potential supervisors to increase and broaden their performance levels and to advance into more responsible positions.

Students must complete all specifically listed courses in Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Consult with a business academic advisor for recommended course, program planning.

- Supervisory Management (CP) (p. 42)
- Supervisory Management (AAS) (p. 42)

### Supervisory Management (CP)

The Supervisory Management Certificate presents concepts that help the student understand various management theories, management functions and their interrelationships, and the competitive strategies that a business needs to establish and maintain. The student will learn and apply the concepts of planning, organizing, leading, and controlling as well as other topics essential to the structure of this basic management certificate. Additionally, the student learns the essentials of human resource management, teamwork, consensus building, technology and information management, decision making, leading change, and the value of ethics and social responsibility.

Students must complete all specifically listed courses in Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Consult with a business academic advisor for recommended course, program planning.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTEC 106</td>
<td>APPLIED OFFICE ENGLISH</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td></td>
</tr>
<tr>
<td>BUS 102</td>
<td>BUSINESS MATH APPLICATIONS</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 148</td>
<td>BUSINESS PROFESSIONAL SELF DEVELOPMENT</td>
<td>3</td>
</tr>
<tr>
<td>BUS 028</td>
<td>BASIC ACCOUNTING PROCEDURES</td>
<td>3</td>
</tr>
<tr>
<td>BUS 029</td>
<td>BASIC ACCOUNTING PROCEDURES</td>
<td>3</td>
</tr>
<tr>
<td>BUS&amp;101</td>
<td>INTRODUCTION TO BUSINESS</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 100</td>
<td>KEYBOARDING</td>
<td>1-3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTEC 150</td>
<td>COMPUTER BUSINESS APPLICATIONS</td>
<td>5</td>
</tr>
<tr>
<td>ECON 101</td>
<td>INTRODUCTION TO ECONOMICS</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 101</td>
<td>PRINCIPLES OF MANAGEMENT</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 103</td>
<td>APPLIED MANAGEMENT SKILLS</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 110</td>
<td>CREATIVE PROBLEM SOLVING</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 128</td>
<td>HUMAN RESOURCES MANAGEMENT</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 199</td>
<td>COOPERATIVE WORK EXPERIENCE</td>
<td>1-5</td>
</tr>
</tbody>
</table>

### Additional Area Requirements

Select a minimum of nine credits/units from the Management courses.

Total Credits/Units 59

1 Minimum of five credits/units must be earned in Cooperative Work Experience.

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (http://www.clark.edu/academics/catalog/gainful-employment/545A/Gedt.html).

### Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Effectively manage people and resources to meet organizational and institutional goals.
- Understand and apply managerial techniques for decision making, problem solving, and managing change.
- Apply the understating of human resources issues and functions, identifying applicable laws.

### Supervisory Management (AAS)

The Supervisory Management Associate of Applied Science degree emphasizes the important role required of supervisory managers of getting work completed by leading, managing, and motivating people. This comprehensive training program includes courses that deal with solutions to supervisory problems regularly encountered on the job. Current and potential supervisors learn and apply the basic principles of business management to increase and broaden their on-the-job performance levels and to advance into more responsible career positions.

Students must complete all specifically listed courses in Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Consult with a business academic advisor for recommended course, program planning.
Completion of Certificate of Proficiency in Marketing, Small Business Management, Accounting Clerk or Supervisory Management accounts for 56-60 of necessary credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Communication Skills</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CMST&amp;220 PUBLIC SPEAKING</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>or CMST&amp;230 SMALL GROUP COMMUNICATION</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Health and Physical Education</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 322)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Humanities</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 323)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Natural Sciences</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 324)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Computational Skills</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfied in the CPs</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><strong>Human Relations</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfied in the CPs</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><strong>Social Science</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfied in the CPs</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><strong>Major Area Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BUS 029 BASIC ACCOUNTING PROCEDURES</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BUS&amp; 201 BUSINESS LAW</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>BUS 211 BUSINESS COMMUNICATIONS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or MGMT 107 SUPERVISORY COMMUNICATION I, WRITTEN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MGMT 103 APPLIED MANAGEMENT SKILLS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MGMT 126 PROJECT MANAGEMENT</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>MGMT 128 HUMAN RESOURCES MANAGEMENT</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MGMT 133 PRODUCTION AND OPERATIONS MANAGEMENT</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Additional Major Area Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete a minimum of five to six additional credits/units from the following areas:</td>
<td>5-6</td>
</tr>
<tr>
<td></td>
<td>Accounting (ACCT) (p. 122)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Business Administration (BUS) (p. 143)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Economics (ECON) (p. 181)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Supervisory Management (MGMT) (p. 216)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Computer Applications (BTEC) (p. 145)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits/Units</strong></td>
<td>91-98</td>
</tr>
</tbody>
</table>

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Design a comprehensive management project with given criteria, using software.
- Describe the U.S. legal system and the legal environment of business by outlining the basic principles of law that apply to business transactions.
- Apply the understanding of human resource issues and functions, identifying applicable laws.
- Communicate effectively using business terminology in written and verbal language.
- Effectively manage people and resources to meet organizational and institutional goals.
- Apply techniques to improve production and to decrease waste.
CHEMISTRY

Chemistry is the study of the properties of materials and the changes that materials undergo. One of the joys of learning chemistry is seeing how chemical principles operate in all aspects of daily life, from everyday activities like lighting a match to more far-reaching matters like the development of drugs to cure cancer or reduce environmental hazards.

People who have degrees in chemistry hold a variety of positions in industry, government, and academia. Those who work in the chemical industry find positions as laboratory chemists, carrying out experiments to develop new products (research and development), analyzing materials (quality control), or assisting customers in using products (sales and services). Analytical and control chemists usually have at least a bachelor’s degree. Those with more experience or training may work as managers or company directors. They may also embark in the medical fields or the environmental sciences.

Clark College’s Chemistry Department offers a multifaceted curriculum designed to meet a variety of needs — from those of students pursuing a health-related Applied Science Degree to requirements for earning an Associate in Science in Chemistry, Biology, Engineering, or Physics.

- Chemistry (AST1) (p. 44)

Chemistry (AST1)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

This is a suggested program for the first two years of major study in chemistry. Lower-division course requirements will vary depending on the transfer institution. Contact an advisor at the transfer institution to determine required coursework as early as possible. Courses in computer applications are recommended for all students. Additional courses are needed to satisfy graduation requirements for the Associate in Science.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollments</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communication Skills</td>
<td></td>
</tr>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Quantitative Skills</td>
<td></td>
</tr>
<tr>
<td>MATH&amp;151</td>
<td>CALCULUS I</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;152</td>
<td>CALCULUS II</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Health &amp; Physical Education</td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 311)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities &amp; Social Sciences</td>
<td></td>
</tr>
<tr>
<td>Select one from the following:</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>CMST&amp;210</td>
<td>INTERPERSONAL COMMUNICATION</td>
<td></td>
</tr>
<tr>
<td>CMST&amp;220</td>
<td>PUBLIC SPEAKING</td>
<td></td>
</tr>
<tr>
<td>CMST&amp;230</td>
<td>SMALL GROUP COMMUNICATION 1</td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 311)</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
• Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
• Apply communication theory to demonstrate effective oral communication skills. (GE)
• Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
• Apply scientific methodologies to develop and answer questions about the natural world.
• Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
• Analyze and solve multi-step problems using techniques through single-variable calculus.
• Acquire scientific information from appropriate sources to analyze issues, claims or situations.
COMPUTER SCIENCE

Computers are an integral part of most human activities and professions. Therefore, a wide variety of career opportunities are available to the computer science professionals who are commonly referred to as computer scientists.

Computer scientists are responsible for analyzing requirements, planning, developing high-level design, writing, and testing the program that delivers the expected results. Computer scientists may be involved with support and maintenance of the solutions.

Computer scientists are employed in all industries such as manufacturing, finance, service, retail, gaming, and others. Typically, computer scientists work with other professionals in order to develop solutions that meet business and customer requirements.

Computer science specialties include:

- Artificial intelligence
- Computer vision
- Database
- Graphics and animation
- Embedded systems
- Networking
- Operating Systems
- Program languages and compilers
- Robotics
- Computer Science (AST2) (p. 46)

Computer Science (AST2)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

This is a suggested program for the first two years of a four-year Computer Science program. These lower-division course requirements will vary depending on the math and English placement at Clark College, and on the requirements of the four-year institution to which you transfer. It is critical that you work with a Computer Science and Engineering faculty advisor to ensure your program will give you the maximum benefit when you transfer. Additional courses may be needed to satisfy graduation requirements for the Associate in Science degree (https://catalog.clark.edu/academic-plans/track-2-ast2/general/).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Communication Skills</strong></td>
<td></td>
</tr>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Quantitative Skills</strong></td>
<td></td>
</tr>
<tr>
<td>MATH&amp;151</td>
<td>CALCULUS I</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;152</td>
<td>CALCULUS II</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td></td>
<td><strong>Health &amp; Physical Education</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Pre-Major Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>MATH&amp;153</td>
<td>CALCULUS III</td>
<td>5</td>
</tr>
<tr>
<td>PHYS&amp;241</td>
<td>ENGINEERING PHYSICS I</td>
<td>5</td>
</tr>
<tr>
<td>PHYS&amp;242</td>
<td>ENGINEERING PHYSICS II</td>
<td>5</td>
</tr>
<tr>
<td>PHYS&amp;243</td>
<td>ENGINEERING PHYSICS III</td>
<td>5</td>
</tr>
<tr>
<td>ENGR&amp;204</td>
<td>ELECTRICAL CIRCUITS</td>
<td>5</td>
</tr>
<tr>
<td>ENGR 250</td>
<td>DIGITAL LOGIC DESIGN</td>
<td>5</td>
</tr>
<tr>
<td>ENGR 270</td>
<td>DIGITAL SYSTEMS AND MICROPROCESSORS</td>
<td>5</td>
</tr>
<tr>
<td>MATH 215</td>
<td>LINEAR ALGEBRA</td>
<td>5</td>
</tr>
<tr>
<td>Total Credit/Units</td>
<td></td>
<td><strong>90</strong></td>
</tr>
</tbody>
</table>

1. HA, HB, SS

Requirements vary by school and program. See an Engineering faculty advisor regarding proper selection.

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.
- Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.
- Demonstrate progress toward healthier behaviors. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.
- Analyze and solve multi-step problems using techniques through single-variable calculus.
• Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
• Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
• Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
• Analyze patterns of power, privilege, and inequity in the United States. (GE)
• Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
• Apply communication theory to demonstrate effective oral communication skills. (GE)
• Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
**COMPUTER TECHNOLOGY**

The Computer Technology (CTEC) department at Clark College offers training in a variety of foundational and content-specific topics relating to general computer literacy and fluency, computer operating systems interactions, programming, databases, web technology, and networking. Our course offerings serve a variety of missions: to enhance and expand an individual's skill set, to serve as a prerequisite or requirement for another area of study, or to be a component course in one of the programs offered by this department.

CTEC currently offers the Computer Support program with degree and certificate options to provide students with skills for employment as computer technicians, help desk workers and other technical support roles. The department also offers an AAT degree in Web Development, which focuses on preparing students for careers that feature web programming skills.

Student considering options in computer-related careers should meet with a program advisor to consider which CTEC courses or programs may benefit them in their training and career exploration. CTEC course offerings can help provide a foundational understanding and set of skills in computer technology that will help them make informed decisions on career choices in other Clark College computer-related programs offered by Networking Technology (NTEC), Digital Media Arts (DMA), and Business Technology as well as on transfer opportunities in Computer Science and Information Technology.

For CTEC degrees and certificates, students must complete all major area requirements with a minimum grade of 'C' or better in order to successfully complete the program and earn the award. Students should refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements for our program offerings.

- Information Technology Skills (CP) (p. 48)
- Web Development (CP) (p. 48)
- Computer Support (AAT) (p. 49)
- Web Development (AAT) (p. 50)

**Information Technology Skills (CP)**

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

The IT Skills Certificate is designed for those who wish to pursue a career as a computer support technician providing services and support for a company or organization. Support specialists install, configure and maintain hardware and software as well as diagnose, troubleshoot, and resolve computer-related problems. The Information Technology Skills Certificate of Proficiency (IT Skills CP) is a one year program where students gain knowledge and basic skills and customer service to support users of information technology.

Students interested in the Computer Support Specialist program should obtain advising before entering the program.

**Web Development (CP)**

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

The Web Design Certificate prepares students to create web graphics, integrate media, and design websites. The program provides a foundation of aesthetic and technical skills through the study of visual design concepts, multimedia technologies and web design practices. Essential skills are developed through practical hands-on experience, real client project work, a focus on professional skills and building a portfolio of work. Graduates can seek employment as a freelance web designer, production artist, web content designer, e-marketing assistant, or other web-related production and support roles within a business.
To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (http://www.clark.edu/academics/catalog/gainful-employment/524B/Gedt.html).

**Program Outcomes**

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Apply fine art theory and design purposeful projects relevant to audience needs.
- Use written, verbal and visual means to effectively present and communicate web design projects.
- Apply interpersonal business ethics in web design practice.
- Synthesize multiple media assets with appropriate interactions and functions.
- Generate original ideas and utilize processes toward solving visual communication problems.
- Implement tools and technology to realize visual ideas.
- Interact, collaborate and implement projects with peers, clients or others in various work environments.
- Effectively organize and manage web design projects.

**Computer Support (AAT)**

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

The Computer Support AAT expands on the skills one learns in our one year IT Skills Certificate of Proficiency. In addition to their skills in configuring, installing trouble shooting and supporting IT users, students in this program learn how to further interact and support networks with an emphasis on providing and maintaining network security. Students gain practical help desk experience and customer service skills as a part of their curricular studies.

Students interested in the Computer Support Specialist program should obtain advising before entering the program. Please see Degree Corrections Page (https://catalog.clark.edu/corrections/degrees-certificate-corrections/) for updated information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Term Two</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTEC 112</td>
<td>PROGRAMMING ESSENTIALS</td>
<td>5</td>
</tr>
<tr>
<td>or CTEC 121</td>
<td>INTRO TO PROGRAMMING &amp; PROBLEM SOLVING</td>
<td></td>
</tr>
<tr>
<td>CTEC 160</td>
<td>WORDPRESS I</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>or PTWR 135</td>
<td>INTRODUCTION TO APPLIED TECHNICAL WRITING</td>
<td></td>
</tr>
<tr>
<td>Term Three</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTEC 117</td>
<td>USER EXPERIENCE DESIGN</td>
<td>4</td>
</tr>
<tr>
<td>CTEC 270</td>
<td>WEB AND INTERFACE DESIGN I</td>
<td>4</td>
</tr>
<tr>
<td>DMA 101</td>
<td>PHOTOSHOP RASTER GRAPHICS</td>
<td>4</td>
</tr>
<tr>
<td>Term Four</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTEC 126</td>
<td>JAVA SCRIPT</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 166</td>
<td>WEB CONTENT AND SOCIAL MEDIA</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 271</td>
<td>WEB AND INTERFACE DESIGN II</td>
<td>4</td>
</tr>
<tr>
<td>Total Credits/Units</td>
<td></td>
<td>56</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>PTWR 135</td>
<td>INTRODUCTION TO APPLIED TECHNICAL WRITING</td>
<td></td>
</tr>
<tr>
<td>Term Three</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTEC 117</td>
<td>USER EXPERIENCE DESIGN</td>
<td>4</td>
</tr>
<tr>
<td>CTEC 270</td>
<td>WEB AND INTERFACE DESIGN I</td>
<td>4</td>
</tr>
<tr>
<td>DMA 101</td>
<td>PHOTOSHOP RASTER GRAPHICS</td>
<td>4</td>
</tr>
<tr>
<td>Term Four</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTEC 126</td>
<td>JAVA SCRIPT</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 166</td>
<td>WEB CONTENT AND SOCIAL MEDIA</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 271</td>
<td>WEB AND INTERFACE DESIGN II</td>
<td>4</td>
</tr>
<tr>
<td>Total Credits/Units</td>
<td></td>
<td>56</td>
</tr>
</tbody>
</table>

**General Education Requirements**

**Communication Skills**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTEC 117</td>
<td>USER EXPERIENCE DESIGN</td>
<td>4</td>
</tr>
<tr>
<td>CTEC 270</td>
<td>WEB AND INTERFACE DESIGN I</td>
<td>4</td>
</tr>
<tr>
<td>DMA 101</td>
<td>PHOTOSHOP RASTER GRAPHICS</td>
<td>4</td>
</tr>
<tr>
<td>Term Four</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTEC 126</td>
<td>JAVA SCRIPT</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 166</td>
<td>WEB CONTENT AND SOCIAL MEDIA</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 271</td>
<td>WEB AND INTERFACE DESIGN II</td>
<td>4</td>
</tr>
<tr>
<td>Total Credits/Units</td>
<td></td>
<td>56</td>
</tr>
</tbody>
</table>

**Computational Skills**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTEC 117</td>
<td>USER EXPERIENCE DESIGN</td>
<td>4</td>
</tr>
<tr>
<td>CTEC 270</td>
<td>WEB AND INTERFACE DESIGN I</td>
<td>4</td>
</tr>
<tr>
<td>DMA 101</td>
<td>PHOTOSHOP RASTER GRAPHICS</td>
<td>4</td>
</tr>
<tr>
<td>Term Four</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTEC 126</td>
<td>JAVA SCRIPT</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 166</td>
<td>WEB CONTENT AND SOCIAL MEDIA</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 271</td>
<td>WEB AND INTERFACE DESIGN II</td>
<td>4</td>
</tr>
<tr>
<td>Total Credits/Units</td>
<td></td>
<td>56</td>
</tr>
</tbody>
</table>

**Human Relations**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTEC 104</td>
<td>IT SUPPORT</td>
<td>3</td>
</tr>
<tr>
<td>COLL 101</td>
<td>COLLEGE ESSENTIALS: INTRODUCTION TO CLARK</td>
<td>2</td>
</tr>
<tr>
<td>or HDEV 200</td>
<td>PROFESSIONAL DEVELOPMENT</td>
<td></td>
</tr>
<tr>
<td>Major Area Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BTEC 149</td>
<td>COMPUTER APPLICATIONS ESSENTIALS</td>
<td>3</td>
</tr>
<tr>
<td>CTEC 106</td>
<td>INFORMATION TECHNOLOGY FUNDAMENTALS</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 115</td>
<td>INTERNET RESEARCH AND LIVING ONLINE</td>
<td>3</td>
</tr>
<tr>
<td>CTEC 111</td>
<td>POWERSHELL FUNDAMENTALS</td>
<td>3</td>
</tr>
<tr>
<td>CTEC 112</td>
<td>PROGRAMMING ESSENTIALS</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 130</td>
<td>MICROSOFT WINDOWS OS FUNDAMENTALS</td>
<td>3</td>
</tr>
<tr>
<td>CTEC 131</td>
<td>MICROSOFT NETWORKING FUNDAMENTALS</td>
<td>3</td>
</tr>
<tr>
<td>CTEC 133</td>
<td>MICROSOFT SECURITY FUNDAMENTALS</td>
<td>3</td>
</tr>
<tr>
<td>CTEC 134</td>
<td>MICROSOFT DATABASE ADMIN</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 200</td>
<td>HELP DESK TECHNICIAN I</td>
<td>3</td>
</tr>
<tr>
<td>CTEC 201</td>
<td>HELP DESK TECHNICIAN II</td>
<td>3</td>
</tr>
<tr>
<td>or CTEC 199</td>
<td>COOPERATIVE WORK EXPERIENCE</td>
<td></td>
</tr>
<tr>
<td>CTEC 205</td>
<td>INTRODUCTION TO MANAGED INFORMATION SYSTEMS</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 213</td>
<td>COMPTIA A+ FUNDAMENTALS</td>
<td>4</td>
</tr>
<tr>
<td>CTEC 214</td>
<td>COMPTIA A+ OPERATING SYSTEMS &amp; NETWORKING</td>
<td>4</td>
</tr>
<tr>
<td>CTEC 233</td>
<td>COMPTIA SECURITY+</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 235</td>
<td>COMPTIA CYBERSECURITY</td>
<td>5</td>
</tr>
<tr>
<td>NTEC 103</td>
<td>IP SUBNETTING</td>
<td>3</td>
</tr>
<tr>
<td>NTEC 132</td>
<td>WINDOWS MTA SERVER ADMINISTRATION FUNDAMENTALS</td>
<td>3</td>
</tr>
<tr>
<td>NTEC 142</td>
<td>CLOUD COMPUTING FUNDAMENTALS</td>
<td>3</td>
</tr>
</tbody>
</table>

Gainful Employment Program

Please see Degree Corrections Page (https://catalog.clark.edu/corrections/degrees-certificate-corrections/) for updated information.
**Web Development (AAT)**

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

The Web Development AAT degree provides students with a foundational and employable skill set in web programming and development technologies as well experience and skills in web design and media associated with the World Wide Web. Essential skills are developed through practical hands-on experience, real client project work, a focus on professional skills and building a portfolio of work.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTCS 110</td>
<td>PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 122</td>
<td>HTML FUNDAMENTALS</td>
<td>4</td>
</tr>
<tr>
<td>CTEC 165</td>
<td>BUSINESS WEB PRACTICES</td>
<td>4</td>
</tr>
<tr>
<td>COLL 101</td>
<td>COLLEGE ESSENTIALS: INTRODUCTION TO CLARK</td>
<td>2</td>
</tr>
<tr>
<td>CTEC 160</td>
<td>WORDPRESS I</td>
<td>5</td>
</tr>
<tr>
<td>PTWR 135</td>
<td>INTRODUCTION TO APPLIED TECHNICAL WRITING</td>
<td>5</td>
</tr>
<tr>
<td>or ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 112</td>
<td>PROGRAMMING ESSENTIALS</td>
<td>5</td>
</tr>
<tr>
<td>or CTEC 121</td>
<td>INTRO TO PROGRAMMING &amp; PROBLEM SOLVING</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 270</td>
<td>WEB AND INTERFACE DESIGN I</td>
<td>4</td>
</tr>
<tr>
<td>CTEC 117</td>
<td>USER EXPERIENCE DESIGN</td>
<td>4</td>
</tr>
<tr>
<td>DMA 101</td>
<td>PHOTOSHOP RASTER GRAPHICS</td>
<td>4</td>
</tr>
<tr>
<td>CTEC 271</td>
<td>WEB AND INTERFACE DESIGN II</td>
<td>4</td>
</tr>
<tr>
<td>CTEC 126</td>
<td>JAVASCRIPT</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 166</td>
<td>WEB CONTENT AND SOCIAL MEDIA</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 127</td>
<td>PHP WITH SQL I</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 134</td>
<td>MICROSOFT DATABASE ADMIN</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 145</td>
<td>WEB SERVER TECHNOLOGY</td>
<td>5</td>
</tr>
<tr>
<td>DMA 201</td>
<td>VIDEO AND SOUND PRODUCTION I</td>
<td>4</td>
</tr>
<tr>
<td>CTEC 227</td>
<td>PHP WITH SQL II</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 265</td>
<td>APPLIED WEB DEVELOPMENT</td>
<td>5</td>
</tr>
<tr>
<td>or CTEC 135</td>
<td>MICROSOFT SOFTWARE DEVELOPMENT WITH C#</td>
<td>5</td>
</tr>
<tr>
<td>CTEC 293</td>
<td>WEB SKILLS PORTFOLIO</td>
<td>3</td>
</tr>
<tr>
<td>HDEV 200</td>
<td>PROFESSIONAL DEVELOPMENT</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits/Units: 90

1. Fulfills Computational Requirements
2. Fulfills Communication Requirement
3. Fulfills HR Component

**Program Outcomes**

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Web Foundations: Write, organize and publish well written content and code to engage web communities for personal and professional research, marketing, and interaction.
- Web Media: Create original visual graphics, audio, and integrated media design for the web.
- Web Design: Develop interactive websites from concept to design to execution with that provide an effective user experience and meet client needs.
- Web Development: Plan and execute industry standard code, web scripting, and server strategies to capture, integrate and manage data.
- Professional Practices: Demonstrate professional skills and business ethics to communicate and collaborate in various work environments.
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
CULINARY ARTS

The culinary and hospitality industries are experiencing tremendous growth. Employers all over the nation are looking for people who have not only technical skills, but also the ability to manage effectively and solve problems creatively.

At the Tod and Maxine McClaskey Culinary Institute at Clark College, we are building on nearly 60 years of excellence in culinary education to offer newly updated programs that prepare you to meet the growing demand for culinary and hospitality professionals. Our programs emphasize mastery of the fundamentals as well as management and critical thinking skills to prepare you for a range of career opportunities.

Our faculty combine their real-world experience with teaching expertise to help you master the technical, organizational, and management skills you need to stand out to potential employers. In addition, your on-campus experience will help develop skills including teamwork, customer service, merchandising, efficiency, equipment and food safety, production scheduling, and more — all key skills to prepare you for a career in the region's dynamic food and hospitality industry.

Whether you aspire to work in a restaurant, bakery, industrial kitchen, catering service, or your own small business, the McClaskey Culinary Institute will assist in preparing you for a variety of career opportunities.

- Baking and Pastry Arts Fundamentals (CA) (p. 51)
- Professional Baking & Pastry Arts Management (AAT) (p. 51)
- Cuisine Fundamentals (CA) (p. 52)
- Cuisine Management (AAT) (p. 52)

Baking and Pastry Arts Fundamentals (CA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

This program is built on a competency model focused on developing the fundamental knowledge, skills and abilities to work in a bakery or pastry shop environment.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBAK 110</td>
<td>ARTISAN BREADS</td>
<td>9</td>
</tr>
<tr>
<td>PBAK 111</td>
<td>EARLY MORNING PRODUCT</td>
<td>5</td>
</tr>
<tr>
<td>PBAK 120</td>
<td>VIENNOISERIE</td>
<td>9</td>
</tr>
<tr>
<td>PBAK 121</td>
<td>COOKIES, BROWNIES, BARS AND QUICK BREADS</td>
<td>5</td>
</tr>
<tr>
<td>PBAK 130</td>
<td>CAKES, DESSERTS AND TORTES</td>
<td>9</td>
</tr>
<tr>
<td>PBAK 131</td>
<td>RETAIL OPERATIONS AND BARISTA</td>
<td>5</td>
</tr>
<tr>
<td>Total Credits/Units</td>
<td></td>
<td>42</td>
</tr>
</tbody>
</table>

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (http://www.clark.edu/academics/catalog/gainful-employment/847f/Gedt.html).

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply processes of baking, including concepts of ingredient cause and effect, in daily routine
- Accurately follow a formula, with notes, to completion
- Perform accurate mathematical operations appropriate to baking
- Operate commercial baking equipment and tools using standard safety and sanitation procedures
- Demonstrate accurate use of both digital and balance scales
- Demonstrate effective time management

Professional Baking & Pastry Arts Management (AAT)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

This program of study will delve deeply into the science of baking and then apply that theoretical knowledge in a hands-on production focused lab environment. During the course of their studies students will learn all aspects of artisan breads, laminated doughs, cakes, tortes, French pastries, and merchandising. While developing these key industry competencies students will simultaneously be developing work place skills such as team work, food costing, customer service, efficiency, speed and accuracy, equipment and food safety, and production scheduling.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTCS 110</td>
<td>PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>PTWR 135</td>
<td>INTRODUCTION TO APPLIED TECHNICAL WRITING</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>

General Education Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Relations</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Course Options (p. 322)</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

Major Area Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBAK 110</td>
<td>ARTISAN BREADS</td>
<td>9</td>
</tr>
<tr>
<td>PBAK 111</td>
<td>EARLY MORNING PRODUCT</td>
<td>5</td>
</tr>
<tr>
<td>PBAK 120</td>
<td>VIENNOISERIE</td>
<td>9</td>
</tr>
<tr>
<td>PBAK 121</td>
<td>COOKIES, BROWNIES, BARS AND QUICK BREADS</td>
<td>5</td>
</tr>
<tr>
<td>PBAK 130</td>
<td>CAKES, DESSERTS AND TORTES</td>
<td>9</td>
</tr>
<tr>
<td>PBAK 131</td>
<td>RETAIL OPERATIONS AND BARISTA</td>
<td>5</td>
</tr>
<tr>
<td>PBAK 200</td>
<td>APPLIED PROFESSIONAL DEVELOPMENT</td>
<td>9</td>
</tr>
<tr>
<td>PBAK 210</td>
<td>PRODUCTION BAKING</td>
<td>9</td>
</tr>
</tbody>
</table>
Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Apply processes of baking, including concepts of ingredient cause and effect, in a daily routine.
- Accurately follow a formula, with notes, to completion.
- Perform accurate mathematical operations appropriate to baking.
- Operate commercial baking equipment and tools using standard safety and sanitation procedures.
- Demonstrate accurate use of both digital and balance scales.
- Demonstrate effective time management.
- Demonstrate effective bakery management skills.

Cuisine Fundamentals (CA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

This program is designed to provide a solid foundation of necessary skills and practices for entry level employment.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBAK 211</td>
<td>CHOCOLATE LAB</td>
<td>5</td>
</tr>
<tr>
<td>PBAK 220</td>
<td>PASTRY CHEF/RESTAURANT BAKING</td>
<td>9</td>
</tr>
<tr>
<td>PBAK 221</td>
<td>RETAIL/MERCHANDISING, INVENTORY/ PURCHASING</td>
<td>5</td>
</tr>
<tr>
<td>PBAK 230</td>
<td>CAPSTONE PROJECT</td>
<td>6</td>
</tr>
<tr>
<td>PBAK 231</td>
<td>INDUSTRY INTERNSHIP</td>
<td>4</td>
</tr>
<tr>
<td>Total Credits/Units</td>
<td></td>
<td>104</td>
</tr>
</tbody>
</table>

Cuisine Management (AAT)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

This program prepares students for a wide variety of employment opportunities in the food service and hospitality industries. Some of these employment venues include restaurants, resorts, assisted living communities and hospital environments. This program is designed to provide a solid foundation of necessary skills and practices for entry level employment. The curriculum is delivered in a competency based format with a focus on skill development, production and customer service. In addition to skill development the curriculum also includes a focus on sustainable, organic, nutritional needs; specialty diets; and aspects of vegetarian and veganism.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUIS 110</td>
<td>CULINARY FUNDAMENTALS I</td>
<td>5</td>
</tr>
<tr>
<td>CUIS 111</td>
<td>PROFESSIONAL COOKING I</td>
<td>8</td>
</tr>
<tr>
<td>CUIS 120</td>
<td>CULINARY FUNDAMENTALS II</td>
<td>5</td>
</tr>
<tr>
<td>CUIS 121</td>
<td>PROFESSIONAL COOKING II</td>
<td>8</td>
</tr>
<tr>
<td>CUIS 130</td>
<td>CULINARY FUNDAMENTALS III</td>
<td>5</td>
</tr>
<tr>
<td>CUIS 131</td>
<td>PROFESSIONAL COOKING III</td>
<td>8</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>39</td>
</tr>
</tbody>
</table>

General Education Requirements

Communication Skills

PTWR 135 INTRODUCTION TO APPLIED TECHNICAL WRITING 5

Computational Skills

To learn more about this program’s employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (http://www.clark.edu/academics/catalog/gainful-employment/850D/Gedt.html).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTCS 110</td>
<td>PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>5</strong></td>
</tr>
<tr>
<td></td>
<td>Human Relations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 322)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>5</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Major Area Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>CUIS 110</td>
<td>CULINARY FUNDAMENTALS I</td>
<td>5</td>
</tr>
<tr>
<td>CUIS 111</td>
<td>PROFESSIONAL COOKING I</td>
<td>8</td>
</tr>
<tr>
<td>CUIS 120</td>
<td>CULINARY FUNDAMENTALS II</td>
<td>5</td>
</tr>
<tr>
<td>CUIS 121</td>
<td>PROFESSIONAL COOKING II</td>
<td>8</td>
</tr>
<tr>
<td>CUIS 130</td>
<td>CULINARY FUNDAMENTALS III</td>
<td>5</td>
</tr>
<tr>
<td>CUIS 131</td>
<td>PROFESSIONAL COOKING III</td>
<td>8</td>
</tr>
<tr>
<td>CUIS 200</td>
<td>APPLIED PROFESSIONAL DEVELOPMENT</td>
<td>9</td>
</tr>
<tr>
<td>CUIS 210</td>
<td>ADVANCED CULINARY FUNDAMENTALS</td>
<td>5</td>
</tr>
<tr>
<td>CUIS 211</td>
<td>ADVANCED CULINARY PRACTICES</td>
<td>8</td>
</tr>
<tr>
<td>CUIS 220</td>
<td>MANAGEMENT AND BANQUET THEORY</td>
<td>5</td>
</tr>
<tr>
<td>CUIS 221</td>
<td>MANAGEMENT PRACTICES</td>
<td>8</td>
</tr>
<tr>
<td>CUIS 230</td>
<td>CUISINE CAPSTONE</td>
<td>6</td>
</tr>
<tr>
<td>CUIS 231</td>
<td>INDUSTRY INTERNSHIP</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Specialized Short Courses</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select a minimum of six credits/units from the following:</td>
<td>6</td>
</tr>
<tr>
<td>CUIS 140</td>
<td>CLASSIC AND MODERN SOUPS AND SAUCES</td>
<td></td>
</tr>
<tr>
<td>CUIS 141</td>
<td>MEAT CUTTING AND FABRICATION</td>
<td></td>
</tr>
<tr>
<td>CUIS 142</td>
<td>WINE, BEER, SPIRITS AND FOOD PAIRINGS</td>
<td></td>
</tr>
<tr>
<td>CUIS 143</td>
<td>RESTAURANT BAKING</td>
<td></td>
</tr>
<tr>
<td>CUIS 144</td>
<td>BANQUET AND BUFFET PLANNING AND EXECUTION</td>
<td></td>
</tr>
<tr>
<td>CUIS 145</td>
<td>WINE APPRECIATION</td>
<td></td>
</tr>
<tr>
<td>CUIS 147</td>
<td>BARBEQUE BASICS</td>
<td></td>
</tr>
<tr>
<td>CUIS 148</td>
<td>ADVANCED GARDE MANGER</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits/Units</strong></td>
<td><strong>105</strong></td>
</tr>
</tbody>
</table>

**Program Outcomes**

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Apply the basics of classical, modern, and healthy cooking techniques.
- Identify and describe a variety of food ingredients and specifications with focus on sustainable, organic, nutritional needs; specialty diets; and aspects of vegetarian and veganism.
- Demonstrate proper kitchen sanitation, safety and professionalism in the workplace.
- Identify and demonstrate proper use of kitchen tools and equipment.
- Demonstrate basic measuring, conversion, food costing and yield management practices.
- Demonstrate cook to order practices with American and International cuisine.
- Apply teamwork, workplace ethics, customer service and communications in the workplace.
- Demonstrate effective management skills.
- Demonstrate professional cooking skills and skills in menu and recipe interpretation and conversion, proper cooking methods, plating and saucing principles to carry out complete dinner and/or banquet service.
- Demonstrate advanced storeroom inventory, management, purchasing and quality control.
DENTAL HYGIENE

A career as a dental hygienist offers a wide range of opportunities. Services provided by dental hygienists include patient assessment procedures, managing and treating periodontal conditions, providing pain management for patients, placing and finishing dental restorative materials, applying preventive materials to the teeth, teaching patients appropriate oral hygiene to maintain oral health, nutrition counseling, teeth whitening services, performing documentation and office management activities, developing and implementing community oral health programs, and more.

Graduates receive a Bachelor of Applied Science degree. Students who successfully complete the program qualify to take national, regional, and state board examinations for licensure and are prepared to enter clinical practice. The program includes all responsibilities allowed by Washington state law. Clinical experience takes place in the Clark College Firstenburg Dental Hygiene Education and Care Center under the supervision of licensed dentists and dental hygienists.

The Clark College Dental Hygiene program is accredited by the Commission on Dental Accreditation of the American Dental Association, a specialized accrediting body recognized by the Council on Postsecondary Accreditation and the United States Department of Education.

About the Program

For Financial Aid purposes, the Bachelor of Applied Science in Dental Hygiene is open enrollment which enables all students who wish to pursue this degree to complete the “Dental Hygiene Degree Requirements” (courses in the areas of English, Biological Sciences, Psychology, etc.). The “Dental Hygiene Degree Requirements” provide the foundation for the subsequent “Dental Hygiene Core” classes (classes with “DH” prefix). Due to clinical space limitations, although the program of study for the dental hygiene degree is open enrollment, there is a competitive application process for students to be able to begin the “Dental Hygiene Core” classes. The instructions in the Dental Hygiene Program Guide explain the Dental Hygiene Degree requirements and the competitive application process to be able to begin the Dental Hygiene Core classes.


Disability Statement for Health Occupations

In accordance with the Americans with Disabilities Act and the Rehabilitation Act of 1973, accommodations for students with disabilities will be considered at the student’s request. The student may need to provide documentation of disability to the Disability Support Services Office to support his/her accommodation requests. Documentation guidelines and procedures can be found at http://www.clark.edu/campus-life/student-support/disability_support/index.php (http://www.clark.edu/campus-life/student-support/disability_support/).

Once the student is qualified by DSS as having a disability, requested accommodations will be considered. Accommodations for the classroom, laboratory, or clinical setting will be evaluated according to reasonableness. Accommodations that compromise patient care, or that fundamentally alter the essential functions of the program or activity, are not considered to be reasonable.

- Dental Hygiene (BAS) (p. 54)

Dental Hygiene (BAS)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Preliminary Coursework Required for Acceptance ¹</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communication Skills</td>
<td></td>
</tr>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I ²</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp;102</td>
<td>ENGLISH COMPOSITION II</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Humanities</td>
<td></td>
</tr>
<tr>
<td>Select 10 credits/units from the following:</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>CMST&amp;210</td>
<td>INTERPERSONAL COMMUNICATION</td>
<td></td>
</tr>
<tr>
<td>or CMST&amp;22</td>
<td>PUBLIC SPEAKING</td>
<td></td>
</tr>
<tr>
<td>or CMST&amp;23</td>
<td>SMALL GROUP COMMUNICATION</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Natural Sciences ³</td>
<td></td>
</tr>
<tr>
<td>Select one from the following:</td>
<td>10-15</td>
<td></td>
</tr>
<tr>
<td>BIOL&amp;251</td>
<td>HUMAN A &amp; P I</td>
<td></td>
</tr>
<tr>
<td>BIOL&amp;252 &amp; HUMAN A &amp; P II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL&amp;252 &amp; HUMAN A &amp; P III</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL&amp;241 &amp; HUMAN ANATOMY AND PHYSIOLOGY I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL&amp;242 &amp; HUMAN ANATOMY AND PHYSIOLOGY II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL&amp;260</td>
<td>MICROBIOLOGY</td>
<td>5</td>
</tr>
<tr>
<td>CHEM&amp;121</td>
<td>INTO CHEMISTRY: PRE-HEALTH</td>
<td>5</td>
</tr>
<tr>
<td>CHEM&amp;131</td>
<td>INTO ORGANIC/BIOCHEM</td>
<td>5</td>
</tr>
<tr>
<td>NUTR&amp;101</td>
<td>NUTRITION</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Physical Education</td>
<td></td>
</tr>
<tr>
<td>Select one fitness/activity course (p. 311)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Junior Year</td>
<td></td>
</tr>
<tr>
<td>Fall Term</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DH 282</td>
<td>PHARMACOLOGY I</td>
<td>1</td>
</tr>
<tr>
<td>DH 283</td>
<td>CLINICAL DENTAL HYGIENE TECHNIQUES I</td>
<td>6</td>
</tr>
<tr>
<td>DH 284</td>
<td>ORAL MEDICINE</td>
<td>2</td>
</tr>
<tr>
<td>DH 285</td>
<td>PERIODONTICS I</td>
<td>3</td>
</tr>
<tr>
<td>DH 286</td>
<td>DENTAL ANATOMY</td>
<td>3</td>
</tr>
<tr>
<td>DH 292</td>
<td>INTRODUCTION TO DIGITAL MANAGEMENT SYSTEMS</td>
<td>1</td>
</tr>
<tr>
<td>Winter Term</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DH 303</td>
<td>HEAD AND NECK ANATOMY</td>
<td>3</td>
</tr>
<tr>
<td>DH 313</td>
<td>CLINICAL DENTAL HYGIENE TECHNIQUES II</td>
<td>6</td>
</tr>
<tr>
<td>DH 323</td>
<td>ORAL RADIOLOGY I</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>DH 353</td>
<td>ETHICS AND THE PROFESSION</td>
<td>1</td>
</tr>
<tr>
<td>DH 373</td>
<td>CARIOLOGY</td>
<td>2</td>
</tr>
<tr>
<td>DH 383</td>
<td>PHARMACOLOGY II</td>
<td>1</td>
</tr>
</tbody>
</table>

**Spring Term**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH 304</td>
<td>EDUCATIONAL THEORY AND APPLICATION</td>
<td>2</td>
</tr>
<tr>
<td>DH 314</td>
<td>CLINICAL DENTAL HYGIENE TECHNIQUES III</td>
<td>6</td>
</tr>
<tr>
<td>DH 324</td>
<td>ORAL RADIOLOGY II</td>
<td>1</td>
</tr>
<tr>
<td>DH 344</td>
<td>GENERAL AND ORAL PATHOLOGY</td>
<td>3</td>
</tr>
<tr>
<td>DH 364</td>
<td>LOCAL ANESTHESIA &amp; PAIN CONTROL</td>
<td>4</td>
</tr>
<tr>
<td>DH 384</td>
<td>PHARMACOLOGY III</td>
<td>1</td>
</tr>
</tbody>
</table>

**Senior Year**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH 301</td>
<td>INTRODUCTION TO DENTAL MATERIALS/ASSISTING</td>
<td>3</td>
</tr>
<tr>
<td>DH 321</td>
<td>CLINICAL DENTAL HYGIENE TECHNIQUES IV</td>
<td>4</td>
</tr>
<tr>
<td>DH 331</td>
<td>ORAL RADIOLOGY III</td>
<td>2</td>
</tr>
<tr>
<td>DH 431</td>
<td>RESTORATIVE DENTISTRY I</td>
<td>2</td>
</tr>
<tr>
<td>DH 451</td>
<td>SPECIAL NEEDS POPULATIONS I</td>
<td>1</td>
</tr>
<tr>
<td>DH 471</td>
<td>NITROUS OXIDE SEDATION</td>
<td>1</td>
</tr>
</tbody>
</table>

**Summer Term**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH 402</td>
<td>DENTAL PUBLIC HEALTH - RESEARCH METHODS I</td>
<td>2</td>
</tr>
<tr>
<td>DH 412</td>
<td>CLINICAL DENTAL HYGIENE TECHNIQUES V</td>
<td>9</td>
</tr>
<tr>
<td>DH 432</td>
<td>RESTORATIVE DENTISTRY II</td>
<td>5</td>
</tr>
<tr>
<td>DH 452</td>
<td>SPECIAL NEEDS POPULATIONS II</td>
<td>1</td>
</tr>
<tr>
<td>DH 472</td>
<td>PERIODONTICS II</td>
<td>2</td>
</tr>
</tbody>
</table>

**Fall Term**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH 403</td>
<td>DENTAL PUBLIC HEALTH - RESEARCH METHODS II</td>
<td>2</td>
</tr>
<tr>
<td>DH 413</td>
<td>CLINICAL DENTAL HYGIENE TECHNIQUES VI</td>
<td>9</td>
</tr>
<tr>
<td>DH 433</td>
<td>RESTORATIVE DENTISTRY III</td>
<td>4</td>
</tr>
<tr>
<td>DH 453</td>
<td>SPECIAL NEEDS POPULATIONS III</td>
<td>1</td>
</tr>
<tr>
<td>DH 473</td>
<td>PERIODONTICS III</td>
<td>2</td>
</tr>
</tbody>
</table>

**Winter Term**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH 404</td>
<td>DENTAL PUBLIC HEALTH - RESEARCH METHODS III</td>
<td>1</td>
</tr>
<tr>
<td>DH 414</td>
<td>CLINICAL DENTAL HYGIENE TECHNIQUES VII</td>
<td>9</td>
</tr>
<tr>
<td>DH 434</td>
<td>RESTORATIVE DENTISTRY IV</td>
<td>3</td>
</tr>
<tr>
<td>DH 484</td>
<td>CAPSTONE</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits/Units** 181-184

1. All preliminary courses must be completed with a 2.0 or above and obtain minimum applicable and science grade point averages (GPA) of 2.60
2. Must be completed by end of winter term of application year.
3. All science courses must be seven (7) years current upon program entry.

**Program Outcomes**

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Integrate the roles of clinician, educator, advocate, manager, and researcher to prevent oral diseases and promote health.
- Communicate effectively and professionally, using verbal, non-verbal, and written language with patients, colleagues, the public, diverse populations, and other healthcare providers.
- Analyze professional behaviors and make appropriate decisions guided by ADHA ethical principles and core values.
- Assess, diagnose, plan, implement, and evaluate the provision of optimal, evidence-based, and patient-centered dental hygiene care.
- Successfully complete all licensing exams.
- Demonstrate the skills necessary to stay current in the profession with a rigorous and robust emphasis on the study of current research.
DIESEL TECHNOLOGY

The diesel technician must be able to work on a great variety of equipment and their component parts. These include brake systems, drive trains, electrical and electronic circuits, hydraulic systems, and diesel engines. Diesel power is used in the transportation industry in light, medium, and heavy-duty trucks and in industrial applications such as heavy equipment, agriculture, marine propulsion, power generation, and locomotives.

Because of the widespread use of this type of power, diesel technicians can work in a shop or outdoors as a field service technician. This program is designed to prepare students for entry-level positions into the diesel technician trade. Diesel program instruction includes both classroom theory and extensive hands-on experience in the shop where the student encounters real day-to-day problems.

The diesel evening program includes courses for Caterpillar, Cummins, and Detroit engines; electronic controls; and industrial hydraulics for technicians who wish to further their knowledge and skills. Any course in the program can be made available to area employers and their employees.

Students must complete all Major Area Requirements and specifically listed courses with a minimum grade of 'C' or better in order to successfully complete the program and earn the award.

- Diesel Technician (CP) (p. 56)
- Diesel Technologies (AAS) (p. 56)
- Diesel Technologies (AAT) (p. 57)

Diesel Technician (CP)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communication Skills</td>
<td></td>
</tr>
<tr>
<td>PTWR 135</td>
<td>INTRODUCTION TO APPLIED TECHNICAL WRITING</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>(recommended)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Computational Skills</td>
<td></td>
</tr>
<tr>
<td>PTCS 110</td>
<td>PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>(recommended)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Human Relations</td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 322)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Major Area Requirements</td>
<td></td>
</tr>
<tr>
<td>DIES 111</td>
<td>DIESEL FUNDAMENTALS</td>
<td>5</td>
</tr>
<tr>
<td>DIES 112</td>
<td>DIESEL PROCEDURES</td>
<td>10</td>
</tr>
<tr>
<td>DIES 113</td>
<td>DIESEL ENGINES/FUEL SYSTEMS</td>
<td>5</td>
</tr>
<tr>
<td>DIES 114</td>
<td>DIESEL PROCEDURES</td>
<td>10</td>
</tr>
<tr>
<td>DIES 115</td>
<td>DRIVE TRAINS</td>
<td>5</td>
</tr>
<tr>
<td>DIES 116</td>
<td>DIESEL PROCEDURES</td>
<td>10</td>
</tr>
<tr>
<td>DIES 120</td>
<td>BASIC ELECTRICAL</td>
<td>3</td>
</tr>
<tr>
<td>DIES 121</td>
<td>ELECTRONIC ENGINE MANAGEMENT SYSTEMS</td>
<td>3</td>
</tr>
<tr>
<td>DIES 122</td>
<td>ELECTRONIC VEHICLE CONTROL SYSTEMS</td>
<td>3</td>
</tr>
<tr>
<td>DIES 211</td>
<td>ELECTRICAL/ELECTRONIC SYSTEMS</td>
<td>5</td>
</tr>
<tr>
<td>DIES 222</td>
<td>DIESEL PROCEDURES</td>
<td>6</td>
</tr>
<tr>
<td>DIES 223</td>
<td>HYDRAULIC SYSTEMS</td>
<td>5</td>
</tr>
<tr>
<td>DIES 224</td>
<td>DIESEL PROCEDURES</td>
<td>10</td>
</tr>
<tr>
<td>DIES 225</td>
<td>BRAKES, STEERING, AND SUSPENSION</td>
<td>5</td>
</tr>
<tr>
<td>DIES 226</td>
<td>DIESEL PROCEDURES</td>
<td>10</td>
</tr>
<tr>
<td>Total Credits/Units</td>
<td></td>
<td>108</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 110</td>
<td>CUSTOMER SERVICE</td>
<td>3</td>
</tr>
<tr>
<td>DIES 096</td>
<td>CUMMINS ENGINES</td>
<td>3</td>
</tr>
</tbody>
</table>

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Information page (http://www.clark.edu/academics/catalog/gainful-employment/775A/Getd.html).

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Troubleshoot engines, hydraulic systems, electrical systems, power train systems, brakes, steering, and suspension systems.
- Repair engines, hydraulic systems, electrical systems, power train systems, brakes, steering, and suspension systems.
- Comply with personal and environmental safety practices that relate to the diesel powered industry.
- Evaluate and use technical information from a variety of resources.

Diesel Technologies (AAS)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communication Skills</td>
<td></td>
</tr>
<tr>
<td>PTWR 135</td>
<td>INTRODUCTION TO APPLIED TECHNICAL WRITING</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>(recommended)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Computational Skills</td>
<td></td>
</tr>
<tr>
<td>PTCS 110</td>
<td>PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>(recommended)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Human Relations</td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 322)</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Major Area Requirements</td>
<td></td>
</tr>
<tr>
<td>DIES 111</td>
<td>DIESEL FUNDAMENTALS</td>
<td>5</td>
</tr>
<tr>
<td>DIES 112</td>
<td>DIESEL PROCEDURES</td>
<td>10</td>
</tr>
<tr>
<td>DIES 113</td>
<td>DIESEL ENGINES/FUEL SYSTEMS</td>
<td>5</td>
</tr>
<tr>
<td>DIES 114</td>
<td>DIESEL PROCEDURES</td>
<td>10</td>
</tr>
<tr>
<td>DIES 115</td>
<td>DRIVE TRAINS</td>
<td>5</td>
</tr>
<tr>
<td>DIES 116</td>
<td>DIESEL PROCEDURES</td>
<td>10</td>
</tr>
<tr>
<td>DIES 120</td>
<td>BASIC ELECTRICAL</td>
<td>3</td>
</tr>
<tr>
<td>DIES 121</td>
<td>ELECTRONIC ENGINE MANAGEMENT SYSTEMS</td>
<td>3</td>
</tr>
<tr>
<td>DIES 211</td>
<td>ELECTRICAL/ELECTRONIC SYSTEMS</td>
<td>5</td>
</tr>
<tr>
<td>DIES 222</td>
<td>DIESEL PROCEDURES</td>
<td>6</td>
</tr>
<tr>
<td>DIES 223</td>
<td>HYDRAULIC SYSTEMS</td>
<td>5</td>
</tr>
<tr>
<td>DIES 224</td>
<td>DIESEL PROCEDURES</td>
<td>10</td>
</tr>
<tr>
<td>DIES 225</td>
<td>BRAKES, STEERING, AND SUSPENSION</td>
<td>5</td>
</tr>
<tr>
<td>DIES 226</td>
<td>DIESEL PROCEDURES</td>
<td>10</td>
</tr>
<tr>
<td>Total Credits/Units</td>
<td></td>
<td>108</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 110</td>
<td>CUSTOMER SERVICE</td>
<td>3</td>
</tr>
<tr>
<td>DIES 096</td>
<td>CUMMINS ENGINES</td>
<td>3</td>
</tr>
</tbody>
</table>
Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Evaluate and use technical information from a variety of resources.
- Troubleshoot engines, hydraulic systems, electrical systems, power train systems, brakes, steering, and suspension systems.
- Repair engines, hydraulic systems, electrical systems, power train systems, brakes, steering, and suspension systems.
- Comply with personal and environmental safety practices that relate to the diesel powered industry.

Diesel Technologies (AAT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTCS 110</td>
<td>PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS</td>
<td>5</td>
</tr>
<tr>
<td>Human Relations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMST&amp;230</td>
<td>SMALL GROUP COMMUNICATION</td>
<td>5</td>
</tr>
<tr>
<td>or CMST&amp;210</td>
<td>INTERPERSONAL COMMUNICATION</td>
<td></td>
</tr>
<tr>
<td>Social Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 323)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 323)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 324)</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIES 111</td>
<td>DIESEL FUNDAMENTALS</td>
<td>5</td>
</tr>
<tr>
<td>DIES 112</td>
<td>DIESEL PROCEDURES</td>
<td>10</td>
</tr>
<tr>
<td>DIES 113</td>
<td>DIESEL ENGINES/FUEL SYSTEMS</td>
<td>5</td>
</tr>
<tr>
<td>DIES 114</td>
<td>DIESEL PROCEDURES</td>
<td>10</td>
</tr>
<tr>
<td>DIES 115</td>
<td>DRIVE TRAINS</td>
<td>5</td>
</tr>
<tr>
<td>DIES 116</td>
<td>DIESEL PROCEDURES</td>
<td>10</td>
</tr>
<tr>
<td>DIES 120</td>
<td>BASIC ELECTRICAL</td>
<td>3</td>
</tr>
<tr>
<td>DIES 121</td>
<td>ELECTRONIC ENGINE MANAGEMENT SYSTEMS</td>
<td>3</td>
</tr>
<tr>
<td>DIES 122</td>
<td>ELECTRONIC VEHICLE CONTROL SYSTEMS</td>
<td>3</td>
</tr>
<tr>
<td>DIES 221</td>
<td>ELECTRICAL/ELECTRONIC SYSTEMS</td>
<td>5</td>
</tr>
<tr>
<td>DIES 222</td>
<td>DIESEL PROCEDURES</td>
<td>6</td>
</tr>
<tr>
<td>DIES 223</td>
<td>HYDRAULIC SYSTEMS</td>
<td>5</td>
</tr>
<tr>
<td>DIES 224</td>
<td>DIESEL PROCEDURES</td>
<td>10</td>
</tr>
<tr>
<td>DIES 225</td>
<td>BRAKES, STEERING, AND SUSPENSION</td>
<td>5</td>
</tr>
<tr>
<td>DIES 226</td>
<td>DIESEL PROCEDURES</td>
<td>10</td>
</tr>
</tbody>
</table>

Total Credits/Units 123

1 ENGL 097 does not meet the Communication Skills General Education Requirement for the AAS degree.

Code   | Title                                              | Credits/Units |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PTWR 135</td>
<td>INTRODUCTION TO APPLIED TECHNICAL WRITING</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>PTCS 110</td>
<td>PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIES 111</td>
<td>DIESEL FUNDAMENTALS</td>
<td>5</td>
</tr>
<tr>
<td>DIES 112</td>
<td>DIESEL PROCEDURES</td>
<td>10</td>
</tr>
<tr>
<td>DIES 113</td>
<td>DIESEL ENGINES/FUEL SYSTEMS</td>
<td>5</td>
</tr>
<tr>
<td>DIES 114</td>
<td>DIESEL PROCEDURES</td>
<td>10</td>
</tr>
<tr>
<td>DIES 115</td>
<td>DRIVE TRAINS</td>
<td>5</td>
</tr>
<tr>
<td>DIES 116</td>
<td>DIESEL PROCEDURES</td>
<td>10</td>
</tr>
<tr>
<td>DIES 120</td>
<td>BASIC ELECTRICAL</td>
<td>3</td>
</tr>
<tr>
<td>DIES 121</td>
<td>ELECTRONIC ENGINE MANAGEMENT SYSTEMS</td>
<td>3</td>
</tr>
<tr>
<td>DIES 122</td>
<td>ELECTRONIC VEHICLE CONTROL SYSTEMS</td>
<td>3</td>
</tr>
<tr>
<td>DIES 221</td>
<td>ELECTRICAL/ELECTRONIC SYSTEMS</td>
<td>5</td>
</tr>
<tr>
<td>DIES 222</td>
<td>DIESEL PROCEDURES</td>
<td>6</td>
</tr>
<tr>
<td>DIES 223</td>
<td>HYDRAULIC SYSTEMS</td>
<td>5</td>
</tr>
<tr>
<td>DIES 224</td>
<td>DIESEL PROCEDURES</td>
<td>10</td>
</tr>
<tr>
<td>DIES 225</td>
<td>BRAKES, STEERING, AND SUSPENSION</td>
<td>5</td>
</tr>
<tr>
<td>DIES 226</td>
<td>DIESEL PROCEDURES</td>
<td>10</td>
</tr>
</tbody>
</table>

Total Credits/Units 110

Program outcomes are overarching skills that are emphasize...
Program Outcomes
Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
• Demonstrate interpersonal/human relations skills. (GE)
• Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
• Troubleshoot engines, hydraulic systems, electrical systems, power train systems, brakes, steering, and suspension systems.
• Repair engines, hydraulic systems, electrical systems, power train systems, brakes, steering, and suspension systems.
• Comply with personal and environmental safety practices that relate to the diesel powered Industry.
• Evaluate and use technical information from a variety of resources.
DIGITAL MEDIA ARTS

The Digital Media Arts AAT degree prepares students for professional practice in digital art and media design. Students create visual content and communications for delivery to various web, social and digital media platforms. Students will be skilled in designing digital art, motion graphics, basic animation, integrated multimedia, video/sound production, user experience, website and interface design.

Competency is developed through hands-on experience, real client project work, professional skills and building a portfolio of work. Graduates will be prepared to enter the job market as a freelance digital designer, production artist, digital media specialist, web designer, videographer, multimedia/motion designer, marketing assistant, or content/project coordinator.

- Digital Media Arts (AAT) (p. 59)

Digital Media Arts (AAT)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

The Web & Graphic Design AAT degree prepares students for professional practice in the field of visual communications. The program builds a first-year foundation of aesthetic and technical skills and progresses into advanced study of web and graphic design practices. Students learn to effectively communicate ideas and information in a variety of traditional, digital, print, web and other media formats. Essential skills are developed through practical hands-on experience, real client project work, a focus on professional skills and building a portfolio of work. Graduates can seek employment as freelance designers, production designers or coordinators, content managers or publishers, marketing communications specialists, or entry-level web or graphic designers.

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Effectively organize and manage web design projects.
- Use written, verbal and visual means to effectively present and communicate web design projects.
- Demonstrate work and business ethics in web design practice.
- Apply fine art theory and design purposeful projects relevant to audience needs.
- Synthesize multiple media assets with appropriate interactions and functions.
- Generate original ideas and utilize processes toward solving visual communication problems.
- Implement tools and technology to realize visual ideas.
- Interact, collaborate and implement projects with peers, clients or others in various work environments.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 101</td>
<td>2D ART AND DESIGN</td>
<td>5</td>
</tr>
<tr>
<td>ART 110</td>
<td>CREATIVITY AND CONCEPT</td>
<td>3</td>
</tr>
<tr>
<td>DMA 101</td>
<td>PHOTOSHOP RASTER GRAPHICS</td>
<td>4</td>
</tr>
<tr>
<td>DMA 102</td>
<td>ILLUSTRATOR VECTOR GRAPHICS</td>
<td>4</td>
</tr>
<tr>
<td>DMA 104</td>
<td>MOTION GRAPHICS AND ANIMATION I</td>
<td>4</td>
</tr>
<tr>
<td>DMA 204</td>
<td>MOTION GRAPHICS AND ANIMATION II</td>
<td>4</td>
</tr>
<tr>
<td>DMA 209</td>
<td>VIDEO AND SOUND PRODUCTION I</td>
<td>4</td>
</tr>
<tr>
<td>DMA 202</td>
<td>VIDEO AND SOUND PRODUCTION II</td>
<td>4</td>
</tr>
<tr>
<td>DMA 114</td>
<td>PROFESSIONAL PRACTICES AND PORTFOLIO I</td>
<td>4</td>
</tr>
<tr>
<td>DMA 214</td>
<td>PROFESSIONAL PRACTICES AND PORTFOLIO II</td>
<td>4</td>
</tr>
<tr>
<td>DMA 215</td>
<td>PROFESSIONAL STUDIO EXPERIENCE</td>
<td>4</td>
</tr>
<tr>
<td>or DMA 199</td>
<td>COOPERATIVE WORK EXPERIENCE 1</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Credits/Units 93

1 Four credits/units required.
EARLY CHILDHOOD EDUCATION

Work in programs for young children is a challenging, absorbing, and personally rewarding career. In Clark College’s Early Childhood Education program, students study child development and program organization, plan learning experiences for young children, and develop guidance skills in working with children.

The Early Childhood Education (ECE) department offers various certificates of achievement. As part of each certificate program, students are required to complete prescribed numbers of hours doing student teaching and/or observation in the Child and Family Studies program under the supervision of selected staff as well as in the community at large.

Programs are revised periodically to reflect changes in the specific career field. The following list of courses is an example of the coursework required for each program. Students planning to complete this program must meet with an advisor prior to registration for a current list of requirements.

Students must complete all Major Area Requirements and specifically listed courses with a minimum grade of ‘C’ or better in order to successfully complete the program and earn the award.

Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Students preparing to transfer should make an early decision and contact the four-year school to which they will transfer. The Early Childhood Education Advisors can help in planning a schedule based on the four-year school’s requirements.

Students must be able to pass a Criminal History screening to participate with the children in the ECE lab school. Participation in the ECE lab is a requirement for taking classes in ECE program. Students are also required to get a TB test or provide written proof that they have had one within the last year.

• State Initial Early Childhood Education Certificate (Statewide) (CC) (p. 60)
• Short State Early Childhood Education Certificate of Specialization-General (Statewide) (CC) (p. 60)
• Short State Certificate of Specialization-Infants and Toddlers (Statewide) (CC) (p. 61)
• Short State Certificate of Specialization-School Age Care (Statewide) (CC) (p. 61)
• Short State Certificate of Specialization-Family Child Care (Statewide) (CC) (p. 61)
• Short State Certificate of Specialization-Administration (statewide) (CC) (p. 61)
• State Early Childhood Education Certificate (Statewide) (CP) (p. 62)
• Early Childhood Education (AAS) (p. 62)
• Early Childhood Education (AAS-T) (p. 63)

State Initial Early Childhood Education Certificate (Statewide) (CC)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECED&amp;105</td>
<td>INTRODUCTION TO EARLY CHILDHOOD EDUCATION</td>
<td>5</td>
</tr>
<tr>
<td>ECED&amp;107</td>
<td>HEALTH/SAFETY/NUTRITION</td>
<td>5</td>
</tr>
<tr>
<td>ECED&amp;120</td>
<td>PRACTICUM-NURTURING REL</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Total Credits/Units</td>
<td>12</td>
</tr>
</tbody>
</table>

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Promoting Child Development and Learning: Students will apply developmental knowledge to create learning environments and meaningful activities.

Short State Early Childhood Education Certificate of Specialization-General (Statewide) (CC)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

*CC-State Short Early Childhood Education Certificate of Specialization-General (statewide)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECED&amp;105</td>
<td>INTRODUCTION TO EARLY CHILDHOOD EDUCATION</td>
<td>5</td>
</tr>
<tr>
<td>ECED&amp;107</td>
<td>HEALTH/SAFETY/NUTRITION</td>
<td>5</td>
</tr>
<tr>
<td>ECED&amp;120</td>
<td>PRACTICUM-NURTURING REL</td>
<td>2</td>
</tr>
<tr>
<td>EDUC&amp;115</td>
<td>CHILD DEVELOPMENT</td>
<td>5</td>
</tr>
<tr>
<td>EDUC&amp;130</td>
<td>GUIDING BEHAVIOR</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total Credits/Units</td>
<td>20</td>
</tr>
</tbody>
</table>
Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Promoting Child Development and Learning: Students will apply developmental knowledge to create learning environments and meaningful activities.

Short State Certificate of Specialization-Infants and Toddlers (Statewide) (CC)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECED&amp;105</td>
<td>INTRODUCTION TO EARLY CHILDHOOD EDUCATION</td>
<td>5</td>
</tr>
<tr>
<td>ECED&amp;107</td>
<td>HEALTH/SAFETY/NUTRITION</td>
<td>5</td>
</tr>
<tr>
<td>ECED&amp;120</td>
<td>PRACTICUM-NURTURING REL</td>
<td>2</td>
</tr>
<tr>
<td>EDUC&amp;115</td>
<td>CHILD DEVELOPMENT</td>
<td>5</td>
</tr>
<tr>
<td>ECED&amp;132</td>
<td>INFANTS/TODDLER CARE</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total Credits/Units</td>
<td>20</td>
</tr>
</tbody>
</table>

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Promoting Child Development and Learning: Students will apply developmental knowledge to create learning environments and meaningful activities.

Short State Certificate of Specialization-School Age Care (Statewide) (CC)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECED&amp;105</td>
<td>INTRODUCTION TO EARLY CHILDHOOD EDUCATION</td>
<td>5</td>
</tr>
<tr>
<td>ECED&amp;107</td>
<td>HEALTH/SAFETY/NUTRITION</td>
<td>5</td>
</tr>
<tr>
<td>ECED&amp;120</td>
<td>PRACTICUM-NURTURING REL</td>
<td>2</td>
</tr>
<tr>
<td>EDUC&amp;115</td>
<td>CHILD DEVELOPMENT</td>
<td>5</td>
</tr>
<tr>
<td>ECED&amp;134</td>
<td>FAMILY CARE MANAGEMENT</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total Credits/Units</td>
<td>20</td>
</tr>
</tbody>
</table>

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Promoting child development and learning: Students will apply developmental knowledge to create learning environments and meaningful activities.

Short State Certificate of Specialization-Family Child Care (Statewide) (CC)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECED&amp;105</td>
<td>INTRODUCTION TO EARLY CHILDHOOD EDUCATION</td>
<td>5</td>
</tr>
<tr>
<td>ECED&amp;107</td>
<td>HEALTH/SAFETY/NUTRITION</td>
<td>5</td>
</tr>
<tr>
<td>ECED&amp;120</td>
<td>PRACTICUM-NURTURING REL</td>
<td>2</td>
</tr>
<tr>
<td>EDUC&amp;115</td>
<td>CHILD DEVELOPMENT</td>
<td>5</td>
</tr>
<tr>
<td>ECED&amp;134</td>
<td>FAMILY CARE MANAGEMENT</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total Credits/Units</td>
<td>20</td>
</tr>
</tbody>
</table>

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Promoting child development and learning: Students will apply developmental knowledge to create learning environments and meaningful activities.

Short State Certificate of Specialization-Administration (statewide) (CC)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECED&amp;105</td>
<td>INTRODUCTION TO EARLY CHILDHOOD EDUCATION</td>
<td>5</td>
</tr>
<tr>
<td>ECED&amp;107</td>
<td>HEALTH/SAFETY/NUTRITION</td>
<td>5</td>
</tr>
</tbody>
</table>
State Early Childhood Education Certificate (Statewide) (CP)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECED&amp;105</td>
<td>INTRODUCTION TO EARLY CHILDHOOD EDUCATION</td>
<td>5</td>
</tr>
<tr>
<td>ECED&amp;107</td>
<td>HEALTH/SAFETY/NUTRITION</td>
<td>5</td>
</tr>
<tr>
<td>ECED&amp;120</td>
<td>PRACTICUM-NURTURELING REL</td>
<td>2</td>
</tr>
<tr>
<td>EDUC&amp;115</td>
<td>CHILD DEVELOPMENT</td>
<td>5</td>
</tr>
<tr>
<td>ECED&amp;139</td>
<td>ADMINISTRATION OF ECE</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits/Units</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Promoting Child Development and Learning: Students will apply developmental knowledge to create learning environments and meaningful activities.

State Early Childhood Education Certificate (Statewide) (CP)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Communication Skills</strong></td>
<td></td>
</tr>
<tr>
<td>ENGL 098</td>
<td>WRITING FUNDAMENTALS</td>
<td>3-5</td>
</tr>
<tr>
<td>ENGL 103</td>
<td>ADVANCED ENGLISH COMPOSITION</td>
<td></td>
</tr>
<tr>
<td>PTWR 135</td>
<td>INTRODUCTION TO APPLIED TECHNICAL WRITING</td>
<td></td>
</tr>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td></td>
</tr>
<tr>
<td>ENGL&amp;102</td>
<td>ENGLISH COMPOSITION II</td>
<td></td>
</tr>
<tr>
<td>ENGL&amp;235</td>
<td>TECHNICAL WRITING</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>3-5</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Computational Skills</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Course Options (p. 322)</strong></td>
<td><strong>5</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>5</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Human Relations</strong></td>
<td></td>
</tr>
<tr>
<td>EDUC&amp;150</td>
<td>CHILD, FAMILY, COMMUNITY</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>3</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Major Area Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>ECED&amp;105</td>
<td>INTRODUCTION TO EARLY CHILDHOOD EDUCATION</td>
<td></td>
</tr>
<tr>
<td>ECED&amp;107</td>
<td>HEALTH/SAFETY/NUTRITION</td>
<td></td>
</tr>
<tr>
<td>ECED&amp;120</td>
<td>PRACTICUM-NURTURELING REL</td>
<td></td>
</tr>
<tr>
<td>ECED&amp;160</td>
<td>CURRICULUM DEVELOPMENT</td>
<td></td>
</tr>
<tr>
<td>ECED&amp;170</td>
<td>LEARNING ENVIRONMENTS</td>
<td></td>
</tr>
<tr>
<td>ECED&amp;180</td>
<td>LANGUAGE AND LITERACY</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>ECED&amp;190</strong> OBSERVATION AND ASSESSMENT</td>
<td><strong>3</strong></td>
</tr>
<tr>
<td></td>
<td><strong>EDUC&amp;115</strong> CHILD DEVELOPMENT</td>
<td><strong>5</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Select one from the following:</strong></td>
<td><strong>3</strong></td>
</tr>
<tr>
<td></td>
<td><strong>EDUC&amp;130</strong> GUIDING BEHAVIOR</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>EDUC&amp;136</strong> SCHOOL AGE CARE</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>ECED&amp;132</strong> INFANTS/TODDLER CARE</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>ECED&amp;134</strong> FAMILY CARE MANAGEMENT</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>ECED&amp;139</strong> ADMINISTRATION OF ECE</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits/Units</strong></td>
<td><strong>45-47</strong></td>
</tr>
</tbody>
</table>

To learn more about this program’s employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (http://www.clark.edu/academics/catalog/gainful-employment/46EA/Gedt.html).

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
• Demonstrate interpersonal/human relations skills. (GE)
• Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
• Power, privilege and inequity: Students will analyze and evaluate their awareness of equity pedagogy and create strategies for implementing cultural competence in their work with children and their families.
• Promoting child development and learning: Students will apply developmental knowledge to create learning environments and meaningful activities.
• Teaching and learning: Students will apply developmentally appropriate practices when implementing meaningful curriculum in the classroom.

Early Childhood Education (AAS)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Communication Skills</strong></td>
<td></td>
</tr>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td><strong>5</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Course Options (p. 321)</strong></td>
<td><strong>1</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Health &amp; Physical Education</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Course Options (p. 322)</strong></td>
<td><strong>3</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Computational Skills</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Select one from the following:</strong></td>
<td><strong>5</strong></td>
</tr>
<tr>
<td></td>
<td><strong>MATH 092</strong> APPLIED ELEMENTARY ALGEBRA</td>
<td></td>
</tr>
</tbody>
</table>
The course of study in Early Childhood Education conforms to the following:

- Guidelines for preparation of early childhood professionals; Washington State Skill Standards; and
- Early childhood education professional competencies.

### Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Promoting Child Development and Learning: Students will apply developmental knowledge to create learning environments and meaningful activities.
- Building Family and Community Relationships: Students will recognize, support and partner with families and communities in learning environments and with meaningful activities.
- Observing, Documenting and Assessing to Support Young Children and Families: Students will apply the process of observation to diverse, and appropriate assessments of children.
- Teaching and Learning: Students will apply developmentally appropriate practices when implementing meaningful curriculum in the classroom.
- Becoming a Professional: Students will apply professional standards and frameworks in early learning classrooms.
- Power, Privilege and Inequity: Students will analyze and evaluate their awareness of equity pedagogy and create strategies for implementing cultural competence in their work with children and their families.

### Early Childhood Education (AAS-T)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

Students preparing to transfer should make an early decision and contact the Early Childhood Education coordinator can help in planning a schedule based on the four-year school to which they will transfer. The department has made transfer agreements with several colleges to date.

Students must be able to pass a Criminal History screening to participate with the children in the ECE lab school. Participation in the ECE lab is a requirement for taking classes in ECE program. Students are also required to get a TB test or provide written proof that they have had one within the last year.

### Code Title Credits/Units

#### Communication Skills

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp;102</td>
<td>ENGLISH COMPOSITION II</td>
<td>5</td>
</tr>
</tbody>
</table>

#### Quantitative Skills
MATH&107  MATH IN SOCIETY  5  Humanities  10  
CMST 216  INTERCULTURAL COMMUNICATION
Course Options (excluding CMST) (p. 311)

Social Sciences  10  
PSYC&200  LIFESPAN PSYCHOLOGY
Course Options (excluding PSYC) (p. 312)

Natural Sciences  
BIOL 164  HUMAN BIOLOGY  5  
& BIOL 165  and HUMAN BIOLOGY LAB  
PHSC 101  GENERAL PHYSICAL SCIENCE  5  

Major Area Requirements  
ECE 100  CHILD DEVELOPMENT: BIRTH TO SIX  3  
ECE 133  REFLECTIVE PRACTICES IN EARLY LEARNING  3  
ECE 199  COOPERATIVE WORK EXPERIENCE  3  
ECE 211  LEARNING EXPERIENCES FOR YOUNG CHILDREN II  3  
ECE 212  LEARNING EXP FOR YOUNG CHILDREN II LAB  3  
ECE 213  LEARNING EXPERIENCES FOR YOUNG CHILDREN III  3  
ECE 214  LEARNING EXP FOR YOUNG CHILDREN III LAB  3  
ECE 215  INTRODUCTION TO EARLY CHILDHOOD EDUCATION  2  
ECED&105  INTRODUCTION TO EARLY CHILDHOOD EDUCATION  5  
ECED&107  HEALTH/SAFETY/NUTRITION  5  
ECED&120  PRACTICUM-NURTURING REL  2  
EDUC&130  GUIDING BEHAVIOR  3  
EDUC&150  CHILD, FAMILY, COMMUNITY  3  
ECED&160  CURRICULUM DEVELOPMENT  5  
ECED&180  LANGUAGE AND LITERACY  3  
EDUC&203  EXCEPTIONAL CHILD  3  

Total Credits/Units  97

1 Note: Some general education requirements may be met by the specific requirements of the program.

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Demonstrate progress toward healthier behaviors. (GE)
• Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
• Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
• Promoting child development and learning: Students will apply developmental knowledge to create learning environments and meaningful activities.
• Building family and community relationships: Students will recognize, support and partner with families and communities in learning environments and with meaningful activities.
• Observing, documenting and assessing to support young children and families: Students will apply the process of observation to diverse, and appropriate assessments of children.
• Teaching and Learning: Students will apply developmentally appropriate practices when implementing meaningful curriculum in the classroom.
• Becoming a professional: Students will apply professional standards and frameworks in early learning classrooms.

• Power, privilege and inequity: Students will analyze and evaluate their awareness of equity pedagogy and create strategies for implementing cultural competence in their work with children and their families.
• Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
• Demonstrate interpersonal/human relations skills. (GE)
• Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
• Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
Teachers play a direct role in the life of almost every person and in the development of society as a whole. Shortages of trained educators are anticipated in the near future as many of those currently working in the profession reach retirement age.

Elementary teachers instruct students in basic concepts in several subjects, including mathematics, language arts, science, and social studies. They also introduce small children to formal learning in kindergarten.

Secondary teachers usually specialize in teaching one subject to high school students such as English, music, history, mathematics, languages, biology, chemistry, or others. Many secondary teachers spend at least some time teaching outside of their subject area. Duties may also include attending staff meetings, supervising extracurricular activities and meeting with parents.

A minimum of a bachelor’s degree plus teaching certification is required to teach in grades kindergarten through 12.

Prospective education students should consult with an education advisor to plan a course of study. At Clark College, students usually complete General Education Requirements within the Associate in Arts degree. A specific course of study should be planned based on the requirements of the senior institution where the student will transfer.

- Elementary Education - Transfer to WSU Vancouver (AA) (p. 65)

### Elementary Education - Transfer to WSU Vancouver (AA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

This pathway is applicable to students planning to prepare for an upper-division elementary education major. This degree is defined specifically for transfer to the WSUV cohort program in elementary education.

Students taking this degree should note that a change in transfer institution might change requirements, and advisors at the transfer institution should be consulted. Students are encouraged to visit the WSUV Elementary Education program website for more comprehensive information related to the program admissions requirements, application deadlines and alternative coursework options.

Although not required for this degree, students should be advised they must take the WEST-B in order to apply to teacher preparation programs. Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Complete as Many General Electives (GE) courses as needed to reach the total 90 credits required by the degree.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp;102</td>
<td>ENGLISH COMPOSITION II</td>
<td>5</td>
</tr>
<tr>
<td>MATH 122</td>
<td>MATH FOR ELEMENTARY TEACHERS</td>
<td>5</td>
</tr>
<tr>
<td>MATH 123</td>
<td>MATH FOR ELEMENTARY TEACHERS</td>
<td>5</td>
</tr>
<tr>
<td>MATH 124</td>
<td>MATH FOR ELEMENTARY TEACHERS</td>
<td>5</td>
</tr>
<tr>
<td>MATH 110</td>
<td>COLLEGE ALGEBRA WITH SUPPLEMENTAL INSTRUCTION</td>
<td>5</td>
</tr>
<tr>
<td>MATH 111</td>
<td>COLLEGE ALGEBRA</td>
<td>5</td>
</tr>
</tbody>
</table>

Complete as Many General Electives (GE) courses as needed to reach the total 90 credits required by the degree.

Total Credits/Units: 90
Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
• Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
• Evaluate claims about the natural world using scientific methodology. (GE)
• Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
• Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
• Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
• Demonstrate progress toward healthier behaviors. (GE)
• Obtain, evaluate, and ethically use information. (GE)
• Analyze patterns of power, privilege, and inequity in the United States. (GE)
• Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
• Apply communication theory to demonstrate effective oral communication skills. (GE)
ELECTRICAL AND COMPUTER ENGINEERING

Electrical & Computer Engineers design, develop and analyze computer, electrical and electronic systems. These engineers work within multi-disciplinary teams and are employed in all industries. Their projects include power generation and distribution, communications systems, robotics, nano- and micro-electrical machinery, Biosystems, semiconductors, automation and robotics, networking, embedded systems and general computer system.

It is critical that you work with an Engineering faculty advisor to ensure your program will give you the maximum benefit when you transfer.

- Electrical and Computer Engineering (AST2) (p. 67)

Electrical and Computer Engineering (AST2)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

The following is a degree program designed by a consortium of two-year and four-year colleges in Washington. Students should be aware that baccalaureate institutions may have slightly different requirements for these degrees, and students should consult the transfer institution for exact questions.

Students should complete the entirety of any science sequence at the same school for best transferability. These degrees are not DTA degrees, and there are some general education requirements that students will need to finish upon transfer.

Students should also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students completing this Associate of Science will receive the same priority consideration for admission to the baccalaureate institution as they would for completing the direct transfer associate degree and will be given junior status by the receiving institution.

Generic Requirements

Courses taken must come from the current ICRC distribution list in order to count as General Education or General University Requirements (GER's/GUR's) at the receiving institution. Additional general educational requirements, cultural diversity requirements, and foreign language requirements, as required by the receiving institution, must be met prior to the completion of a baccalaureate degree.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>Mathematics 1</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>MATH&amp;151</td>
<td>CALCULUS I</td>
<td></td>
</tr>
<tr>
<td>MATH&amp;152</td>
<td>CALCULUS II</td>
<td></td>
</tr>
<tr>
<td>MATH&amp;153</td>
<td>CALCULUS III</td>
<td></td>
</tr>
<tr>
<td>MATH 215</td>
<td>LINEAR ALGEBRA</td>
<td></td>
</tr>
<tr>
<td>MATH 221</td>
<td>DIFFERENTIAL EQUATIONS 2</td>
<td></td>
</tr>
<tr>
<td>Physics 3</td>
<td></td>
<td>15-18</td>
</tr>
<tr>
<td>PHYS&amp;241</td>
<td>ENGINEERING PHYSICS I</td>
<td></td>
</tr>
<tr>
<td>&amp; PHYS&amp;231</td>
<td>and ENGINEERING PHYSICS LAB I</td>
<td></td>
</tr>
<tr>
<td>&amp; PHYS 094</td>
<td>and PHYSICS CALCULATIONS</td>
<td></td>
</tr>
<tr>
<td>PHYS&amp;242</td>
<td>ENGINEERING PHYSICS II</td>
<td></td>
</tr>
<tr>
<td>&amp; PHYS&amp;232</td>
<td>and ENGINEERING PHYSICS LAB II</td>
<td></td>
</tr>
<tr>
<td>&amp; PHYS 095</td>
<td>and PHYSICS CALCULATIONS</td>
<td></td>
</tr>
<tr>
<td>PHYS&amp;243</td>
<td>ENGINEERING PHYSICS III</td>
<td></td>
</tr>
<tr>
<td>&amp; PHYS&amp;233</td>
<td>and ENGINEERING PHYSICS LAB III</td>
<td></td>
</tr>
<tr>
<td>&amp; PHYS 096</td>
<td>and PHYSICS CALCULATIONS</td>
<td></td>
</tr>
<tr>
<td>Chemistry with Lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;141</td>
<td>GENERAL CHEMISTRY I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;151</td>
<td>GENERAL CHEMISTRY LABORATORY I</td>
<td>1</td>
</tr>
<tr>
<td>Required Major Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGR&amp;204</td>
<td>ELECTRICAL CIRCUITS</td>
<td>5</td>
</tr>
<tr>
<td>CSE 121</td>
<td>INTRODUCTION TO C</td>
<td>5</td>
</tr>
<tr>
<td>Distribution Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Course Options (p. 311)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Sciences</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>ECON&amp;201</td>
<td>MICRO ECONOMICS 4</td>
<td></td>
</tr>
<tr>
<td>or ECON&amp;202</td>
<td>MACRO ECONOMICS</td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 312)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional Credits in either Humanities or Social Sciences</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>PHIL&amp;120</td>
<td>SYMBOLIC LOGIC (recommended)</td>
<td></td>
</tr>
<tr>
<td>Select five (5) electives as appropriate for intended major and intended baccalaureate institution:</td>
<td></td>
<td>20-25</td>
</tr>
<tr>
<td>A second course in Computer Programming - object oriented - 4-5 credits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation in Design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculus IV (Advanced or Multi-variable Calculus)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical Writing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dynamics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thermodynamics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital Logic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biology for Science Majors I + labs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Chemistry II + lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied Numerical Methods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Microprocessors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Credits/Units</td>
<td></td>
<td>95-103</td>
</tr>
</tbody>
</table>
Two courses at or above introductory calculus level. Third-term calculus or approved statistics course: 5 term credits/units chosen with the help of an Engineering faculty advisor based on the requirements of the specific discipline at the baccalaureate institution the student plans to attend.

Clark requires concurrent enrollment or completion of MATH&254 with a grade of ‘C’ or better.

Calculus-based or non-calculus based sequence including laboratory. Students should be advised that some baccalaureate programs require physics with calculus.

Either ECON course is recommended, but not required

Program Outcomes
Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)

• Obtain, evaluate, and ethically use information. (GE)

• Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)

• Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)

• Analyze patterns of power, privilege, and inequity in the United States. (GE)

• Demonstrate progress toward healthier behaviors. (GE)

• Apply communication theory to demonstrate effective oral communication skills. (GE)

• Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)

• Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)

• Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)

• Analyze and solve multi-step problems using techniques through single-variable calculus.

• Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.

• Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.

• Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.

• Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.
EMERGENCY MEDICAL SERVICES

Emergency Medical Technician

Clark College offers a Certificate of Completion in Emergency Medical Technician-Basic (EMT). A variety of community agencies such as transporting ambulance companies, police and fire departments, and large industries utilize employees with EMT training. This program includes lecture, laboratory, and field experience on an ambulance and fire rescue unit as available.

EMT 103 is a ten-credit-hour Clark College course taught at the Northwest Regional Training Center (NWRTC). Check the Clark College website for directions to the training center. Students must bring the following items to the first night of class:

• Copy of current American Heart Association healthcare provider CPR card (or take HLT 124 Healthcare Provider CPR) within first week of class).
• HEOC 120 Aids Education (or proof of minimum 7-hour AIDS Education Certificate).
• Copy of valid driver’s license.
• Washington State Patrol criminal background check (within six [6] months of course date).
• MMR immunization (twice in lifetime or within last 10 years).
• Hepatitis B immunization (series of three) or signed waiver.
• Negative tuberculosis skin test or chest x-ray (within past six [6] months).
• Must be 18 years of age.
• Proof of high school completion (transcripts) or GED.

*Students are required to purchase the course textbook prior to the first class. The textbook can be purchased at the Clark College Bookstore

**Students are strongly encouraged to attend the mandatory EMT course orientation held at NWRTC.

Please call the NWRTC office at (360)397-2100 if you have any questions about the above requirements.

• Emergency Medical Technician (Accelerated) (CC) (p. 69)

Emergency Medical Technician (Accelerated) (CC)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

To earn the Certificate of Completion, students must complete the courses listed below with a grade point average (GPA) of 2.0 or above in each offering.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMT 103</td>
<td>EMERGENCY MEDICAL TECHNICIAN (ACCELERATED) (Accelerated)</td>
<td>12</td>
</tr>
<tr>
<td>Select one from the following:</td>
<td>4-5</td>
<td></td>
</tr>
<tr>
<td>HEOC 100</td>
<td>BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY ¹</td>
<td></td>
</tr>
<tr>
<td>BIOL 164 &amp; BIOL 165</td>
<td>HUMAN BIOLOGY and HUMAN BIOLOGY LAB ¹</td>
<td></td>
</tr>
<tr>
<td>Total Credits/Units</td>
<td>16-17</td>
<td></td>
</tr>
</tbody>
</table>

¹ HEOC 100 or BIOL 164 & BIOL 165, must be seven years current upon program entry.

Recommended Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMED 110</td>
<td>MEDICAL TERMINOLOGY I (strongly recommended)</td>
<td>3</td>
</tr>
<tr>
<td>BMED 111</td>
<td>MEDICAL TERMINOLOGY II (strongly recommended)</td>
<td>3</td>
</tr>
</tbody>
</table>

Affiliation

Students who are not affiliated with an appropriate agency have 18 months after completing the program to gain affiliation and take the Washington state exam. All Emergency Medical Technician-Basics wishing to work in Washington must obtain state certification.

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Administer first aid treatment or life support care to sick or injured persons in prehospital settings.
• Perform emergency assessment and treatment procedures, observing, recording, and reporting to the receiving facility, the patient’s condition or injury.
• Communicate effectively and professionally, using verbal, non-verbal, and written language with patients, colleagues, the public, diverse populations, and other healthcare providers.
• Model professional behaviors and make appropriate decisions guided by ethical principles and core values.
ENGINEERING

Engineering is a profession where you are challenged to develop creative solutions to problems related to every aspect of life, through the application of mathematical and scientific principles, experience, creativity, and common sense.

Clark College offers the first two years of study of a four-year engineering degree program. The first two years main focus of study are preparatory courses in mathematics, chemistry, physics, and basic engineering courses required by the student’s engineering field and transfer school.

Those who study engineering today can look forward to a rewarding career where they experience personal achievement, exercise their curiosity, give service to society, and realize financial success.

Engineers work on a wide variety of projects: basic and applied research, product development, design and modification of processes and equipment, and plant operation. Some enter sales, marketing, management, consulting, government agencies, or teaching.

Engineers plan, develop, and oversee the research and design of construction and manufacturing projects. They work on teams with engineers from other fields to design integrated systems and solve complex technical problems. Engineers also develop and use computer-aided design programs to simulate and test products and systems.

Engineers can specialize in many fields including:

• Aeronautical/Aerospace
• Bioengineering
• Biomedical
• Ceramic
• Chemical/Pulp & Paper
• Civil
• Computer
• Electrical/Electronics
• Environmental
• Forestry
• Manufacturing/Industrial
• Marine
• Materials
• Mechanical
• Software

There are many other interdisciplinary fields including architecture, law, sports, human factors and acoustics.

• Engineering (AST2) (p. 70)

Engineering (AST2)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

This is a suggested program for the first two years of a four-year Engineering program. These lower-division course requirements will vary depending on the math and English placement at Clark College, and the requirements of the four-year institution to which you transfer. It is critical that you work with an Engineering faculty advisor to ensure your program will give you the maximum benefit when you transfer. Additional courses may be needed to satisfy graduation requirements for the Associate in Science degree (https://catalog.clark.edu/academic-plans/track-2-ast2/general/).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;151</td>
<td>CALCULUS I</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;152</td>
<td>CALCULUS II</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>MATH&amp;211</td>
<td>DIFFERENTIAL EQUATIONS</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;254</td>
<td>CALCULUS IV</td>
<td>5</td>
</tr>
<tr>
<td>PHYS&amp;241</td>
<td>ENGINEERING PHYSICS I</td>
<td>5</td>
</tr>
<tr>
<td>&amp; PHYS&amp;231</td>
<td>and ENGINEERING PHYSICS LAB I</td>
<td></td>
</tr>
<tr>
<td>PHYS&amp;242</td>
<td>ENGINEERING PHYSICS II</td>
<td>5</td>
</tr>
<tr>
<td>&amp; PHYS&amp;232</td>
<td>and ENGINEERING PHYSICS LAB II</td>
<td></td>
</tr>
<tr>
<td>PHYS&amp;243</td>
<td>ENGINEERING PHYSICS III</td>
<td>5</td>
</tr>
<tr>
<td>&amp; PHYS&amp;233</td>
<td>and ENGINEERING PHYSICS LAB III</td>
<td></td>
</tr>
<tr>
<td>ENGR&amp;104</td>
<td>INTRODUCTION TO DESIGN</td>
<td></td>
</tr>
<tr>
<td>ENGR 101</td>
<td>ENGINEERING AND COMPUTER SCIENCE ORIENTATION</td>
<td></td>
</tr>
<tr>
<td>ENGR 107</td>
<td>INTRO TO AEROSPACE ENGINEERING</td>
<td></td>
</tr>
<tr>
<td>ENGR 109</td>
<td>INTRODUCTION TO ENGINEERING</td>
<td></td>
</tr>
<tr>
<td>ENGR 113</td>
<td>ENGINEERING SKETCHING AND VISUALIZATION</td>
<td></td>
</tr>
<tr>
<td>ENGR 115</td>
<td>GEOMETRIC DIMENSIONING AND TOLERANCING</td>
<td></td>
</tr>
<tr>
<td>ENGR 120</td>
<td>INTRO TO ELECTRICAL/COMPUTER SCI &amp; ENGINEERING</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>---------------------------------</td>
<td></td>
</tr>
<tr>
<td>ENGR 121</td>
<td>FIELD SURVEY I</td>
<td></td>
</tr>
<tr>
<td>ENGR 140</td>
<td>BASIC AUTOCAD</td>
<td></td>
</tr>
<tr>
<td>ENGR 150</td>
<td>BASIC SOLIDWORKS</td>
<td></td>
</tr>
<tr>
<td>ENGR 199</td>
<td>COOPERATIVE WORK EXPERIENCE</td>
<td></td>
</tr>
<tr>
<td>ENGR&amp;204</td>
<td>ELECTRICAL CIRCUITS</td>
<td></td>
</tr>
<tr>
<td>ENGR 208</td>
<td>FUNDAMENTALS OF FLIGHT</td>
<td></td>
</tr>
<tr>
<td>ENGR&amp;214</td>
<td>STATICS</td>
<td></td>
</tr>
<tr>
<td>ENGR&amp;215</td>
<td>DYNAMICS</td>
<td></td>
</tr>
<tr>
<td>ENGR 221</td>
<td>MATERIALS SCIENCE</td>
<td></td>
</tr>
<tr>
<td>ENGR&amp;224</td>
<td>THERMODYNAMICS</td>
<td></td>
</tr>
<tr>
<td>ENGR 239</td>
<td>MANUFACTURING PROCESSES</td>
<td></td>
</tr>
<tr>
<td>ENGR 250</td>
<td>DIGITAL LOGIC DESIGN</td>
<td></td>
</tr>
<tr>
<td>ENGR 252</td>
<td>ELECTRICAL CIRCUITS AND SIGNALS</td>
<td></td>
</tr>
<tr>
<td>ENGR 253</td>
<td>SIGNALS AND SYSTEMS</td>
<td></td>
</tr>
<tr>
<td>ENGR 270</td>
<td>DIGITAL SYSTEMS AND MICROPROCESSORS</td>
<td></td>
</tr>
<tr>
<td>ENGR 280</td>
<td>SELECTED TOPICS</td>
<td></td>
</tr>
<tr>
<td>ENGR 290</td>
<td>SPECIAL PROJECTS</td>
<td></td>
</tr>
<tr>
<td>ENGL&amp;235</td>
<td>TECHNICAL WRITING</td>
<td></td>
</tr>
<tr>
<td>MATH 215</td>
<td>LINEAR ALGEBRA</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits/Units 90

1 Requirements vary by school and program. See an Engineering faculty advisor regarding proper selection.

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Analyze and solve multi-step problems using techniques through single-variable calculus.
- Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.
- Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.
ENVIRONMENTAL SCIENCE

Environmental scientists apply mathematics and scientific principles to solve environmental problems. They develop ways to reduce, correct, or prevent damage to the environment.

Following the completion of a Bachelor of Arts or Science degree at a four-year institution of the student’s choice, several avenues of employment or advancement are open. A few of these are:

- Environmental engineering
- Environmental law
- State and federal wildlife agencies
- Environmental science teaching at the elementary or secondary level
- Environmental research scientist
- Environmental planning/policy analyst
- Nonprofit environmental organizations

Environmental Science is a highly interdisciplinary field; students interested in careers in the Environmental Sciences will need a fundamental understanding of a variety of sciences and social sciences. Depending on specific career objectives, students pursuing a four-year degree in Environmental Science may want to emphasize additional coursework in such fields as Biology, Chemistry, Physics, Geology, Oceanography, or the Atmospheric Sciences. Students planning careers in Environmental Studies, Environmental Regulation and Policy, or Regional Planning may want to emphasize additional coursework in the Social Sciences, Business, or Economics.

- Environmental Science (AST1) (p. 72)

Environmental Science (AST1)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

This is a suggested program for the first two years of major study in Environmental Science. Lower-division course requirements will vary depending on the transfer institution. Contact an advisor at the transfer institution to determine required coursework as early as possible.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Communication Skills</strong></td>
<td></td>
</tr>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Quantitative Skills</strong></td>
<td></td>
</tr>
<tr>
<td>MATH&amp;151</td>
<td>CALCULUS I</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;152</td>
<td>CALCULUS II</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td></td>
<td><strong>Health &amp; Physical Education</strong></td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 311)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Humanities &amp; Social Sciences</strong></td>
<td></td>
</tr>
<tr>
<td>ENVS 231</td>
<td>ENVIRONMENTAL POLITICS</td>
<td>5</td>
</tr>
<tr>
<td>or POLS 231</td>
<td>ENVIRONMENTAL POLITICS</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Humanities List A (p. 311)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Humanities or Social Sciences (p. 312)</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td><strong>Pre-Major Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>BIOL&amp;221</td>
<td>MAJORS ECOLOGY/EVOLUTION</td>
<td>5</td>
</tr>
<tr>
<td>BIOL&amp;222</td>
<td>MAJORS CELL/MOLECULAR</td>
<td>5</td>
</tr>
<tr>
<td>BIOL&amp;223</td>
<td>MAJORS ORGANISMAL PHYS</td>
<td>5</td>
</tr>
<tr>
<td>CHEM&amp;141</td>
<td>GENERAL CHEMISTRY I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;142</td>
<td>GENERAL CHEMISTRY II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;143</td>
<td>GENERAL CHEMISTRY III</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;151</td>
<td>GENERAL CHEMISTRY LABORATORY I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM&amp;152</td>
<td>GENERAL CHEMISTRY LABORATORY II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM&amp;153</td>
<td>GENERAL CHEMISTRY LABORATORY III</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>MATH&amp;146</td>
<td>INTRODUCTION TO STATISTICS</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp;102</td>
<td>ENGLISH COMPOSITION II</td>
<td>5</td>
</tr>
<tr>
<td>ENVS&amp;101</td>
<td>INTRODUCTION TO ENVIRONMENTAL SCIENCE</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Select one from the following:</td>
<td>5</td>
</tr>
<tr>
<td>GEOL 102</td>
<td>INTRO TO GEOL II: EARTH'S SURFACE PROCESSES</td>
<td>2</td>
</tr>
<tr>
<td>PHYS&amp;241</td>
<td>ENGINEERING PHYSICS I</td>
<td>5</td>
</tr>
<tr>
<td>&amp; PHYS&amp;231</td>
<td>and ENGINEERING PHYSICS LAB I</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits/Units</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>84</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Suggested Electives</strong></td>
<td></td>
</tr>
<tr>
<td>GEOL&amp;101</td>
<td>INTRO PHYSICAL GEOLOGY</td>
<td>5</td>
</tr>
<tr>
<td>PH&amp;ECOL &amp; PHYS&amp;232</td>
<td>and ENGINEERING PHYSICS LAB II</td>
<td>5</td>
</tr>
<tr>
<td>PHYS&amp;243</td>
<td>ENGINEERING PHYSICS III</td>
<td>5</td>
</tr>
<tr>
<td>&amp; PHYS&amp;233</td>
<td>and ENGINEERING PHYSICS LAB III</td>
<td>5</td>
</tr>
<tr>
<td>Surv 125</td>
<td>INTRODUCTION TO GIS</td>
<td>3</td>
</tr>
</tbody>
</table>

**Program Outcomes**

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
• Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
• Apply communication theory to demonstrate effective oral communication skills. (GE)
• Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
• Apply scientific methodologies to develop and answer questions about the natural world.
• Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
• Analyze and solve multi-step problems using techniques through single-variable calculus.
• Acquire scientific information from appropriate sources to analyze issues, claims or situations.
Geology is the study of the Earth's chemistry, physics, and history. Geologists work to understand the complex systems at work in our planet and, through this work, to understand the origin and evolution of the landscapes that surround us. Geologists work in natural resource development, natural hazard management, environmental monitoring, and pollution mitigation. Research subjects encompass everything from glacier systems to volcanoes to the fossil history of the evolution of life.

Career Opportunities
Careers in Geology generally require advanced degrees. Here at Clark College, you can begin a program that will lead to advanced degrees at any major university.

Job opportunities through private, federal, and state agencies exist in:

- Climate Change Studies
- Energy
- Environmental Monitoring and Mitigation
- Geological Engineering
- Mining
- Petroleum

- Geology (AST1) (p. 74)

Geology (AST1)
Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

This is a suggested program for the first two years of major study in Geology. Lower-division course requirements will vary depending on the transfer institution. Contact an advisor at the transfer institution to determine required coursework as early as possible. Additional courses are needed to satisfy graduation requirements for the Associate in Science or the Associate in Arts degree.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communication Skills</td>
<td></td>
</tr>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Quantitative Skills</td>
<td></td>
</tr>
<tr>
<td>MATH&amp;151</td>
<td>CALCULUS I</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;152</td>
<td>CALCULUS II</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Health &amp; Physical Education</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one from the following:</td>
<td>3</td>
</tr>
<tr>
<td>HPE 258</td>
<td>FITNESS-WELLNESS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HLTH Health Course (two credits/units) and PE Activity Course (one credit/unit)</td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities &amp; Social Sciences</td>
<td></td>
</tr>
<tr>
<td>CMST&amp;220</td>
<td>PUBLIC SPEAKING</td>
<td>5</td>
</tr>
</tbody>
</table>

Select 10 credits/units from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Humanities Course Options (p. 311)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social Sciences Course Options (p. 312)</td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Chemistry Sequence</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;141</td>
<td>GENERAL CHEMISTRY I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;142</td>
<td>GENERAL CHEMISTRY II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;143</td>
<td>GENERAL CHEMISTRY III</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;151</td>
<td>GENERAL CHEMISTRY LABORATORY I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM&amp;152</td>
<td>GENERAL CHEMISTRY LABORATORY II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM&amp;153</td>
<td>GENERAL CHEMISTRY LABORATORY III</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Additional Science Sequence Requirements</td>
<td></td>
</tr>
<tr>
<td>PHYS&amp;241</td>
<td>ENGINEERING PHYSICS I</td>
<td>5</td>
</tr>
<tr>
<td>&amp; PHYS&amp;231</td>
<td>and ENGINEERING PHYSICS LAB I</td>
<td></td>
</tr>
<tr>
<td>PHYS&amp;242</td>
<td>ENGINEERING PHYSICS II</td>
<td>5</td>
</tr>
<tr>
<td>&amp; PHYS&amp;232</td>
<td>and ENGINEERING PHYSICS LAB II</td>
<td></td>
</tr>
<tr>
<td>PHYS&amp;243</td>
<td>ENGINEERING PHYSICS III</td>
<td>5</td>
</tr>
<tr>
<td>&amp; PHYS&amp;233</td>
<td>and ENGINEERING PHYSICS LAB III</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pre-Major Program Requirements</td>
<td></td>
</tr>
<tr>
<td>GEO&amp;101</td>
<td>INTRO PHYSICAL GEOLOGY</td>
<td>5</td>
</tr>
<tr>
<td>GEOL 102</td>
<td>INTRO TO GEOL II: EARTH’S SURFACE PROCESSES</td>
<td>5</td>
</tr>
<tr>
<td>GEOL 218</td>
<td>FIELD STUDIES IN GEOLOGY</td>
<td>1-6</td>
</tr>
<tr>
<td>MATH&amp;153</td>
<td>CALCULUS III</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp;102</td>
<td>ENGLISH COMPOSITION II</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Total Credits/Units</td>
<td>90</td>
</tr>
</tbody>
</table>

Program Outcomes
Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Obtain, evaluate, and ethically use information. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
HONORS PROGRAM

The Transfer AA Honors Program is designed to promote excellence in learning and celebrate exceptional student achievement. Students admitted to the Honors Program have the opportunity to take intellectually enriching honors courses with other outstanding students, work closely with a faculty mentor, and complete an independent capstone project relevant to their area of interest.

Program Admission Requirements

Students must meet the following requirements for admission to the program:

• At least 12 college-level credits with a cumulative GPA of 3.50 or higher
• Completion of ENGL&101 with a grade B+ or higher
• Eligibility for enrollment in MATH 096 or higher

One or more of the admission requirements above may be waived if a Clark faculty member submits a formal recommendation of admission on behalf of the student. An online application form is available at www.clark.edu/honors (http://www.clark.edu/honors/)

Transfer AA Honors Concentration

To earn the Honors Academic Concentration, students must satisfy the following requirements:

• Completion of 20 credits of Honors-designated courses
• Completion of a 3-credit Honors capstone course
• 3.50 cumulative GPA
• Concurrent completion of Transfer AA, AST, or AFA degree requirements

• Honors Concentration (AC) (p. 75)

Honors Concentration (AC)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

To earn the Transfer AA Honors Academic Concentration, students must complete the following courses and concurrently satisfy the degree requirements for an Associate in Arts degree, Associate in Science degree, or Associate in Fine Arts degree.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Certificate Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Honors-designated courses</td>
<td>20</td>
</tr>
<tr>
<td>HONS 290</td>
<td>SPECIAL PROJECTS: HONORS ¹</td>
<td>1-6</td>
</tr>
<tr>
<td></td>
<td>Total Credits/Units</td>
<td>23</td>
</tr>
</tbody>
</table>

¹ Students must complete at least three credits/units.

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Integrate knowledge and skills from multiple academic disciplines to produce original academic or artistic works.
Clark College is proposing a Bachelors of Applied Sciences degree in Human Services to serve the needs of the community and Clark College students by keeping current with emerging trends in mental health and addictions treatment. This BASHS degree will operate in tandem with the Addiction Counseling Education Department, which will function as the primary foundational Associates degree for the BAS.

All prospective students who meet the minimum requirements, and would like to apply for admission to the BAS in Human Services program, must have the following prior to admission:

- An associate degree or higher, or within 15 credits of graduating with an associate degree, from a regionally accredited institution;
- Cumulative 2.5 GPA in degree program coursework;
- Submission of official college transcripts from previous colleges attended;
- Completed Baccalaureate of Applied Science in Human Services Statement of Intent submitted in-person, by mail, or email to the Enrollment Services Office:

Enrollment Services Office
Gaiser Hall, Room 128
360-992-2107
admissions@clark.edu

Clark College
Enrollment Services Office, GHL 128
1933 Fort Vancouver Way
Vancouver, WA 98663-3598

- Bachelor of Applied Science in Human Services (BAS) (p. 76)

### Bachelor of Applied Science in Human Services (BAS)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Communication Skills</strong></td>
<td></td>
</tr>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp;102</td>
<td>ENGLISH COMPOSITION II</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Quantitative Skills</strong></td>
<td></td>
</tr>
<tr>
<td>MATH&amp;146</td>
<td>INTRODUCTION TO STATISTICS</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Humanities</strong></td>
<td></td>
</tr>
<tr>
<td>WS 101</td>
<td>INTRODUCTION TO WOMEN'S STUDIES (recommended)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Course Options (p. 311)</strong></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Social Sciences</strong></td>
<td></td>
</tr>
<tr>
<td>PSYC&amp;100</td>
<td>GENERAL PSYCHOLOGY</td>
<td>5</td>
</tr>
<tr>
<td>PSYC&amp;200</td>
<td>LIFESPAN PSYCHOLOGY</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Natural Sciences</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Major Area Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>BASHS301</td>
<td>INTRODUCTION TO HUMAN SERVICES</td>
<td>5</td>
</tr>
<tr>
<td>BASHS302</td>
<td>SYSTEMS AND SOCIAL JUSTICE</td>
<td>5</td>
</tr>
<tr>
<td>BASHS303</td>
<td>ETHICS IN HUMAN SERVICES</td>
<td>5</td>
</tr>
<tr>
<td>BASHS304</td>
<td>PRACTICAL FAMILY THERAPY</td>
<td>5</td>
</tr>
<tr>
<td>BASHS305</td>
<td>ADVANCED CO-OCCLUDING DISORDERS TREATMENT</td>
<td>5</td>
</tr>
<tr>
<td>BASHS306</td>
<td>TRAUMA, GRIEF &amp; LOSS</td>
<td>5</td>
</tr>
<tr>
<td>BASHS401</td>
<td>MULTICULTURAL COUNSELING IN HS</td>
<td>5</td>
</tr>
<tr>
<td>BASHS402</td>
<td>HUMAN SERVICES INTERVENTION &amp; ADVOCACY</td>
<td>5</td>
</tr>
<tr>
<td>BASHS403</td>
<td>RESEARCH &amp; EVALUATION METHODOLOGIES IN HS</td>
<td>5</td>
</tr>
<tr>
<td>BASHS404</td>
<td>ADVANCED CASE MANAGEMENT IN HS</td>
<td>5</td>
</tr>
<tr>
<td>BASHS410</td>
<td>HUMAN SERVICES FIELD PLACEMENT I</td>
<td>5</td>
</tr>
<tr>
<td>BASHS411</td>
<td>HUMAN SERVICES FIELD PLACEMENT II</td>
<td>5</td>
</tr>
<tr>
<td>ACED 101</td>
<td>SURVEY OF ADDICTIONOLOGY</td>
<td>3</td>
</tr>
<tr>
<td>ACED 122</td>
<td>INTRODUCTION TO ADDICTIONS COUNSELING SKILLS</td>
<td>3</td>
</tr>
<tr>
<td>ACED 125</td>
<td>GROUP COUNSELING IN ADDICTIONS</td>
<td>3</td>
</tr>
<tr>
<td>ACED 136</td>
<td>LAW AND ETHICS IN ADDICTIONS COUNSELING</td>
<td>3</td>
</tr>
<tr>
<td>ACED 160</td>
<td>PHARMACOLOGY OF DRUGS OF ABUSE</td>
<td>3</td>
</tr>
<tr>
<td>ACED 201</td>
<td>THEORIES OF COUNSELING</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits including those earned from AA/AAS/AAT</strong></td>
<td>180</td>
</tr>
</tbody>
</table>

Please note that for all BAS degrees the following General Education credits must be earned:
- Communications - 10 credits
- Quantitative/Symbolic Reasoning Skills - 5 credits
- Humanities - 10 credits
- Social Science - 10 credits
- Natural Science - 10 credits
- Additional general education courses – 15 credits

Please work with advisor to identify any outstanding needs based on associate degree credits already earned.
The International Studies concentration option recognizes the growing importance of global interdependence and diversity. It is of special interest to students planning careers in fields emphasizing backgrounds in such areas as foreign languages, regional studies, business, and economics.

International Studies Academic Concentration

For students in World Languages (Japanese, or Spanish) interested in emphasizing courses with a strong international focus as they complete the distribution requirements for their Associate of Arts degree. To earn the Academic Concentration (which appears as a special notation on the transcript), students must complete 5 credits of a 200 level World Language Course and 20 credits of approved international courses. Students must complete the 200 level language class with a grade of C or above.

- International Studies (AC) (p. 77)

### International Studies (AC)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

The International Studies Academic Concentration allows students to earn two years of foreign language credit while meeting the distribution requirements for the Associate in Arts degree.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Required Core Courses</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>World Language</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select five credits/units from 200-level courses in one language (Japanese or Spanish)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 20 credits/units from the Approved International Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits/Units</strong></td>
<td>25</td>
</tr>
</tbody>
</table>

The International Studies Academic Concentration has identified certain courses in the Clark College catalog as having a strong international component. Students must complete 20 credits from the list below. The selected courses count toward the International Studies Academic Concentration while at the same time meeting distribution requirements for the Associate of Arts degree. Students must complete each international elective class with a grade of C or above. See list of Approved International Courses below:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Approved International Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ANTH&amp;206                                          INTRODUCTION TO CULTURAL ANTHROPOLOGY</td>
<td>5</td>
</tr>
</tbody>
</table>

Select one from the following: 5

- Demonstrate Awareness of other cultures.
- Demonstrate world language skills
- Describe the field of international studies.
JOURNALISM

Clark College’s Journalism program prepares students who plan to transfer to a four-year institution as well as those seeking success in a workplace that requires clear writing and thoughtful inquiry. Our coursework also helps all students become more responsible consumers of news and information.

We offer a News Media Studies certificate designed to provide students with a clear pathway to greater success and preparation for transfer. Details about the 24- to 25-credit course of study appear below.

The core course is JOUR 101, Introduction to Journalism, a five-credit writing-intensive class that includes a study of the changing news media landscape as well as instruction in the basics of news reporting and writing.

Students looking at careers or further study in journalism, public relations, public affairs, politics, law, and communications should consider taking JOUR 111, which is our Digital News course, and JOUR 110, College News Production. College News Production provides students an opportunity to further develop meaningful hands-on skills by working on the print and online editions of the award-winning student news product, the Independent.

Several paid positions on the Independent are available each quarter for students, ranging from copy and section editors, designers, photography editors, and multimedia editors.

In addition to Clark’s journalism courses, students should take a variety of courses that offer a broad general education and prepare them to transfer to a four-year school offering a degree in journalism or a related field. CMST&102 provides a foundation for understanding how the media function in our society and is highly recommended. ENGL&101, ENGL&102, and ENGL 103 are designed to improve a student’s ability to write and do documented research accurately. Courses in the social sciences (particularly political science), history, literature, and science provide a background for accurate reporting and the interpretation of data.

Students should make every effort to develop relevant computer skills while at the community college. These skills include word processing, graphic design, and multimedia production, including photography and video production.

Because course requirements vary at each institution, a student interested in a four-year degree in Journalism should work with advisers at Clark and the transfer institution. Journalism courses typically transfer to four-year institutions. However, a student should contact the transfer institution to clarify each course’s transferability.

• News Media Studies (AC) (p. 78)

News Media Studies (AC)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

For students who want expertise in journalism and news media, this concentration may be earned along with a regular AA degree, and will be awarded upon graduation.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOUR 101</td>
<td>INTRODUCTION TO JOURNALISM</td>
<td>5</td>
</tr>
<tr>
<td>JOUR 111</td>
<td>DIGITAL NEWS</td>
<td>5</td>
</tr>
<tr>
<td>Select three credits/units from the following:</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>JOUR 110</td>
<td>COLLEGE NEWS PRODUCTION</td>
<td></td>
</tr>
<tr>
<td>JOUR 120</td>
<td>COLLEGE NEWS PRODUCTION</td>
<td></td>
</tr>
<tr>
<td>JOUR 130</td>
<td>COLLEGE NEWS PRODUCTION</td>
<td></td>
</tr>
<tr>
<td>ENGL 127</td>
<td>CREATIVE NONFICTION WRITING</td>
<td>5</td>
</tr>
<tr>
<td>CMST&amp;102</td>
<td>INTRO TO MASS MEDIA</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>Select one from the following:</td>
<td></td>
<td>3-4</td>
</tr>
<tr>
<td>ART 131</td>
<td>PHOTOGRAPHIC STORYTELLING</td>
<td></td>
</tr>
<tr>
<td>DMA 201</td>
<td>VIDEO AND SOUND PRODUCTION I</td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>3-4</td>
</tr>
<tr>
<td>Total Credits/Units</td>
<td></td>
<td>26-27</td>
</tr>
</tbody>
</table>

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Students who complete the News Media Studies Certificate will be able to explain current news media principles and practices and appropriately apply fundamental news production skills.
MARKETING

The certificates and degree in this area are designed to provide students with the basic skills necessary to work for a variety of organizations that focus on the distribution of customer goods and services. Graduates of these specialized certificates have found the acquired skills very valuable in all types of business and non-profit organizations, domestic as well as international.

Students must complete all specifically listed courses in Major Area Requirements with a minimum grade of 'C' or better in order to successfully complete the program and earn the award.

Consult with a business academic advisor for recommended course, program listing.

• Marketing (CP) (p. 79)
• Marketing (AAS) (p. 79)

Marketing (CP)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

The Marketing certificate provides students with a clear and well-rounded picture of how basic business functions impact marketing in the United States, as well as global, economic systems. Students learn about the conceptual and applied use of marketing, which includes marketing research tactics, the marketing mix concept, customer behavior, and the external environments considered in marketing decisions. Technology, ethics and social responsibility, competition, economics, and government and legal considerations complete the key components of this certificate.

Students must complete all specifically listed courses in Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award. Consult with a business academic advisor for recommended course, program planning.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 199</td>
<td>COOPERATIVE WORK EXPERIENCE 1</td>
<td>1-5</td>
</tr>
<tr>
<td>BUS 251</td>
<td>PROFESSIONAL SELLING</td>
<td>3</td>
</tr>
<tr>
<td>BUS 260</td>
<td>PRINCIPLES OF MARKETING</td>
<td>5</td>
</tr>
<tr>
<td>CMST&amp;230</td>
<td>SMALL GROUP COMMUNICATION</td>
<td>5</td>
</tr>
<tr>
<td>or CMST&amp;220</td>
<td>PUBLIC SPEAKING</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits/Units 54-56

1 Minimum of five credits/units must be earned in Cooperative Work Experience.
2 Minimum of Three credits/units required for completion

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (http://www.clark.edu/academics/catalog/gainful-employment/252B/Gedt.html).

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
• Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
• Demonstrate interpersonal/human relations skills. (GE)
• Successfully manage a buyer-seller relationship to include service follow-up, using professional selling techniques.
• Analyze a target market and develop product, pricing, promotion, and distribution strategies to meet customers' needs at a profit.
• Create an effective business advertisement to meet the needs of specific target market(s).

Marketing (AAS)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

The Marketing Associate of Applied Science degree provides a pervasive and critical link between the producers of products and the consumers of those products. Marketing professionals research, design, price, promote, and place goods and services that meet the needs of target customer groups. With the foundation in basic business skills that this program provides, the student is prepared for an entry-level career in varied and interesting manufacturing, distribution, advertising, public relations, selling, and retail fields.

Students must complete all specifically listed courses in Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award. Consult with a business academic advisor for recommended course, program planning.
Completion of Certificate of Proficiency in Marketing, Small Business Management, Accounting Clerk or Supervisory Management accounts for 56-60 of necessary credits.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Education Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication Skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMST&amp;220</td>
<td>PUBLIC SPEAKING</td>
<td>5</td>
</tr>
<tr>
<td>or CMST&amp;230</td>
<td>SMALL GROUP COMMUNICATION</td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Health and Physical Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 322)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 323)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 324)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Computational Skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfied in the CPs</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Human Relations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfied in the CPs</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Social Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfied in the CPs</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Major Area Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS 029</td>
<td>BASIC ACCOUNTING PROCEDURES</td>
<td>3</td>
</tr>
<tr>
<td>BUS 105</td>
<td>INTRODUCTION TO INTERNATIONAL BUSINESS</td>
<td>3</td>
</tr>
<tr>
<td>BUS 117</td>
<td>ADVERTISING</td>
<td>3</td>
</tr>
<tr>
<td>BUS&amp; 201</td>
<td>BUSINESS LAW</td>
<td>5</td>
</tr>
<tr>
<td>BUS 251</td>
<td>PROFESSIONAL SELLING</td>
<td>3</td>
</tr>
<tr>
<td>BUS 260</td>
<td>PRINCIPLES OF MARKETING</td>
<td>5</td>
</tr>
<tr>
<td>Select a minimum of 3-14 additional credits/units from the following 3-14 areas:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounting (ACCT) (p. 122)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Administration (BUS) (p. 143)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economics (ECON) (p. 181)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervisory Management (MGMT) (p. 216)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Applications (BTEC) (p. 145)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete as many General Elective (GE) courses as needed to reach the total of 90 credits/units required by the degree</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Credits/Units: 90-93

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Analyze a target market and develop product, pricing, promotion, and distribution strategies to meet customers' needs at a profit.
- Establish market strategies on the international level.
- Use micro- and macroeconomic concepts to analyze domestic and global business situations.
- Accurately maintain payroll register as required under federal and state laws.
- Create an effective business advertisement to meet the needs of specific target market(s).
MATH EDUCATION

The mathematics program at Clark College prepares students for successful study at four-year colleges and universities. At the university level, the student may prepare for a career in industry, government, or teaching. Students who intend to enter the job market before graduate school should have exposure to the natural, social, and applied sciences.

A variety of resources are available which help students with differing learning styles understand mathematical concepts. At Clark, computers, graphing calculators and other technology are integrated into classroom teaching and research.

The math department maintains a Web page that provides information about faculty members, course descriptions and online general advising for selecting a math course. Advice to help students succeed in math courses, along with instructional materials for some math classes, can be found on the website.

The Math Help Session is staffed 25-30 hours each week by department instructors to assist students who drop by for individual help with homework or understanding math concepts. New evening hours have also been added for night students at the Help Session.

Students who need to brush up on basic math skills will find classes in both the math and developmental education departments that prepare them for success before tackling college-level coursework. Single-credit classes to learn to use graphing calculators and for overcoming math anxiety are also offered.

- Math Education - DTA/MRP (AA) (p. 81)

Math Education - DTA/MRP (AA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

This pathway is applicable to students planning to prepare for math education majors at the secondary level at universities in Washington. Students need to make early contact with their potential transfer institutions regarding the specific course choices in each area of the agreement where options are listed. Students also need to check with their potential transfer institutions regarding the requirement for overall minimum GPA, a higher GPA in a selected subset of courses, or a specific minimum grade in one or more courses such as math or English.

Though this degree does not require such, Clark College students should know that the standard Clark AA degree path has these differences from the MRP defined below:

1. Clark requires 3 credits of Health-Physical Education coursework, and
2. As of Fall 2011, Clark requires a course in Oral Communication, and
3. Clark’s Social Science distribution requirement stipulates that students take courses from at least three different departments.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students are responsible for researching and preparing for specific major requirements of baccalaureate institutions as early as possible prior to transferring.

Please visit the Major Related Programs section of this catalog for more specific information.

Clark College Equivalents

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Basic Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp;102</td>
<td>ENGLISH COMPOSITION II</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;151</td>
<td>CALCULUS I</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Distribution Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>CMST&amp;220</td>
<td>PUBLIC SPEAKING 2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 311)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Social Sciences</strong></td>
<td>15</td>
</tr>
<tr>
<td>PSYC&amp;100</td>
<td>GENERAL PSYCHOLOGY</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 312)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Natural Sciences</strong></td>
<td>15</td>
</tr>
<tr>
<td>MATH&amp;152</td>
<td>CALCULUS II</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 312)</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>MATH&amp;153</td>
<td>CALCULUS III</td>
<td>5</td>
</tr>
<tr>
<td>MATH 215</td>
<td>LINEAR ALGEBRA</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;254</td>
<td>CALCULUS IV</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Education Courses</strong></td>
<td></td>
</tr>
<tr>
<td>EDUC&amp;201</td>
<td>INTRODUCTION TO EDUCATION</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 210</td>
<td>INTRODUCTORY FIELD EXPERIENCE</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Elective Courses</strong></td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 313)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits/Units</strong></td>
<td>90</td>
</tr>
</tbody>
</table>

1. Intermediate algebra proficiency is required.
2. Fulfills oral communication requirement
3. Natural science course work, including one lab, as defined by Clark College
4. As defined under MRP Requirements/ C. Major Requirements /3. Elective Courses

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:
• Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
• Obtain, evaluate, and ethically use information. (GE)
• Analyze patterns of power, privilege, and inequity in the United States. (GE)
• Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
• Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
• Evaluate claims about the natural world using scientific methodology. (GE)
• Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
• Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
• Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
• Demonstrate progress toward healthier behaviors. (GE)
• Apply communication theory to demonstrate effective oral communication skills. (GE)
**MATHEMATICS**

Advances in science, technology, social science, business, industry, and government are dependent upon precise analysis and the extraction of information from large quantities of data. Environmental problems, for example, require careful analysis by persons with skills in mathematics, computer science, biology, geology, physics, and business.

The mathematics program at Clark College prepares students for successful study at four-year colleges and universities. At the university level, the student may prepare for a career in industry, government, or teaching. Students who intend to enter the job market before graduate school should have exposure to the natural, social, and applied sciences.

A variety of resources are available which help students with differing learning styles understand mathematical concepts. At Clark, computers, graphing calculators and other technology are integrated into classroom teaching.

The math department maintains a Web page that provides information about faculty members, course descriptions and online general advising for selecting a math course. Advice to help students succeed in math courses, along with instructional materials for some math classes, can be found on the website.

The math department staffs several help facilities to assist students on a drop-in basis. Assistance is provided by faculty and trained helpers.

Students who need to brush up on basic math skills will find classes in both the math and developmental education departments that prepare them for success before tackling college-level coursework.

- General - Mathematics (Suggested) (AA) (p. 83)

### General - Mathematics (Suggested) (AA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

This is a suggested program for the first two years of major study in Mathematics. Lower-division course requirements will vary depending on the transfer institution. Contact an advisor at the transfer institution to determine required coursework as early as possible.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp;102</td>
<td>ENGLISH COMPOSITION II</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;151</td>
<td>CALCULUS I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 215</td>
<td>LINEAR ALGEBRA</td>
<td>5</td>
</tr>
<tr>
<td>MATH 221</td>
<td>DIFFERENTIAL EQUATIONS</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;254</td>
<td>CALCULUS IV</td>
<td>5</td>
</tr>
<tr>
<td>PHYS&amp;241</td>
<td>ENGINEERING PHYSICS I</td>
<td>6</td>
</tr>
<tr>
<td>&amp; PHYS&amp;231 &amp; PHYS 094 &amp; PHYS CALC</td>
<td>and ENGINEERING PHYSICS LAB I &amp; and PHYSICS CALCULATIONS</td>
<td>6</td>
</tr>
<tr>
<td>PHYS&amp;242</td>
<td>ENGINEERING PHYSICS II</td>
<td>6</td>
</tr>
<tr>
<td>&amp; PHYS&amp;232 &amp; PHYS 095 &amp; PHYS CALC</td>
<td>and ENGINEERING PHYSICS LAB II &amp; and PHYSICS CALCULATIONS</td>
<td>6</td>
</tr>
<tr>
<td>COLL 101</td>
<td>COLLEGE ESSENTIALS: INTRODUCTION TO CLARK</td>
<td>2</td>
</tr>
</tbody>
</table>

**Additional Humanities Course(s)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON&amp;201</td>
<td>MICRO ECONOMICS</td>
<td>5</td>
</tr>
<tr>
<td>or ECON&amp;202</td>
<td>MACRO ECONOMICS</td>
<td></td>
</tr>
</tbody>
</table>

**Additional Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS&amp;243</td>
<td>ENGINEERING PHYSICS III</td>
<td>6</td>
</tr>
<tr>
<td>&amp; PHYS&amp;233 &amp; PHYS 096 &amp; PHYS CALC</td>
<td>and ENGINEERING PHYSICS LAB III &amp; and PHYSICS CALCULATIONS</td>
<td>6</td>
</tr>
</tbody>
</table>

**Total Credits/Units**

95

1 PHYS 094, PHYS 095, and PHYS 096 do not count toward the credit total of a transfer degree.

**Program Outcomes**

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Obtain, evaluate, and ethically use information. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
MECHANICAL, CIVIL & AERONAUTICAL ENGINEERING

Engineering is a profession where you are challenged to develop creative solutions to problems related to every aspect of life, through the application of mathematical and scientific principles, experience, creativity, and common sense.

Mechanical engineering is a diverse discipline which can include robotics, consumer electronics, automotive, appliances, energy-sustainable and clean fuels, aerospace, medical innovations, amusement park rides, toys, and nanotechnology.

Civil engineers work in many areas essential to modern life such as construction, architecture, environmental engineering, power generation, public works and highway departments, or the federal government. Civil engineers are at the forefront of efforts to design inexpensive yet effective ways to ensure that people living in these regions have access to potable water.

Aeronautical engineering expertise is innovative in space exploration but also pioneering in other industries such as automobile manufacturing. Aerospace engineers are experts in aerodynamics, so some of them put their skills to use in making race cars go faster or golf balls fly further.

It is critical that you work with an Engineering faculty advisor to ensure your program will give you the maximum benefit when you transfer.

- Mechanical, Civil & Aeronautical Engineering (AST2) (p. 84)

Mechanical, Civil & Aeronautical Engineering (AST2)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

The following is a degree program designed by a consortium of two-year and four-year colleges in Washington. Students should be aware that baccalaureate institutions may have slightly different requirements for these degrees, and students should consult the transfer institution for exact questions. Additional courses may be needed to satisfy graduation requirements for the Associate in Science degree (https://catalog.clark.edu/academic-plans/track-2-ast2/general/).

Students should complete the entirety of any science sequence at the same school for best transferability. These degrees are not DTA degrees, and there are some general education requirements that students will need to finish upon transfer.

Though this degree does not require such, Clark College students should know that the standard Clark AST degree path has this difference from the Articulated Degree defined below.

- Clark requires 3 credits of Health-Physical Education coursework.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students completing this Associate of Science will receive the same priority consideration for admission to the baccalaureate institution as they would for completing the direct transfer associate degree and will be given junior status by the receiving institution.

Clark College Equivalents

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Communication Skills</td>
<td></td>
</tr>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Humanities/Fine Arts/English &amp; Social Science</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minimum 5 credits in Humanities, minimum 5 credits in Social Science, plus an additional 5 credits in either Humanities or Social Science</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Mathematics</td>
<td></td>
</tr>
<tr>
<td>MATH&amp;151</td>
<td>CALCULUS I</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;152</td>
<td>CALCULUS II</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;153</td>
<td>CALCULUS III</td>
<td>5</td>
</tr>
<tr>
<td>MATH 215</td>
<td>LINEAR ALGEBRA</td>
<td>5</td>
</tr>
<tr>
<td>MATH 221</td>
<td>DIFFERENTIAL EQUATIONS</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Physics</td>
<td></td>
</tr>
<tr>
<td>PHYS&amp;241</td>
<td>ENGINEERING PHYSICS I</td>
<td>5</td>
</tr>
<tr>
<td>PHYS&amp;231</td>
<td>ENGINEERING PHYSICS LAB I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sequence Two</td>
<td></td>
</tr>
<tr>
<td>PHYS&amp;242</td>
<td>ENGINEERING PHYSICS II</td>
<td>5</td>
</tr>
<tr>
<td>PHYS&amp;232</td>
<td>ENGINEERING PHYSICS LAB II</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sequence Three</td>
<td></td>
</tr>
<tr>
<td>PHYS&amp;243</td>
<td>ENGINEERING PHYSICS III</td>
<td>5</td>
</tr>
<tr>
<td>PHYS&amp;233</td>
<td>ENGINEERING PHYSICS LAB III</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Chemistry with Laboratory</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;141</td>
<td>GENERAL CHEMISTRY I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM&amp;142</td>
<td>GENERAL CHEMISTRY II</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Additional Requirements</td>
<td></td>
</tr>
<tr>
<td>ENGR&amp;214</td>
<td>STATICS</td>
<td>5</td>
</tr>
<tr>
<td>ENGR&amp;215</td>
<td>DYNAMICS</td>
<td>5</td>
</tr>
<tr>
<td>ENGR&amp;225</td>
<td>MECHANICS OF MATERIALS</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electives as appropriate for intended major and intended baccalaureate 15-20 institution. Requirements vary by school and program. See an Engineering faculty advisor for proper selection.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Computer Programming</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Innovation in Design</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Calculus IV (Advanced or Multi-Variable Calculus)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3-D Visualization and CAD (Engineering Graphics)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technical Writing</td>
<td></td>
</tr>
</tbody>
</table>
Thermodynamics  
Electrical Circuits  
Materials Science  
Applied Numerical Methods

| Total Credits/Units | 102 |

1. MATH 103/MATH 102 and MATH 111/MATH 110 are required prerequisites for MATH&151 that may be needed if calculus placement is not met via COMPASS.

2. Clark requires concurrent enrollment of completion in MATH&254 when taking MATH 221.

3. Calculus-based or non-calculus based sequence including laboratory. Students should be advised that some baccalaureate programs require physics with calculus.

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate progress toward healthier behaviors. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.
- Analyze and solve multi-step problems using techniques through single-variable calculus.
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.
- Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.
MECHATRONICS

Mechatronics Technology is a growing career field that deals with the integration of mechanical and electronic components managed by control systems. Mechatronics technicians troubleshoot, maintain and repair mechanical equipment controlled by electrical, electronic and computer systems. These types of systems are increasingly used in a wide variety of manufacturing and industrial settings. Clark College’s Mechatronics Technology (MTX) classes emphasize current concepts and technology by providing practical, hands-on experiences with the latest, industry standard equipment. In addition to the technical knowledge needed to maintain and repair equipment, the certificate and degree programs will help prepare students to think critically, function as a successful team member and communicate clearly to internal and external customers.

The multiple certificate and degree options available within this program allow students the option to stop-out and enter the workforce, and re-enter the program as needed, or complete their program of study without stopping.

• Mechatronics Fundamentals (CC) (p. 86)
• Mechanical Automation (CA) (p. 86)
• Mechanical Automation (AAT) (p. 86)

Mechatronics Fundamentals (CC)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTX 100</td>
<td>INDUSTRIAL SAFETY</td>
<td>1</td>
</tr>
<tr>
<td>MTX 101</td>
<td>DC FUNDAMENTALS</td>
<td>3</td>
</tr>
<tr>
<td>MTX 102</td>
<td>AC FUNDAMENTALS</td>
<td>4</td>
</tr>
<tr>
<td>MTX 103</td>
<td>BASIC MEASUREMENT TOOLS</td>
<td>2</td>
</tr>
<tr>
<td>MTX 106</td>
<td>FLUID POWER SYSTEMS</td>
<td>4</td>
</tr>
<tr>
<td>MTX 110</td>
<td>ELECTRIC MOTOR CONTROL 1</td>
<td>4</td>
</tr>
<tr>
<td>MTX 121</td>
<td>SEMICONDUCTORS I</td>
<td>3</td>
</tr>
<tr>
<td>MTX 130</td>
<td>PROGRAMMABLE LOGIC CONTROLLERS 1</td>
<td>4</td>
</tr>
<tr>
<td>or MTX 132</td>
<td>SIEMENS PLC LVL I</td>
<td></td>
</tr>
<tr>
<td>MTX 140</td>
<td>ROBOTIC SYSTEMS</td>
<td>4</td>
</tr>
<tr>
<td>MTX 145</td>
<td>ELECTRICAL POWER &amp; DISTRIBUTION SYSTEMS</td>
<td>4</td>
</tr>
<tr>
<td>MTX 175</td>
<td>MECHATRONICS SYSTEMS FUNDAMENTALS</td>
<td>3</td>
</tr>
<tr>
<td>MTX 180</td>
<td>MECHANICAL SYSTEMS</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total Credits/Units</strong></td>
<td></td>
<td><strong>41</strong></td>
</tr>
</tbody>
</table>

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Troubleshoot DC and AC circuits for malfunctions.
• Design fluid power systems and identify common components.
• Correctly connect, operate and troubleshoot an AC motor control circuit.
• Demonstrate proper tool identification and usage techniques.

Mechanical and Instrumentation Automation (CA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTX 100</td>
<td>INDUSTRIAL SAFETY</td>
<td>1</td>
</tr>
<tr>
<td>MTX 101</td>
<td>DC FUNDAMENTALS</td>
<td>3</td>
</tr>
<tr>
<td>MTX 102</td>
<td>AC FUNDAMENTALS</td>
<td>4</td>
</tr>
<tr>
<td>MTX 103</td>
<td>BASIC MEASUREMENT TOOLS</td>
<td>2</td>
</tr>
<tr>
<td>MTX 106</td>
<td>FLUID POWER SYSTEMS</td>
<td>4</td>
</tr>
<tr>
<td>MTX 110</td>
<td>ELECTRIC MOTOR CONTROL 1</td>
<td>4</td>
</tr>
<tr>
<td>MTX 121</td>
<td>SEMICONDUCTORS I</td>
<td>3</td>
</tr>
<tr>
<td>MTX 130</td>
<td>PROGRAMMABLE LOGIC CONTROLLERS 1</td>
<td>4</td>
</tr>
<tr>
<td>or MTX 132</td>
<td>SIEMENS PLC LVL I</td>
<td></td>
</tr>
<tr>
<td>MTX 140</td>
<td>ROBOTIC SYSTEMS</td>
<td>4</td>
</tr>
<tr>
<td>MTX 145</td>
<td>ELECTRICAL POWER &amp; DISTRIBUTION SYSTEMS</td>
<td>4</td>
</tr>
<tr>
<td>MTX 175</td>
<td>MECHATRONICS SYSTEMS FUNDAMENTALS</td>
<td>3</td>
</tr>
<tr>
<td>MTX 180</td>
<td>MECHANICAL SYSTEMS</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total Credits/Units</strong></td>
<td></td>
<td><strong>41</strong></td>
</tr>
</tbody>
</table>

To learn more about this program’s employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (http://www.clark.edu/academics/catalog/gainful-employment/633E/Gedt.html).

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Troubleshoot problems in electrical, mechanical, hydraulic and pneumatic equipment.
• Communicate with colleagues, supervisors and clients, using written and verbal technical and/or nontechnical language.
• Actively participate as an effective team member, completing prescribed project tasks and meeting project goals.

Mechanical and Instrumentation Automation (AAT)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
</table>

General Education Requirements

Communication Skills
Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Design, operate, and troubleshoot automation processes and systems.
- Communicate with colleagues, supervisors, clients, using written and verbal technical and/or nontechnical language.
- Actively participate as an effective team member, completing prescribed project tasks and meeting project goals.
- Use computational skills to analyze physical parameters within automated processes and systems.
- Assimilate/interpret technical and nontechnical descriptions to form a solution.
- Collect data based on sensory input and system performance to analyze and interpret process capabilities.
**MEDICAL ASSISTANT**

Medical Assistants maintain the daily workflow of a medical office. Work activities vary depending on the medical setting but often include customer service, administrative and clinical tasks. Medical assistants work directly with physicians and patients to ensure a productive experience in a variety of healthcare environments. The Medical Assistant program prepares students for both front-office clerical and back-office clinical medical assisting responsibilities by providing cognitive (knowledge), psychomotor (skills), and affective (behavior) learning competencies. The Clark College Medical Assistant Certificate of Proficiency is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on recommendation of the Medical Assisting Education Review Board (MAERB). Graduates of the Clark College Medical Assisting program are eligible to sit for the American Association of Medical Assistants (AAMA)'s Certified Medical Assistant (CMA) examination, a national certification for Medical Assistants. To gain employment as a Certified Medical Assistant, the student must graduate from the program and pass the CMA examination.

Commission on Accreditation of Allied Health Education Programs
www.caahep.org (http://www.caahep.org)
25400 US Highway N
Suite 158
Clearwater, FL 33756
727-210-2350

Medical Assistant Education Review Board
http://www.maerb.org/
20 N. Wacker Drive, Suite 1575
Chicago, IL 60606
1-800-228-2262

Washington State Department of Health
Town Center 2
111 Israel Rd SE
Tumwater, WA 98501
360-236-4700
Fax number: 360-236-4818
Email Address: hsqa.csc@doh.wa.gov

National Center for Competency Testing
NCCT 7007 College Blvd Suite 385 Overland Park KS 66211
Phone: 800.875.4404 Fax: 913.498.1243
www.ncctinc.com/ (http://www.ncctinc.com/)

American Association of Medical Assistants
www.aama-ntl.org (http://www.aama-ntl.org)

Applications are accepted at any time however this is a limited entry program. Candidates who meet the preliminary requirements will be considered for winter term entry.

Minimum Requirements:

- Complete the Clark College Application for Admission and the Medical Assistant Application. Return both to the Clark College Welcome Center with the non-refundable program application fees (subject to change). For the current fee amounts, please visit the Medical Assistant website. Date of Medical Assistant Application (fee paid date) will be considered in selecting students for entry into the program.

- Complete with a 2.0 or above all Preliminary Required Courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMED 103</td>
<td>MATH FOR HEALTH CARE PROFESSIONALS</td>
<td>3</td>
</tr>
<tr>
<td>BMED 110</td>
<td>MEDICAL TERMINOLOGY I</td>
<td>3</td>
</tr>
<tr>
<td>BMED 111</td>
<td>MEDICAL TERMINOLOGY II</td>
<td>3</td>
</tr>
<tr>
<td>BMED 116</td>
<td>MEDICAL OFFICE ADMINISTRATIVE PROCEDURES I</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one from the following:

- BTEC 107 BUSINESS ENGLISH
- PTWR 135 INTRODUCTION TO APPLIED TECHNICAL WRITING
- ENGL&101 ENGLISH COMPOSITION I
- BMED 149 COMPUTER APPLICATIONS ESSENTIALS

Select one from the following:

- HEOC 100 BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY
- BIOL 164 HUMAN BIOLOGY
- BTEC 107 BUSINESS ENGLISH
- BIOL 165 HUMAN BIOLOGY LAB
- HEOC 104 HEALTH CARE DELIVERY & CAREER EXPLORATION
- HEOC 130 PHARMACOLOGY FOR HEALTH ASSISTANTS

- To comply with Washington State Law [WAC 246-901-030(2)], Clark College requires that students must submit proof of high school graduation, GED completion, or U.S. degree conferment to be eligible for selection into the Medical Assisting Program. Students who do not plan to apply transfer credits towards the program are not required to submit official transcripts.

- Take the Clark College COMPASS Test. Call (360) 992-2648 for Assessment Center hours. The following scores or equivalent classes are required prior to program entry:
  - Reading: English REadiness Assessment Score placing students in ENGL&101 or equivalent with 2.0 or above.
  - Obtain a minimum Clark College cumulative GPA of 2.0 or above

Program Progression:

- Obtain a complete physical to verify proof of fitness to perform Medical Assistant requirements.
- Contact the Health Services Center at Clark College or a personal physician for the physical. Submit physical results to the Director of the Medical Assistant program.
- Complete all program courses with a minimum grade of ‘C’ or better.
- Maintain a cumulative GPA of 2.00 or higher.
- Do not repeat any required program course more than once.
- Provide proof of all required immunizations before registering for Medical Office Clinical Procedures I (BMED 163) https://www.certifiedbackground.com/ (register as a student and pay the fee required as a BMED student under the Medical Assistant Program, complete the background check on this site as well).
- Complete or take concurrently all Medical Assistant Program courses before registering for Medical Assistant Practicum (BMED 166).

- Medical Assistant (CP) (p. 89)
- Medical Assisting (AAT) (p. 90)
Medical Assistant (CP)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

The program description language is for the Medical Billing/Coding program, not Medical Assisting. The language should be:

Medical Assistants maintain the daily workflow of a medical office. Work activities vary depending on the medical setting but often include customer service, administrative and clinical tasks. Medical assistants work directly with physicians and patients to ensure a productive experience in a variety of healthcare environments. The Medical Assistant program prepares students for both front-office clerical and back-office clinical medical assisting responsibilities by providing cognitive (knowledge), psychomotor (skills), and affective (behavior) learning competencies. The Clark College Medical Assistant Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAAHEP), on recommendation of the Medical Assisting Education Review Board (MAERB). Graduates of the Clark College Medical Assisting program are eligible to sit for the American Association of Medical Assistants (AAMA)’s Certified Medical Assistant (CMA) examination, a national certification for Medical Assistants. To gain employment as a Certified Medical Assistant, the student must graduate from the program and pass the CMA examination.

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate use of medical office administrative and clinical software to complete medical office tasks (scheduling, patient information management, billing and office finances). (affective, cognitive and psychomotor)
- Apply policies and principles of office management (patient reception, scheduling, billing and office finances). (affective, cognitive and psychomotor)
- Apply policies and procedures for office management. (cognitive)
- Communicate effectively with peers, patients, and health care professionals through written and oral communications. (affective and psychomotor)
- Demonstrate the ability to work as a team member to accomplish a task. (affective)
- Accurately and effectively demonstrate clinical skills required of the medical assistant. (affective, cognitive and psychomotor)

To learn more about this program’s employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (http://www.clark.edu/academics/catalog/gainful-employment/381B/Gedt.html).

### General Education Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Communication Skills</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one from the following:</td>
<td></td>
</tr>
<tr>
<td>BTEC 107</td>
<td>BUSINESS ENGLISH</td>
<td>5</td>
</tr>
<tr>
<td>PTWR 135</td>
<td>INTRODUCTION TO APPLIED TECHNICAL WRITING</td>
<td></td>
</tr>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Computational Skills</strong></td>
<td></td>
</tr>
<tr>
<td>BMED 103</td>
<td>MATH FOR HEALTH CARE PROFESSIONALS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Human Relations</strong></td>
<td></td>
</tr>
<tr>
<td>BMED 166</td>
<td>MEDICAL ASSISTANT PRACTICUM ¹</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>Major Area Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>BMED 110</td>
<td>MEDICAL TERMINOLOGY I</td>
<td>3</td>
</tr>
<tr>
<td>BMED 111</td>
<td>MEDICAL TERMINOLOGY II</td>
<td>3</td>
</tr>
<tr>
<td>BMED 112</td>
<td>INTRODUCTION TO PATHOPHYSIOLOGY</td>
<td>5</td>
</tr>
<tr>
<td>BMED 116</td>
<td>MEDICAL OFFICE ADMINISTRATIVE PROCEDURES I</td>
<td></td>
</tr>
<tr>
<td>BMED 117</td>
<td>MEDICAL OFFICE ADMINISTRATIVE PROCEDURES II</td>
<td></td>
</tr>
<tr>
<td>BMED 129</td>
<td>MEDICAL REIMBURSEMENT</td>
<td>5</td>
</tr>
<tr>
<td>BMED 137</td>
<td>THERAPEUTIC COMM SKILLS FOR HEALTH PROF</td>
<td>3</td>
</tr>
<tr>
<td>BMED 138</td>
<td>LEGAL ASPECTS OF THE MEDICAL OFFICE</td>
<td>2</td>
</tr>
<tr>
<td>BMED 139</td>
<td>MA ASSISTANT EXAMINATION REVIEW</td>
<td>2</td>
</tr>
<tr>
<td>BMED 163</td>
<td>MEDICAL OFFICE CLINICAL PROCEDURES I (with lab)</td>
<td>6</td>
</tr>
</tbody>
</table>
• Successfully complete all criteria necessary for taking the CMA Exam. (cognitive and psychomotor)

Medical Assisting (AAT)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

One of the most complex processes involved in the practice of medicine is keeping billing procedures and medical records accurate. To ensure that payments Medical Assistants maintain the daily workflow of a medical office. Work activities vary depending on the medical setting but often include customer service, administrative and clinical tasks. Medical assistants work directly with physicians and patients to ensure a productive experience in a variety of healthcare environments. The Medical Assistant program prepares students for both front-office clerical and back-office clinical medical assisting responsibilities by providing cognitive (knowledge), psychomotor (skills), and affective (behavior) learning competencies.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Communication Skills</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select from the following:</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 107</td>
<td>BUSINESS ENGLISH</td>
<td></td>
</tr>
<tr>
<td>PTWR 135</td>
<td>INTRODUCTION TO APPLIED TECHNICAL WRITING</td>
<td></td>
</tr>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Computational Skills</strong></td>
<td></td>
</tr>
<tr>
<td>BMED 103</td>
<td>MATH FOR HEALTH CARE PROFESSIONALS</td>
<td>3</td>
</tr>
<tr>
<td>BMED 105</td>
<td>STATISTICS FOR HEALTH CARE PROFESSIONALS</td>
<td>2</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Human Relations</strong></td>
<td></td>
</tr>
<tr>
<td>CMST&amp;230</td>
<td>SMALL GROUP COMMUNICATION</td>
<td>5</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Major Area Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>BMED 110</td>
<td>MEDICAL TERMINOLOGY I</td>
<td>3</td>
</tr>
<tr>
<td>BMED 111</td>
<td>MEDICAL TERMINOLOGY II</td>
<td>3</td>
</tr>
<tr>
<td>BMED 112</td>
<td>INTRODUCTION TO PATHOPHYSIOLOGY</td>
<td>5</td>
</tr>
<tr>
<td>BMED 116</td>
<td>MEDICAL OFFICE ADMINISTRATIVE PROCEDURES I</td>
<td>3</td>
</tr>
<tr>
<td>BMED 117</td>
<td>MEDICAL OFFICE ADMINISTRATIVE PROCEDURES II</td>
<td>3</td>
</tr>
<tr>
<td>BMED 129</td>
<td>MEDICAL REIMBURSEMENT</td>
<td>5</td>
</tr>
<tr>
<td>BMED 130</td>
<td>MEDICAL CODING - CPT/HCPCS</td>
<td>4</td>
</tr>
<tr>
<td>BMED 132</td>
<td>MEDICAL CODING ICD-9-CM/ICD-10</td>
<td>5</td>
</tr>
<tr>
<td>BMED 137</td>
<td>THERAPEUTIC COMM SKILLS FOR HEALTH PROF</td>
<td>3</td>
</tr>
<tr>
<td>BMED 138</td>
<td>LEGAL ASPECTS OF THE MEDICAL OFFICE</td>
<td>2</td>
</tr>
<tr>
<td>BMED 139</td>
<td>MA ASSISTANT EXAMINATION REVIEW</td>
<td>2</td>
</tr>
<tr>
<td>BMED 163</td>
<td>MEDICAL OFFICE CLINICAL PROCEDURES I (with lab)</td>
<td>6</td>
</tr>
<tr>
<td>BMED 164</td>
<td>MEDICAL OFFICE CLINICAL PROCEDURES II (with lab)</td>
<td>6</td>
</tr>
<tr>
<td>BMED 165</td>
<td>MEDICAL OFFICE LABORATORY PROCEDURES</td>
<td>4</td>
</tr>
<tr>
<td>BMED 166</td>
<td>MEDICAL ASSISTANT PRACTICUM</td>
<td>6</td>
</tr>
<tr>
<td>BTEC 101</td>
<td>KEYBOARDING &amp; WORD PROCESSING 1,2</td>
<td>3</td>
</tr>
<tr>
<td>BTEC 103</td>
<td>REFRESHER KEYBOARDING 1,2</td>
<td></td>
</tr>
<tr>
<td>BTEC 148</td>
<td>BUSINESS PROFESSIONAL SELF DEVELOPMENT</td>
<td>3</td>
</tr>
<tr>
<td>BTEC 149</td>
<td>COMPUTER APPLICATIONS ESSENTIALS</td>
<td>3</td>
</tr>
<tr>
<td>HEOC 100</td>
<td>BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY</td>
<td>4</td>
</tr>
<tr>
<td>HEOC 104</td>
<td>HEALTH CARE DELIVERY &amp; CAREER EXPLORATION</td>
<td>3</td>
</tr>
<tr>
<td>HEOC 120</td>
<td>AIDS EDUCATION</td>
<td>1</td>
</tr>
<tr>
<td>HEOC 130</td>
<td>PHARMACOLOGY FOR HEALTH ASSISTANTS</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 124</td>
<td>HEALTHCARE PROVIDER CPR AND FIRST AID</td>
<td>1</td>
</tr>
<tr>
<td>Total Credits/Units</td>
<td></td>
<td>96</td>
</tr>
</tbody>
</table>

1 Students should register for BTEC 100.
2 Three credits/units required.

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
• Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
• Demonstrate interpersonal/human relations skills. (GE)
• Demonstrate use of medical office administrative and clinical software to complete medical office tasks (scheduling, patient information management, billing and office finances). (affective, cognitive and psychomotor)
• Apply policies and principles of office management (patient reception, scheduling, billing and office finances). (affective, cognitive and psychomotor)
• Apply policies and procedures for office management. (cognitive)
• Demonstrate the ability to work as a team member to accomplish a task. (affective)
• Communicate effectively with peers, patients, and health care professionals through written and oral communications. (affective and psychomotor).
• Accurately and effectively demonstrate clinical skills required of the medical assistant. (affective, cognitive and psychomotor)
• Successfully complete all criteria necessary for taking the CMA Exam. (cognitive and psychomotor)
MEDICAL BILLING AND CODING

One of the most complex processes involved in the practice of medicine is keeping billing procedures and medical records accurate. To ensure that payments are properly billed and paid, the health care and insurance industries maintain a standardized coding system for all diagnoses and procedures. The complexities of the health insurance system call for the expertise of a medical billing and coding specialist. Clark College's Medical Billing and Coding program prepares graduates for work in a variety of healthcare settings such as in a physician's office, at a billing company, an outpatient clinic, or an insurance company. Medical billing & coding graduates are eligible to obtain an array of certifications through the American Association of Medical Coders and the American Health Information Management Association.

The Medical Billing/Coding Specialist program prepares individuals for employment in outpatient office or inpatient hospital settings, healthcare claims processing, and home-remote coding. Training in medical billing includes completion of standard industry claim forms as well as the processing of insurance claims. Coding instruction includes ICD, CPT, HCPCS, and the use of MSRDGs.

Graduates will gain highly marketable skills that are compatible with today's healthcare industry needs. The need for trained individuals to fill these jobs have never been greater.

BMED courses are not limited entry and students may begin the coursework any term.

Applications are accepted at any time however this is a limited entry program. Candidates who meet the preliminary requirements will be considered for winter term entry.

• Medical Billing/Coding Professional (AAT) (p. 91)
• Medical Billing/Coding Specialist (CP) (p. 92)

Medical Billing/Coding Professional (AAT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

The Medical Billing/Coding AAT trains students in both inpatient and outpatient coding and billing. The graduate of this program is highly trained in billing, coding and health information with many successfully passing CPC, or CCS certifications and obtaining high-paying and rewarding positions. In addition the student will earn their Associate of Applied Technology degree.

With the planned implementation of the ICD-10 medical coding system October 1, 2015, the expected need for Coders and RHITs will be the highest in recent history. Many hospitals will need two coders for every one they currently employ. The BMED programs teach both ICD-9 & ICD-10 and offer classes that utilize real-world applications such as electronic charting, Encoder, PCS, and AHIMA Virtual Labs.

BMED courses are not limited entry and students may begin the coursework any term.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>or PTWR 135</td>
<td>INTRODUCTION TO APPLIED TECHNICAL WRITING</td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>BMED 103 &amp; BMED 105</td>
<td>MATH FOR HEALTH CARE PROFESSIONALS</td>
<td>5</td>
</tr>
<tr>
<td>and STATISTICS FOR HEALTH CARE PROFESSIONALS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>CMST&amp;210</td>
<td>INTERPERSONAL COMMUNICATION</td>
<td>5</td>
</tr>
<tr>
<td>or CMST&amp;230</td>
<td>SMALL GROUP COMMUNICATION</td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>BMED 110</td>
<td>MEDICAL TERMINOLOGY I</td>
<td>3</td>
</tr>
<tr>
<td>BMED 111</td>
<td>MEDICAL TERMINOLOGY II</td>
<td>3</td>
</tr>
<tr>
<td>BMED 112</td>
<td>INTRODUCTION TO PATHOPHYSIOLOGY</td>
<td>5</td>
</tr>
<tr>
<td>BMED 116</td>
<td>MEDICAL OFFICE ADMINISTRATIVE PROCEDURES I</td>
<td>3</td>
</tr>
<tr>
<td>BMED 129</td>
<td>MEDICAL REIMBURSEMENT</td>
<td>5</td>
</tr>
<tr>
<td>BMED 130</td>
<td>MEDICAL CODING - CPT/HCPCS</td>
<td>4</td>
</tr>
<tr>
<td>BMED 132</td>
<td>MEDICAL CODING ICD-9-CM/ICD-10</td>
<td>5</td>
</tr>
<tr>
<td>BMED 133</td>
<td>INTERMEDIATE MEDICAL CODING</td>
<td>5</td>
</tr>
</tbody>
</table>

Commission on Accreditation of Allied Health Education Programs
www.caahep.org (http://www.caahep.org/)
25400 US Highway N
Suite 158
Clearwater, FL 33756
727-210-2350

Medical Assistant Education Review Board
http://www.maerb.org/
20 N. Wacker Drive, Suite 1575
Chicago, IL 60606
1-800-228-2262

Washington State Department of Health
www.doh.wa.gov (http://www.doh.wa.gov/)
Town Center 2
111 Israel Rd SE
Tumwater, WA 98501
360-236-4700
Fax number: 360-236-4818
Email Address: hsqa.csc@doh.wa.gov

National Center for Competency Testing
NCCT 7007 College Blvd Suite 385 Overland Park KS 66211
Phone: 800.875.4404 Fax: 913.498.1243
www.ncctinc.com/ (http://www.ncctinc.com/)

American Association of Medical Assistants
www.aama-ntl.org (http://www.aama-ntl.org/)
Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Communicate with various audiences using a variety of methods.
- Demonstrate interpersonal/human relations skills.

Medical Billing/Coding Specialist (CP)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

The Medical Billing/Coding Specialist program prepares individuals for employment in the areas of medical insurance, physician's office coding, inpatient hospital coding, healthcare claims processing, and home-remote coding. This program also serves the needs of healthcare personnel interested in upgrading their professional skills.

Training in medical billing includes CMS-1500 and UB04 claim forms as well as the processing of insurance claims and basic health information procedures. Coding training includes CPT-4, ICD-9 & ICD-10-CM, PCS, and MSDRGs as well as the legislative changes, such as the Affordable Care Act (ACA) to the billing and coding environment.

Graduates have highly marketable skills that will continue to be in high demand. With the implementation of ICD-10 this October the need for trained individuals to fill these jobs have never been greater.

This program is open-entry and you may begin taking classes in this rewarding and lucrative field any term.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp;101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>or PTWR 135</td>
<td>INTRODUCTION TO APPLIED TECHNICAL WRITING</td>
<td></td>
</tr>
<tr>
<td>BMED 103</td>
<td>MATH FOR HEALTH CARE PROFESSIONALS</td>
<td>3</td>
</tr>
<tr>
<td>CMST&amp;210</td>
<td>INTERPERSONAL COMMUNICATION</td>
<td>5</td>
</tr>
<tr>
<td>or CMST&amp;230</td>
<td>SMALL GROUP COMMUNICATION</td>
<td></td>
</tr>
<tr>
<td>BMED 105</td>
<td>STATISTICS FOR HEALTH CARE PROFESSIONALS</td>
<td>2</td>
</tr>
<tr>
<td>BMED 110</td>
<td>MEDICAL TERMINOLOGY I</td>
<td>3</td>
</tr>
<tr>
<td>BMED 111</td>
<td>MEDICAL TERMINOLOGY II</td>
<td>3</td>
</tr>
<tr>
<td>BMED 112</td>
<td>INTRODUCTION TO PATHOPHYSIOLOGY</td>
<td>5</td>
</tr>
<tr>
<td>BMED 116</td>
<td>MEDICAL OFFICE ADMINISTRATIVE PROCEDURES I</td>
<td>3</td>
</tr>
<tr>
<td>BMED 129</td>
<td>MEDICAL REIMBURSEMENT</td>
<td>5</td>
</tr>
<tr>
<td>BMED 130</td>
<td>MEDICAL CODING - CPT/HCPCS</td>
<td>4</td>
</tr>
<tr>
<td>BMED 132</td>
<td>MEDICAL CODING ICD-9-CM/ICD-10</td>
<td>5</td>
</tr>
<tr>
<td>BMED 133</td>
<td>INTERMEDIATE MEDICAL CODING</td>
<td>5</td>
</tr>
<tr>
<td>BMED 138</td>
<td>LEGAL ASPECTS OF THE MEDICAL OFFICE</td>
<td>2</td>
</tr>
<tr>
<td>BMED 226</td>
<td>MEDICAL OFFICE PRACTICUM</td>
<td>3</td>
</tr>
<tr>
<td>or BMED 250</td>
<td>MEDICAL OFFICE CAPSTONE PRACTICUM</td>
<td></td>
</tr>
<tr>
<td>BMED 233</td>
<td>INTRODUCTION TO PATIENT NAVIGATION &amp; ADVOCACY</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 149</td>
<td>COMPUTER APPLICATIONS ESSENTIALS</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 164</td>
<td>HUMAN BIOLOGY and HUMAN BIOLOGY LAB</td>
<td></td>
</tr>
<tr>
<td>HEOC 100</td>
<td>BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY</td>
<td></td>
</tr>
<tr>
<td>HEOC 104</td>
<td>HEALTH CARE DELIVERY &amp; CAREER EXPLORATION</td>
<td>3</td>
</tr>
<tr>
<td>HI 202</td>
<td>INTRODUCTION TO HEALTH CARE QUALITY</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 124</td>
<td>HEALTHCARE PROVIDER CPR AND FIRST AID</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits/Units: 92-93
Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate use of medical office software to complete medical office tasks (billing and coding).
- Apply policies and principles of medical reimbursement.
- Accurately code using ICD-9 and CPT coding principles.
- Demonstrate the ability to work as a team member to accomplish a task. (affective)
- Communicate effectively with peers, patients, and health care professionals through written and oral communications. (affective and psychomotor)
- Accurately process medical billing claims
MUSIC

The Music program at Clark offers students an abundance of experiences in music theory, instrumental and vocal performance training, music appreciation and music history. Courses are designed to prepare the music major for advanced studies for transfer to a four-year bachelor's music degree while also providing an enriching experience to the non-music major with the skills and background to fully enjoy music as a cultural pursuit.

Contact:
Dr. Doug Harris, Director of Bands
Phone: (360) 992-2188
Email: DAHarris@clark.edu

• Associate in Music DTA/MRP (AA) (p. 94)

Associate in Music DTA/MRP (AA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Communication Skills</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Course Options (p. 311)</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td><strong>Quantitative Skills</strong></td>
<td></td>
</tr>
<tr>
<td>MATH&amp;107</td>
<td>MATH IN SOCIETY</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Humanities</strong></td>
<td></td>
</tr>
<tr>
<td>MUSC&amp;141</td>
<td>MUSIC THEORY I</td>
<td>5</td>
</tr>
<tr>
<td>MUSC&amp;142</td>
<td>MUSIC THEORY II</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Select five credits/units from other disciplines (p. 311)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td><strong>Social Sciences</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Selected from at least two disciplines (p. 312)</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td><strong>Natural Sciences</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Selected from at least two disciplines (p. 312)</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td><strong>Major Area Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>MUSC&amp;121</td>
<td>EAR TRAINING 1</td>
<td>1</td>
</tr>
<tr>
<td>MUSC&amp;122</td>
<td>EAR TRAINING 2</td>
<td>1</td>
</tr>
<tr>
<td>MUSC&amp;123</td>
<td>EAR TRAINING 3</td>
<td>1</td>
</tr>
<tr>
<td>MUSC&amp;221</td>
<td>EAR TRAINING 4</td>
<td>1</td>
</tr>
<tr>
<td>MUSC&amp;222</td>
<td>EAR TRAINING 5</td>
<td>1</td>
</tr>
<tr>
<td>MUSC&amp;223</td>
<td>EAR TRAINING 6</td>
<td>1</td>
</tr>
<tr>
<td>MUSC&amp;143</td>
<td>MUSIC THEORY III</td>
<td>5</td>
</tr>
<tr>
<td>MUSC&amp;231</td>
<td>MUSIC THEORY IV</td>
<td>3</td>
</tr>
<tr>
<td>MUSC&amp;232</td>
<td>MUSIC THEORY V</td>
<td>3</td>
</tr>
<tr>
<td>MUSC&amp;233</td>
<td>MUSIC THEORY VI</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total Credits/Units</td>
<td>102</td>
</tr>
</tbody>
</table>

1. No more than 10 credits/units allowed from any one discipline.
2. No more than 10 credits/units allowed from any one discipline. At least 10 credits/units in Physical, Biological and/or Earth Sciences. Shall include at least one laboratory course.
3. In-house diagnostic testing and/or auditions might affect the credits/units accepted in theory and ear training. Students are advised to check with the receiving institution.
4. In-house auditions might affect the credits/units accepted in this area. Students are advised to check with the receiving institution.
**Program Outcomes**

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Meet audition standards for any necessary proficiency exams in music theory for transfer to a four-year school of music.
- Perform a standard body of literature at a proficiency level relevant to pursuit of a BA or BM degree in music.
- Demonstrate musicality through participation in recorded performances.
NETWORK TECHNOLOGY

Designed to meet the ever-changing needs of the IT (Information Technology) field, Clark’s Network Technology programs include extensive hands-on, real-world scenario-based learning in planning, designing, implementing, maintaining, and troubleshooting small-to-large scale computer networks.

The Network Technology department provides in-demand training for careers as a Network Administrator, Network Engineer, and Network Support Specialist in all aspects of modern computer networks, including traditional data, video conference, Voice over Internet Protocol (VoIP) telephone, wireless networks, and network security.

We are a Cisco Network Academy authorized by Cisco Systems, a leader in the networking industry. The Network Technology department offers training towards obtaining several well-recognized industry certifications, including:

- Cisco CCNA
- Cisco CCNA Security
- Cisco CCNA Voice
- CompTIA A+ PC Technician
- CompTIA Network+
- CompTIA Server+
- Microsoft MCITP Server Administrator on Windows Server 2008
- Microsoft MCTS Windows Server 2008 Network Infrastructure
- Microsoft MCTS Windows Server 2008 Active Directory

Our various Network Technology programs are designed with entry points both for the student just starting a new career, as well as for the computer networking or telecommunications professional seeking to improve and update their skills and achieve industry certifications. Classes are offered at convenient times for working people: days, nights, weekends.

We invite you to visit our website for more information, contact us with your questions, and schedule a tour of our classroom and leading-edge lab facility.

Email: dnet@clark.edu

Program Preparation

Math and English proficiency tests are required of all students before entry into the applied science degree program.

Students must complete all Major Area Requirements with a minimum grade of 'C' or better in order to successfully complete the program and earn the award.

Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

- Cisco Technician (CA) (p. 96)
- Cisco Technologies (AAT) (p. 96)
- Microsoft Technician (CA) (p. 97)
- Network Technologies (AAT) (p. 97)

Cisco Technician (CA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

This program is designed for students who want to work as network administrators with local area network systems. Network administrators maintain network operations, conduct performance monitoring, network security, firewalls, VPNs, design networks, perform backup and recovery procedures, and perform troubleshooting.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTEC 103</td>
<td>IP SUBNETTING</td>
<td>3</td>
</tr>
<tr>
<td>NTEC 125</td>
<td>INFORMATION SECURITY FUNDAMENTALS</td>
<td>3</td>
</tr>
<tr>
<td>NTEC 132</td>
<td>WINDOWS MTA SERVER ADMINISTRATION FUNDAMENTALS</td>
<td>3</td>
</tr>
<tr>
<td>NTEC 142</td>
<td>CLOUD COMPUTING FUNDAMENTALS</td>
<td>3</td>
</tr>
<tr>
<td>NTEC 151</td>
<td>LINUX ESSENTIALS</td>
<td>6</td>
</tr>
<tr>
<td>NTEC 220</td>
<td>DEPLOYING LINUX SERVER SERVICES</td>
<td>6</td>
</tr>
<tr>
<td>NTEC 221</td>
<td>CISCO CCNA 1: INTRODUCTION TO NETWORKS</td>
<td>6</td>
</tr>
<tr>
<td>NTEC 222</td>
<td>CISCO CCNA 2: ROUTING &amp; SWITCHING ESSENTIALS</td>
<td>6</td>
</tr>
<tr>
<td>NTEC 252</td>
<td>LINUX ADMINISTRATION 1</td>
<td>6</td>
</tr>
</tbody>
</table>

Total Credits/Units: 42

Note: Students will be required to have access to the Internet to complete their coursework.

To learn more about this program’s employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (http://www.clark.edu/academics/catalog/gainful-employment/644E/Gedt.html).

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Design converged networks to meet specific business needs.
- Implement converged networks to meet specific business needs.
- Maintain converged networks to meet specific business needs.
- Resolve common issues with converged networks.

Cisco Technologies (AAT)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.
### General Education Requirements

#### Communication Skills
- **ENGL&101** ENGLISH COMPOSITION I 5
- or **PTWR 135** INTRODUCTION TO APPLIED TECHNICAL WRITING 5

Subtotal 5

#### Computational Skills
Select one from the following:
- **MATH&107** MATH IN SOCIETY 5
- **MATH 111** COLLEGE ALGEBRA 5
- **PTCS 110** PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS 5
- **PHIL&120** SYMBOLIC LOGIC 5

Subtotal 5

#### Human Relations
- **COLL 101** COLLEGE ESSENTIALS: INTRODUCTION TO CLARK 2

Subtotal 2

#### Major Area Requirements
- **CTEC 132** MICROSOFT WINDOWS SERVER FUNDAMENTALS 4
- **NTEC 103** IP SUBNETTING 3
- **NTEC 125** INFORMATION SECURITY FUNDAMENTALS 3
- **NTEC 142** CLOUD COMPUTING FUNDAMENTALS 3
- **NTEC 143** LINUX ESSENTIALS 3
- **NTEC 220** DEPLOYING LINUX SERVER SERVICES 6
- **NTEC 221** CISCO CCNA 1: INTRODUCTION TO NETWORKS 6
- **NTEC 222** CISCO CCNA 2: ROUTING & SWITCHING ESSENTIALS 6
- **NTEC 236** MICROSOFT SERVER ADMINISTRATOR 3 6

Total 42

### Network Technologies (AAT)

#### General Education Requirements

#### Communication Skills
- **ENGL&101** ENGLISH COMPOSITION I 5
- or **PTWR 135** INTRODUCTION TO APPLIED TECHNICAL WRITING 5

Subtotal 5

#### Computational Skills
Select one from the following:
- **MATH&107** MATH IN SOCIETY 5
- **MATH 111** COLLEGE ALGEBRA 5
- **PTCS 110** PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS 5
- **PHIL&120** SYMBOLIC LOGIC 5

Subtotal 5

#### Human Relations
- **COLL 101** COLLEGE ESSENTIALS: INTRODUCTION TO CLARK 2

Subtotal 2

#### Major Area Requirements
- **CTEC 132** MICROSOFT WINDOWS SERVER FUNDAMENTALS 4
- **NTEC 103** IP SUBNETTING 3
- **NTEC 125** INFORMATION SECURITY FUNDAMENTALS 3
- **NTEC 142** CLOUD COMPUTING FUNDAMENTALS 3

Total 42

### Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Design converged networks to meet specific business needs.
- Implement converged networks to meet specific business needs.
- Maintain converged networks to meet specific business needs.
- Resolve common issues with converged networks.

### Microsoft Technician (CA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

#### Code | Title | Credits/Units
--- | --- | ---
**ENGL&101** | ENGLISH COMPOSITION I | 5
or **PTWR 135** | INTRODUCTION TO APPLIED TECHNICAL WRITING | 5

Subtotal 5

#### Communication Skills
Select one from the following:
- **MATH&107** MATH IN SOCIETY 5
- **MATH 111** COLLEGE ALGEBRA 5
- **PTCS 110** PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS 5
- **PHIL&120** SYMBOLIC LOGIC 5

Subtotal 5

#### Human Relations
- **COLL 101** COLLEGE ESSENTIALS: INTRODUCTION TO CLARK 2

Subtotal 2

#### Major Area Requirements
- **CTEC 132** MICROSOFT WINDOWS SERVER FUNDAMENTALS 4
- **NTEC 103** IP SUBNETTING 3
- **NTEC 125** INFORMATION SECURITY FUNDAMENTALS 3
- **NTEC 142** CLOUD COMPUTING FUNDAMENTALS 3

Total 42
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTEC 151</td>
<td>LINUX ESSENTIALS</td>
<td>6</td>
</tr>
<tr>
<td>NTEC 220</td>
<td>DEPLOYING LINUX SERVER SERVICES</td>
<td>6</td>
</tr>
<tr>
<td>NTEC 221</td>
<td>CISCO CCNA 1: INTRODUCTION TO NETWORKS</td>
<td>6</td>
</tr>
<tr>
<td>NTEC 222</td>
<td>CISCO CCNA 2: ROUTING &amp; SWITCHING ESSENTIALS</td>
<td>6</td>
</tr>
<tr>
<td>NTEC 225</td>
<td>CISCO CCNA SECURITY</td>
<td>6</td>
</tr>
<tr>
<td>NTEC 234</td>
<td>MICROSOFT SERVER ADMINISTRATOR 1</td>
<td>6</td>
</tr>
<tr>
<td>NTEC 235</td>
<td>MICROSOFT SERVER ADMINISTRATOR 2</td>
<td>6</td>
</tr>
<tr>
<td>NTEC 236</td>
<td>MICROSOFT SERVER ADMINISTRATOR 3</td>
<td>6</td>
</tr>
<tr>
<td>NTEC 242</td>
<td>DATACENTER VIRTUALIZATION TECHNOLOGY</td>
<td>6</td>
</tr>
<tr>
<td>NTEC 252</td>
<td>LINUX ADMINISTRATION 1</td>
<td>6</td>
</tr>
<tr>
<td>NTEC 297</td>
<td>CAPSTONE EXPERIENCE: NETWORK TECHNOLOGIES</td>
<td>3</td>
</tr>
</tbody>
</table>

Total 90

**Program Outcomes**

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Design Windows and Linux networks to meet specific business needs.
- Implement Windows and Linux networks to meet specific business needs.
- Design converged networks to meet specific business needs.
- Implement converged networks to meet specific business needs.
NURSING

The registered nurse is a licensed health care professional able to work in hospitals, clinics, acute care, physicians' offices, emergency centers, long-term care facilities, and home health care agencies. Registered nurses work with patients from birth through old age in a variety of health care settings, including medical/surgical, obstetrics, mental health, long-term care, and in the community. They design care plans, perform patient assessments, administer medications, give injections, serve as advocates for patients, and refer patients to the proper resources. Critical-thinking and decision-making ability, as well as a life-long commitment to learning, are important assets in this demanding but rewarding profession.

Graduates of the Associate Degree Nursing program receive an Associate in Arts Nursing DTA/MRP degree, and are qualified to take the National Council Examination for licensure as a Registered Nurse.

Clark College’s Associate Degree in Nursing program is accredited by the Accreditation Commission for Education in Nursing (ACEN).

ACEN
Accreditation Commission for Education In Nursing
3343 Peachtree Road NE, Suite 850
Atlanta, Georgia 30326
www.acenursing.org (http://%E2%80%8Bwww.acenursing.org)

About the Program

For Financial Aid purposes, the Associate Degree in Nursing DTA/MRP is open enrollment which enables all students who wish to pursue this degree to complete the “Nursing Degree Requirements” (courses in the areas of English, Biological Sciences, Psychology, etc.). The “Nursing Degree Requirements” provide the foundation for the subsequent “Nursing Core” classes (classes with “NURS” prefix). Due to clinical space limitations, although the program of study for the nursing transfer degree is open enrollment, there is a competitive application process for students to be able to begin the “Nursing Core” classes. The instructions in the Nursing Program Guide explain the nursing transfer degree requirements and the competitive application process to be able to begin the Nursing Core classes.

The Nursing Program Guide is posted on the Nursing website at www.clark.edu/clarknursing (http://www.clark.edu/clarknursing/).

Disability Statement for Health Occupations

In accordance with the Americans with Disabilities Act and the Rehabilitation Act of 1973, accommodations for students with disabilities will be considered at the student’s request. The student may need to provide documentation of disability to the Disability Support Services Office to support his/her accommodation requests. Documentation guidelines and procedures can be found at Clark’s Disability Support Services (http://www.clark.edu/campus-life/student-support/disability_support/). Once the student is qualified by DSS as having a disability, requested accommodations will be considered. Accommodations for the classroom, laboratory, or clinical setting will be evaluated according to reasonableness. Accommodations that compromise patient care, or that fundamentally alter the essential functions of the program or activity, are not considered to be reasonable.

Pre-Nursing - DTA/MRP (AA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

This pathway is applicable to students planning to prepare for upper-division Bachelor of Science, Nursing (entry-to-practice/basic BSN pathway) by completing a broad selection of academic courses. Many students transfer to the BSN program after completing the Associate Degree Nursing (ADN) program (RN-to-BSN pathway); however, this agreement is not applicable to and does not alter those ADN-to-BSN articulation agreements.

Students planning a career pathway in Nursing should seek advisement from Clark College’s Advising Department early. Besides this degree, Clark has several consortial agreements with regard to degrees in Nursing.

This pathway streamlines preparation for the basic BSN pathway across the state. It does not, however, address the issue of significantly inadequate capacity (faculty, clinical opportunities, etc.) at the BSN level relative to workforce needs or current student interest. Due to high interest and limited space in BSN programs, admission to all BSN programs is highly competitive, with many qualified applicants finding themselves on waiting lists for admission.

This document represents an agreement between the following baccalaureate institutions offering an entry-to-practice/basic BSN program and the community and technical colleges system. Baccalaureate institutions party to this agreement include: University of Washington, Seattle; Washington State University; Northwest University; Seattle University; Seattle Pacific University; Pacific Lutheran University; and Walla Walla University. The Washington State University Intercollegiate College of Nursing (WSU-ICN) is a consortium whose members include Eastern Washington University, Gonzaga, and Whitworth. Associate degree transfers to WSU-ICN are admitted through WSU, but not through the other consortium institutions. EWU participated in the development of this agreement.

Though this degree does not require such, Clark College students should know that the standard Clark AA degree path has these differences from the MRP defined below:

1. Clark requires 3 credits of Health-Physical Education coursework, and
2. Clark’s Social Science distribution requirement stipulates that students take courses from at least three different departments.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students are responsible for researching and preparing for specific major requirements of baccalaureate institutions as early as possible prior to transferring.

• Pre-Nursing - DTA/MRP (AA) (p. 99)
• Nursing (AA) (p. 101)
Clark College Equivalents

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td>ENGL102</td>
<td>ENGLISH COMPOSITION II</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;146</td>
<td>INTRODUCTION TO STATISTICS</td>
<td>5</td>
</tr>
</tbody>
</table>

Distribution Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMST&amp;220</td>
<td>PUBLIC SPEAKING (fulfills oral communication requirement)</td>
<td>5</td>
</tr>
</tbody>
</table>

Select 10 term credits/units of other Humanities, five of which can be CMST (p. 311)

Social Science

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC&amp;100</td>
<td>GENERAL PSYCHOLOGY</td>
<td>5</td>
</tr>
<tr>
<td>PSYC&amp;200</td>
<td>LIFESPAN PSYCHOLOGY</td>
<td>5</td>
</tr>
</tbody>
</table>

Select five credits/units of Sociology (p. 312)

Natural Sciences

Select one from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL&amp;100</td>
<td>SURVEY OF BIOLOGY</td>
<td></td>
</tr>
<tr>
<td>BIOL 164 &amp; BIOL 165</td>
<td>HUMAN BIOLOGY and HUMAN BIOLOGY LAB</td>
<td>10</td>
</tr>
<tr>
<td>or BIOL&amp;160 GENERAL BIOLOGY W/LAB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL&amp;251 &amp; BIOL&amp;252 &amp; BIOL&amp;253</td>
<td>HUMAN A &amp; P I and HUMAN A &amp; P II and HUMAN A &amp; P III</td>
<td>15</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL&amp;241 &amp; BIOL&amp;242</td>
<td>HUMAN ANATOMY AND PHYSIOLOGY I and HUMAN ANATOMY AND PHYSIOLOGY II</td>
<td>10</td>
</tr>
<tr>
<td>BIOL&amp;260</td>
<td>MICROBIOLOGY</td>
<td>5</td>
</tr>
<tr>
<td>CHEM&amp;121</td>
<td>INTRO TO CHEMISTRY: PRE-HEALTH</td>
<td>5</td>
</tr>
<tr>
<td>CHEM&amp;131</td>
<td>INTRO TO ORGANIC/BIOCHEM</td>
<td>5</td>
</tr>
<tr>
<td>NUTR&amp;101</td>
<td>NUTRITION</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives

Elective Courses (p. 313) 10

Total Credits/Units 90-96

1 BIOL&160 preferred.
2 Students need to be aware that Clark College’s nutrition class is only three credits/units, not the required five credits/units.
3 Up to 10 additional term credits/units of which a maximum of five credits/units may be in college-level courses as defined by the community college, and the remainder shall be fully transferable as defined by the receiving institution. Students need to consult with the transfer institution to determine which course is ‘fully transferable.

Notes

Basic Requirements

Communication Skills
ENGL&102 is required at Northwest University and Walla Walla University.

Quantitative/Symbolic Reasoning Requirement

UW Seattle and Seattle University require 10 credits in quantitative/symbolic reasoning with the additional class in college algebra or pre-calculus (at UW Seattle, a class in Logic also serves for the additional class).

Students should make sure that the receiving institution will accept the business statistics sequence prior to starting.

Distribution Requirements

Humanities

In order to better prepare for successful transfer, students are encouraged to consult with the institution(s) to which they wish to transfer regarding the humanities courses that best support or may be required as prerequisites to their nursing curriculum.

A curriculum that provides students with an understanding of and sensitivity to human diversity is encouraged (required by WSU). Credits in the humanities distribution area provide one opportunity for such a curriculum. See the humanities choices in the WSU ‘Diversity Course Identification Guidelines’ for possible selection or choose courses that include minority, non-Western, ethnic or other ‘area’ studies.

Social Sciences

Northwest University requires Cultural Anthropology and does not accept a course in the sociology discipline as a substitute. Students may be admitted to the BSN without Cultural Anthropology if they agree to complete the course at NU in the summer prior to the junior year.

A curriculum that provides students with an understanding of and sensitivity to human diversity is encouraged (required by WSU). The credits/units in sociology provide one opportunity for such a curriculum. See the sociology choices in the WSU ‘Diversity Course Identification Guidelines’ for possible selection or choose courses that include minority, non-Western, ethnic or other ‘area’ studies.

Natural Sciences

Introductory survey courses or review courses do not meet the content level expectations for these natural science requirements.

Northwest University requires 2 credits of Genetics as well. Students may be admitted to the BSN without Genetics if they agree to complete the course at NU in the summer prior to the junior year.

At the time of application, when some of the coursework may not yet be completed, UW Seattle requires a minimum GPA of 3.0 for 3 out of the 7 courses or 2.8 for 4 out of the 7.

Students need to be aware that Clark College’s nutrition class is only 3 credits, not the required 5 credits.

Electives

Elective Courses

See notes under humanities, social science and natural science.

A curriculum that provides students with an understanding of and sensitivity to human diversity is encouraged (required by WSU). The elective credits provide one opportunity for such a curriculum. See the choices in the WSU ‘Diversity Course Identification Guidelines’ for possible course selection or select courses that include minority, non-Western, ethnic or other ‘area’ studies.
Total Required Credits: 90

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)

Nursing (AA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL101</td>
<td>ENGLISH COMPOSITION I</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Select an additional five credits/units (p. 311)</td>
<td>5</td>
</tr>
<tr>
<td>MATH146</td>
<td>INTRODUCTION TO STATISTICS</td>
<td>5</td>
</tr>
<tr>
<td>PSYC100</td>
<td>GENERAL PSYCHOLOGY</td>
<td>5</td>
</tr>
<tr>
<td>PSYC200</td>
<td>LIFESPAN PSYCHOLOGY</td>
<td>5</td>
</tr>
<tr>
<td>CHEM121</td>
<td>INTRO TO CHEMISTRY: PRE-HEALTH</td>
<td>5</td>
</tr>
<tr>
<td>BIOL160</td>
<td>GENERAL BIOLOGY W/LAB</td>
<td>5</td>
</tr>
<tr>
<td>BIOL260</td>
<td>MICROBIOLOGY</td>
<td>5</td>
</tr>
<tr>
<td>BIOL241</td>
<td>HUMAN ANATOMY AND PHYSIOLOGY I</td>
<td>5</td>
</tr>
<tr>
<td>BIOL242</td>
<td>HUMAN ANATOMY AND PHYSIOLOGY II</td>
<td>5</td>
</tr>
<tr>
<td>NUTR101</td>
<td>NUTRITION</td>
<td>3</td>
</tr>
<tr>
<td>NURS110</td>
<td>FOUNDATIONS OF NURSING CONCEPTS</td>
<td>2</td>
</tr>
<tr>
<td>NURS111</td>
<td>FOUNDATIONS OF CLINICAL NURSING</td>
<td>2</td>
</tr>
<tr>
<td>ENGL112</td>
<td>ETHICS AND POLICY IN HEALTHCARE I</td>
<td>2</td>
</tr>
<tr>
<td>NURS113</td>
<td>LIFESPAN ASSESSMENT CONCEPTS</td>
<td>3</td>
</tr>
<tr>
<td>NURS114</td>
<td>NURSING SKILLS APPLICATION I</td>
<td>1</td>
</tr>
<tr>
<td>NURS115</td>
<td>NURSING SKILLS LAB I</td>
<td>2</td>
</tr>
<tr>
<td>NURS122</td>
<td>FAMILY-CENTERED NURSING</td>
<td>2</td>
</tr>
<tr>
<td>PSYC122</td>
<td>PSYCHOSOCIAL ISSUES IN HEALTH CARE I</td>
<td>1</td>
</tr>
<tr>
<td>NURS123</td>
<td>FAMILY-CENTERED CLINICAL NURSING</td>
<td>4</td>
</tr>
<tr>
<td>PSYC124</td>
<td>PSYCHOSOCIAL ISSUES IN HEALTH CARE II</td>
<td>2</td>
</tr>
<tr>
<td>NURS127</td>
<td>NURSING SKILLS APPLICATION II</td>
<td>1</td>
</tr>
<tr>
<td>NURS128</td>
<td>NURSING SKILLS LAB II</td>
<td>2</td>
</tr>
<tr>
<td>NURS135</td>
<td>MEDICAL SURGICAL NURSING CONCEPTS I</td>
<td>3</td>
</tr>
<tr>
<td>NURS136</td>
<td>MEDICAL-SURGICAL CLINICAL NURSING</td>
<td>5</td>
</tr>
<tr>
<td>NURS137</td>
<td>NURSING SKILLS APPLICATION III</td>
<td>1</td>
</tr>
<tr>
<td>NURS138</td>
<td>NURSING SKILLS LAB III</td>
<td>2</td>
</tr>
<tr>
<td>NUTR139</td>
<td>NUTRITION IN HEALTHCARE I</td>
<td>1</td>
</tr>
<tr>
<td>NURS241</td>
<td>MEDICAL-SURGICAL NURSING CONCEPTS II</td>
<td>3</td>
</tr>
<tr>
<td>NURS242</td>
<td>MEDICAL/SURGICAL CLINICAL NURSING</td>
<td>8</td>
</tr>
<tr>
<td>NUTR240</td>
<td>NUTRITION IN HEALTHCARE II</td>
<td>1</td>
</tr>
<tr>
<td>NURS251</td>
<td>MEDICAL-SURGICAL NURSING CONCEPTS III</td>
<td>2</td>
</tr>
<tr>
<td>NURS252</td>
<td>ADVANCED HOLISTIC CLINICAL NURSING</td>
<td>8</td>
</tr>
<tr>
<td>PSYC253</td>
<td>PSYCHOSOCIAL ISSUES IN HEALTH CARE III</td>
<td>2</td>
</tr>
<tr>
<td>NURS261</td>
<td>PROFESSIONAL LEADERSHIP TRANSITION TO PRACTICE</td>
<td>1</td>
</tr>
<tr>
<td>ENGL273</td>
<td>ETHICS AND POLICY IN HEALTHCARE II</td>
<td>3</td>
</tr>
<tr>
<td>NURS262</td>
<td>PROFESSIONAL LEADERSHIP SENIOR PRACTICUM</td>
<td>6</td>
</tr>
<tr>
<td>NURS263</td>
<td>PROFESSIONAL ROLE IN COMMUNITY SERVICE</td>
<td>1</td>
</tr>
<tr>
<td>NURS264</td>
<td>CAPSTONE NCLEX PREPARATION</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits/Units: 135

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
• Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
• Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
• Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
• Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
• Obtain, evaluate, and ethically use information. (GE)
• Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
• Demonstrate progress toward healthier behaviors. (GE)
• Teamwork and Interprofessional Collaboration: Model open communication, mutual respect and shared decision making.
• Knowledge: Integrate relevant theoretical and practical knowledge.
• Clinical Judgment: Demonstrate effective problem solving and decision making.
• Caring: Integrate principles of diversity, holism, stewardship, dignity, and respect to reflect an environment of caring.
• Professionalism: Demonstrate personal accountability, ethical practices and continuing competence in nursing.
• Patient Safety: Minimize risk of harm to patients and providers through both clinical system effectiveness and individual performance.
PHARMACY TECHNICIAN

Pharmacy technicians in Washington and Oregon are employed in hospitals and outpatient facilities. They assist licensed pharmacists in dispensing medications, assist with compounding and IV drug preparation, take inventory, stock supplies, type prescription labels, and perform other assignments as allowed by law. Pharmacy technicians, by law, are employed under the direct supervision of a licensed pharmacist. Both chain and community retail pharmacies, as well as all hospitals, employ pharmacy technicians. The profession of pharmacy requires highly motivated and trained technicians to provide the drug preparation and distributive functions that support the medication management and pharmaceutical care duties of the pharmacist. Clark College’s program consists of classroom and practicum education and training. Students learn the theory in class, practice in a mock pharmacy mini-lab, and then apply their knowledge in actual pharmacy practicum settings.

Graduates of the Clark College Pharmacy Technician program will be eligible for:

- Clark College Certificate of Proficiency
- Washington Board of Pharmacy Certificate
- Oregon Board of Pharmacy Registration
- National Pharmacy Technician Certification Exam

About the Program

For Financial Aid purposes, the Certificate of Proficiency in Pharmacy Technician is open enrollment which enables all students who wish to pursue this program to complete the “Pharmacy Technician Program Requirements” (courses in the areas of English, Sciences, Medical Terminology, etc.). The “Pharmacy Technician Program Requirements” provide the foundation for the subsequent “Pharmacy Technician Core” classes (classes with “PHAR” prefix). Due to clinical space limitations, although the program of study for the pharmacy technician is open enrollment, there is an application process for students to be able to begin the “Pharmacy Technician Core” classes. The instructions in the Pharmacy Technician Program Guide explain the Pharmacy Technician requirements and the application process to be able to begin the Pharmacy Technician Core classes.

The Pharmacy Technician Program Guide is posted on the Pharmacy Technician website (http://www.clark.edu/academics/programs/pharmacy/).

Program Pathway

Clark College also offers an expanded Pharmacy Technician curriculum leading to an Associate in Applied Technology (AAT) in Pharmacy Technician Leadership. This degree program is intended for those students who would like to continue their education beyond the Pharmacy Technician Certificate of Proficiency. Courses offered for the AAT in Pharmacy Technician focus on developing skill sets in leadership, business relations, and professional development.

Disability Statement for Health Occupations

In accordance with the Americans with Disabilities Act and the Rehabilitation Act of 1973, accommodations for students with disabilities will be considered at the student’s request. The student may need to provide documentation of disability to the Disability Support Services Office to support his/her accommodation requests. Documentation guidelines and procedures can be found at www.clark.edu/dss (http://www.clark.edu/dss/). Once the student is qualified by DSS as having a disability, requested accommodations will be considered. Accommodations for the classroom, laboratory, or clinical setting will be evaluated according to reasonableness. Accommodations that compromise patient care, or that fundamentally alter the essential functions of the program or activity, are not considered to be reasonable.

- Pharmacy Technician (CP) (p. 103)
- Pharmacy Technician Leadership (AAT) (p. 104)

Pharmacy Technician (CP)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMED 110</td>
<td>MEDICAL TERMINOLOGY I</td>
<td>3</td>
</tr>
<tr>
<td>BTEC 149</td>
<td>COMPUTER APPLICATIONS ESSENTIALS</td>
<td>3</td>
</tr>
<tr>
<td>HEOC 104</td>
<td>HEALTH CARE DELIVERY &amp; CAREER EXPLORATION</td>
<td>3</td>
</tr>
<tr>
<td>HEOC 120</td>
<td>AIDS EDUCATION</td>
<td>1</td>
</tr>
</tbody>
</table>

Additional Requirements

Select one from the following: 4-5

- HEOC 100 BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY
- BIOL 164 HUMAN BIOLOGY
- & BIOL 165 and HUMAN BIOLOGY LAB
- HLTH 124 HEALTHCARE PROVIDER CPR AND FIRST AID 1

General Education Requirements

Communication Skills 3-5

Select one of the following:

- ENGL 098 WRITING FUNDAMENTALS
- Course Options (p. 321)

Computational Skills

PHAR 110 PHARMACY CALCULATIONS 3

Human Relations

CMST&210 INTERPERSONAL COMMUNICATION 5

or CMST&230 SMALL GROUP COMMUNICATION

Major Area Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMED 111</td>
<td>MEDICAL TERMINOLOGY II</td>
<td>3</td>
</tr>
<tr>
<td>PHAR 105</td>
<td>INTRODUCTION TO PHARMACY</td>
<td>4</td>
</tr>
<tr>
<td>PHAR 112</td>
<td>PHARMACOLOGY I</td>
<td>5</td>
</tr>
<tr>
<td>PHAR 114</td>
<td>PHARMACY PRACTICE AND TECHNOLOGY</td>
<td>4</td>
</tr>
<tr>
<td>PHAR 118</td>
<td>PHARMACY EXTERNSHIP I</td>
<td>4</td>
</tr>
<tr>
<td>PHAR 119</td>
<td>PHARMACY EXTERNSHIP SEMINAR I</td>
<td>2</td>
</tr>
<tr>
<td>PHAR 122</td>
<td>PHARMACOLOGY II</td>
<td>5</td>
</tr>
<tr>
<td>PHAR 123</td>
<td>PHARMACY LAW</td>
<td>2</td>
</tr>
<tr>
<td>PHAR 127</td>
<td>PHARMACY COMPOUNDING</td>
<td>4</td>
</tr>
<tr>
<td>PHAR 128</td>
<td>PHARMACY EXTERNSHIP II</td>
<td>4</td>
</tr>
</tbody>
</table>
Completion of ENGL 098 or equivalent with a grade of "C" or better (2.0) or placement into ENGL&101. Completion of MATH 092 or equivalent with a grade of "C" or better (2.0) or placement into MATH 090/MATH 096 (Must be 7 years current upon program entry).

Must be seven years current upon program entry and must be completed by the end of the first term.

General Information
Selection criteria is subject to change. For complete updated information, please refer to the application materials, available online at www.clark.edu/pharmacytech (http://www.clark.edu/pharmacytech/).

To learn more about this program’s employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (http://www.clark.edu/academics/catalog/gainful-employment/399A/Gedt.html).

Program Outcomes
Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Exhibit effective communication skills in interactions with patients and other healthcare professionals.
- Demonstrate knowledge of pharmacy processes and information technology to accurately and safely prepare and dispense medications in a variety of pharmacy settings.
- Demonstrate professional clinical skills in the work place while complying with laws, regulations, and ethical standards of practice.
- Successfully complete all criteria necessary for registration as a pharmacy tech in any state.

Pharmacy Technician Leadership (AAT)
Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

The Associate in Applied Technology (AAT) in Pharmacy Technician Leadership is intended for those students who would like to continue their education beyond the Pharmacy Technician Certificate of Proficiency. Currently, the Certificate of Proficiency is a one-year program. Courses required for the AAT focus on developing skill sets in leadership, business relations, and professional development. These additional skill sets will provide students with a significant advantage in securing entry-level positions as well as progressing within their career field.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHAR 129</td>
<td>PHARMACY EXTERNSHIP SEMINAR II</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Total Credits/Units</td>
<td>65-68</td>
</tr>
</tbody>
</table>

1 Completion of ENGL 098 or equivalent with a grade of "C" or better (2.0) or placement into ENGL&101. Completion of MATH 092 or equivalent with a grade of "C" or better (2.0) or placement into MATH 090/MATH 096 (Must be 7 years current upon program entry).

2 Must be seven years current upon program entry and must be completed by the end of the first term.

**Preliminary Requirements**

- BMED 110 MEDICAL TERMINOLOGY I ² 3
- BTEC 149 COMPUTER APPLICATIONS ESSENTIALS 3
- Select one from the following: 4-5
  - HEOC 100 BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY ²
  - BIOL 164 HUMAN BIOLOGY & BIOL 165 and HUMAN BIOLOGY LAB ²
  - HEOC 104 HEALTH CARE DELIVERY & CAREER EXPLORATION 3
  - HEOC 120 AIDS EDUCATION 1
  - HLTH 124 HEALTHCARE PROVIDER CPR AND FIRST AID 1

**General Education Requirements**

**Communications**
Course Options (p. 321) 5
Subtotal 20-21

**Computational Skills**
Course Options (p. 322) 5
Subtotal 5

**Human Relations**
CMST&210 INTERPERSONAL COMMUNICATION or CMST&230 SMALL GROUP COMMUNICATION 5
Subtotal 5

**Major Area Requirements**

- BMED 111 MEDICAL TERMINOLOGY II ² 3
- PHAR 105 INTRODUCTION TO PHARMACY 4
- PHAR 110 PHARMACY CALCULATIONS 3
- PHAR 112 PHARMACOLOGY I 5
- PHAR 114 PHARMACY PRACTICE AND TECHNOLOGY (with lab) 4
- PHAR 118 PHARMACY EXTERNSHIP I 4
- PHAR 119 PHARMACY EXTERNSHIP SEMINAR I 2
- PHAR 122 PHARMACOLOGY II 5
- PHAR 123 PHARMACY LAW 2
- PHAR 127 PHARMACY COMPOUNDING 4
- PHAR 128 PHARMACY EXTERNSHIP II 4
- PHAR 129 PHARMACY EXTERNSHIP SEMINAR II 2

**Additional Requirements**

- HDEV 120 PRACTICAL REASONING AND DECISION MAKING 3
- HDEV 200 PROFESSIONAL DEVELOPMENT 2
- MGMT 101 PRINCIPLES OF MANAGEMENT 3
- MGMT 133 PRODUCTION AND OPERATIONS MANAGEMENT 3

**Electives**
Select a minimum two courses from the following: 6-8

- ACED 101 SURVEY OF ADDICTIONOLOGY
- BMED 222 HEALTH INFORMATION PROCEDURES
- BUS 110 CUSTOMER SERVICE
- BUS 211 BUSINESS COMMUNICATIONS
- MGMT 106 MOTIVATION AND PERFORMANCE
Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Successfully complete all criteria necessary for registration as a pharmacy tech in any state.
- Exhibit effective communication skills in interactions with patients and other healthcare professionals.
- Demonstrate knowledge of pharmacy processes and information technology to efficiently manage pharmacy staffing issues and activities.
- Demonstrate professional and clinical leadership skills in the work place while complying with laws, regulations, and ethical standards of practice.
- Demonstrate knowledge of pharmacy processes and information technology to accurately and safely prepare and dispense medications in a variety of pharmacy settings.
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
PHLEBOTOMY

Phlebotomy is the practice of drawing blood for analysis, donation or medical testing. A career as a Phlebotomy technician is a rewarding path for someone who desires to work directly with patients. In just two quarters, Clark’s Phlebotomy Program prepares students for an entry-level position in a rapidly growing field. With hands-on training from highly experienced faculty, students gain competence in drawing blood using a variety of collection methods with adults, children, and infants. Coursework includes the handling and transportation of blood and non-blood specimens, safety and infection control, specimen processing, and performing CLIA-waived laboratory testing.

Clark’s Phlebotomy curriculum places emphasis on quality and follows the most up-to-date Clinical and Laboratory Standards Institute (CLSI) guidelines for phlebotomy. The second quarter of the program includes a clinical practicum in a health care facility providing 'real world' training and direct experience as a medical laboratory team member.

Graduates of the Clark College Phlebotomy program will be eligible for:

- Clark College Certificate of Achievement
- Washington State Phlebotomy Licensure
- National Phlebotomy Certification Exam

About the Program

The Certificate of Achievement in Phlebotomy is open enrollment which enables all students who wish to pursue this program to complete the “Phlebotomy Program Requirements” (courses in the areas of English, Sciences, Medical Terminology, etc.). The “Phlebotomy Program Requirements” provide the foundation for the subsequent “Phlebotomy Core” classes (classes with “PHLE” prefix). Due to clinical space limitations, although the program of study for the Phlebotomy is open enrollment, there is an application process for students to be able to begin the “Phlebotomy Core” classes. The instructions in the Phlebotomy Program Guide explain the Phlebotomy requirements and the application process to be able to begin the Phlebotomy Core classes.

The Phlebotomy Program Guide is posted on the Phlebotomy website at: www.clark.edu/phlebotomy (http://www.clark.edu/phlebotomy/)

Disability Statement for Health Occupations

In accordance with the Americans with Disabilities Act and the Rehabilitation Act of 1973, accommodations for students with disabilities will be considered at the student’s request. The student may need to provide documentation of disability to the Disability Support Services Office to support his/her accommodation requests. Documentation guidelines and procedures can be found at www.clark.edu/dss (http://www.clark.edu/dss/). Once the student is qualified by DSS as having a disability, requested accommodations will be considered. Accommodations for the classroom, laboratory, or clinical setting will be evaluated according to reasonableness. Accommodations that compromise patient care, or that fundamentally alter the essential functions of the program or activity, are not considered to be reasonable.

- Phlebotomy (CA) (p. 106)

Phlebotomy (CA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Preliminary Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Obtain a minimum applicable GPA of 2.5 prior to program entry</td>
<td></td>
</tr>
<tr>
<td>BMED 110</td>
<td>MEDICAL TERMINOLOGY I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 098</td>
<td>WRITING FUNDAMENTALS</td>
<td>5</td>
</tr>
<tr>
<td>HEOC 104</td>
<td>HEALTH CARE DELIVERY &amp; CAREER EXPLORATION</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 124</td>
<td>HEALTHCARE PROVIDER CPR AND FIRST AID</td>
<td>1</td>
</tr>
<tr>
<td>HEOC 120</td>
<td>AIDS EDUCATION</td>
<td>1</td>
</tr>
<tr>
<td>HEOC 100</td>
<td>BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Program Requirements</td>
<td></td>
</tr>
<tr>
<td>BMED 111</td>
<td>MEDICAL TERMINOLOGY II</td>
<td>3</td>
</tr>
<tr>
<td>CMST&amp;210</td>
<td>INTERPERSONAL COMMUNICATION</td>
<td>5</td>
</tr>
<tr>
<td>PHLE 115</td>
<td>PHLEBOTOMY EDUCATION W/LAB</td>
<td>3</td>
</tr>
<tr>
<td>PHLE 116</td>
<td>BASIC LABORATORY FOR THE PHLEBOTOMIST</td>
<td>3</td>
</tr>
<tr>
<td>PHLE 197</td>
<td>PHLEBOTOMY CLINICAL EXPERIENCE</td>
<td>5</td>
</tr>
<tr>
<td>PHLE 198</td>
<td>PHLEBOTOMY CLINICAL SEMINAR</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total Credits/Units</td>
<td>37</td>
</tr>
</tbody>
</table>

1 Course must be seven years current upon program entry.
2 Or equivalent with a grade of “C” or better (2.0) or placement into ENGL&101.

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Accurately perform phlebotomy procedures in variable clinical environments.
- Identify the varying clinical conditions that require a different methodology of sample collection.
- Communicate effectively, accurately, and professionally, using verbal, non-verbal, and written language with diverse populations of patients and other healthcare providers.
- Conduct self in an ethical and professional manner to provide quality patient care.
- Apply safety and infection control standards in the health care environment.
PHYSICS

Physics is the study of the fundamental nature of our universe. This knowledge is applicable to a wide variety of disciplines in the biological and physical sciences, engineering, medicine, and technology. By taking physics at Clark College, you will get the benefits of small class size, up-to-date laboratory equipment, and instructors who place their emphasis on quality learning.

Physics majors can choose from a variety of courses and are encouraged to explore a wide sample of offerings to obtain a well-rounded education. Students wishing to major in physics should contact the Physics Department for program guidance.

• Physics (AST2) (p. 107)

Physics (AST2)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

This is a suggested program for the first two years of major study in Physics. Lower-division course requirements will vary depending on the transfer institution. Contact an advisor at the transfer institution to determine required coursework as early as possible. Additional courses may be needed to satisfy graduation requirements for the Associate in Science degree (https://catalog.clark.edu/academic-plans/track-2-ast2/general/).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 110</td>
<td>COLLEGE ALGEBRA WITH SUPPLEMENTAL INSTRUCTION</td>
<td></td>
</tr>
<tr>
<td>MATH&amp;153</td>
<td>CALCULUS III</td>
<td>5</td>
</tr>
<tr>
<td>MATH 221</td>
<td>DIFFERENTIAL EQUATIONS</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;254</td>
<td>CALCULUS IV</td>
<td>5</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>1-5</td>
</tr>
</tbody>
</table>

Science Sequence Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM&amp;141</td>
<td>GENERAL CHEMISTRY I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;142</td>
<td>GENERAL CHEMISTRY II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;143</td>
<td>GENERAL CHEMISTRY III</td>
<td>4</td>
</tr>
<tr>
<td>CHEM&amp;151</td>
<td>GENERAL CHEMISTRY LABORATORY I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM&amp;152</td>
<td>GENERAL CHEMISTRY LABORATORY II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM&amp;153</td>
<td>GENERAL CHEMISTRY LABORATORY III</td>
<td>2</td>
</tr>
<tr>
<td>PHYS&amp;241 &amp; PHYS&amp;231</td>
<td>ENGINEERING PHYSICS I &amp; ENGINEERING PHYSICS LAB I</td>
<td>5</td>
</tr>
<tr>
<td>PHYS&amp;242 &amp; PHYS&amp;232</td>
<td>ENGINEERING PHYSICS II &amp; ENGINEERING PHYSICS LAB II</td>
<td>5</td>
</tr>
<tr>
<td>PHYS&amp;243 &amp; PHYS&amp;233</td>
<td>ENGINEERING PHYSICS III &amp; ENGINEERING PHYSICS LAB III</td>
<td>5</td>
</tr>
</tbody>
</table>

Total Credits/Units 90-94

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Apply scientific methodologies to develop and answer questions about the natural world.
• Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
• Analyze and solve multi-step problems using techniques through single-variable calculus.
• Acquire scientific information from appropriate sources to analyze issues, claims or situations.
• Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
• Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
• Demonstrate progress toward healthier behaviors. (GE)
• Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
• Obtain, evaluate, and ethically use information. (GE)
• Analyze patterns of power, privilege, and inequity in the United States. (GE)
• Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
• Apply communication theory to demonstrate effective oral communication skills. (GE)
• Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
POWER, PRIVILEGE, AND INEQUITY

In the contemporary United States, we are increasingly called upon to simultaneously engage with multiple ideas and diverse peoples while addressing complex problems related to power, privilege, and inequity. When unprepared to address these issues, we often, unknowingly, perpetuate these problems.

This Academic Concentration prepares students to identify power, privilege, and inequity as central organizing principles of human experience within the United States. Students who complete this Academic Concentration will be able to do the following.

• Identify and deconstruct the individual, institutional, and ideological systems of power, privilege and inequity.
• Critically analyze one’s own multiple identities within the context of power, privilege and inequity.
• Critically examine and describe the social, political and historical construction of identity and difference with regard to sex, gender, race, class, sexuality, age, and ability.

This Academic Concentration would be earned along with any two-year degree, and would be awarded upon graduation.

• Power, Privilege, and Inequity (AC) (p. 108)

Power, Privilege, and Inequity (AC)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Core Courses</td>
<td></td>
</tr>
<tr>
<td>ECE 133</td>
<td>REFLECTIVE PRACTICES IN EARLY LEARNING</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 175</td>
<td>INTRODUCTION TO LGBTQ STUDIES</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 240</td>
<td>LITERATURE BY WOMEN</td>
<td>5</td>
</tr>
<tr>
<td>SOC 131</td>
<td>RACE AND ETHNICITY IN THE U.S.</td>
<td>5</td>
</tr>
<tr>
<td>WS 101</td>
<td>INTRODUCTION TO WOMEN'S STUDIES</td>
<td>5</td>
</tr>
<tr>
<td>WS 220</td>
<td>RACE, CLASS, GENDER AND SEXUALITY</td>
<td>5</td>
</tr>
<tr>
<td>WS 225</td>
<td>RACISM &amp; WHITE PRIVILEGE IN THE U.S.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Elective Courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one from the following:</td>
<td>3-5</td>
</tr>
<tr>
<td>ASL 125</td>
<td>AMERICAN DEAF CULTURE</td>
<td></td>
</tr>
<tr>
<td>ENGL 176</td>
<td>NATURE AND THE HUMANITIES</td>
<td></td>
</tr>
<tr>
<td>ENGL 254</td>
<td>INTRODUCTION TO QUEER LITERATURE</td>
<td></td>
</tr>
<tr>
<td>ENGL 267</td>
<td>AMERICAN MULTIETHNIC LIT</td>
<td></td>
</tr>
<tr>
<td>HIST&amp;215</td>
<td>WOMEN IN U.S. HISTORY</td>
<td></td>
</tr>
<tr>
<td>HIST&amp;219</td>
<td>NATIVE AMERICAN HISTORY</td>
<td></td>
</tr>
<tr>
<td>HIST 275</td>
<td>AFRICAN-AMERICAN HISTORY</td>
<td></td>
</tr>
<tr>
<td>SOC 230</td>
<td>DOMESTIC VIOLENCE</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits/Units 34-36

1 Each core course below is required. Students must earn a minimum grade of “C.”

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Identify and deconstruct the individual, institutional, and ideological systems of power, privilege and inequity.
• Critically analyze one’s own multiple identities within the context of power, privilege and inequity.
• Critically examine and describe the social, political and historical construction of identity and difference with regard to sex, gender, race, class, sexuality, age, and ability.
SMALL BUSINESS MANAGEMENT

Small businesses play significant roles in today’s economy, both domestic and global. No matter the type of industry, management training is essential to the probability of long-term success. This Small Business Management certificate includes the basic courses that provide the necessary skills needed for small business owners to sustain and expand their operations.

- Small Business Management (CP) (p. 109)

**Small Business Management (CP)**

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

This program focuses on the theories used to manage and lead a small business. Whether an entrepreneur, small business owner, or franchiser/franchisee, the odds of being a success greatly improve through real-world practices that are taught in this program. The foundation of knowledge gleaned from the study of small business management emphasizes the many stakeholders that are necessary for success. The impact that small business has on one’s life and the lives of others is revealed, along with the contributions from small business to the economy and society. Many of today’s career opportunities have been in the small business sector, and forecasts suggest that this trend will continue. The Small Business Management certificate provides a solid foundation to operate and maintain a successful small business.

Students must complete all specifically listed courses in Major Area Requirements with a minimum grade of “C” or better in order to successfully complete the program and earn the award. Consult with a business academic advisor for recommended course, program planning.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Education Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Communication Skills</strong></td>
<td>3-5</td>
<td></td>
</tr>
<tr>
<td>BTEC 106</td>
<td>APPLIED OFFICE ENGLISH</td>
<td></td>
</tr>
<tr>
<td>or ENGL&amp;10</td>
<td>ENGLISH COMPOSITION I</td>
<td></td>
</tr>
<tr>
<td><strong>Computational Skills</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS 102</td>
<td>BUSINESS MATH APPLICATIONS</td>
<td>5</td>
</tr>
<tr>
<td><strong>Human Relations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BTEC 148</td>
<td>BUSINESS PROFESSIONAL SELF DEVELOPMENT</td>
<td>3</td>
</tr>
<tr>
<td><strong>Business Core Course</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS 028</td>
<td>BASIC ACCOUNTING PROCEDURES</td>
<td>3</td>
</tr>
<tr>
<td>BUS 101</td>
<td>INTRODUCTION TO BUSINESS</td>
<td>5</td>
</tr>
<tr>
<td>BTEC 100</td>
<td>KEYBOARDING</td>
<td>1-3</td>
</tr>
<tr>
<td>BTEC 150</td>
<td>COMPUTER BUSINESS APPLICATIONS</td>
<td>5</td>
</tr>
<tr>
<td>ECON 101</td>
<td>INTRODUCTION TO ECONOMICS</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 101</td>
<td>PRINCIPLES OF MANAGEMENT</td>
<td>3</td>
</tr>
<tr>
<td><strong>Major Area Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS 029</td>
<td>BASIC ACCOUNTING PROCEDURES</td>
<td>3</td>
</tr>
<tr>
<td>BUS 036</td>
<td>ACCOUNTING APPLICATIONS</td>
<td>3</td>
</tr>
<tr>
<td>BUS 251</td>
<td>PROFESSIONAL SELLING</td>
<td>3</td>
</tr>
<tr>
<td>BUS 199</td>
<td>COOPERATIVE WORK EXPERIENCE</td>
<td>1-5</td>
</tr>
<tr>
<td><strong>Total Credits/Units</strong></td>
<td>57-59</td>
<td></td>
</tr>
</tbody>
</table>

1 Minimum of five credits/units must be earned in Cooperative Work Experience.
2 Minimum of three credits/units required for program completion

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (http://www.clark.edu/academics/catalog/gainful-employment/257A/Gedt.html).

**Program Outcomes**

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Prepare a business plan.
- Analyze a target market and develop product, pricing, promotion, and distribution strategies to meet customers' needs at a profit.
- Describe the U.S. legal system and the legal environment of business by outlining the basic principles of law that apply to business transactions.
SURVEYING & GEOMATICS

Degree Requirements

The Surveying and Geomatics program is designed to meet entry-level field and office skills in a variety of land surveying and geomatics occupations. Training will utilize precision electronic surveying instruments, including Global Positioning System equipment and sophisticated computerized drafting, mapping, design, and analysis software.

An Associate in Applied Science degree will be awarded upon successful completion of the course requirements. All core and general education list requirements must be met, with any additional credits to be selected as electives. Students are encouraged to complete basic skills at the beginning of their education. Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Full-time students seeking an Associate in Applied Science degree typically complete this program in a minimum of six quarters, if basic skills and prerequisites are complete. Students interested in pursuing a baccalaureate degree in a Surveying or GIS field, a formal articulation agreement between Clark College and the Oregon Institute of Technology in Klamath Falls, Oregon is in place. Please consult with an advisor for additional requirements regarding this specific educational path.

Student Preparation

It is recommended that students prepare for entrance into the program by emphasizing mathematics and science in high school. Two years of algebra and one year each of geometry, trigonometry, and physics are desirable prerequisites.

Career Opportunities

Completion of this program prepares students for work as Surveying Technicians and can lead to a career as a Professional Land Surveyor. The employment forecast for graduates in this field are exceptional. As increasing number of licensed surveyors across the nation retire, a personnel shortage has been created within this profession.

• Survey & Geomatics Technician - GIS (CP) (p. 110)
• Survey & Geomatics Technician - Boundary (CP) (p. 110)
• Surveying/Geomatics (AAS) (p. 111)

Survey & Geomatics Technician - GIS (CP)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

Code Title Credits/Units

General Education Requirements

Communication Skills

PTWR 135 INTRODUCTION TO APPLIED TECHNICAL WRITING 5

Subtotal 5

Human Relations

CMST&210 INTERPERSONAL COMMUNICATION (recommended) 5

Subtotal 5

Major Area Requirements

CADD 140 BASIC AUTOCADE 4

or ENGR 140 BASIC AUTOCADE

SURV 104 COMPUTATION AND PLATTING 5

SURV 121 FIELD SURVEY I 5

or ENGR 121 FIELD SURVEY I

SURV 122 FIELD SURVEY II 5

SURV 123 PROFESSIONAL ETHICS 1

SURV 125 INTRODUCTION TO GIS 3

SURV 163 ROUTE SURVEYING 5

SURV 250 ARC GIS I 3

SURV 252 MAP PROJECTIONS 2

SURV 253 INTRODUCTION TO GPS 2

Total Credits/Units 50

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
• Demonstrate interpersonal/human relations skills. (GE)
• Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
• Communicate in written form, verbally, and graphically with surveyors and engineers.
• Demonstrate use of modern technology, industry standard software, and tools to collect, analyze and interpret data for surveying solutions.
• Practice a code of ethics prescribed by the professional organizations and state codes.

Survey & Geomatics Technician - Boundary (CP)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

Code Title Credits/Units

General Education Requirements

Communication Skills
PTWR 135  INTRODUCTION TO APPLIED TECHNICAL WRITING  (recommended)  5
Subtotal  5

Computational Skills
MATH 103  COLLEGE TRIGONOMETRY  5
Subtotal  5

Human Relations
CMST&210  INTERPERSONAL COMMUNICATION  (recommended)  5
Subtotal  5

Major Area Requirements
CADD 140  BASIC AUTOCAD  4
or ENGR 140  BASIC AUTOCAD
SURV 104  COMPUTATION AND PLATTING  5
SURV 121  FIELD SURVEY I  5
or ENGR 121  FIELD SURVEY I
SURV 122  FIELD SURVEY II  5
SURV 123  PROFESSIONAL ETHICS  1
SURV 163  ROUTE SURVEYING  5
SURV 202  BOUNDARY SURVEYS  4
SURV 203  LEGAL DESCRIPTIONS  3
SURV 223  BOUNDARY LAW I  3
SURV 264  SURVEY SOFTWARE APPLICATIONS  4
Total Credits/Units  54

To learn more about this program's employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (http://www.clark.edu/academics/catalog/gainful-employment/624D/Gedt.html).

Program Outcomes
Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Apply problem solving skills as a member of a professional team in a field crew.
- Communicate in written form, verbally, and graphically with surveyors and engineers.
- Demonstrate use of modern technology, industry standard software, and tools to collect, analyze and interpret data for surveying solutions.
- Practice a code of ethics prescribed by the professional organizations and state codes.

Surveying/Geomatics (AAS)
Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

### General Education Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTWR 135</td>
<td>INTRODUCTION TO APPLIED TECHNICAL WRITING</td>
<td>5</td>
</tr>
<tr>
<td>CMST&amp;210</td>
<td>INTERPERSONAL COMMUNICATION (recommended)</td>
<td></td>
</tr>
</tbody>
</table>

### Health & Physical Education

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE 220</td>
<td>OCCUPATIONAL WELLNESS (recommended)</td>
<td>3</td>
</tr>
</tbody>
</table>

### Computational Skills

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 103</td>
<td>COLLEGE TRIGONOMETRY</td>
<td>5</td>
</tr>
<tr>
<td>CMST&amp;210</td>
<td>INTERPERSONAL COMMUNICATION (recommended)</td>
<td></td>
</tr>
</tbody>
</table>

### Human Relations

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMST&amp;210</td>
<td>INTERPERSONAL COMMUNICATION (recommended)</td>
<td></td>
</tr>
</tbody>
</table>

### Humanities

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURV 102</td>
<td>FUNDAMENTALS OF SURVEY (recommended)</td>
<td>2</td>
</tr>
<tr>
<td>SURV 104</td>
<td>COMPUTATION AND PLATTING</td>
<td>5</td>
</tr>
<tr>
<td>SURV 121</td>
<td>FIELD SURVEY I</td>
<td>5</td>
</tr>
<tr>
<td>SURV 123</td>
<td>PROFESSIONAL ETHICS</td>
<td>1</td>
</tr>
<tr>
<td>SURV 125</td>
<td>FUNDAMENTALS OF SURVEY (recommended)</td>
<td>1</td>
</tr>
<tr>
<td>SURV 127</td>
<td>INTERMEDIATE SURVEY</td>
<td>2</td>
</tr>
<tr>
<td>SURV 128</td>
<td>PROFESSIONAL ETHICS</td>
<td>1</td>
</tr>
<tr>
<td>SURV 163</td>
<td>ARC GIS I</td>
<td>3</td>
</tr>
<tr>
<td>SURV 255</td>
<td>INTRODUCTION TO GPS</td>
<td>2</td>
</tr>
<tr>
<td>SURV 264</td>
<td>SURVEY SOFTWARE APPLICATIONS</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Credits/Units  93
able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Demonstrate use of modern technology, industry standard software, and tools to collect, analyze and interpret data for surveying solutions.
- Apply problem solving skills as a member of a professional team in a field crew.
- Communicate in written form, verbally, and graphically with surveyors and engineers.
- Solve applied mathematical problems related to land surveying.
- Prepare complete field records.
- Practice a code of ethics prescribed by the professional organizations and state codes.
WELDING TECHNOLOGY

The Welding Technology program prepares students for entry-level welder employment in production, job shop, or maintenance positions. Students master basic and advanced welding skills while operating heavy industrial fabrication equipment and state-of-the-art welding equipment. The curriculum places equal focus on the development of fabrication skills and techniques. Student will be expected to not only demonstrate their proficiency with various weld processes but their ability to fabricate projects within specified tolerances using those processes.

The multiple certificates and degree options available within this program allow students the option to stop-out and enter the workforce, and re-enter the program as needed, or complete their program of study without stopping. Students enrolled in a welding program will have the opportunity to earn multiple American Welding Society certifications.

- Welded Sculpture/Fabrication (CC) (p. 113)
- Flux Core Arc Welding (CA) (p. 113)
- Gas Metal Arc Welding (CA) (p. 113)
- Gas Tungsten Arc Welding (CA) (p. 114)
- Shielded Metal Arc Welding (CA) (p. 114)
- Welding Technician (CP) (p. 114)
- Welding Technologies (AAT) (p. 116)

Welded Sculpture/Fabrication (CC)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 120</td>
<td>WELDED SCULPTURE LAB I</td>
<td>3</td>
</tr>
<tr>
<td>WELD 121</td>
<td>WELDING SCULPTURE LAB II</td>
<td>3</td>
</tr>
<tr>
<td>WELD 122</td>
<td>WELDED SCULPTURE LAB III</td>
<td>3</td>
</tr>
<tr>
<td>Total Credits/Units</td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Use personal-protection safety equipment and demonstrate safe work habits.
- Operate state-of-the-art welding equipment used in today’s fabrication industries.
- Utilize CNC software for plasma shape-cutting.

Gas Metal Arc Welding (CA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 120</td>
<td>ADULT CPR AND FIRST AID</td>
<td>1</td>
</tr>
<tr>
<td>WELD 102</td>
<td>INTRODUCTION TO WELDING</td>
<td>6</td>
</tr>
<tr>
<td>WELD 110</td>
<td>WELDING BLUEPRINT READING</td>
<td>5</td>
</tr>
<tr>
<td>WELD 140</td>
<td>GAS METAL ARC WELDING</td>
<td>6</td>
</tr>
<tr>
<td>WELD 141</td>
<td>GAS METAL ARC FABRICATION</td>
<td>6</td>
</tr>
<tr>
<td>Total Credits/Units</td>
<td></td>
<td>24</td>
</tr>
</tbody>
</table>

To learn more about this program’s employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (http://www.clark.edu/academics/catalog/gainful-employment/814G/Gedt.html).
Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate Welding Technology principles of operation, terms and safe practices related to Gas Metal Arc Welding (GMAW) and cutting processes.
- Explain the use of GMAW electrodes.
- Describe the functions of GMAW power sources, electrical parameters, output characteristics and auxiliary controls.
- Describe the criteria for visual inspection of GMAW weldments.
- Demonstrate Oxy/fuel Cutting and Plasma Arc Cutting principles of operation.
- Interpret blueprints and specifications.

Gas Tungsten Arc Welding (CA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

### Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate Welding Technology principles of operation, terms and safe practices related to Shielded Metal Arc Welding (SMAW) and cutting processes.
- Explain the use of SMAW electrodes.
- Describe the functions of SMAW power sources, electrical parameters, output characteristics and auxiliary controls.
- Describe the criteria for visual inspection of SMAW weldments.
- Demonstrate Plasma Arc Welding and Plasma Arc Cutting principles of operation.
- Interpret blueprints and specifications.

Shielded Metal Arc Welding (CA)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 120</td>
<td>ADULT CPR AND FIRST AID</td>
<td>1</td>
</tr>
<tr>
<td>WELD 102</td>
<td>INTRODUCTION TO WELDING</td>
<td>6</td>
</tr>
<tr>
<td>WELD 110</td>
<td>WELDING BLUEPRINT READING</td>
<td>5</td>
</tr>
<tr>
<td>WELD 240</td>
<td>GAS TUNGSTEN ARC WELDING</td>
<td>6</td>
</tr>
<tr>
<td>WELD 241</td>
<td>GAS METAL ARC FABRICATION</td>
<td>6</td>
</tr>
</tbody>
</table>

Total Credits/Units: 24

To learn more about this program’s employment outlook, approximate cost and potential careers, please visit the Gainful Employment Program Information page (http://www.clark.edu/academics/catalog/gainful-employment/814D/Gedt.html).

Welding Technician (CP)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communication Skills</td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 321)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Computational Skills</td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 322)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Human Relations</td>
<td></td>
</tr>
<tr>
<td>Course Options (p. 322)</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate proficiency with basic shop drawings through assessments and sketching exercises. Identify and explain multi-view drawings, drawing line conventions, title blocks, bill of materials, dimensions and tolerances. Demonstrate the use and interpretation of welding symbols under AWS A2.4 standards, as they pertain to weld joint geometry.
- Demonstrate the ability to safely use all metal working shop equipment and perform safety inspections of said equipment.
- Demonstrate the ability to successfully weld and understand the processes and equipment used in manual and semi-automatic welding.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to FCAW & GMAW welding and cutting processes. Understand and explain the use of specialty wire feed equipment. Apply FCAW/GMAW in out of position welding. Describe the criteria for visual inspection of FCAW/GMAW weldments. Apply OFC and PAC principles of operation to weld assignments.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to FCAW welding and cutting processes. Understand and explain the use of FCAW electrodes. Describe the functions of FCAW power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of FCAW weldments. Describe OFC, PAC and CAG-A principles of operation.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to GMAW welding and cutting processes. Understand and explain the use of common hand tools. Apply GMAW in the assembly of layout projects. Describe the criteria for visual inspection of GMAW weldments. Apply OFC and PAC principles of operation to layout projects.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to GMAW welding and cutting processes. Understand and explain the use of GMAW electrodes. Describe the functions of GMAW power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of GMAW weldments. Describe OFC and PAC principles of operation.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to GTA welding and cutting processes. Understand and explain the use of GTA electrodes. Describe the functions of GTA power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of GTA weldments. Describe OFC and PAC principles of operation.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to OFC, CAC-A and SMAW welding and cutting processes. Understand and explain the use of SMAW electrodes. Describe the functions of SMAW power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of SMAW weldments. Describe OFC and CAC-A principles of operation.
- Identify and use Welding Technology principles of operation, terms and safe practices related to OFC, FCAW, SMAW welding, and OFC & PAC cutting processes. Understand and explain the use of wire electrodes in fabrication. Describe the functions of wire feed power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of wire feed weldments. Identify, select and proper use of layout tools.
- Identify and use Welding Technology principles of operation, terms and safe practices related to OFC, PAW and GTA welding and cutting processes. Understand and explain the use of GTA electrodes. Describe the functions of GTA power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of GTA weldments. Identify, select and proper use of layout tools.
- Obtain or work towards AWS certifications in multiple process. Enhance skills in FCAW, SMAW, GTA, GMAW, SAW, PAC and Oxy/fuel cutting processes.
- Recognize and respond to emergencies effectively. Assess a victim(s) condition and determine proper care. Administer rescue breathing and CPR to adults. Identify injury prevention strategies. Assess a victim(s) condition and preform appropriate first aid. Determine the appropriate and proper response to situational questions and select the best answer.
- Recognize the many types of metals and their use. Write and speak clearly about the characteristics of metals. Define and use metallurgical terminology on tests, for written and/or oral reports and during individual and group presentations. Analyze lab results and understand their close relationship to everyday living. Apply metallurgical knowledge to welding and machining metals as-well-as other trade uses. Assess the value of metals in everyday use.
Welding Technologies (AAT)

Academic Plans, known as programs, include a overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 102</td>
<td>INTRODUCTION TO WELDING</td>
<td>6</td>
</tr>
<tr>
<td>WELD 110</td>
<td>WELDING BLUEPRINT READING</td>
<td>5</td>
</tr>
<tr>
<td>WELD 141</td>
<td>GAS METAL ARC FABRICATION</td>
<td>6</td>
</tr>
<tr>
<td>WELD 140</td>
<td>GAS METAL ARC WELDING</td>
<td>6</td>
</tr>
<tr>
<td>WELD 142</td>
<td>FLUX CORE ARC WELDING</td>
<td>6</td>
</tr>
<tr>
<td>WELD 143</td>
<td>FLUX CORE ARC FABRICATION</td>
<td>6</td>
</tr>
<tr>
<td>WELD 144</td>
<td>SHIELDED METAL ARC WELDING</td>
<td>6</td>
</tr>
<tr>
<td>WELD 145</td>
<td>SHIELDED METAL ARC FABRICATION</td>
<td>6</td>
</tr>
<tr>
<td>WELD 156</td>
<td>WELDING CERTIFICATION</td>
<td>2</td>
</tr>
<tr>
<td>WELD 240</td>
<td>GAS TUNGSTEN ARC WELDING</td>
<td>6</td>
</tr>
<tr>
<td>WELD 241</td>
<td>GAS METAL ARC FABRICATION</td>
<td>6</td>
</tr>
<tr>
<td>WELD 242</td>
<td>ADVANCED WIRE FEED WELDING</td>
<td>6</td>
</tr>
<tr>
<td>WELD 243</td>
<td>ADVANCED WIRE FEED FABRICATION</td>
<td>6</td>
</tr>
<tr>
<td>WELD 244</td>
<td>ADVANCED GAS TUNGSTEN ARC WELDING</td>
<td>6</td>
</tr>
<tr>
<td>WELD 245</td>
<td>ADVANCED GAS TUNGSTEN ARC FABRICATION</td>
<td>6</td>
</tr>
<tr>
<td>MACH 235</td>
<td>ELEMENTARY METALLURGY</td>
<td>2</td>
</tr>
<tr>
<td>MACH 236</td>
<td>ELEMENTARY METALLURGY LAB</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Credits/Units 99

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Recognize and respond to emergencies effectively. Assess a victim(s) condition and determine proper care. Administer rescue breathing and CPR to adults. Identify injury prevention strategies. Assess a victim(s) condition and preform appropriate first aid. Determine the appropriate and proper response to situational questions and select the best answer.

- Demonstrate the ability to safely use all metal working shop equipment and perform safety inspections of said equipment.
- Demonstrate the ability to successfully weld and understand the processes and equipment used in manual and semi-automatic welding.
- Demonstrate proficiency with basic shop drawings through assessments and sketching exercises. Identify and explain multi-view drawings, drawing line conventions, title blocks, bill of materials, dimensions and tolerances. Demonstrate the use and interpretation of welding symbols under AWS A2.4 standards, as they pertain to weld joint geometry.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to GMW welding and cutting processes. Understand and explain the use of GMW electrodes. Describe the functions of GMW power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of GMW weldments. Describe OFC and PAC principles of operation.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to GMW welding and cutting processes. Understand and explain the use of OFC and PAC electrodes. Apply GMW in the assembly of layout projects. Describe the criteria for visual inspection of GMW weldments. Apply OFC and PAC principles of operation to layout projects.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to FCAW welding and cutting processes. Understand and explain the use of FCAW electrodes. Describe the functions of FCAW power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of FCAW weldments. Describe OFC, PAC and CAG-A principles of operation.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to OFC, PAC and CAG-A welding and cutting processes. Understand and explain the use of OFC and PAC electrodes. Describe the functions of OFC power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of OFC and PAC weldments. Describe OFC and CAG-A principles of operation.
- Obtain or work towards AWS certifications in multiple process. Enhance skills in FCAW, SMAW, GTAW, GMWA, SAW, PAC and Oxy/fuel cutting processes.
- Identify and use Welding Technology principles of operation, terms and safe practices related to OFC, PAC and GTAW welding and cutting processes. Understand and explain the use of GTAW electrodes. Describe the functions of GTAW power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of GTAW weldments. Identify, select and proper use of layout tools.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to OFC, PAC and GTAW welding and cutting processes. Understand and explain the use of OFC, PAC and GTAW electrodes. Describe the functions of OFC power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of OFC, PAC and GTAW weldments. Apply OFC and PAC principles of operation to weld assignments.
- Identify and use Welding Technology principles of operation, terms and safe practices related to GMW, FCAW, SAW welding, and OFC & PAC cutting processes. Understand and explain the use of wire electrodes in fabrication. Describe the functions of wire feed power sources, electrical parameters, output characteristics and auxiliary controls.
controls. Describe the criteria for visual inspection of wire feed weldments. Identify, select and proper use of layout tools.

- Identify and describe Welding Technology principles of operation, terms and safe practices related to GTAW welding and cutting processes. Understand and explain the use of GTAW electrodes. Describe the functions of GTAW power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of GTAW weldments. Describe PAW and PAC principles of operation.

- Recognize the many types of metals and their use. Write and speak clearly about the characteristics of metals. Define and use metallurgical terminology on tests, for written and/or oral reports and during individual and group presentations. Analyze lab results and understand their close relationship to everyday living. Apply metallurgical knowledge to welding and machining metals as-well-as other trade uses. Assess the value of metals in everyday use.
WOMEN’S STUDIES

Women’s Studies is an interdisciplinary field that identifies gender as one of the central organizing principles of human experience. Grounded in feminist theory and centered around feminist scholarship, Women’s Studies confronts and challenges institutional, individual and ideological systems of power, privilege and inequity. Women’s Studies analyzes socially constructed power imbalances based on gender, race, class, sexual identity, ability, age and other differences, allowing students profound insights into the origins of their own experience.

Because Women’s Studies seeks to understand how our gendered experience affects every aspect of our lives, course topics may include: gender socialization, family, work, politics, health, sexuality, body image, violence, spirituality, art and culture. We may also discuss feminists’ roles in social justice movements of the past as well as current and future trends in scholarship and activism.

Since other aspects of identity influence how individuals understand gender, we can’t assume we all share the same experiences. Women’s Studies creates opportunities to understand how and why we assign value to our differences and suggests strategies for resisting the power imbalances that result. By acknowledging that we don’t have to be the same to be equal, Women’s Studies provides a platform for exploring our differences as a potential source of strength rather than only a source of conflict. Students are encouraged to explore their relationship to individual and institutional power and to make visible the social and political forces at work. What advantages and obstacles do we each experience as a result of our socially constructed identities? Whose experience is understood as ‘normal’ and why might it matter? What individual and communal action can we take?

Women’s Studies students learn new and exciting ways to interpret the world around them, and their place within it. Most students find that their worldview undergoes profound changes as a result of taking a Women’s Studies class. What new things will you notice?

Are you ready to:

• Think critically
• View popular culture in ways you’ve never imagined
• Gain a new self-awareness
• Transform your interpersonal relationships
• Confront our shared legacy of privilege and oppression
• Take action!

If so, Women’s Studies at Clark College is ready to help you take that next step...

• Women’s Studies (AC) (p. 118)

Women’s Studies (AC)

For students who want expertise in women’s issues, this Academic Concentration may be earned along with a regular A.A. degree, and will be awarded upon graduation.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Core Courses</td>
<td></td>
</tr>
<tr>
<td>WS</td>
<td>101 INTRODUCTION TO WOMEN’S STUDIES</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select at least three credits/units from the following:</td>
<td>9-11</td>
</tr>
<tr>
<td>ART</td>
<td>250 WOMEN ARTISTS THROUGH HISTORY</td>
<td></td>
</tr>
<tr>
<td>ENGL</td>
<td>175 INTRODUCTION TO LGBTQ STUDIES</td>
<td></td>
</tr>
<tr>
<td>ENGL</td>
<td>240 LITERATURE BY WOMEN</td>
<td></td>
</tr>
<tr>
<td>ENGL</td>
<td>254 INTRODUCTION TO QUEER LITERATURE</td>
<td></td>
</tr>
<tr>
<td>HIST</td>
<td>215 WOMEN IN U.S. HISTORY</td>
<td></td>
</tr>
<tr>
<td>HIST</td>
<td>251 WOMEN IN WORLD HISTORY I</td>
<td></td>
</tr>
<tr>
<td>HIST</td>
<td>252 WOMEN IN WORLD HISTORY II</td>
<td></td>
</tr>
<tr>
<td>HLTH</td>
<td>207 WOMEN’S HEALTH</td>
<td></td>
</tr>
<tr>
<td>SOC</td>
<td>230 DOMESTIC VIOLENCE</td>
<td></td>
</tr>
<tr>
<td>WS</td>
<td>210 WOMEN’S CULTURE</td>
<td></td>
</tr>
<tr>
<td>WS</td>
<td>225 RACISM &amp; WHITE PRIVILEGE IN THE U.S.</td>
<td></td>
</tr>
<tr>
<td>WS</td>
<td>280 SELECTED TOPICS</td>
<td></td>
</tr>
<tr>
<td>WS</td>
<td>290 SPECIAL PROJECTS</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits/Units 22-24

1 Core courses must be completed with a grade of ‘C’ or better.
2 At least three elective credits/units must be WS prefix courses

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

• Describe foundational concepts in Women’s Studies such as: the personal is political; the waves of feminism; the diversity of women’s experiences; the difference between sex and gender; the history of feminist activism for social justice; and, women’s contributions to culture, politics, history, etc.
• Explain the social construction of identity and difference, analyzing power, privilege and inequality from feminist theoretical perspectives, distinguishing the intersections between gender and other social and cultural identities, such as race, sex, class, ethnicity, national origin, religion, class, ability and sexuality, and locating oneself within the hierarchy of identities.
• Analyze institutional, ideological, and individual components that maintain or challenge systems of oppression in contemporary U.S. society and throughout the world.
WORLD LANGUAGES

Language proficiency is an important skill for more and more Americans who must compete professionally in a global economy. It is a marketable skill in such diverse fields as medicine, government, science, technology, banking, trade, industry, communications, teaching, and social work. Clark College language students apply their skills not only to employment but also to upper-division transfer studies at four-year universities.

Classes emphasize learning strategies that are necessary to communicate in the real world. Language clubs provide active support and opportunities for using the language ranging from film series and round-table discussion groups to field trips and cultural presentations.

Program Options

Students who intend to major in a world language at a four-year institution should consider two years of study in one language. Clark offers two-year programs (elementary, intermediate) in the following areas:

- Spanish
- Japanese
- American Sign Language

Summer Study Abroad for Language Students

The departments provide the following language and cultural opportunities:

- French Study Abroad opportunity
- German immersion-study every summer with the German Studies in Berlin program
- Spanish immersion-study at the University of Valladolid in Valladolid, Spain
- Japanese immersion-study at Tokyo Institute of Japanese in Tokyo and visiting Kyoto and Joyo

Other Study Abroad

Clark College is a member of the Washington Community College Consortium for Study Abroad (WCCCSA), which offers term-long programs in London, England; Paris, France; Florence, Italy; and Alajuela, Costa Rica. Contact an advisor in the International Center for more information.

- American Sign Language (AC) (p. 119)

American Sign Language (AC)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the the Academic Plan links on the right for a desired program or a specific course information.

For students who want expertise in American Sign Language, this Academic Concentration may be earned along with a regular AA degree, and will be awarded upon graduation.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASL 125</td>
<td>AMERICAN DEAF CULTURE</td>
<td>5</td>
</tr>
<tr>
<td>ASL&amp; 221</td>
<td>AM SIGN LANGUAGE IV</td>
<td>5</td>
</tr>
<tr>
<td>ASL&amp; 222</td>
<td>AM SIGN LANGUAGE V</td>
<td>5</td>
</tr>
<tr>
<td>ASL&amp; 223</td>
<td>AM SIGN LANGUAGE VI</td>
<td>5</td>
</tr>
<tr>
<td>CMST&amp;220</td>
<td>PUBLIC SPEAKING</td>
<td>5</td>
</tr>
</tbody>
</table>

Total Credits/Units 25

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Participate in most formal and informal conversations on general topics in ASL.
- Analyze the Deaf culture and American Sign Language, with an appreciation for the linguistic and cultural diversity.
- Manage common interactions using enhanced vocabulary and grammar with fellow classmate using ASL.
- Identify the rules of behavior, values, beliefs and etiquette of Deaf culture.
COURSE DESCRIPTIONS

A
• Accounting (ACCT) (p. 122)
• Addiction Counselor Education (ACED) (p. 123)
• American Sign Language (ASL) (p. 125)
• Anthropology (ANTH) (p. 126)
• Art (ART) (p. 127)
• Astronomy (ASTR) (p. 132)
• Automotive Technology (AUTO) (p. 133)

B
• BAS Applied Management (BASAM) (p. 137)
• BAS Human Services (BASHS) (p. 139)
• Biology (BIOL) (p. 140)
• Business Administration (BUS) (p. 143)
• Business Technology (BTEC) (p. 145)
• Business Technology Medical Office (BMED) (p. 148)

C
• Chemistry (CHEM) (p. 152)
• College and Academic Preparation (CAP) (p. 155)
• College Preparation (COLL) (p. 159)
• Communication Studies (CMST) (p. 160)
• Computer Aided Design and Drafting Technology (CADD) (p. 161)
• Computer Science & Engineering (CSE) (p. 164)
• Computer Technology (CTEC) (p. 165)
• Cuisine (CUIS) (p. 169)

D
• Dental Hygiene (DH) (p. 171)
• Diesel Technology (DIES) (p. 174)
• Digital Media Arts (DMA) (p. 176)
• Drama (DRMA) (p. 177)

E
• Early Childhood Education (ECE) (p. 178)
• Early Childhood Education (ECED) (p. 180)
• Economics (ECON) (p. 181)
• Education (EDUC) (p. 182)
• Emergency Medical Technician (EMT) (p. 183)
• Engineering (ENGR) (p. 184)
• English (ENGL) (p. 187)
• English as a Second Language (ESL) (p. 192)
• Environmental Science (ENVS) (p. 194)

G
• Geography (GEOG) (p. 195)
• Geology (GEOL) (p. 197)

H
• Health & Physical Education (HPE) (p. 198)
• Health (HLTH) (p. 199)
• Health Informatics (HI) (p. 201)
• Health Occupations (HEOC) (p. 202)
• History (HIST) (p. 203)
• Honors (HONS) (p. 205)
• Human Development (HDEV) (p. 206)
• Human Services Substance Abuse (HSSA) (p. 208)

I
• Intensive English Language Program (IELP) (p. 209)

J
• Japanese (JAPN) (p. 211)
• Journalism (JOUR) (p. 212)

M
• Machining Technology (MACH) (p. 214)
• Management (MGMT) (p. 216)
• Mathematics (MATH) (p. 218)
• Mechatronics (MTX) (p. 221)
• Meteorology (METR) (p. 226)
• Music (MUSC) (p. 227)

N
• Network Technology (NTEC) (p. 237)
• Nursing (NURS) (p. 241)
• Nutrition (NUTR) (p. 244)

P
• Pharmacy Technician (PHAR) (p. 245)
• Philosophy (PHIL) (p. 247)
• Phlebotomy (PHLE) (p. 248)
• Physical Education (PE) (p. 249)
• Physical Education Dance (PEDNO) (p. 254)
• Physical Education Excercise Science (PEEXS) (p. 256)
• Physical Education Martial Arts (PEMAR) (p. 257)
• Physical Science (PHSC) (p. 258)
• Physics (PHYS) (p. 259)
• Political Science (POLS) (p. 261)
• Professional Baking (PBAK) (p. 262)
• Professional Technical Computational Skills (PTCS) (p. 264)
• Professional Technical Writing (PTWR) (p. 265)
• Psychology (PSYC) (p. 266)

S
• Sociology (SOC) (p. 267)
• Spanish (SPAN) (p. 268)
• Surveying & Geomatics (SURV) (p. 269)
T
  • Tutoring (TUTR) (p. 271)

W
  • Welding (WELD) (p. 272)
  • Women's Studies (WS) (p. 274)
ACCOUNTING (ACCT)

PRINCIPLES OF ACCOUNTING I
ACCT&201 5 Credits/Units
55 hours of lecture
Prerequisite: Eligibility for ENGL 101 and MATH 095 or MATH 096 or consent of Instructional Unit.
Accounting theory and practice including the entire accounting cycle and accounting for merchandising operations, receivables, current liabilities, and payroll. Formerly BUS 231. Credit not allowed for both BUS 231 and ACCT 201. [SE]

PRINCIPLES OF ACCOUNTING II
ACCT&202 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in ACCT 201.
Continuation of ACCT 201 with emphasis on payroll, partnership and corporation accounting, statement of cash flow, analysis and interpretation of financial statements, plant assets, depreciation, time value of money, long-term liabilities, and investments. Formerly BUS 232. Credit not allowed for both BUS 232 and ACCT 202. [SE]

PRINCIPLES OF ACCOUNTING III
ACCT&203 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in ACCT 201.
Continuation of ACCT 201 with emphasis on responsibility and departmental accounting, manufacturing operations, cost accounting, budgeting and standard costs, cost-volume-profit analysis, incremental analysis and capital budgeting. Formerly BUS 233. [SE]
### ADDICTION COUNSELOR EDUCATION (ACED)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACED 101</td>
<td>Community Education and Prevention Programs</td>
<td>3</td>
</tr>
<tr>
<td>ACED 201</td>
<td>ADDICTIONOLOGY</td>
<td>3</td>
</tr>
<tr>
<td>ACED 122</td>
<td>GROUP COUNSELING IN ADDICTIONS</td>
<td>3</td>
</tr>
<tr>
<td>ACED 132</td>
<td>INTRODUCTION TO COUNSELING FAMILY MEMBERS</td>
<td>3</td>
</tr>
<tr>
<td>ACED 136</td>
<td>LAW AND ETHICS IN ADDICTIONS COUNSELING</td>
<td>3</td>
</tr>
<tr>
<td>ACED 137</td>
<td>ADDICTIONS AND MENTAL ILLNESS</td>
<td>3</td>
</tr>
<tr>
<td>ACED 138</td>
<td>PREVENTION AND EDUCATION IN THE COMMUNITY</td>
<td>3</td>
</tr>
<tr>
<td>ACED 170</td>
<td>AIR- AND BLOOD-BORNE PATHOGENS</td>
<td>3</td>
</tr>
<tr>
<td>ACED 171</td>
<td>PHARMACOLOGY OF DRUGS OF ABUSE</td>
<td>3</td>
</tr>
<tr>
<td>ACED 101</td>
<td>ADDIANCE COUNSELOR ASSESSMENT &amp; TREATMENT</td>
<td>3</td>
</tr>
<tr>
<td>ACED 122</td>
<td>ADVANCED TECHNIQUES FOR ADDICTION COUNSEL</td>
<td>3</td>
</tr>
<tr>
<td>ACED 201</td>
<td>THEORIES OF COUNSELING</td>
<td>3</td>
</tr>
<tr>
<td>ACED 203</td>
<td>CASE MANAGEMENT IN ADDICTION MEDICINE</td>
<td>3</td>
</tr>
<tr>
<td>ACED 205</td>
<td>ADVANCED TECHNIQUES FOR ADDICTION COUNSEL</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Prerequisite:
- ACED 101 or CDEP 101
- ACED 201 or CDEP 120/201

#### Course Descriptions:
- **Community Education and Prevention Programs**: 33 hours of lecture. Applications of the Public Health and Social Development models to prevention activities. Knowledge of community resources in developing community education and prevention programs. [GE]
- **Addictionology**: 3 Credits/Units. Knowledge of community resources in developing community education and prevention programs. [GE]
- **Group Counseling in Addictions**: 3 Credits/Units. Use of group process for modifying individual attitudes and actions. Application of group counseling theories to an addiction client population. [GE]
- **Introduction to Counseling Family Members**: 3 Credits/Units. Examination of state and federal laws governing the addictions field, including the Washington Administrative Code for CDP’s. Legal and ethical duties in the client-counselor relationship. [GE]
- **Law and Ethics in Addictions Counseling**: 3 Credits/Units. Examination of state and federal laws governing the addictions field, including the Washington Administrative Code for CDP’s. Legal and ethical duties in the client-counselor relationship. [GE]
- **Addictions and Mental Illness**: 3 Credits/Units. Examination of state and federal laws governing the addictions field, including the Washington Administrative Code for CDP’s. Legal and ethical duties in the client-counselor relationship. [GE]
- **Prevention and Education in the Community**: 3 Credits/Units. Examination of state and federal laws governing the addictions field, including the Washington Administrative Code for CDP’s. Legal and ethical duties in the client-counselor relationship. [GE]
- **Pharmacology of Drugs of Abuse**: 3 Credits/Units. Examination of state and federal laws governing the addictions field, including the Washington Administrative Code for CDP’s. Legal and ethical duties in the client-counselor relationship. [GE]
- **Addiction Assessment & Treatment**: 3 Credits/Units. Examination of state and federal laws governing the addictions field, including the Washington Administrative Code for CDP’s. Legal and ethical duties in the client-counselor relationship. [GE]
- **Advanced Techniques for Addiction Counseling**: 3 Credits/Units. Examination of state and federal laws governing the addictions field, including the Washington Administrative Code for CDP’s. Legal and ethical duties in the client-counselor relationship. [GE]
FIELD PLACEMENT I
ACED 210 6 Credits/Units
198 hours of clinical
**Prerequisite:** 30 hours of ACED or CDEP courses including ACED 136 or CDEP 135 and ACED 122, possession of the WA state CDPT credential and instructor's permission.
Ten or twenty hours weekly of on-the-job supervised experience applying counseling theories and practiced. Addiction Counselor Competencies are used as a framework for assessment. [GE]

FIELD PLACEMENT II
ACED 211 6 Credits/Units
198 hours of clinical
**Prerequisite:** Grade of 'C' or better in ACED 210 or CDEP 210 and instructor's permission.
Ten or twenty hours weekly of on-the-job supervised experience applying counseling theories and practices. Addiction Counselor Competencies will be used as a framework for assessment. [GE]

SELECTED TOPICS
ACED 280 3 Credits/Units
33 hours of lecture
**Prerequisite:** ENGL 101.
Special topics in chemical dependence as listed in the term class schedule. May be repeated for credit. [GE]

SPECIAL PROJECTS
ACED 290 5 Credits/Units
**Prerequisite:** Consent of Instructional Unit.
Opportunity to plan, organize, and complete special projects approved by the Instructional Unit. [GE]
# AMERICAN SIGN LANGUAGE (ASL)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits/Units</th>
<th>Lecture Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASL&amp; 121</td>
<td>Introduction to American Sign Language</td>
<td>5</td>
<td>55</td>
</tr>
<tr>
<td>ASL&amp; 122</td>
<td>Continuation of ASL I</td>
<td>5</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> ASL &amp; 121 or consent of instructor.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASL&amp; 123</td>
<td>Continuation of ASL II</td>
<td>5</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> ASL &amp; 122 or consent of instructor.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASL&amp; 221</td>
<td>First of the second-year sequence in studying the language of Deaf Americans.</td>
<td>5</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> A grade of 'C' or better in ASL&amp; 221, demonstrated equivalent proficiency, or with permission of the instructor.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASL&amp; 222</td>
<td>Second of second-year sequence in studying the language of Deaf Americans.</td>
<td>5</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> Consent of Instructional Unit.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASL&amp; 223</td>
<td>Third of second-year sequence in studying the language of Deaf Americans.</td>
<td>5</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> A grade of 'C' or better in ASL&amp; 222, demonstrated equivalent proficiency, or with permission of the instructor.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASL&amp; 224</td>
<td></td>
<td>5</td>
<td>55</td>
</tr>
<tr>
<td>ASL&amp; 225</td>
<td></td>
<td>5</td>
<td>55</td>
</tr>
<tr>
<td>ASL&amp; 226</td>
<td></td>
<td>5</td>
<td>55</td>
</tr>
<tr>
<td>ASL&amp; 227</td>
<td></td>
<td>5</td>
<td>55</td>
</tr>
<tr>
<td>ASL&amp; 228</td>
<td></td>
<td>5</td>
<td>55</td>
</tr>
<tr>
<td>ASL&amp; 229</td>
<td></td>
<td>5</td>
<td>55</td>
</tr>
</tbody>
</table>

# SELECTED TOPICS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits/Units</th>
<th>Lecture Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASL 280</td>
<td>Course focuses on selected topics in American Sign Language. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics.</td>
<td>3</td>
<td>33</td>
</tr>
</tbody>
</table>

# SPECIAL PROJECTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits/Units</th>
<th>Lecture Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASL 290</td>
<td>Opportunity to plan, organize and complete special projects approved by the department.</td>
<td>5</td>
<td>55</td>
</tr>
</tbody>
</table>

# AMERICAN DEAF CULTURE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits/Units</th>
<th>Lecture Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASL 125</td>
<td>This course will focus on topics in the culture of deaf people including studies of their beliefs, practices and language.</td>
<td>5</td>
<td>55</td>
</tr>
</tbody>
</table>

# AMERICAN DEAF CULTURE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits/Units</th>
<th>Lecture Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASL 125</td>
<td>This course will focus on topics in the culture of deaf people including studies of their beliefs, practices and language.</td>
<td>5</td>
<td>55</td>
</tr>
</tbody>
</table>

# AMERICAN DEAF CULTURE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits/Units</th>
<th>Lecture Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASL 125</td>
<td>This course will focus on topics in the culture of deaf people including studies of their beliefs, practices and language.</td>
<td>5</td>
<td>55</td>
</tr>
</tbody>
</table>

# AMERICAN DEAF CULTURE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits/Units</th>
<th>Lecture Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASL 125</td>
<td>This course will focus on topics in the culture of deaf people including studies of their beliefs, practices and language.</td>
<td>5</td>
<td>55</td>
</tr>
</tbody>
</table>
## ANTHROPOLOGY (ANTH)

### INTRODUCTION TO ARCHAEOLOGY

**ANTH&204**

- **Units:** 5
- **Lecture Hours:** 55

Study of ancient and prehistoric cultures of the world. Introduction to theories and techniques of archaeological investigation. Formerly ANTH 102. [SE, SS]

### INTRODUCTION TO CULTURAL ANTHROPOLOGY

**ANTH&206**

- **Units:** 5
- **Lecture Hours:** 55

The concept of culture, a study of cultures directed toward a broad understanding of how people view their world, cope with their environments, and organize their lives. Formerly ANTH 103. [SE, SS]

### BIOANTHROPOLOGY

**ANTH&215**

- **Units:** 5
- **Lecture Hours:** 44
- **Lab Hours:** 22

The biological study of human beings and primates, past and present: human genetics, biological adaptation and variation, evolutionary principles, the primate order, human origins, and applied biological anthropology. Fulfills social science or laboratory science (lab) distribution credit. Formerly ANTH 101. [SE, SS, NS]

### PRIMATOLOGY

**ANTH&245**

- **Units:** 5
- **Lecture Hours:** 55

Reviews current understandings of behavioral and biological diversity in the Primate order. Focus is on living primates and how they are distributed across the globe, the major biological differences between primate groups and what field and captive research has discovered regarding the range of social behaviors, group patterns, foods, communication systems and cognitive abilities they display. Students practice basic research techniques used to study primate behavior in the wild and examine the major challenges faced by modern conservation efforts in protecting wild primate habitats. [NS, SE]

### SELECTED TOPICS

**ANTH 280**

- **Units:** 3
- **Lecture Hours:** 33

Varying topics for anthropology as listed in the term class schedule. May be repeated for credit. [SE]

### SPECIAL PROJECTS

**ANTH 290**

- **Units:** 5

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize, and complete special projects approved by the department. [SE]
# ART (ART)

## 2D ART AND DESIGN
- **ART 101**  
  33 hours of lecture / 44 hours of lab  
  Foundational art course working with line, shape, value, color, and the principles of spatial organization. May include designing with computers. [HB, GE, SE][PNP]

## DRAWING
- **ART 103**  
  22 hours of lecture / 22 hours of lab  
  Introduction to drawing with a focus on expressive content and accurate seeing, measurement, and proportion. Assignments stress the use of line, gesture, value, and composition through observations of still life and the figure. Classes may include a nude model. [HB, SE] [PNP]

## OBSERVATIONAL DRAWING
- **ART 104**  
  22 hours of lecture / 44 hours of lab  
  Prerequisite: ART 103.  
  Continuation of ART 103. Analysis of control of value, color, and composition using a variety of techniques and drawing materials. Emphasis on accurate seeing, measurement, and proportion through still life, landscape, and the figure. Classes may include a nude model. [HB, SE] [PNP]

## CONTEMPORARY DRAWING PRACTICES
- **ART 105**  
  22 hours of lecture / 44 hours of lab  
  Prerequisite: ART 103.  
  An interdisciplinary exploration of creative, critical, and analytical approaches to contemporary content and composition in a variety of media. Classes may include a nude model. [HB, SE] [PNP]

## CREATIVITY AND CONCEPT
- **ART 110**  
  22 hours of lecture / 22 hours of lab  
  Introduction to creativity, conceptual thinking, and visual problem solving for artists, designers and other creative professionals. Focus on strategies and methods for developing original ideas such as brainstorming, sketching, automatic writing, etc; then translating those ideas to visual form using a variety of media and techniques. Hands-on studio activities contextualized by theoretical readings and in-class discussions. [HB, SE]

## TWO-DIMENSIONAL DESIGN
- **ART 115**  
  22 hours of lecture / 44 hours of lab  
  Foundation art course working with line, shape, value, texture and the principles of spatial organization. May include designing with computers. [HB, SE] [PNP]

## COLOR THEORY AND DESIGN
- **ART 116**  
  22 hours of lecture / 44 hours of lab  
  Prerequisite: ART 115.  
  Continuation of ART 115. Color theory and the application of color to specific design problems. Includes designing with computers. [HB, SE] [PNP]

## THREE-DIMENSIONAL DESIGN
- **ART 117**  
  22 hours of lecture / 44 hours of lab  
  Introduction to sculptural design concepts including volume, space and scale. Explores a variety of media and construction techniques, with a focus on creative problem solving in the context of sculptural objects. [HB, SE] [PNP]

## TIME-BASED ART AND DESIGN
- **ART 118**  
  22 hours of lecture / 44 hours of lab  
  Introduction of concepts and tools for the design of art to explore the transaction between people, objects and situations over time. Exploring the personal, cultural, formal, political, and historical aspects of the medium through readings, writings and critical reflection of relevant 20th and 21st century artworks, as well as the principles and aesthetics of moving imagery including timing, pacing, repetition, editing, composition, process and the link between sound and image. Activities include class discussions, software and equipment tutorials and studio time for experimental project development. [HA, SE]

## INTRODUCTION TO PRINTMAKING
- **ART 120**  
  22 hours of lecture / 22 hours of lab  
  Introduction to basic materials, editions concepts in the different types of printmaking. Explores various techniques including screen printing, relief printing various photo-sensitive print processes. Stencils will be created through both hand drawn digitally generated artwork. This is an introductory, no prerequisite class, but it will build on some drawing and design skills. [GE, SE, HB][PNP]

## PRINTMAKING II
- **ART 121**  
  22 hours of lecture / 22 hours of lab  
  Prerequisite: ART 120.  
  Builds on the skills learned in ART 120. Introduction to Printmaking and will refine handing of basic materials, editions concepts in the different types of printmaking. Students will continue to explore various techniques including screen printing, monoprinting, relief printing various photo-sensitive print processes. Students are welcome to choose an area of focus within different printing disciplines. Stencils will be created through both hand drawn digitally generated artwork. [GE, SE, HB][PNP]

## PRINTMAKING III
- **ART 122**  
  22 hours of lecture / 22 hours of lab  
  Prerequisite: ART 120 and 121.  
  Builds on the skills learned in ART 120 and ART 121. Introduction to Printmaking and Printmaking II and will refine handing of basic materials, editions concepts in the different types of printmaking. Students will continue to explore various techniques including screen printing, monoprinting, relief printing various photo-sensitive print processes. Student projects are more self-directed and independent in this third class of the Printmaking sequence. Stencils will be created through both hand drawn digitally generated artwork. [HB, SE]
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits/Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 123</td>
<td>PHOTOGRAPHY I</td>
<td>5</td>
<td>33 hours of lecture / 44 hours of lab&lt;br&gt;Basic camera handling of both digital and 35mm Single Lens Reflex (SLR) cameras including metering and exposure. Film processing, printing, and darkroom procedures will be taught, as well as basic digital workflow. Special emphasis on the elements of photographic composition design, ethical issues, aesthetic vocabulary, and the study of how images communicate. Credit not allowed for both ART 140 and ART 123. [HB, GE, SE][PNP]</td>
</tr>
<tr>
<td>ART 124</td>
<td>PHOTOGRAPHY II</td>
<td>5</td>
<td>33 hours of lecture / 44 hours of lab&lt;br&gt;Prerequisite: A grade of 'C' or better in ART 123 or equivalent or consent of Instructional Unit. Continuation of ART 123. Particular emphasis on self-expression, series, sequence, and narrative. Special topics vary from quarter to quarter, but may include medium and large format photography, various image transfer techniques, liquid photographic emulsions, studio lighting, and advanced digital editing. Practice small group discussion to demonstrate visual literacy and develop media specific vocabulary. [HB,GE,SE][PNP]</td>
</tr>
<tr>
<td>ART 125</td>
<td>PHOTOGRAPHY III</td>
<td>5</td>
<td>33 hours of lecture / 44 hours of lab&lt;br&gt;Prerequisite: A grade of 'C' or better in ART 124 or equivalent or consent of Instructional Unit. Continuation of ART 124. Opportunities to develop additional technical skill and continued exploration of self-expression. Projects are more self-directed and independent in this third class of Photography sequence. [HB, GE, SE][PNP]</td>
</tr>
<tr>
<td>ART 130</td>
<td>PHOTOGRAPHIC STORYTELLING</td>
<td>3</td>
<td>22 hours of lecture / 22 hours of lab&lt;br&gt;Introduction to photographic storytelling. Topics include: examining historical use of the medium, analysis of narrative photographic genres, and the creation of a personal photographic essay. Emphasis placed on seeing photographically and creating narrative. Includes field trip. Appropriate for non-majors and beginning photo students. Previous camera experience helpful, but not required. Student must provide digital camera. [HA, SE]</td>
</tr>
<tr>
<td>ART 131</td>
<td>PHOTOGRAPHY I</td>
<td>4</td>
<td>22 hours of lecture / 44 hours of lab&lt;br&gt;Basic camera handling and darkroom procedures, metering, film processing, printing, and learning to see photographically. All work in black-and-white. Student must provide manual 35mm camera. A limited number of cameras are available for checkout in the Art Department. [HB, SE][PNP]</td>
</tr>
<tr>
<td>ART 140</td>
<td>PHOTOGRAPHY II</td>
<td>4</td>
<td>22 hours of lecture / 44 hours of lab&lt;br&gt;Prerequisite: ART 140 or equivalent or consent of Instructional Unit. Continuation of ART 140. Particular emphasis on self-expression and print quality. Special topics vary from quarter to quarter, but may include medium and large format photography, various image transfer techniques, liquid photographic emulsions, and studio lighting. Practicing effective small group discussion to demonstrate visual literacy. [HB, SE][PNP]</td>
</tr>
<tr>
<td>ART 141</td>
<td>PHOTOGRAPHY II</td>
<td>4</td>
<td>22 hours of lecture / 44 hours of lab&lt;br&gt;Prerequisite: ART 140 or equivalent or consent of Instructional Unit. Continuation of ART 141. Opportunities to develop additional technical skill and continued exploration of self-expression. [HB, SE][PNP]</td>
</tr>
<tr>
<td>ART 142</td>
<td>PHOTOGRAPHY III</td>
<td>4</td>
<td>22 hours of lecture / 44 hours of lab&lt;br&gt;Continuation of ART 141. Opportunities to develop additional technical skill and continued exploration of self-expression. [HB, SE][PNP]</td>
</tr>
<tr>
<td>ART 145</td>
<td>DIGITAL PHOTOGRAPHY I</td>
<td>4</td>
<td>22 hours of lecture / 22 hours of lab&lt;br&gt;Introduction to digital camera operation, image manipulation software use, seeing skills development, and expressive sensitivity. Special emphasis on the elements and principles of photographic composition, ethical issues, aesthetic vocabulary, and the study of how images communicate. Includes lecture, supervised lab, and group critiques. Familiarity with Adobe Photoshop will be helpful. Students must provide digital camera; a limited number of digital cameras are available for student checkout in the Art Department. [HB, SE]</td>
</tr>
<tr>
<td>ART 146</td>
<td>DIGITAL PHOTOGRAPHY II</td>
<td>4</td>
<td>22 hours of lecture / 44 hours of lab&lt;br&gt;Continuation of ART 145. Particular emphasis on digital imagery as self-expression. Refining technical skills, exploring the unique opportunities of the digital medium, and examining current trends in contemporary photography. Special topics vary from quarter to quarter, but may include medium and large format photography, various image transfer techniques, liquid photographic emulsions, and studio lighting. Practicing effective small group discussion to demonstrate visual literacy. Prerequisite: ART 145 or both ART 140 and GRCP 120, or consent of Instructional Unit. [HB, SE]</td>
</tr>
<tr>
<td>ART 151</td>
<td>APPRECIATION I</td>
<td>3</td>
<td>33 hours of lecture&lt;br&gt;The visual arts with which we come in contact every day. Ways contemporary and historic creative expression influence present day living and thinking. Personal contact with many art forms. Some hands-on experience. Especially for non-majors. [HA, SE]</td>
</tr>
<tr>
<td>ART 172</td>
<td>GRAPHIC DESIGN EXPLORATION</td>
<td>3</td>
<td>22 hours of lecture / 22 hours of lab&lt;br&gt;Theoretical survey of Graphic Design and its cultural and historical context. Intended for both non-majors and pre-majors; focus on how Graphic Design functions as a mode of visual communication and its role in society, as well as exploring Graphic Design as a possible career. [HA, SE]</td>
</tr>
<tr>
<td>ART 173</td>
<td>GRAPHIC DESIGN STUDIO I</td>
<td>4</td>
<td>22 hours of lecture / 44 hours of lab&lt;br&gt;Prerequisite: A grade of 'C' or better in ART 101 and CGT/DMA 101 or 102, or equivalent computer experience. The first in a sequence of three applied graphic design studio courses. Introduction to the elements and principles of graphic design and the design process through a series of hands-on projects stressing visual literacy, unity of form and utilizing common tools of the trade, including computers. [HB, SE]</td>
</tr>
</tbody>
</table>
CERAMICS
ART 180
33 hours of lecture / 44 hours of lab
Prerequisite: ART 180.
Working with clay. Hand-building techniques of pinch, coil, slab and press mold. Introduction to the potter's wheel. Basic glazing techniques. [HB, SE] [PNP]

CERAMICS
ART 181
33 hours of lecture / 44 hours of lab
Prerequisite: ART 180.
Potter's wheel techniques of centering and throwing a variety of shapes; attaching handles and spouts, and fitting lids. Optional advanced hand-building assignments offered. Introduction to kiln stacking and firing. [HB, SE] [PNP]

CERAMICS
ART 182
33 hours of lecture / 44 hours of lab
Prerequisite: ART 181.
Combining hand and wheel techniques to create original pieces as sculpture or for specific functions. Mold making, slip casting, underglazing, and kiln firing. [HB, SE] [PNP]

METAL ARTS
ART 189
22 hours of lecture / 44 hours of lab
Prerequisite: ART 189.
Continuation of ART 189. Design and technical skills in the raising and forming of metal vessels. Development of metal arts in Europe from the Middle Ages to the present. [HB, SE] [PNP]

THE HUMAN FIGURE
ART 203
22 hours of lecture / 44 hours of lab
Prerequisite: ART 103 or consent of Instructional Unit.
Working from the male and female form in a variety of drawing media. Emphasis on accurate seeing, measuring, and proportion of the human body in space. Classes include a nude model. [HB, SE]

DIGITAL PAINTING & ILLUSTRATION
ART 208
22 hours of lecture / 44 hours of lab
Prerequisite: A grade of 'C' or better in CGT/DMA 101 102, or equivalent computer experience.
Developing digital illustration skills by using Adobe Illustrator and Photoshop software, as well as some traditional media, with a focus on developing a personal voice, and exploring various styles and techniques. Activities include a series of hands-on creative projects. Intended for the student with some previous Adobe experience. [HB, SE]

PORTFOLIO DEVELOPMENT
ART 215
22 hours of lecture / 22 hours of lab
Prerequisite: Consent of Instructional Unit.
Preparation and presentation of individual portfolio for submission to potential employers, galleries and educational institutions. Topics include traditional and digital portfolio formats, photographing, writing, critiquing, and speaking about artwork. Activities include selecting, refining, and incorporating projects from the entire program into portfolios. Instructors play advisory role, culminating with formal portfolio reviews by instructors, peers, and industry professionals. [SE]

ART HISTORY: ANCIENT TO LATE ANTIQUE
ART 220
55 hours of lecture
Survey of visual arts in the Mediterranean, the Near East, and in Northern Europe, covering the first arts of ancient humans through the Late Antique, 40,000 BCE-600 CE. Topics include why art and architecture exist and how they function in society; how religion, culture, artistic tradition, and patronage create, support, and influence art and architecture; how art and architecture achieve their effects, using materials, technique, style, and composition. [HA, SE]

ART HISTORY: MEDIEVAL-RENAISSANCE
ART 221
55 hours of lecture
Survey of visual arts and architecture of Early Medieval through Late Renaissance Europe. 500-1600 CE. Topics include why art and architecture exist and how they function in society, how religion, culture, artistic tradition, and patronage create, support, and influence art and architecture, how art and architecture achieve their effects, using materials, technique, style, and composition. [HA, SE]
**ART HISTORY: BAROQUE-MODERN**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 222</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

55 hours of lecture
Survey of the visual arts and architecture of Baroque through Modern Europe, ca. 1600-1914 CE. Topics include why art and architecture exist, and how they function in society; how religion, culture, artistic tradition, and patronage create, support, and influence art and architecture; how art and architecture achieve their effects, using materials, technique, style, and composition. [HB, SE]

**ART IN THE TWENTIETH CENTURY**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 223</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

55 hours of lecture
Survey of visual arts and architecture of the Modern and Postmodern periods and beyond. Topics include how art and architecture were influenced by rapidly changing technologies in Europe and the Americas: how artists use iconography, composition, materials, technique and style to achieve their effects; the impact of art criticism; and artists’ reflections on contemporary events and ideologies. We also explore the role of race and gender in the business of art. [HA, SE]

**SURVEY OF NON-WESTERN ART**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 225</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

55 hours of lecture
Introduction to the visual arts and artifacts of the non-Western world, from prehistory to the present, to include the Middle East, the Pacific Islands, Africa, and the Americas. This survey course examines cultural and historical traditions, both in the secular and religious realms, as well as international contemporary art issues. Differences between Western and non-Western theories of art, aesthetics, values, and function will be explored. [HA, SE]

**WOMEN ARTISTS THROUGH HISTORY**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 250</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

55 hours of lecture
Historical survey exploring themes in women's art and challenges women artists faced as professionals within their respective cultures; in-depth study of women artists working in Western traditions. [HA, SE]

**PAINTING**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 257</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

33 hours of lecture / 44 hours of lab
*Prerequisite:* ART 258.
Intermediate approach to principles and practice of painting through formal and conceptual study. Emphasis is on methods of abstraction and new modes of seeing using line, color, and pattern as expressive elements. Classes may include a nude model. [HB, SE]

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 259</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

33 hours of lecture / 44 hours of lab
*Prerequisite:* ART 258.
Advanced study in principles and practice of contemporary painting through the development of a body of work. Emphasis is on a focused independent practice including written artist statement and show proposals. Classes may include a nude model. [HB, SE]

**WATERCOLOR**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 260</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

22 hours of lecture / 44 hours of lab
*Prerequisite:* ART 103.
Introduction to materials and methods of watercolor painting techniques. Topics include color theory, vocabulary, and composition; working in realistic and abstract styles. Activities include in-class critique and discussion. [HB, SE]

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 261</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

22 hours of lecture / 44 hours of lab
*Prerequisite:* ART 260.
Intermediate level exploration of watercolor painting. Continued development of skills in color mixing and composition with an emphasis on fostering content and a personal creative voice through the material. Activities include in-class critique and discussion. [HB, SE]

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 262</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

22 hours of lecture / 44 hours of lab
*Prerequisite:* ART 261.
Advanced level exploration of watercolor painting, with emphasis on developing one's own visual language through the material, experimentation and innovation with wet media and its expressive potential; student-initiated research and the creation of a unique body of work suitable for portfolio presentation. Activities include in-class critique and discussion. [HB, SE]

**PUBLICATION PRODUCTION**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 270</td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

66 hours of lecture / 66 hours of lab
*Prerequisite:* Consent of Instructional Unit.
Design and production skills for publications, intended for Phoenix staff, graphic design students and others interested in the publications field. Topics include: Adobe InDesign for layout, preparing for printing, editing, proofing, creating promotional materials, working with printers, budgeting, managing the project and working with a team. Includes field trip. [HB, SE] [PNP]
<table>
<thead>
<tr>
<th>COURSE</th>
<th>ART</th>
<th>Credits/Units</th>
<th>HOURS</th>
<th>PREREQUISATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYPOGRAPHY II</td>
<td>271</td>
<td>5</td>
<td>55</td>
<td>A grade of 'C' or better in ART 174.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Continuation of ART 174 with a focus on typesetting as applied to</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>the discipline of graphic design. Topics include technical exercises</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>using Adobe InDesign and its typographic tools, a survey of various</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>publication formats, an introduction to using grids and proportional</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>systems for designing page layouts, analyzing and applying legibility and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>readability factors, and culminating in an individual book project with a</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>heavy emphasis on conveying a unique voice. [HB, SE]</td>
</tr>
<tr>
<td>GRAPHIC DESIGN HISTORY I</td>
<td>272</td>
<td>5</td>
<td>55</td>
<td>A survey of influential individuals, artifacts, technologies and intellectual</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>thought in graphic design from its origins to contemporary practice.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Emphasis on the development of a visual vocabulary and providing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>historical and cultural context for design practice. [HA, SE] [PNP]</td>
</tr>
<tr>
<td>GRAPHIC DESIGN STUDIO II</td>
<td>273</td>
<td>4</td>
<td>22</td>
<td>A grade of 'C' or better in ART 173 and CGT/DMA 102, or</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>equivalent experience.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The second in a sequence of three, analyze and apply the principles of</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>visual communications to hands-on projects while considering strategic</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>direction, consumer insights, and functional constraints for various types</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>of graphic design disciplines such as persuasive design, packaging,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>branding and identity. Among others, revolving topics may include design</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>for public service and working with clients. [HB, SE]</td>
</tr>
<tr>
<td>GRAPHIC DESIGN STUDIO III</td>
<td>274</td>
<td>4</td>
<td>22</td>
<td>A grade of 'C' or better in ART 273.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The final in a sequence of three, focus on real-world design tasks</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>and discussion of professional practices to prepare the student for</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>employment and/or upper division coursework. Portfolio-quality graphic</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>design work will be produced and may include a personal identity and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>self-promotional package. Recommended concurrent enrollment with</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ART 215 - Portfolio Development. [HB, SE]</td>
</tr>
<tr>
<td>SELECTED TOPICS</td>
<td>280</td>
<td>5</td>
<td>55</td>
<td>Course focuses on selected topics in art. Topics vary and course theme</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>and content change to reflect new topics. Because the course varies in</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>content, it is repeatable for credit for different topics. [SE]</td>
</tr>
<tr>
<td>SPECIAL PROJECTS</td>
<td>290</td>
<td>6</td>
<td></td>
<td>Consent of Instructional Unit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Opportunity to plan, organize and complete special projects approved by</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>the department. [HB]</td>
</tr>
</tbody>
</table>
ASTRONOMY (ASTR)

INTRO TO ASTRONOMY
ASTR&101  5 Credits/Units

44 hours of lecture / 22 hours of lab
Survey of astronomy designed primarily for non-science majors. Includes study of the sun, solar system, stellar evolution, galaxies and cosmology. Evening observation sessions required. Formerly ASTR 101. [NS, SE]
AUTOMOTIVE TECHNOLOGY (AUTO)

INTRODUCTION TO TOYOTA ELECTRICAL ELECTRICAL I II AUTO 150 151 152
22 hours of lecture / 110 hours of lab 22 hours of lecture / 110 hours of lab 22 hours of lecture / 110 hours of lab
Concurrent enrollment in AUTO 150 and AUTO 151. Concurrent enrollment in AUTO 151 and AUTO 153. Concurrent enrollment in AUTO 151 and AUTO 152.
Prerequisite: A grade of 'C' or better in AUTO 150. Prerequisite: A grade of 'C' or better in AUTO 150. Prerequisite: A grade of 'C' or better in AUTO 150.

AUTO 150
7 Credits/Units
7 Credits/Units
7 Credits/Units

Prerequisite:

Must meet Clark Automotive entrance standards and have the recommendation of your sponsoring Toyota/Lexus service management.

Introduction to safety, service procedures and responsibilities as a Toyota automotive service professional. Focus on soft skills used in daily customer interactions, technical skills needed to be successful in the current Toyota dealership environment. Emphasis on performing Toyota minor, intermediate, and major maintenance operations. Acceptance into the T-Ten Program. [GE]

22 hours of lecture / 110 hours of lab
Concurrent enrollment in AUTO 152 and AUTO 153.
Prerequisite: A grade of 'C' or better in AUTO 150.

First of two courses introducing basic electrical properties, circuits and testing. Major focus on the proper use of the DVOM in voltage drop diagnosis with an introduction to chassis electrical systems operation and testing. This course is a prerequisite for all future Toyota courses. Acceptance and good standing in the T-Ten Program. [GE]

AUTO 151
AUTO 152
7 Credits/Units
7 Credits/Units

Prerequisite:

Concurrent enrollment in AUTO 152 and AUTO 153.

TOYOTA STEERING AND SUSPENSION TOYOTA ENGINE PERFORMANCE I TOYOTA ENGINE PERFORMANCE II AUTO 155 AUTO 156 AUTO 157
Concurrent enrollment in AUTO 156 and AUTO 157.
Concurrent enrollment in AUTO 155 and AUTO 157.
Prerequisite: A grade of 'C' or better in AUTO 154.

Theory and hands-on training in the operation, diagnosis, and service of Toyota vehicle steering and suspension systems. Initial focus on performing basic tire, suspension and steering service procedures and diagnosis. Specific emphasis on the correct diagnostic strategies to locate and repair faults in TPMS and EPS systems. This course is a prerequisite for all future Toyota courses. Acceptance and good standing in the T-Ten Program. [GE]

22 hours of lecture / 110 hours of lab

Prerequisite: A grade of 'C' or better in AUTO 154.

First of two courses on operation, inspection, diagnosis, service and repair of Toyota Engine Management systems. Focus on the operation and testing of the internal combustion engine and engine-and fuel-management systems. Emphasis on ignition, fuel delivery, and computer input sensor diagnosis. Necessary knowledge of diagnostic strategies and tools used daily in the dealership to repair drivability-related and/or engine performance-related issues. Acceptance and good standing in the T-Ten Program.

22 hours of lecture / 110 hours of lab
Concurrent enrollment in AUTO 155 and AUTO 156.
Prerequisite: A grade of 'C' or better in AUTO 154.

Second of two courses on operation, diagnosis, service and repair of Toyota Engine Management Systems. Focus on advanced level diagnostics including fuel trim, DTCs drivability, Mode $06 scan tool usage, and emissions control systems. Acceptance and good standing in the T-Ten Program.

INTRODUCTION TO DEALERSHIP OPERATIONS AUTO 160
22 hours of lecture / 110 hours of lab
Prerequisite: Must meet Clark Automotive entrance standards and have the recommendation of your sponsoring dealership service management.

Introduction to safety, service procedures and responsibilities as a dealership automotive service professional. Initial focus will be soft skills used in daily customer interactions and will continue with technical skills needed to be successful in the current dealership environment.

Finally, emphasis will be placed on performing minor, intermediate and major maintenance operations. Remain in good standing in the HiTECC Program.

AUTO 160
7 Credits/Units

Prerequisite:

Concurrent enrollment in AUTO 156 and AUTO 157.

22 hours of lecture / 110 hours of lab
Concurrent enrollment in AUTO 157.
Prerequisite: A grade of 'C' or better in AUTO 154.

22 hours of lecture / 110 hours of lab
Concurrent enrollment in AUTO 162 and AUTO 163.
Prerequisite: A grade of 'C' in AUTO 160.

Introduction to basic electrical properties, circuits and testing. Major focus will be placed on the proper use of the DVOM in voltage drop diagnosis. Will also offer an introduction to Chassis Electrical Systems operation and testing. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program.
Electrical
AUTO 162
22 hours of lecture / 110 hours of lab
Concurrent enrollment in AUTO 161 and AUTO 163.
Prerequisite: A grade of ‘C’ or better in AUTO 160.
Second in a series exploring electrical properties, circuits and testing.
Major focus will be placed on the proper use of the DVOM in voltage drop diagnosis of multiplexed circuits used in Toyota vehicles. Will also include an introduction to directed control electrical systems operation and testing using a DSO. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program.

BRAKES
AUTO 163
22 hours of lecture / 110 hours of lab
Concurrent enrollment in AUTO 161 and AUTO 162.
Prerequisite: A grade of ‘C’ or better in AUTO 160.
Provides theory and hands-on training in the operation, diagnostics, and service of vehicle braking systems. Specific emphasis will be placed on the correct diagnostic strategies to locate and repair faults in ABS, VSC and VDIM systems. Initial focus will be placed on performing basic brake service procedures and diagnosis. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program.

INTERNSHIP I
AUTO 164
44 hours of lecture / 88 hours of lab
Prerequisite: A grade of ‘C’ or better in AUTO 161, 162 and 163.
Provides students with a managed internship experience in an automotive dealership. Students will focus on practicing skills learned throughout their first term of automotive instruction, including performing basic maintenance and diagnosing/repairing electrical and braking systems. Students will be required to document and share these experiences with ASE Certification. Emphasis will also be placed on developing strong customer service and teamworking skills. Remain in good standing in the HiTECC Program.

STEERING AND SUSPENSION
AUTO 165
22 hours of lecture / 110 hours of lab
Concurrent enrollment in AUTO 166 and AUTO 167.
Prerequisite: A grade of ‘C’ or better in AUTO 164.
Provides theory and hands-on training in the operation, diagnosis, and service of vehicle steering and suspension systems with specific emphasis on the correct diagnostic strategies to locate and repair faults in TPMS and EPS systems. Initial focus will be placed on performing basic tire, suspension and steering service procedures and diagnosis. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program.

ENGINE PERFORMANCE II
AUTO 167
22 hours of lecture / 110 hours of lab
Concurrent enrollment in AUTO 165 and AUTO 166.
Prerequisite: A grade of ‘C’ or better in AUTO 164.
Instruction related to the operation, diagnosis, service and repair of engine management systems. Focus on advanced level diagnostics including fuel trim, no DTC’s drivability, mode $06 scan tool usage, and emissions control system diagnosis and repair. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program.

AUTOMOTIVE PROCESSES
AUTO 170
33 hours of lecture
Introduction to and exploration of the automotive industry, with specific focus on vehicle service operations from a business standpoint. Students will complete a research assignment, write a paper, and deliver a presentation on their findings.

MECHANICAL PROCESSES
AUTO 171
44 hours of lecture / 22 hours of lab
Prerequisite: Completion of or concurrent enrollment in AUTO 170.
Expands on Automotive Process through demonstration and practice of vehicle servicing methods. Students will prepare vehicles for service and perform basic maintenance procedures in accordance with manufacturer’s recommendations. Emphasis on safety, using proper equipment, and overall vehicle systems. Combination lecture/lab format will be utilized for instruction.

MAINTENANCE PROCESSES
AUTO 172
44 hours of lecture / 88 hours of lab
Prerequisite: Successful completion of both AUTO 170 (Automotive Processes) and AUTO 171 (Mechanical Processes).
Focus on vehicle service operations from a business standpoint. Students will complete a research assignment, write a paper, and deliver a presentation on their findings.

UNDERCAR SERVICE AND REPAIR
AUTO 173
110 hours of lecture / 110 hours of lab
Prerequisite: A grade of ‘C’ or better in AUTO 172 (Maintenance Processes).
Undercar maintenance processes with addition of light chassis repair procedures. Inspection and repair of brake systems, including minor diagnosis of common customer concerns, will be practiced. In addition, steering/suspension inspection and service will be presented. Continuation of tire servicing related to wheel alignment also included in course. While a combination lecture/lab will be utilized for instruction, course will be delivered primarily through lab activities.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits/Units</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 174</td>
<td>UNDERHOOD SERVICE AND REPAIR</td>
<td>15</td>
<td>110 hours of lecture / 110 hours of lab</td>
</tr>
<tr>
<td>AUTO 199</td>
<td>COOPERATIVE WORK EXPERIENCE</td>
<td>5</td>
<td>165 hours of clinical</td>
</tr>
<tr>
<td>AUTO 250</td>
<td>TOYOTA CLIMATE CONTROL</td>
<td>7</td>
<td>22 hours of lecture / 110 hours of lab</td>
</tr>
<tr>
<td>AUTO 251</td>
<td>TOYOTA INTERNSHIP II</td>
<td>4</td>
<td>22 hours of lecture / 44 hours of lab</td>
</tr>
<tr>
<td>AUTO 252</td>
<td>TOYOTA ENGINE MECHANICAL</td>
<td>7</td>
<td>22 hours of lecture / 110 hours of lab</td>
</tr>
<tr>
<td>AUTO 253</td>
<td>AUTOMATIC TRANSMISSIONS</td>
<td>7</td>
<td>22 hours of lecture / 110 hours of lab</td>
</tr>
<tr>
<td>AUTO 254</td>
<td>AUTOMATIC TRANSMISSIONS</td>
<td>7</td>
<td>22 hours of lecture / 110 hours of lab</td>
</tr>
<tr>
<td>AUTO 255</td>
<td>TOYOTA INTERNSHIP III</td>
<td>8</td>
<td>44 hours of lecture / 88 hours of lab</td>
</tr>
<tr>
<td>AUTO 256</td>
<td>CLIMATE CONTROL</td>
<td>7</td>
<td>22 hours of lecture / 110 hours of lab</td>
</tr>
<tr>
<td>AUTO 257</td>
<td>TOYOTA INTERNSHIP IV</td>
<td>4</td>
<td>22 hours of lecture / 44 hours of lab</td>
</tr>
<tr>
<td>AUTO 258</td>
<td>TOYOTA CLIMATE CONTROL II</td>
<td>4</td>
<td>22 hours of lecture / 44 hours of lab</td>
</tr>
<tr>
<td>AUTO 259</td>
<td>TOYOTA INTERNSHIP V</td>
<td>4</td>
<td>22 hours of lecture / 44 hours of lab</td>
</tr>
<tr>
<td>AUTO 260</td>
<td>TOYOTA CLIMATE CONTROL III</td>
<td>7</td>
<td>22 hours of lecture / 110 hours of lab</td>
</tr>
<tr>
<td>AUTO 261</td>
<td>TOYOTA INTERNSHIP VI</td>
<td>4</td>
<td>22 hours of lecture / 44 hours of lab</td>
</tr>
<tr>
<td>AUTO 262</td>
<td>TOYOTA INTERNSHIP VII</td>
<td>4</td>
<td>22 hours of lecture / 44 hours of lab</td>
</tr>
</tbody>
</table>

**Course Descriptions:**

- **AUTO 174 UNDERHOOD SERVICE AND REPAIR:**
  - Prerequisite: A grade of ‘C’ or better in AUTO 172 (Maintenance Processes).
  - Underhood maintenance procedures with addition of light engine repair procedures. Minor diagnosis of common cylinder sealing faults and engine leak repair will be practiced. Introduction to engine controls and minor system diagnosis included. While a combination lecture/lab will be utilized for instruction, course will be delivered primarily through lab activities.

- **AUTO 199 COOPERATIVE WORK EXPERIENCE:**
  - Prerequisite: Consent of Instructional Unit.
  - Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. [GE]

- **AUTO 250 TOYOTA CLIMATE CONTROL:**
  - Prerequisite: A grade of ‘C’ or better in AUTO 155, 156 and 157.
  - Instruction to automotive heating and air conditioning systems used in Toyota vehicles. Topics include refrigerant handling, climate control system components, temperature system controls, refrigerant system diagnosis, recovery-recycling-recharging a/c systems, safety requirements for hybrid vehicles and dealership service. Acceptance and good standing in the T-Ten Program. [GE]

- **AUTO 251 TOYOTA INTERNSHIP II:**
  - Prerequisite: A grade of ‘C’ or better in AUTO 250.
  - Second managed internship experience in a Toyota/Lexus dealership, with focus on practicing skills learned throughout the second term of automotive instruction. Skills include performing repairs to braking, steering/suspension, and engine management systems. Emphasis on developing strong customer-service and teamwork skills. Students required to document and share these experiences as they work towards ASE and Toyota Certification. Acceptance and good standing in the T-Ten Program. [GE]

- **AUTO 252 TOYOTA ENGINE MECHANICAL:**
  - Prerequisite: A grade of ‘C’ or better in AUTO 251.
  - Operation, diagnosis, service and repair of a Toyota internal-combustion engine with focus on the tear-down and inspection of internal engine components. Emphasis on precision measurements and component failure identification. Acceptance and good standing in the T-Ten Program. [GE]

- **AUTO 253 AUTOMATIC TRANSMISSIONS:**
  - Prerequisite: A grade of ‘C’ or better in AUTO 251.
  - Theory and hands-on training in the operation, diagnostics, and service of Toyota automatic transmissions and transaxles. Initial focus on performing basic automatic transmission service procedures and diagnosis with specific emphasis on the correct diagnostic strategies to locate and repair faults in automatic transmission control systems. This course is a prerequisite for all future Toyota courses. Acceptance and good standing in the T-Ten Program. [GE]

- **AUTO 254 AUTOMATIC TRANSMISSIONS:**
  - Prerequisite: A grade of ‘C’ or better in AUTO 251.
  - Concurrent enrollment in AUTO 252 and AUTO 253.
  - Initial focus on performing basic automatic transmission service procedures and diagnosis with specific emphasis on the correct diagnostic strategies to locate and repair faults in automatic transmission control systems. This course is a prerequisite for all future Toyota courses. Acceptance and good standing in the T-Ten Program. [GE]

- **AUTO 255 TOYOTA INTERNSHIP III:**
  - Prerequisite: A grade of ‘C’ or better in AUTO 252,253 and 254.
  - Third managed internship experience in a Toyota/Lexus dealership, with focus on practicing skills learned throughout the third term of automotive instruction. Skills include performing repairs to engines, transmissions, and drivetrains. Emphasis on developing strong customer service and teamworking skills. Students required to document and share these experiences as they work towards ASE and Toyota Certification. Acceptance and good standing in the T-Ten Program. [GE]

- **AUTO 260 CLIMATE CONTROL:**
  - Prerequisite: A grade of ‘C’ or better in AUTO 165, 166 and 167.
  - Instruction in automotive heating and air conditioning systems used in vehicles. Covers refrigerant handling, climate control system components, temperature system controls, refrigerant system diagnosis, recovery-recycling-recharging a/c systems, safety requirements for hybrid vehicles and dealership service. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program.

- **AUTO 261 TOYOTA INTERNSHIP IV:**
  - Prerequisite: A grade of ‘C’ or better in AUTO 260.
  - Provides students with a managed internship experience in a dealership. Students will focus on practicing skills learned throughout their term quarter of automotive instruction performing repairs to Steering/Suspension, Climate Control, and Engine Management Systems. Students will be required to document and share these experiences as they work towards ASE certification. Emphasis will also be placed on developing strong customer service and teamworking skills. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program.

- **AUTO 262 ENGINE MECHANICAL:**
  - Prerequisite: A grade of ‘C’ or better in AUTO 261.
  - Instruction regarding the operation, diagnosis, service and repair of internal combustion engines. Focus on the tear down and inspection of internal engine components. Emphasis will be placed on precision measurements and components failure identification. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program.
MANUAL TRANSMISSION AUTO 263 7 Credits/Units
22 hours of lecture / 110 hours of lab
Concurrent enrollment in AUTO 262 and AUTO 264.
Prerequisite: A grade of 'C' or better in AUTO 261.
Instruction in automotive manual transmissions and drivetrains.
Students will explore the principles of torque multiplication, engine braking, and gear ratios. Emphasis will be placed on the diagnosis and repair of clutch assemblies, manual transmissions, transfer cases, and vehicle drivetrains. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program.

AUTOMATIC TRANSMISSIONS AUTO 264 7 Credits/Units
22 hours of lecture / 110 hours of lab
Concurrent enrollment in AUTO 262 and AUTO 263.
Prerequisite: A grade of 'C' or better in AUTO 261.
Theory and hands-on training in the operation, diagnostics, and service of automatic transmissions and transaxles. Specific emphasis will be placed on the correct diagnostic strategies to locate and repair faults in automatic transmission control systems. Initial focus will be placed on performing basic automatic transmission service procedures and diagnosis. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program.

INTERNSHIP III AUTO 265 8 Credits/Units
44 hours of lecture / 88 hours of lab
Prerequisite: A grade of 'C' or better in AUTO 262, 263 and 264.
Provides students with a managed internship experience in a dealership. Students will focus on practicing skills learned throughout their term quarter of automotive instruction including performing repairs to engines, transmissions, and drivetrains. Students will be required to document and share these experiences as they work towards ASE Certification. Emphasis will also be placed on developing strong customer service and teamwork skills. Remain in good standing in the HiTECC Program.

DRIVER COMFORT AND CONVENIENCE SYSTEMS AUTO 271 15 Credits/Units
110 hours of lecture / 110 hours of lab
Prerequisite: Successful completion of all AUTO 170, 171, 172, 173 and 174 with a 'C' or better.
HVAC and safety system maintenance and service processes. Some light repair procedures will be practiced. Also includes body electrical diagnosis using diagrams, DMMs, and scan tools. While a combination lecture/lab will be utilized for instruction, course will be delivered primarily through lab activities.

ADVANCED DIAGNOSTIC STRATEGIES AUTO 272 15 Credits/Units
110 hours of lecture / 110 hours of lab
Prerequisite: Successful completion of all AUTO 170, 171, 172, 173 and 174 with a grade of 'C' or better.
Vehicle electronic systems inspection, diagnosis and repair processes using advanced diagnostic tools. Focus on troubleshooting processes that lead to identification of root cause failures. Also, introduction to vehicle stability control and supplemental restraint systems included. While a combination of lecture/lab will be utilized for instruction course will be delivered primarily through lab activities.

CAPSTONE NEW TECHNOLOGY AUTO 273 4 Credits/Units
11 hours of lecture / 66 hours of lab
Prerequisite: Successful completion of AUTO 271 and 272 with a grade of 'C' or better.
An alternative to an internship in which students study a new automotive technology of their choice. Final project will vary with each instructor.

INTERNSHIP AUTO 274 4 Credits/Units
11 hours of lecture / 99 hours of lab
Prerequisite: Successful completion of AUTO 271 and 272 with a grade of 'C' or better.
Managed field experience course designed to provide reflective activities aimed at assisting students in creating a professional development plan. Students will participate in online activities coupled with periodic on-site evaluations. This option provided for students with an automotive service position and ready to work. Course will be delivered primarily through online interface with several worksite visits by instructor.

SELECTED TOPICS AUTO 280 8 Credits/Units
88 hours of lecture
Prerequisite: Consent of Instructional Unit.
For automotive majors only. Opportunity to plan, organize and complete special projects approved by the department. [GE]
BAS APPLIED MANAGEMENT (BASAM)

FOUNDATIONS OF MANAGEMENT
BASAM301
55 hours of lecture
Serves as the core and foundation for the Bachelor of Applied Science in Applied Management Program. It merges both theories and management practices to serve as a practical tool for managers. Stresses good management practices and higher-level decision making, by ensuring that current changes in industry and technology are applied to problem-solving and innovative sources for the growth and survival of an organization. [GE]

SOCIAL MEDIA IN BUSINESS
BASAM305
55 hours of lecture
With the growth of Internet and the popularity of social media among consumers, companies now communicate with consumers in what is becoming the new wave. Covers the knowledge and theories of these growing areas by illustrating topics such as E-commerce, E-marketing strategy, social media marketing strategy, social consumers in digital communities, and measuring the impact of social media marketing. Primary focus is to understand how marketing activities can be implemented, via Internet and social media, to reach target customers and strategic objectives. [GE]

BUSINESS RESEARCH APPLICATIONS
BASAM320
55 hours of lecture
Prerequisite: A grade of ‘C’ or better in MATH 146, or MATH 203 and MATH 204, or an equivalent math course.
Introduces to quantitative and qualitative research methods. Topics include customized research methodology to fit specific types and sizes of businesses and organizations, application of the research results for informed and relevant management decisions, and an examination of ethical research standards. Case methods will be applied to practical situations. [CP]

BUSINESS PRINCIPLES
BASAM325
55 hours of lecture
Provides a study of various facets of business from economic systems to forms of business ownership to considerations for running a business. Financial topics are introduced, including accounting, money and banking, and securities markets. Also included are discussions of business ethics, social responsibility, and decision making. [GE]

ACCOUNTING PRINCIPLES FOR MANAGERS
BASAM330
55 hours of lecture
This is a BASAM foundation course in accounting theory and principles, applications, and language, with emphasis from a manager’s perspective for the requirement to measure and control. Students will analyze balance sheets, income statements, cash flow statements, cost behavior, financial statement interrelationships, financial analysis, product costing, and budgetary control systems. Topics include information reporting for planning, coordinating, and monitoring the performance of an organization. [GE]

LEGAL ISSUES IN MANAGEMENT
BASAM335
55 hours of lecture
Provides a basic understanding of several specific legal areas in business and management. Guides the student through the structure of the U.S. legal system and reviews management-specific areas. Helps to identify potential legal problems, create policies and practices that avoid problems and become efficient and effective consumers of legal services. Gives specific understanding and appreciation of the legal system, particularly as it relates to the conduct of business management. [GE]

MARKETING FOR MANAGERS
BASAM340
55 hours of lecture
Develops the marketing knowledge and skills necessary for a successful manager of a profit business firm or a non-profit organization. Helps students identify and satisfy customers' needs and wants. Focuses on key aspects of marketing for firms both large and small, such as marketing research; target market planning and segmentation; product planning, pricing, promoting, and placement (general distribution); international marketing; and the development of general marketing goals, strategies, and their implementation, with a view toward quality societal standards. Students will develop a comprehensive marketing plan. [GE]

HUMAN RESOURCE MANAGEMENT
BASAM400
55 hours of lecture
Designed to develop an understanding of the functions and skills needed by supervisors and managers concerning the human resource environment; acquiring, training, and developing human resources; assessing and improving performance; compensation; and other human resource functions. Recognize and apply functions to ensure success in managerial and leadership situations. [GE]

PRINCIPLES OF PROJECT MANAGEMENT
BASAM410
55 hours of lecture
Studies the concepts, issues, and approaches important in effectively managing projects, as standardized by the Project Management Body of Knowledge (PMBOK). Includes project selection, project planning and documentation, negotiation, budgeting, scheduling, resource allocation, project control, project auditing, and project closure. Topics are reviewed from a managerial perspective. [GE]

FINANCIAL MANAGEMENT
BASAM415
55 hours of lecture
Shows managers how to interface with accounting and finance departments, facilitating their understanding of how firms meet their financial objectives, utilizing financial decision making. Describes financial tools and techniques which can be used to help firms maximize value by improving decisions relating to capital budgeting, capital structure, and working capital management. Topics also include multinational financial management, risk management, mergers, and acquisitions. [GE]
OPERATIONS AND LOGISTICS
BASAM425 5 Credits/Units
55 hours of lecture
Studies the physical movement and storage of goods, such as raw materials, semi-finished and finished goods, and all the associated managerial activities that are important for effective control. Close attention is paid to managerial concepts and responsibilities such as transportation, inventory, warehousing, packaging, materials handling, network design, and customer service. Covers the importance of interrelationships between logistics and production, marketing, financial management, and quality control. [GE]

CAPSTONE: STRATEGIC MANAGEMENT & POLICY
BASAM440 5 Credits/Units
55 hours of lecture
Focuses on the key aspects that must be addressed for sustained organizational success, effective problem solving, and the capture of opportunities from the perspective of the general manager or the entrepreneur. Topics include strategic issues facing organizations such as the global economy, regulatory changes, competitive pressures, challenges from non-traditional competitors, and the identification and realization of new products; financial analysis, decision-making, communications, and the leadership required to affect and sustain positive organizational change. Complex case studies of both commercial and non-profit entities will be used to immerse the students in the integrated complexities that general managers face. [GE]

APPLIED MANAGEMENT INTERNSHIP
BASAM450 5 Credits/Units
22 hours of lecture / 99 hours of clinical
Designed to provide students with major-related, supervised, and evaluated practical training work experiences which may be paid or voluntary. Students will be graded on the basis of the quality of documented learning acquired through hands-on, new experiences in an actual work setting. The course-related outcomes will be designed and agreed to by the student, the organization providing the internship, the faculty member teaching this course, and the BASAM program lead-faculty member. (Four credits application/one credit seminar). [GE]
# BAS HUMAN SERVICES (BASHS)

## INTRODUCTION TO HUMAN SERVICES

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASHS301</td>
<td>5</td>
<td>Admission to the Bachelors of Applied Sciences</td>
</tr>
<tr>
<td></td>
<td></td>
<td>in Human Services program.</td>
</tr>
</tbody>
</table>

55 hours of lecture

Prerequisite: Admission to the BACHS program.

Overviews the role of the Human Services worker including the various settings, types of Human Services for specific populations and the history of the helping professions. Desirable skills and knowledge and personal characteristics for Human Services workers are also discussed. An emphasis on self-awareness required for Human Services workers are discussed with an emphasis placed on self-awareness. [GE]

## SYSTEMS AND SOCIAL JUSTICE

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASHS302</td>
<td>5</td>
<td>Admission to BASHS program.</td>
</tr>
</tbody>
</table>

55 hours of lecture

Prerequisite: Admission to BASHS program.

Designed to improve student knowledge of power, privilege, inequity, and social justice. Students will learn to identify their own social location in relation to others. They will also apply class concepts to case studies in Human Services in order to analyze the impact of systemic oppression on potential clients, learn appropriate methods of resistance and intervention, and develop strategies for implementing social justice.

## ETHICS IN HUMAN SERVICES

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASHS303</td>
<td>5</td>
<td>Admission to the Bachelors of Applied Sciences</td>
</tr>
<tr>
<td></td>
<td></td>
<td>in Human Services program.</td>
</tr>
</tbody>
</table>

55 hours of lecture

Prerequisite: Admission to the BACHS program.

Explores the concepts of self-awareness in ethical decision-making, including theories of ethical decision making. Provides an overview of federal and state laws pertaining to specific populations and situations in the Human Services field.

## PRACTICAL FAMILY THERAPY

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASHS304</td>
<td>5</td>
<td>Admission to the BACHS program.</td>
</tr>
</tbody>
</table>

55 hours of lecture

Prerequisite: Admission to the BASHS program.

Explores practical perspectives on marital and family counseling including an examination of family advocacy, assessment techniques, treatment planning strategies, and use of techniques. Focuses on an integration of family theory and practice.

## ADVANCED CO-OCCURRING DISORDERS TREATMENT

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASHS305</td>
<td>5</td>
<td>Admission to BASHS program.</td>
</tr>
</tbody>
</table>

55 hours of lecture

Prerequisite: Admission to BASHS program.

Provides clinical experience in assessing accurately the various aspects of common co-occurring disorders encountered in the behavioral health field including: personality disorders, mood disorders, bipolar, trauma disorders and other associated DSM-V disorders.

## TRAUMA, GRIEF & LOSS

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASHS306</td>
<td>5</td>
<td>Admission to the BACHS program.</td>
</tr>
</tbody>
</table>

55 hours of lecture

Prerequisite: Admission to the BACHS program.

Provides a theoretical and practical framework for working with traumatized and grieving populations and individuals in a broad Human Services context.

## MULTICULTURAL COUNSELING IN HS

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASHS401</td>
<td>5</td>
<td>Admission to the BACHS program.</td>
</tr>
</tbody>
</table>

55 hours of lecture

Prerequisite: Admission to the BASHS program.

Presents current theories and practices for working with clients of various cultural, racial, economic, and ethnic backgrounds and subcultures.

## HUMAN SERVICES INTERVENTION & ADVOCACY

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASHS402</td>
<td>5</td>
<td>Admission to BASHS program.</td>
</tr>
</tbody>
</table>

55 hours of lecture

Prerequisite: Admission to BASHS program.

Practical application of theory in counseling and advocacy for Human Services populations in various settings. Emphasis is on developing a personal awareness of strengths and personal challenges in counseling and advocacy and integrating responding skills and theoretical orientations.

## RESEARCH & EVALUATION METHODOLOGIES IN HS

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASHS403</td>
<td>5</td>
<td>Admission to the BACHS program.</td>
</tr>
</tbody>
</table>

55 hours of lecture

Prerequisite: Admission to the BASHS program; a grade of 'C' or better in MATH 146.

Focuses on critical understanding of qualitative and quantitative research methods and program evaluation employed in the fields of Human Services that empower and promote social and economic justice and respect for cultural and social diversity. Students will gain an understanding of the various research methods, program evaluation techniques, qualitative quantitative data analysis techniques, data management skills, and ethical issues around research.

## ADVANCED CASE MANAGEMENT IN HS

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASHS404</td>
<td>5</td>
<td>Admission to the BACHS program.</td>
</tr>
</tbody>
</table>

55 hours of lecture

Prerequisite: Admission to the BASHS program.

Explores the clinical practice of working from an accurate psych-social assessment to the necessary steps in the development of an appropriate treatment plan. A previous knowledge of ASAM and the use of the DSM-V is recommended.

## HUMAN SERVICES FIELD PLACEMENT I

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASHS410</td>
<td>5</td>
<td>Completion of 35 credits of BASHS courses with a 'C' or better.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>165 hours of clinical</td>
</tr>
</tbody>
</table>

Prerequisite: Completion of 35 credits of BASHS courses with a 'C' or better.

Experiential learning in a Human Services environment. Students will assist in providing direct therapeutic, educational, referral, support and outreach services to those clients and family members of that service provider. Credits must include ACED 122.

## HUMAN SERVICES FIELD PLACEMENT II

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASHS411</td>
<td>5</td>
<td>Completion of 35 credits of BASHS courses with a 'C' or better.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>165 hours of clinical</td>
</tr>
</tbody>
</table>

Prerequisite: Completion of 35 credits of BASHS courses with a 'C' or better, including BASHS 403 and 410.

Experiential learning in a Human Services environment. Students will assist in providing direct therapeutic, educational, referral, support and outreach services to those clients and family members of that service provider.
Overview of basic concepts and issues related to the interaction between humans and their environment. Topics include population growth, loss of biodiversity, global climate change, ozone depletion, energy consumption and various types of pollution. This course is intended for non-majors and fulfills the laboratory science distribution requirement. It is also required for WSU-Vancouver Environmental Science/Regional Planning majors. [NS, SE]

**SMALL WORLD ANTIBIOTICS RESEARCH 1**  
BIOL 105  
33 hours of lecture / 44 hours of lab  
Investigative course involving authentic research to discover new antibiotics. Overview of basic concepts and issues in biology including the cellular basis of life, metabolism, principles of inheritance, evolution and ecology as they relate to soil microbiology and human disease processes and treatment. Strong emphasis on scientific inquiry including critical thinking, laboratory research methodology, and communication abilities. This course is intended for non-biology majors and fulfills the laboratory science requirements or as a recommended course for other biology courses. English writing skills are highly recommended. [GE, SE, NS] [PNP]

**SMALL WORLD ANTIBIOTICS RESEARCH 2B**  
BIOL 106  
33 hours of lecture / 44 hours of lab  
**Prerequisite:** A grade of 'C' or better in BIOL 105 or consent of Instructional Unit.  
Focuses on research to discover new antibiotics to help alleviate the current worldwide crisis of antibiotic-resistant bacteria including microbial cell structure, growth, genetics and antibiotic production, DNA sequencing, PCR, nanopore-based genome sequencing, and bioinformatic analysis. Lab work will focus on determining, analyzing and 'mining' the genome sequence of antibiotic-producing bacteria isolated in BIOL 105, with the aim of discovering novel antibiotics. Strong emphasis on scientific inquiry including critical thinking, laboratory research methodology, and communication abilities. [NS, SE, GE] [PNP]

**INTRODUCTION TO WILDLIFE**  
BIOL 139  
33 hours of lecture  
Wildlife conservation and management in the U.S. and throughout the world. Examines the social and political aspects of wildlife conservation and management, challenges to management of biodiversity, wildlife population management, and ecosystem management. [NS, SE]
<table>
<thead>
<tr>
<th>HUMAN BIOLOGY LAB</th>
<th>MAJORS ORGANISMAL PHYS</th>
<th>BIOETHICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 165</td>
<td>BIOL&amp;223</td>
<td>1 Credit/Unit</td>
</tr>
<tr>
<td>22 hours of lab</td>
<td>33 hours of lecture / 44 hours of lab</td>
<td></td>
</tr>
<tr>
<td>Concurrent enrollment in, or completion of BIOL 164 required. Laboratory study of the structure and function of the human body as it relates to homeostasis, health, disease, and the environment. Formerly BIOL 161. [NS, SE]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HUMAN GENETICS</td>
<td>BIOL&amp;223</td>
<td>5 Credits/Units</td>
</tr>
<tr>
<td>BIOL 167</td>
<td>FLOWERING PLANTS OF THE PACIFIC NORTHWEST</td>
<td></td>
</tr>
<tr>
<td>33 hours of lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduction to a variety of genetics topics, including nature versus nurture, forensic sciences, patterns of inheritance, pedigree analysis, diseases, genetically modified organisms, gene therapy, cloning, and eugenics. Course will also focus on realized and/or potential impacts on society. Formerly BIOL 162. [NS, SE] [PNP]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOETHICS</td>
<td>MAJORS ANATOMY AND PHYSIOLOGY I</td>
<td></td>
</tr>
<tr>
<td>BIOL 180</td>
<td>BIOL&amp;221</td>
<td>3 Credits/Units</td>
</tr>
<tr>
<td>33 hours of lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study of biological science and ethics. Ethical principles and theories are used in solving bioethical dilemmas. Concepts studied include genetic engineering, inherited disorders, cloning, physician assisted suicide, allocation of health resources, organ donation, and environmental ethics. Credit not allowed for both BIOL 180 and HUM 180. [GE, NS, SE]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOETHICS</td>
<td>MAJORS ANATOMY AND PHYSIOLOGY II</td>
<td></td>
</tr>
<tr>
<td>BIOL 199</td>
<td>BIOL&amp;241</td>
<td>5 Credits/Units</td>
</tr>
<tr>
<td>165 hours of clinical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: Consent of Instructional Unit. Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. [GE]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIELD STUDIES IN BIOLOGY</td>
<td>MAJORS ANATOMY AND PHYSIOLOGY III</td>
<td></td>
</tr>
<tr>
<td>BIOL 208</td>
<td>BIOL&amp;242</td>
<td>5 Credits/Units</td>
</tr>
<tr>
<td>22 hours of lecture / 286 hours of lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: Completion of a 100- or 200-level biology course, or consent of Instructional Unit. For students interested in biology. An ecological approach with a diversity of habitats being visited (marine in winter, Great Basin Desert and marsh lands in spring). Credits for BIOL 208 are accumulated for each trip with a total of 15 credits possible for all trips. [NS, SE]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJORS ECOLOGY/EVOLUTION</td>
<td>MAJORS A &amp; P I</td>
<td></td>
</tr>
<tr>
<td>BIOL&amp;221</td>
<td>BIOL&amp;251</td>
<td>5 Credits/Units</td>
</tr>
<tr>
<td>33 hours of lecture / 44 hours of lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: A grade of ‘C’ or better in BIOL 222 or a grade of ‘B’ or better in BIOL 100. Third course of three introductory courses for life science majors. Covers Mendelian genetics, evolution, adaption, speciation, biodiversity, and ecology. BIOL 222 is the first course in the three-course series for majors, to be taken prior to BIOL 223 and BIOL 221. [NS, SE]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJORS CELL/MOLECULAR</td>
<td>MAJOR AND MINOR IN BIOLOGY</td>
<td></td>
</tr>
<tr>
<td>BIOL&amp;222</td>
<td>MAJOR AND MINOR IN BIOLOGY</td>
<td></td>
</tr>
<tr>
<td>33 hours of lecture / 44 hours of lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisite: Completion of or concurrent enrollment in CHEM 139 (100) or CHEM 121 (111) or CHEM 141 (131). First course of three introductory courses for life science majors. Includes organic chemistry, cell structure, DNA structure and replication, gene expression, cell division, organismal development, molecular genetics and biotechnology. BIOL 222 is the first course in the three-course series for majors: to be taken prior to BIOL 223 and BIOL 221. [NS, SE]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
HUMAN A & P II
BIOL&252 5 Credits/Units
33 hours of lecture / 44 hours of lab
Concurrent enrollment in BIOL& 252L required.
Prerequisite: A grade of 'C' or better in BIOL 251 or written consent of Instructional Unit.
The second in a three-term sequence exploring the relationships between structure and function in the human body. The sequence is intended as a prerequisite for students planning to major in Nursing, Dental Hygiene or other allied health programs, or as life science credit for non-biology majors. Topics include homeostasis, neural tissue, the spinal cord and spinal nerves, the brain and cranial nerves, integration of neural function, the special senses, the endocrine and reproductive systems, development and inheritance. Formerly BIOL 232. Credit is not allowed for both BIOL 252 and BIOL 232. [NS, SE]

HUMAN A & P III
BIOL&253 5 Credits/Units
33 hours of lecture / 44 hours of lab
Concurrent enrollment in BIOL 011 for one credit and BIOL& 253L required.
Prerequisite: A grade of 'C' or better in BIOL 252 or consent of Instructional Unit.
The third in a three-term sequence exploring the relationships between structure and function in the human body. The sequence is intended as a prerequisite for students planning to major in Nursing, Dental Hygiene or other allied health programs, or as life science credit for non-biology majors. Topics include homeostasis, the cardiovascular, lymphatic, digestive, respiratory and urinary systems, cellular metabolism, and fluid and electrolyte balance. Formerly BIOL 233. Credit is not allowed for both BIOL 253 and BIOL 233. [NS, SE]

MICROBIOLOGY
BIOL&260 5 Credits/Units
33 hours of lecture / 44 hours of lab
Prerequisite: BIOL 160 or consent of instructor.
History of microbiology and a survey of organisms included in the study of microbiology with emphasis on bacteria. Physiology, morphology, genetics, growth and reproduction of bacteria. Experiments stress lab techniques and organisms that are a factor in clinic and hospital environments. Formerly BIOL 240. [NS, SE]

HUMAN CADAVER DISSECTION
BIOL 275 6 Credits/Units
66 hours of lab
Dissection of the muscular, circulatory, nervous, digestive and reproductive systems. [SE]

SELECTED TOPICS
BIOL 280 5 Credits/Units
55 hours of lecture
Selected topics in Biology. Topics vary, and course contents change to reflect new topics. Because the course varies in content it is repeatable for credit for different topics. [SE]

SPECIAL PROJECTS
BIOL 290 5 Credits/Units
Prerequisite: Written consent of Instructional Unit.
Opportunity to plan, organize, and complete special projects approved by department. [SE]
## BUSINESS ADMINISTRATION

**BUSINESS ADMINISTRATION (BUS)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits/Units</th>
</tr>
</thead>
</table>
| **BASIC ACCOUNTING PROCEDURES** | 3 Credits/Units  
33 hours of lecture  
Introduction to the fundamental bookkeeping functions of the double-entry accounting process to prepare financial information for a business or organization. Topics include the basic accounting equation, preparation of business and financial transactions, journalizing, posting, making adjustments, preparing the worksheet, and preparing financial statements from the worksheet. [PNP] | 3             |
| **BASIC ACCOUNTING APPLICATIONS** | 3 Credits/Units  
33 hours of lecture  
A continuation of BUS 028, with focus on accounting in a merchandising business. Topics include the valuation of inventories, depreciation, tax reports, payroll accounting, and the preparation of financial statements and special journals. [PNP] | 3             |
| **INTRODUCTION TO BUSINESS** | 5 Credits/Units  
55 hours of lecture  
Learn about the business functions of management, human resources, marketing, law, computers, accounting, finance, production, small business and international business. Credit not allowed for both BUS 101, BUS 101 and MGMT 100. Formerly BUS 101. [GE] [PNP] | 5             |
| **BUSINESS MATH APPLICATIONS** | 5 Credits/Units  
55 hours of lecture  
Prerequisite: Eligibility for MATH 089 or MATH 092 or higher or a grade of 'C' or better in CAP 042 or consent of Instructional Unit. Application of mathematics in common business situations. Emphasis is on practical applications and problem-solving skills for the business professional as well as the consumer and investor. Topics include: trade and cash discounts, simple and compound interest, mark up and mark down, and consumer credit. Cannot receive credit for both BUS 102 and MATHB 065. [CP] | 5             |
| **INTRODUCTION TO INTERNATIONAL BUSINESS** | 3 Credits/Units  
33 hours of lecture  
A survey course, as well as a preparatory course for advanced study, of globalization and international business issues discussed include the history and development of international business, international institutions, regional alliances, sociocultural and political forces, national resources and environmental sustainability, labor forces, and the development of international competitive strategy. | 3             |
| **CUSTOMER SERVICE** | 3 Credits/Units  
33 hours of lecture  
Introduction to customer-centered business organization. Topics include the principles and practices of customer relations, the history of consumerism and customer relations departments, and methods to develop internal/external customer service skills, including identifying and responding to their needs, improving skills in providing information, dealing with conflict situations, and developing a positive customer relations climate. [GE] [PNP] | 3             |
| **SMALL BUSINESS MANAGEMENT** | 5 Credits/Units  
55 hours of lecture  
Designed to help students explore the elements of starting and managing a small business. Topics include conducting a feasibility analysis, finding sources of capital, acquiring critical human resources, managing assets, and dealing with various internal and external factors, including stakeholders. The foundation of the course will enable students to develop a coherent business plan as well as connect with business owners. [GE] [PNP] | 5             |
| **ADVERTISING** | 3 Credits/Units  
33 hours of lecture  
Introduction to advertising. Topics include the problems faced by advertisers and their agencies, along with the policies and procedures for solutions in the development of advertising objectives and strategies, selection of media, determination of budgeting methods, and preparation of copy and layout for effective results. Credit not allowed for both BUS 117 and BUS 217. [GE] [PNP] | 3             |
| **COMPUTERIZED ACCOUNTING** | 3 Credits/Units  
33 hours of lecture  
Prerequisite: BUS 028 and 029 or ACCT 201 (or BUS 231). Computerized accounting techniques in the basic areas of financial accounting, including the processes of analyzing, recording, reporting and interpreting accounting data in a business environment. A systems approach with real world applications of the general ledger, accounts receivable, accounts payable, purchasing, cash receipts, accounting for sales, payroll, and month and year-end closing for both a service and a merchandising business. QuickBooks software is utilized in this course. [GE] [PNP] | 3             |
| **BUSINESS PLAN** | 3 Credits/Units  
33 hours of lecture  
An introduction to building a business plan that incorporates a promotional plan. Plan purpose, audience, design, format, and presentation will be considered. Previous business planning experience useful but not required. Plans will incorporate a 'hands-on' interactive approach. [GE] | 3             |
| **INTRODUCTION TO ENTREPRENEURSHIP** | 5 Credits/Units  
55 hours of lecture  
Learn what makes a successful entrepreneur, the tools an entrepreneur needs to start a business, and the opportunities and pitfalls faced by an entrepreneur. [GE] [PNP] | 5             |
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Credits/Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERSONAL FINANCE</td>
<td></td>
<td>5</td>
<td>Buying insurance (life, health, property, and auto), buying and financing a home, minimizing Federal income tax, borrowing, saving, and investing. [GE] [PNP]</td>
</tr>
<tr>
<td>BUSINESS EDUCATION</td>
<td></td>
<td>5</td>
<td>55 hours of lecture</td>
</tr>
<tr>
<td>BUS 160</td>
<td></td>
<td></td>
<td>Buying insurance (life, health, property, and auto), buying and financing a home, minimizing Federal income tax, borrowing, saving, and investing. [GE] [PNP]</td>
</tr>
<tr>
<td>BUSINESS LAW</td>
<td></td>
<td>5</td>
<td>55 hours of lecture</td>
</tr>
<tr>
<td>BUS 201</td>
<td></td>
<td></td>
<td>[Prerequisite] Sophomore standing or consent of Instructional Unit. Practical applications of the law of contracts, agency, employment, real and personal property, and bailments in the business world and in one's personal affairs. Legal reasoning and illustrative case problems. Formerly BUS 224. [SE]</td>
</tr>
<tr>
<td>DESCRIPTIVE STATISTICS</td>
<td></td>
<td>3</td>
<td>33 hours of lecture</td>
</tr>
<tr>
<td>BUS 203</td>
<td></td>
<td></td>
<td>[Prerequisite] A grade of 'C' or better in MATH 095 or MATH 096 or equivalent or consent of Instructional Unit. Application of statistics to practical business problems. Includes summarizing and presenting data in tables and graphs, calculating and using common descriptive statistics, determining probabilities and using the binomial, Poisson, and normal probability distributions. Knowledge of Excel highly recommended. [SE]</td>
</tr>
<tr>
<td>INFERENCE STATISTICS</td>
<td></td>
<td>3</td>
<td>33 hours of lecture</td>
</tr>
<tr>
<td>BUS 204</td>
<td></td>
<td></td>
<td>[Prerequisite] Completion of BUS 203 or MATH 203 with a 'C' or better or consent of Instructional Unit. Application of statistics to practical business and economic problems. Includes sampling, point and interval estimates, hypothesis testing using the normal, t, f and chi-square distributions, analysis of variance, correlation, and simple and multiple regression. Knowledge of Excel recommended. [SE]</td>
</tr>
<tr>
<td>INTRODUCTION TO E-BUSINESS</td>
<td></td>
<td>5</td>
<td>55 hours of lecture Introduction to e-Business includes topics such as email, EFT (electronic fund transfers), barcoding, etc.. This will be a 5 credit course that deals with the fundamentals of conducting business online. This course will help assist students better understand the strategies on conducting business online. Other issues include, international standards, ethics, business strategy, electronic marketing. Examination of e-Business in altering the structure of entire industries, and how it affects business processes including electronic transactions, supply chains, decision making and organizational performance. The exponential growth in the last few years of the Internet and its related technologies has created new ways of communication and trading. [PNP]</td>
</tr>
<tr>
<td>BUSINESS COMMUNICATIONS</td>
<td></td>
<td>3</td>
<td>33 hours of lecture</td>
</tr>
<tr>
<td>BUS 211</td>
<td></td>
<td></td>
<td>[Prerequisite] ENGL 101 (or ENGL 101) or consent of Instructional Unit. Developing proficiency in written and oral communications appropriate for business by composing, organizing, and editing documents such as letters, reports, memos, emails, and presentations from a variety of business cases and managerial interviews. Emphasis on team work, collaboration, diversity, intercultural communication, and the delivery of oral presentations, using specialized software. Same as ENGL 212. [CA,CT,WC,SE]</td>
</tr>
<tr>
<td>PROFESSIONAL SELLING</td>
<td></td>
<td>3</td>
<td>33 hours of lecture</td>
</tr>
<tr>
<td>BUS 251</td>
<td></td>
<td></td>
<td>[Prerequisite] Consent of Instructional Unit. Introduction to personal selling concepts for the relationship era of business. Focus on selling stages, including prospecting, qualifying, developing rapport, overcoming objections, closing techniques, and following up with customer service. Focus on personal, retail, and organizational selling. [GE] [PNP]</td>
</tr>
<tr>
<td>PRINCIPLES OF MARKETING</td>
<td></td>
<td>5</td>
<td>55 hours of lecture</td>
</tr>
<tr>
<td>BUS 260</td>
<td></td>
<td></td>
<td>Introduction to concepts of marketing, with practical emphasis on the research, evaluation, and segmentation of markets. Focus on behavior of consumer and organizational buyers. Activities include developing a marketing plan to include product planning, pricing, promoting, and placement. [GE] [PNP]</td>
</tr>
<tr>
<td>SELECTED TOPICS</td>
<td></td>
<td>5</td>
<td>55 hours of lecture</td>
</tr>
<tr>
<td>BUS 280</td>
<td></td>
<td></td>
<td>The course focuses on selected topics in Business. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the term class schedules. [GE]</td>
</tr>
<tr>
<td>SPECIAL PROJECTS</td>
<td></td>
<td>5</td>
<td>55 hours of lecture</td>
</tr>
<tr>
<td>BUS 290</td>
<td></td>
<td></td>
<td>[Prerequisite] Consent of Instructional Unit. Opportunity to plan, organize and complete special projects approved by the department. [GE]</td>
</tr>
</tbody>
</table>
BUSINESS TECHNOLOGY (BTEC)

KEYBOARDING
BTEC 100 3 Credits/Units
11 hours of lecture / 44 hours of lab
Introduction to the keyboard, development of speed and accuracy, and basic keyboarding applications, including business letters, memos, tables, and reports. Keyboarding courses (BTEC 101, 102, and 190) are taught as individualized instruction through self-paced study. Students register for BTEC 100. At the end of the term, registration will automatically be changed to the appropriate course(s). A student earns from 1 to 3 credits in a course depending on the number of lessons and tests successfully completed. [GE] [PNP]

KEYBOARDING & WORD PROCESSING
BTEC 101 3 Credits/Units
11 hours of lecture / 44 hours of lab
Introduction to the keyboard, development of speed and accuracy and basic word processing skills for formatting simple letters, memos, tables, and reports. [GE][PNP]

REFRESHER KEYBOARDING
BTEC 103 3 Credits/Units
11 hours of lecture / 44 hours of lab
Review of keyboard and basic typing applications, development of speed and accuracy. Students must be able to type at least 30 words per minute by touch to register for this course. Business Technology majors who type at least 30 words per minute by touch must enroll in this course. Continuous enrollment, flexible time, individualized program. Satisfactory completion meets prerequisite for BTEC 120, Document Formatting. [GE]

BEGINNING COMPUTER FUNDAMENTALS
BTEC 105 3 Credits/Units
33 hours of lecture
Introduction to basic computer skills. Topics include computer components, terminology, and skills to manage files/folders, send and receive email, create documents using word processing, make simple spreadsheets, and locate information on the Internet. For students with little or no prior computer experience. [GE] [PNP]

APPLIED OFFICE ENGLISH
BTEC 106 3 Credits/Units
33 hours of lecture
Prerequisite: Eligibility for ENGL 098.
Fundamental skills in the use of reference materials, spelling, business vocabulary, editing, word usage, grammar, sentence structure, and punctuation and practice in basic writing skills for business letters, memorandums, and emails. Students who have already completed BTEC 087 or BTEC 107 should not take this course. [CA,GE]

BUSINESS ENGLISH
BTEC 107 5 Credits/Units
55 hours of lecture
Prerequisite: Eligibility for ENGL 098.
Develop proficiency in the language skills necessary for business writing. Strong emphasis placed on grammar, punctuation, sentence structure, capitalization, subject/verb agreement, and editing. [CA,CT,SE]

INTRODUCTION TO OUTLOOK
BTEC 114 1 Credit/Unit
11 hours of lecture
This course is designed to give students an overview of Outlook. Students will be introduced to email etiquette, calendaring functions, and create and organize contacts, and compose and deal with email messages. [GE] [PNP]

APPLICATION ESSENTIALS: WORD
BTEC 116 1 Credit/Unit
11 hours of lecture
Fundamentals of common business applications using MS Word and basic Word processing skills and MLA document formatting will be covered. [GE] [PNP]

APPLICATION ESSENTIALS: EXCEL
BTEC 117 1 Credit/Unit
11 hours of lecture
Fundamentals of common business applications using MS Excel, and basic spreadsheet skills and common formulas and functions will be covered. [GE] [PNP]

APPLICATION ESSENTIALS: POWERPOINT
BTEC 118 1 Credit/Unit
11 hours of lecture
Fundamentals of common business applications using MS PowerPoint to manage files/folders and giving students hands-on experience in presentation software. [GE] [PNP]

INTRODUCTION TO WORD
BTEC 120 3 Credits/Units
33 hours of lecture
Create, format, edit, save and print documents using fonts, numbered and bulleted text tables, tabs, columns, thesaurus, and grammar-check. Complete reports and longer documents using columns, page numbers, footnotes, endnotes, headers, and footers. Assemble form letters using mailing lists, envelopes, mailing labels, and standard paragraphs. Use styles to create flyers and newsletters with graphics. BTEC 100 or keyboarding speed of 30 wpm recommended. Application software for this course will be Microsoft Word. Cannot receive credit for both BTEC 120 and 125. [GE]

WORD FOR BUSINESS
BTEC 122 5 Credits/Units
55 hours of lecture
Producing letters, memos, and tables using fonts, tabs, tables, numbered and bulleted text, thesaurus, and grammar-check. Reports and longer documents will be created using columns, page numbers, footnotes, endnotes, headers, and footers. Form letters using mailing lists, envelopes, mailing labels, and standard paragraphs will be assembled. Styles, flyers and newsletters with graphics are included. [GE] [PNP]

FILE AND RECORD MANAGEMENT
BTEC 131 3 Credits/Units
33 hours of lecture
Principles and procedures of records storage and control including record cycle, microrecords, and electronic files. Selection of equipment and supplies. Practice in using indexing rules, coding, and filing for alphabetic, numeric, geographic, and subject filing systems. [GE] [PNP]
10-KEY  
BTEC 135  
5 hours of lecture / 10 hours of lab  
Ten-key by touch using a business-size electronic calculator. Training on operational features of modern business calculators incorporating business applications. [GE] [PNP]

BUSINESS TECHNOLOGY  
SEMINAR  
BTEC 140  
22 hours of lecture  
Concurrent enrollment in BTEC 199.  
Prerequisite: Written consent of Instructional Unit required.  
Problems, methods, procedures, and human relations related to on-the-job work experience in business. [GE] [PNP]

BUSINESS TECHNOLOGY  
SEMINAR  
BTEC 141  
22 hours of lecture  
Concurrent enrollment in BTEC 199.  
Prerequisite: Written consent of Instructional Unit required.  
Problems, methods, procedures, and human relations related to on-the-job work experience in business. [GE] [PNP]

BUSINESS TECHNOLOGY  
SEMINAR  
BTEC 143  
22 hours of lecture  
Concurrent enrollment in BTEC 199 required.  
Prerequisite: Consent of Instructional Unit.  
Problems, methods, procedures, and human relations related to on-the-job work experience in business. [GE] [PNP]

BUSINESS TECHNOLOGY  
SEMINAR  
BTEC 145  
22 hours of lecture  
Concurrent enrollment in BTEC 199 required.  
Prerequisite: Consent of Instructional Unit.  
Problems, methods, procedures, and human relations related to on-the-job work experience in business. [GE] [PNP]

PROFESSIONAL SELF-DEVELOPMENT  
BTEC 147  
22 hours of lecture  
Professional concepts applied to individuals in the business world in relation to themselves, the companies they represent, and the public they serve. Focus on improving resume, cover letter, interview, career portfolio and business communication and business etiquette skills. [GE]

BUSINESS PROFESSIONAL SELF DEVELOPMENT  
BTEC 148  
33 hours of lecture  
This course is designed to give students an overview of the job search process and will also explore the importance of developing and using soft skills in a business setting. Students will learn professional business concepts and communication skills improving themselves, the companies they represent and the public they serve. For employees or prospective employees who wish to improve their professional relations and growth potential. [HR] [PNP]

COMPUTER APPLICATIONS ESSENTIALS  
BTEC 149  
33 hours of lecture  
Fundamentals of common business applications using MS Windows and MS Office. An overview using Windows to manage files/folders and giving students hands-on experience in word processing, spreadsheet, presentation, and database software. [GE]

COMPUTER BUSINESS APPLICATIONS  
BTEC 150  
55 hours of lecture  
Introduction to creating business projects with MS Windows and MS Office that emphasize critical thinking and problem-solving skills. Assignments include managing files/folders, creating and formatting Word documents, Excel workbooks, PowerPoint presentations, and Access databases, as well as integrated Office applications; researching and writing an MLA report and, in teams, creating and giving a presentation based on research. [GE] [PNP]

INTRODUCTION TO OFFICE PUBLISHING TOOLS  
BTEC 155  
33 hours of lecture  
Introduction to Microsoft Publisher. Focus on creating, saving, printing, and/or publishing flyers, newsletters, Web sites, and various business publications and forms; also applying graphics and publishing standards. [GE] [PNP]

POWERPOINT PRESENTATION  
BTEC 165  
33 hours of lecture  
Create and deliver electronic business presentations using Microsoft PowerPoint incorporating ethics in infographics. Develop presentation skills using text, graphics, charts, clip art, scanned objects, and embedding or linking media for print, sales presentations, and interoffice electronic communications. Previous experience with Windows environment using Word or Excel is recommended. [GE] [PNP]

INTRODUCTION TO EXCEL  
BTEC 169  
33 hours of lecture  
Skills to create, edit, format, and print spreadsheets, tables, graphs and charts using Microsoft Excel; skills to create and edit formulas and simple functions; skills to create, sort, and filter worksheet databases; skills to PivotTables, templates, and manage multiple worksheets and workbooks. Prior experience with keyboard and/or ten-key by touch and logical thinking are extremely helpful. [GE]

EXCEL FOR BUSINESS  
BTEC 170  
33 hours of lecture  
Prerequisite: BTEC 169 and BUS 102 or equivalent score on COMPASS placement or consent of Instructional Unit.  
Advanced Microsoft Excel skills including creating, editing, and printing professional workbooks, using advanced formulas and charts, auditing and validating worksheet data, and solving complex problems with Excel. Integrating Excel with other office applications and understanding how technology is critical to solving business problems. An introduction to VBA, macros, and making an application in Excel. [GE] [PNP]

ACCESS FOR FUNDAMENTALS  
BTEC 180  
22 hours of lecture  
Introduction to Microsoft Access skills for office workers. Topics include creation and structure of tables, queries, simple forms, and reports. Introduction of special fields such as OLE, drop-down menus and using calculations in tables, forms, and queries. The course does assume knowledge of Microsoft Windows. [GE]
E-COMMERCE: INTRO TO BUSINESS ON THE WEB
BTEC 195  3 Credits/Units
33 hours of lecture
Introduction to e-commerce including the evolution of electronic commerce, business-to-business and business-to-customer e-commerce, creating a Web presence, commerce infrastructure and software choices, security and encryption issues, and electronic payment systems. Requires a group project to write a business plan for an online entity. Prior computer class (BTEC 149 or 150), BUS 101, and familiarity with a Web browser recommended. Cannot receive credit for BTEC 195 and 212. [GE]

COOPERATIVE WORK EXPERIENCE
BTEC 199  3 Credits/Units
99 hours of clinical
Supervised on-the-job work experience in an approved job in the local community with specific learning objectives and employer evaluation. See Cooperative Education Work Experience description in College Life and Services section of the catalog for more information. Consent of Instructional Unit and concurrent enrollment in accompanying seminar course required. 9 credits maximum. [GE]

SPEED AND ACCURACY BUILDING I
BTEC 200  1 Credit/Unit
22 hours of lab
Prerequisite: A grade of ‘C’ or better in BTEC 101 or equivalent.
Emphasis on using correct keyboarding techniques and prescriptive drills to improve speed, accuracy, and endurance to prepare students for success in advanced keyboarding classes. [GE]

DOCUMENT FORMATTING
BTEC 201  3 Credits/Units
11 hours of lecture / 44 hours of lab
Prerequisite: BTEC 101 (or 103) and BTEC 120 (or 122).
Business letters, tables, electronic forms, use of templates, and report keyboarding on a production basis. Further development of speed and accuracy. Continuous enrollment, flexible times, individual program. Cannot receive credit for both BTEC 201 and 102. [GE]

SPEED AND ACCURACY BUILDING II
BTEC 203  2 Credits/Units
11 hours of lecture / 22 hours of lab
Prerequisite: BTEC 201 or 102 or consent of Instructional Unit.
Emphasis will be placed on correct techniques and appropriate drills to improve speed and accuracy. Cannot receive credit for both BTEC 203 and 010. [GE]

INTRODUCTION TO SHAREPOINT
BTEC 207  3 Credits/Units
33 hours of lecture
Prerequisite: Completion of BTEC 149 or 150 or BTEC 120 or 122, BTEC 169, and CTEC 102 or consent of Instructional Unit.
This course is designed to give students an overview of the content management system SharePoint and its application for use in a business environment. [CP] [PNP]

ADMINISTRATIVE PROCEDURES
BTEC 211  5 Credits/Units
55 hours of lecture
Overview of current office procedures to equip students with the tools to solve a variety of problems in the changing business world using Microsoft applications. Complete simulated exercises requiring critical thinking, understanding of multicultural relations, and advanced office practices in preparation to work successfully in various office situations. [GE] [PNP]

SELECTED TOPICS
BTEC 280  3 Credits/Units
33 hours of lecture
The course focuses on selected topics in Business Technology. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the term class schedules. [GE]

SPECIAL PROJECTS
BTEC 290  5 Credits/Units
55 hours of lecture
Prerequisite: Consent of Instructional Unit.
Opportunity to plan, organize and complete special projects approved by the faculty of the department. [GE]
BUSINESS TECHNOLOGY
MEDICAL OFFICE (BMED)

MATH FOR HEALTH CARE PROFESSIONALS
BMED 103 3 Credits/Units
33 hours of lecture
Prerequisite: Eligibility for MATH 030 or MATH 092.
Mathematical concepts related to both administrative and dosage calculations for the physician's office, clinic, or emerig-center. [CP]

STATISTICS FOR HEALTH CARE PROFESSIONALS
BMED 105 2 Credits/Units
22 hours of lecture
Prerequisite: A grade of 'C' or better in BMED 103 or BUS 102.
Introduction to statistical computations and analysis used in healthcare. Topics include patient census, occupancy, length of stay, mortality and morbidity statistics. [CP]

MEDICAL TERMINOLOGY I
BMED 110 3 Credits/Units
33 hours of lecture
Introduction to medical word building with common medical roots, prefixes and suffixes. Study of terms related to the body as a whole, as well as terms related to human anatomy, pathology, diagnostic tests, clinical procedures, and abbreviations associated with each body system. Medical Terminology I covers the following body systems: digestive, urinary, reproductive, nervous, and cardiovascular. Course work will include spelling and pronunciation of terms. [GE] [PNP]

MEDICAL TERMINOLOGY II
BMED 111 3 Credits/Units
33 hours of lecture
Prerequisite: BMED 110 or BUS 110.
Continuation of Medical Terminology I, BTEC 110. Study of common medical roots, prefixes and suffixes and terms related to human anatomy, physiology, pathology, diagnostic tests, clinical procedures, and abbreviations associated with each body system. Medical Terminology II covers the following body systems: respiratory, blood, lymphatic, immune, musculoskeletal, integumentary, sense organs (eyes and ears), endocrine, as well as psychiatry. Course work will include spelling and pronunciation of terms. [GE] [PNP]

INTRODUCTION TO PATHOPHYSIOLOGY
BMED 112 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in BMED 111 and BIOL 164/165 or HEOC 100.
Introduction to the general mechanisms of systemic disease including etiology, physical signs and symptoms. Etiology focus will include infectious mechanisms, hereditary contributions, external physical agents and autoimmune conditions. Discussions of differences between disease and illness to include basic principles of pharmacology laboratory and diagnostic tests, overview of common therapies, prognosis and public health issues. [GE] [PNP]

MEDICAL OFFICE ADMINISTRATIVE PROCEDURES I
BMED 116 3 Credits/Units
22 hours of lecture / 22 hours of lab
Prerequisite: Completion of, or concurrent enrollment in, BMED 110 and completion of BTEC 149 or 150, or instructor permission.
Introduction to administrative positions in the medical field. Students gain introductory administrative competencies compliant with CAAHEP and other related professional organizations. The lab portion of the class prepares the student in medical office competencies and relevant software. Strong teamwork and time management skills are necessary to be successful in this rigorous course. Cannot receive credit for both BMED 115 and 116/117. [GE]

MEDICAL OFFICE ADMINISTRATIVE PROCEDURES II
BMED 117 3 Credits/Units
22 hours of lecture / 22 hours of lab
Prerequisite: Completion of BMED 116 or instructor permission.
Students will complete the competencies and coursework needed to successfully perform administrative and management duties in an outpatient medical clinic. This course continues where BMED 116 leaves off, offering the continuing student more coding, financial tasks, accounting practices, office management and human resource duties. Strong teamwork and time management skills are necessary to be successful in this rigorous course. Cannot receive credit for both BMED 115 and 116/117. [GE]

MEDICAL REIMBURSEMENT
BMED 129 5 Credits/Units
55 hours of lecture
Concurrent enrollment in BMED 111.
Prerequisite: A grade of 'C' or better in BMED 110.
Overview of inpatient, outpatient health, insurance plans, revenue cycles, health insurance claims, health insurance terminology, reimbursement methodologies for professional services, completion of CMS/1500 and UB-04 billing forms. Topics include compliance issues, fraud and abuse/ HIPAA issues, processing various perspective payment systems. [GE] [PNP]

MEDICAL CODING - CPT/HCPCS
BMED 130 4 Credits/Units
44 hours of lecture
Prerequisite: A grade of 'C' or better in BMED 111.
Introduction to procedural coding in ambulatory settings using the CPT Code Set and HCPCS (Health Care Financing Common Procedure Coding System). Student is introduced to the symbols, terminology and methods of procedural coding used by physicians and third parties and is guided step-by-step through various procedural coding scenarios by means of workbook exercises and actual case studies. The format and guidelines of the CPT and HCPCS code sets are reviewed to include E/M codes and modifiers. Reviews medical/surgical terminology, surgical/anatomical procedures, anesthesia, pharmaceuticals, and durable medical goods. Looks at CPT's position as it relates to ICD-9 and ICD-10 in today's coding world. [GE]
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMED 132</td>
<td>MEDICAL CODING ICD-9-CM/ICD-10</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> A grade of 'C' or better in BMED 111. Introduction to use of the ICD-9-CM and ICD-10 (International Classification of Disease, 9th 10th Edition, Clinical Modification) coding system as it is used in inpatient, ambulatory and long term care. Content and purposes of indexes and registers are reviewed. Implications of diagnostic related groups (DRGs) and other prospective payment systems and their relationships to coding assignments and financing of health care, theory and practice are provided in coding problem solving and data quality content and measures. [GE]</td>
<td></td>
</tr>
<tr>
<td>BMED 133</td>
<td>INTERMEDIATE MEDICAL CODING</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> A grade of 'C' or better in BMED 129, BMED 130 and BMED 132, or consent of Instructional Unit. Coding systems used in hospitals, physicians' offices and long-term care sites. Emphasis on ICD-9-CM (International Classification of Diseases, 9th Edition, Clinical Modification) and CPT (Current Procedure Terminology). Topics include content and purposes of disease and procedure indexes, as well as the purposes of abstracting from patient medical records; implications of diagnostic related groups (MS-DRGs) and ambulatory payment classifications (APCs) and their relationship to coding assignment and financing of hospital care; relationships of coding assignment and financing of physician office care; coding problem solving and measures for data quality and compliance. Class activities include coding practice using actual patient records and ICD-9-CM/CPT encoder. [GE]</td>
<td></td>
</tr>
<tr>
<td>BMED 134</td>
<td>MEDICAL OFFICE SEMINAR</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Overview:</strong> Student success strategies, library resources, the health care delivery system in the United States and the various employment opportunities in medical office occupations including discussion of job requirements and responsibilities. [GE] [PNP]</td>
<td></td>
</tr>
<tr>
<td>BMED 137</td>
<td>THERAPEUTIC COMM SKILLS FOR HEALTH PROF</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>33 hours of lecture</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Techniques:</strong> Techniques for encouraging a therapeutic and helping relationship with the client/patient. Includes an overview of the psychosocial development of a person, from birth to death. [GE]</td>
<td></td>
</tr>
<tr>
<td>BMED 138</td>
<td>LEGAL ASPECTS OF THE MEDICAL OFFICE</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>22 hours of lecture</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Introduction:</strong> Introduction to medical law, ethics and bioethics. Topics will include: ethics and bioethics in the practice of medicine, professional codes of ethics, an introduction to law, legal guidelines and the practice of medicine including professional liability, public duties, consents, advance directives, anatomy of a malpractice case, legal aspects of medical records, confidentiality, security of patient information and the release of patient information, patient access to their own medical records, and responding to subpoena duces tecum of medical records. [GE]</td>
<td></td>
</tr>
<tr>
<td>BMED 139</td>
<td>MA ASSISTANT EXAMINATION REVIEW</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>22 hours of lecture</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Concurrent enrollment in BMED 166 required.</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> A grade of 'C' or better in BMED 163, 164 and 165 or consent of Instructional Unit. Review of Medical Assistant administrative and clinical competencies including anatomy and physiology, medical terminology and legal aspects. Discussion of studying and test taking techniques to prepare for the NCCT Medical Assisting certification and the CMA certifications. Students will have a registration date to complete both exams by class completion. [GE]</td>
<td></td>
</tr>
<tr>
<td>BMED 140</td>
<td>LEGAL ASPECTS OF HEALTH INFORMATION</td>
<td>2</td>
</tr>
</tbody>
</table>

**MEDICAL OFFICE CLINICAL PROCEDURES I**

| BMED 163    | 6 Credits/Units                      |               |
|             | **44 hours of lecture / 22 hours of lab** |               |
|             | Concurrent enrollment in BMED 130 and HLTH 124 required or consent of Instructional Unit. |
|             | **Prerequisite:** A grade of 'C' or better in BMED 105, 112, 117, 129, 132, 138, HEOC 120 and CMST 230 and consent of Instructional Unit. Principles of medical office clinical procedures including preparing a patient for assisting a physician with examinations, procedures, and components of patient history. Covers charting, vital signs, sterile setups, universal blood precautions and methods of asepsis and sterilization. Topics also include techniques in patient interviewing and education. Lab provides the opportunity for practice and to demonstrate proficiency in procedures. [GE] |

**MEDICAL OFFICE CLINICAL PROCEDURES II**

| BMED 164    | 6 Credits/Units                      |               |
|             | **44 hours of lecture / 44 hours of lab** |               |
|             | Concurrent enrollment in BMED 137 and 165 required or consent of Instructional Unit. |
|             | **Prerequisite:** A grade of 'C' or better in BMED 163 or consent of Instructional Unit. Continuation of Medical Office Clinical Procedures I covering medical office clinical procedures including methods of collecting blood, processing specimens, equipment preparation and operation, electrocardiography, medication administration, medical and surgical asepsis. The lab provides an opportunity to practice procedures and demonstrate proficiency. [GE] |
MEDICAL  OFFICE  LABORATORY  PROCEDURES
BMED 165  4 Credits/Units
22 hours of lecture / 44 hours of lab
Concurrent enrollment in BMED 137 and 164 required or consent of Instructional Unit.
Prerequisite: A grade of 'C' or better in BMED 163 or consent of Instructional Unit.
Introduction to specimen collection and processing. Performing basic CLIA waived hematology, chemistry and immunology testing; microscopic urine tests including gram smears; basic culture techniques and blood typing. Equipment use and maintenance, re-agent storage and handling. Quality control measures. Lab safety emphasized. Cannot receive credit for both HEOC 160 and BMED 165. [GE]

MEDICAL  ASSISTANT  PRACTICUM
BMED 166  6 Credits/Units
11 hours of lecture / 165 hours of clinical
Concurrent enrollment in BMED 139 required.
Prerequisite: A grade of 'C' or better in BMED 164, 165 and consent of Instructional Unit.
Supervised medical assistant experience in a health care facility. Provides students with the opportunity to apply knowledge and skill in performing administrative and clinical procedures and in developing professional attitudes for interacting with other professionals and consumers. [GE, HR]

HEALTH  INFORMATION  PROCEDURES
BMED 222  5 Credits/Units
44 hours of lecture / 22 hours of lab
Prerequisite: A grade of 'C' or better in BMED 103 and 105.
Introduction to health information procedures, principles and practice standards associated with medical record department and health unit coordinator responsibilities. Topics include: licensing, regulation, and accreditation of health care facilities, hospital organization, patient registration, health care statistics, medical record content, medical record assembly, analysis and coding. CPT coding (ICD-9-CM and ICD-10-CM) will be introduced as well as a review of other medical classifications of nomenclatures classification and nomenclatures. Completion of, or concurrent enrollment in BIOL 164/165 or HEOC 100, or consent of Instructional Unit. [GE] [PNP]

MEDICAL  OFFICE  PRACTICUM
BMED 225  2 Credits/Units
11 hours of lecture / 33 hours of clinical
Prerequisite: Consent of Instructional Unit.
Supervised learning in a clinic, medical center, or other health care facility, practicing medical office administrative responsibilities. [GE, HR]

MEDICAL  OFFICE  PRACTICUM
BMED 226  3 Credits/Units
11 hours of lecture / 66 hours of clinical
Prerequisite: Consent of Instructional Unit.
Supervised learning in a clinic, medical center, or other health care facility, practicing medical office administrative responsibilities. [GE, HR]

HEALTH  DATA  CONTENT  AND  STRUCTURE
BMED 227  3 Credits/Units
22 hours of lecture / 22 hours of lab
Prerequisite: Completion of with a grade of 'C' or concurrent enrollment in BMED 222.
Analysis and utilization of health record content with emphasis on physician's orders, clinical lab tests, diagnostic and treatment modalities and pharmacology and an overview of applicable consent and confidentiality principles. Students will participate in hands-on lab application of healthcare procedures via the AHIMA web-based Virtual lab. [CP]

MEDICAL  DOCUMENT  MANAGEMENT  AND  TECHNOLOGY
BMED 228  3 Credits/Units
33 hours of lecture
Prerequisite: A grade of 'C' or better in BMED 222, or consent of Instructional Unit.
Fundamental principles in identifying and applying inpatient and outpatient records and reports. Strong skills in English, spelling and grammar, medical terminology, attention to detail, proofreading, and quality assurance are recommended. Completion of with a grade of 'C' or concurrent enrollment in BMED 222.

HIIM  DIRECTED  PRACTICE
BMED 229  1 Credit/Unit
33 hours of clinical
Prerequisite: Successful completion of the following: BMED 116, 222 and 228 or Consent of the Instructional Unit.
Supervised learning in a clinic, medical center, campus, or other health care facility to practice medical office administrative and HIIM responsibilities. Topics include extrapolating, correcting, analyzing for completeness, abstracting reports for release of information (ROI), coding, billing and communication competencies using actual electronic medical records and medical charts. Provides students the application of classroom and laboratory objectives in a supervised affiliation site. Performed under leadership of a registered health information administrator or registered health information technician.

INTRODUCTION  TO  PATIENT  NAVIGATION  &  ADVOCACY
BMED 233  5 Credits/Units
55 hours of lecture
Introduction to the knowledge, skills, and attitudes necessary to apply care navigation for the benefit of the client. The content focuses on the healthcare systems, client profiles and needs, communication basics, an introduction to chronic illness, and health coaching.

INTERMEDIATE  PATIENT  NAVIGATION  &  ADVOCACY
BMED 234  5 Credits/Units
55 hours of lecture
Prerequisite: Successful completion with a 'C' or better in BMED 233 or consent of the Instructional Unit.
Builds on the foundations developed in Introduction of Patient Navigation Advocacy. Additional topics covered are care coordination and navigation, client characteristics, an overview of behavioral health, strategies to influence outcomes, and advanced communications.

ADVANCED  PATIENT  NAVIGATION  &  ADVOCACY
BMED 235  5 Credits/Units
55 hours of lecture
Prerequisite: Successful completion with a 'C' or better in BMED 234 or consent of the Instructional Unit.
Builds on the concepts covered in Intermediate Patient Navigation Advocacy. Additional topics covered are care transitions, preventive healthcare, continued discussion of chronic illness, end of life care, and challenges particular to care navigation.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits/Units</th>
<th>Hours of Lecture</th>
<th>Prerequisite/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMED 236</td>
<td>PATIENT ADVOCACY IV: ADVANCED ADVOCACY SKILLS</td>
<td>4</td>
<td>44</td>
<td>Successful completion with a ‘C’ or better in BMED 110 and BMED 234 or consent of the Instructional Unit. Advanced concepts in healthcare systems advocacy and navigation. Exploration and application of the critical process of linking healthcare systems with patients, the advocate role on the medical team and scope of practice, available resources and the culture of the patient and the community. Further emphasis on managing the patient as a whole person and partner in their care, including implications of family involvement. Examines the emotional, social, psychological and physical impact of chronic disease. Behavioral health issues, end of life issues, palliative care and hospice needs will be explored in the context of advocate role, scope of practice and safety, ethics, decision support and family. Evidence-based strategies that support healthy behaviors will be introduced and practiced. Practice in motivational interviewing techniques, teach back and activation conversations will focus on strategies to engage both patients and families.</td>
</tr>
<tr>
<td>BMED 237</td>
<td>AGING AND THE AGING POPULATION</td>
<td>2</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>BMED 238</td>
<td>BEHAVIORAL HEALTH AND CARE COORDINATION</td>
<td>2</td>
<td>22</td>
<td>Topics covered in this course address the specific needs, conditions and support for the aging population to include strategies leading toward positive patient experience and outcomes. This coursework is highly recommended for all students who might work with or care for an elderly person. [GE]</td>
</tr>
<tr>
<td>BMED 242</td>
<td>INTERMEDIATE ANATOMY AND PHYSIOLOGY</td>
<td>3</td>
<td>22/33</td>
<td>Successful completion with a ‘C’ or better of BMED 112 and BMED 132. Expanded exploration of human anatomy and physiology with an emphasis on medical record extrapolation, analysis of medical procedures, continuation of pathophysiology as applied to medical coding and health information management. The student will apply prerequisite coursework to common procedures, treatments and standard of care with consideration and exploration of current laws, such as the Affordable Care Act and Meaningful Use and their impact on patient care, billing and health information management.</td>
</tr>
<tr>
<td>BMED 250</td>
<td>MEDICAL OFFICE CAPSTONE PRACTICUM</td>
<td>3</td>
<td>22/33</td>
<td>A grade of ‘C’ or better in BMED 222 or consent of Instructional Unit. Supervised learning in a simulated health care environment where students will be extrapolating, correcting, analyzing for completeness; abstracting reports for release of information (ROI); coding and billing using actual electronic medical records and charts. In addition, students will develop in-depth knowledge of career opportunities and medical administrative team environments. [GE]</td>
</tr>
<tr>
<td>BMED 280</td>
<td>SELECTED TOPICS</td>
<td>3</td>
<td>33</td>
<td>The course focuses on selected topics in Business Technology. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the term class schedules. [GE]</td>
</tr>
<tr>
<td>BMED 290</td>
<td>SPECIAL PROJECTS</td>
<td>5</td>
<td>55</td>
<td>Consent of Instructional Unit. Opportunity to plan, organize and complete special projects approved by the faculty of the department. [GE]</td>
</tr>
<tr>
<td>BMED 299</td>
<td>CAPSTONE</td>
<td>2</td>
<td>11/22</td>
<td>Capstone project to expand knowledge by studying selected BMED topics. Normally taken during the final term of the program. Application of many topics covered in the other program courses in a simulated employee team or small group setting. Projects must be pre-approved by the instructor.</td>
</tr>
</tbody>
</table>
CHEMISTRY (CHEM)

SKILLS FOR PRE-HEALTH CHEMISTRY
CHEM 095 3 Credits/Units
CHEM 106 33 hours of lecture / 44 hours of lab
Prerequisite: Eligibility for MATH 093, 095 or equivalent or consent of Instructional Unit.

For students who have little to no previous chemistry experience, preparation for the fast-paced and intensive experience of CHEM 121, required for health occupation fields. Topics include measurements, density, nomenclature, properties of elements and compounds, understanding the periodic table, writing and balancing chemical equations, the mole, and the application of mathematical operations used in chemical problem solving. Students cannot receive credit for both CHEM 050 and CHEM 095.

SMALL WORLD ANTIBIOTICS RESEARCH 2A CHEM 106 33 hours of lecture / 44 hours of lab
Prerequisite: A grade of 'C' or better in BIOL 105 or consent of Instructional Unit.

Introduces authentic research to discover potentially new antibiotics. Overview of basic chemical concepts including a chemical history of antibiotics, their sources and discovery, and modes of action in bacteria. Strong emphasis on scientific inquiry including critical thinking, laboratory research methodology, and communication abilities.

CHEMICAL CONCEPTS W/LAB CHEM&110 44 hours of lecture / 22 hours of lab
4 Credits/Units
Introductory chemistry course to fulfill the General Education Science with Laboratory requirement, intended for non-science majors who will not take additional chemistry. Focus on unit factor and equation problem solving skills as related to chemical concepts, also stoichiometry and stoichiometric problem solving skills. Topics include the structure of the atom, chemical reactions, and chemical and physical properties to describe matter. [NS, SE]

INTRO TO CHEMISTRY: PRE-HEALTH CHEM&121 44 hours of lecture / 22 hours of lab
5 Credits/Units
Prerequisite: Eligibility for MATH 146.

Topics in general chemistry applicable to students seeking a 2-year degree in the health-occupations fields. Unit-factor method is applied to problem solving. Topics covered include units of measurement, atomic structure, chemical bonding, energy, the mole concept, nomenclature of inorganic compounds, writing and balancing equations, properties of gases, solutions and colloids, reaction rates and equilibrium, acids, bases and salts, radiation and health. Completion of elementary algebra recommended. Formerly CHEM 111. [NS, SE]

INTRO TO ORGANIC/BIOCHEM CHEM&131 44 hours of lecture / 22 hours of lab
5 Credits/Units
Prerequisite: Grade of 'C' or better in CHEM 121.

Aspects of organic and biochemistry emphasizing how chemicals affect functioning of the human body. Applicable to students seeking a 2-year degree in the health-occupations fields. Topics covered include aliphatic and aromatic compounds, alcohols, ethers, amines, aldehydes, ketones, carboxylic acids and their derivatives, carbohydrates and carbohydrate metabolism, lipids and lipid metabolism, proteins and protein metabolism, enzymes and hormones, nucleic acids and the chemistry of heredity, body fluids and the human circulation system and nutrition. Formerly CHEM 112. [NS, SE]

GENERAL CHEMISTRY PREPARATION CHEM&139 44 hours of lecture
4 Credits/Units
Prerequisite: A grade of 'C' or better in MATH 093, 095 or 096 or equivalent or consent of Instructional Unit.

For students who need additional background in applied mathematics and chemistry to enroll in the CHEM 141-142-143 sequence for science and engineering majors. Topics include scientific methods of measurement, significant figures, nomenclature, properties of elements, compounds, and solutions, the periodic table, writing and balancing chemical equations, and focused (extensive) practice on stoichiometric problem solving. Formerly CHEM 100. [SE]

GENERAL CHEMISTRY I CHEM&141 44 hours of lecture
4 Credits/Units
Concurrent enrollment in CHEM& 151, or consent of Instructional Unit.
Prerequisite: Eligibility for College Algebra and a grade of 'C' or better in CHEM 139 or equivalent or recommending score on Clark's general chemistry placement test.

First of a 3-term sequence designed for science and engineering majors. Applications of the scientific method by correlating theory with experimental observation. Topics include systems of measurement, atomic structure, chemical bonding and shape, stoichiometric calculations, properties of gases, nomenclature of inorganic compounds, and writing and balancing equations. [NS, SE]

GENERAL CHEMISTRY II CHEM&142 44 hours of lecture
4 Credits/Units
Concurrent enrollment in CHEM& 152, or consent of Instructional Unit.
Prerequisite: A grade of 'C' or better in CHEM 141 and CHEM 151.

Second of a 3-term sequence designed for science and engineering majors. Applications of the scientific method by correlating theory with experimental observation. Topics include properties of liquids and solids, solutions, equilibria, reaction kinetics, acid-base theories, ionic equilibria and an introduction to organic chemistry. [NS, SE]

GENERAL CHEMISTRY III CHEM&143 44 hours of lecture
4 Credits/Units
Concurrent enrollment in CHEM& 153 is recommended.
Prerequisite: A grade of 'C' or better in CHEM 142 and CHEM 152.

Third of a three-term sequence designed for science and engineering majors. Applications of the scientific method by correlating theory with experimental observation. Topics include ionic equilibria, thermodynamics, nuclear chemistry, electrochemistry, transition metal chemistry, and applications of all chemical concepts to the elements on the periodic table. [NS, SE]
GENERAL CHEMISTRY LABORATORY I
CHEM&151 1 Credit/Unit
22 hours of lab
First of a 3-term lab sequence designed for science and engineering majors, to coincide with CHEM 141 General Chemistry I. Applications of the scientific method by correlating theory with experimental observation. Topics include systems of measurement, observing and affecting chemical reactions, energy considerations, chemical behavior of aqueous systems, the nature of chemical bonding, gas laws, graphing techniques, using technological interfaces to collect and manipulate data, and mathematical calculations to support chemical observations. Students must register for CHEM 141, or consent of Instructional Unit. [NS, SE]

GENERAL CHEMISTRY LABORATORY II
CHEM&152 1 Credit/Unit
22 hours of lab
Concurrent enrollment in CHEM& 142, or consent of Instructional Unit. 
Prerequisite: A grade of ‘C’ or better in CHEM 141 and CHEM 151, or consent of Instructional Unit.
Second of a 3-term lab sequence designed for science and engineering majors, to coincide with CHEM 142 General Chemistry II. Applications of the scientific method by correlating theory with experimental observation. Topics include phenomena of solid and liquid states, colligative properties of aqueous and non-aqueous systems, reaction kinetics, general equilibria, acid/base equilibria, graphing techniques, using technological interfaces to collect and manipulate data, and mathematical calculations to support chemical observations. [NS, SE]

GENERAL CHEMISTRY LABORATORY III
CHEM&153 2 Credits/Units
11 hours of lecture / 22 hours of lab
Prerequisite: A grade of ‘C’ or better in CHEM 142 and CHEM 152, or consent of Instructional Unit.
Third of a 3-term lab sequence to coincide with CHEM 143 General Chemistry III for science and engineering majors. Applications of the scientific method by correlating theory with experimental observation. Topics include chemical and ionic equilibria, acid-base theories of aqueous solutions and selected principles of electrochemistry, gravimetric analysis, coordination chemistry, volumetric analysis, inorganic synthesis, and the statistical handling of data. Completion of or concurrent enrollment in CHEM 143 with a grade of ‘C’ or better. [NS, SE]

COOPERATIVE WORK EXPERIENCE
CHEM 199 5 Credits/Units
165 hours of clinical
Prerequisite: Consent of Instructional Unit.
Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. [GE]

ORGANIC CHEMISTRY LABORATORY I
CHEM&241 4 Credits/Units
44 hours of lecture
Concurrent enrollment in CHEM& 251 is required, or consent of Instructional Unit. 
Prerequisite: A grade of ‘C’ or better in CHEM 143 and CHEM 153, consent of Instructional Unit.
First of a 3-term sequence designed for science and engineering majors, or students seeking a career in the health professions. Topics include mechanistic approach applied to hydrocarbons and alkenes, spectroscopic methods, molecular orbitals, hybridization, resonance, acid/base theory, nomenclature, structure and reactivity, kinetic and thermodynamic theories of reactions. [NS, SE]

ORGANIC CHEMISTRY LABORATORY II
CHEM&242 4 Credits/Units
44 hours of lecture
Concurrent enrollment in CHEM& 252 is required, or consent of Instructional Unit. 
Prerequisite: A grade of ‘C’ or better in CHEM 241 and CHEM 251, or consent of Instructional Unit.
Second of a 3-term sequence designed for science and engineering majors, or students seeking careers in the health professions. Topics include organic synthesis and mechanistic approach applied to polar molecules; topics may include alcohols, ethers, organometallic compounds, aromatic systems, aldehydes and ketones. [NS, SE]

ORGANIC CHEMISTRY LABORATORY III
CHEM&243 4 Credits/Units
44 hours of lecture
Prerequisite: A grade of ‘C’ or better in CHEM 242 and CHEM 252, or consent of Instructional Unit.
Third of a 3-term sequence designed for science and engineering majors, or students seeking careers in the health professions. Topics include mechanistic and synthetic approach applied to polar molecules; topics may include reactions of carboxylic acids and derivatives, dicarbonyl compounds, amines, conjugated systems, polymer systems and an introduction to biomolecules. [NS, SE]

COOPERATIVE WORK EXPERIENCE
CHEM 199 5 Credits/Units
165 hours of clinical
Prerequisite: Consent of Instructional Unit.
Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. [GE]

ORGANIC CHEMISTRY LABORATORY I
CHEM&251 1 Credit/Unit
44 hours of lab
Concurrent enrollment in CHEM& 241, or consent of Instructional Unit. 
Prerequisite: A grade of ‘C’ or better in CHEM 143 and CHEM 153, or consent of Instructional Unit.
First of a 3-term laboratory sequence designed for science and engineering majors, or students seeking a career in the health professions. Focus on basic organic laboratory techniques such as recrystallizations, melting points, distillations, reflux, extractions, chromatography, and spectroscopy; laboratory notebook-keeping skills and scientific writing methods. [NS, SE]

ORGANIC CHEMISTRY LABORATORY II
CHEM&252 1 Credit/Unit
44 hours of lab
Concurrent enrollment in CHEM& 242, or consent of Instructional Unit. 
Prerequisite: A grade of ‘C’ or better in CHEM 241 and CHEM 251, or consent of Instructional Unit.
Second of a 3-term laboratory sequence designed for science and engineering majors, or students seeking careers in the health professions. Focus on organic laboratory techniques, spectroscopic characterization of molecules, and introduction to synthetic techniques, including multi-step syntheses and handling moisture- or air-sensitive compounds. [NS, SE]

ORGANIC CHEMISTRY LABORATORY III
CHEM&253 1 Credit/Unit
44 hours of lab
Concurrent enrollment in CHEM& 252, or consent of Instructional Unit. 
Prerequisite: A grade of ‘C’ or better in CHEM 242 and CHEM 252, or consent of Instructional Unit.
Third of a 3-term sequence designed for science and engineering majors, or students seeking careers in the health professions. Advanced synthetic techniques, project-based experiments and identification. CHEM 253 replaces CHEM 214 (beginning in Spring 2009). [NS, SE]
SPECIAL PROJECTS

CHEM 290
6 Credits/Units

Prerequisite: Consent of Instructional Unit.
Opportunity to plan, organize and complete special projects approved by the department. [GE]
EXPLORATIONS (ESL 045, ESL 047, ESL 049) or Explorations (ESL 046, ESL 048).

For students who are new to Transitional Studies. Students will be assessed and advised into appropriate classes, set goals and create an educational plan. [PNP]

TECHNOLOGY FOR PATHWAYS
CAP 003
11 hours of lecture

Prerequisite: Current CASAS test scores in all skills.

For students who need to improve their technology skills, especially navigating Canvas. Students will improve these skills while learning about the career pathways leading from Transitional Studies to college completion. Successful completion of the course will provide .5 Occupational Educational credit toward the HS21+ diploma. CASAS test score 211 in reading. [PNP]

JUMPSTART: READING & WRITING
CAP 005
6 Credits/Units
66 hours of lecture

Prerequisite: Current CASAS test scores in Math and Reading.

Development of standards-based reading and writing skills in the contexts of science and social studies to successfully transition into appropriate High School 21 courses. Minimum score of 211-255 on CASAS Reading test.

JUMPSTART: MATH
CAP 006
6 Credits/Units
66 hours of lecture

Prerequisite: Current CASAS test scores in Math and Reading.

Application of basic math skills in real world contexts. Topics may include: integers, basic operations, percents, fractions, decimals, ratios/proportions, mean, median, mode, range, basic probability/statistics, exponents, roots, radicals, order of operation, expressions, equations/inequalities, graphing linear equations, and basic geometry. Upon successful completion of this course, students may transition to HS21+ courses, apprenticeships, or HS21+. Students will improve technology skills as well as understand the technology skills to transition into a technology pathway. HS21+ students will receive Occupational Education credit toward their HS21+ diploma. CASAS test score between 211 and 220 in reading. ESL students must score at least 211 in listening. Or successful completion of Intensive Explorations (ESL 045, ESL 057, ESL 049) or Explorations (ESL 046, ESL 048).

INTENSIVE FAST TRACK 1: STUDY SKILLS
CAP 011
2 Credits/Units
22 hours of lecture

Prerequisite: Current CASAS test scores in all skills.

Improve the ability to listen actively and speak so others can understand. Upon successful completion of Intensive Fast Track 1, students will have gained the study skills as well as the academic skills to transition into Fast Track 2, Integrated English CAP coursework or I-BEST. HS21+ students will receive Educational credit toward their HS21+ diploma. CASAS test score between 211 and 220 in reading. ESL students must score at least 211 in listening. Or successful completion of Intensive Explorations (ESL 045, ESL 057, ESL 049) or Explorations (ESL 046, ESL 048).

INTENSIVE FAST TRACK 1: ORAL COMMUNICATION
CAP 013
3 Credits/Units
33 hours of lecture

Prerequisite: Current CASAS test scores in all skills.

Improve the ability to listen actively and speak so others can understand. Upon successful completion of Intensive Fast Track 1, students will have gained the study skills as well as the academic skills to transition into Fast Track 2, Integrated English CAP coursework or I-BEST. HS21+ students will receive Occupational Education credit toward their HS21+ diploma. CASAS test score between 211 and 220 in reading. ESL students must score at least 211 in listening. Or successful completion of Intensive Explorations (ESL 045, ESL 057, ESL 049) or Explorations (ESL 046, ESL 048).

INTENSIVE FAST TRACK 1: WRITTEN COMMUNICATION
CAP 012
6 Credits/Units
66 hours of lecture

Prerequisite: Current CASAS test scores in all skills.

Improve the ability to read with understanding and convey your ideas in writing. Upon successful completion of Intensive Fast Track 1, students will have gained the study skills as well as the academic skills to transition into Fast Track 2, Integrated English CAP coursework or I-BEST. HS21+ students will also receive Occupational Education credit toward their HS21+ diploma. CASAS test score between 211 and 220 in reading. ESL students must score at least 211 in listening. Or successful completion of Intensive Explorations (ESL 045, ESL 057, ESL 049) or Explorations (ESL 046, ESL 048).

INTENSIVE FAST TRACK 1: TECHNOLOGY
CAP 014
3 Credits/Units
33 hours of lecture

Prerequisite: Current CASAS test scores in all skills.

Improve the ability to use technology. Upon successful completion of Intensive Fast Track 1, students will have gained the study skills as well as the academic skills to transition into Fast Track 2, Integrated English CAP coursework or I-BEST. HS21+ students will also receive Occupational Education credit toward their HS21+ diploma. CASAS test score between 211 and 220 in reading. ESL students must score at least 211 in listening. Or successful completion of Intensive Explorations (ESL 045, ESL 057, ESL 049) or Explorations (ESL 046, ESL 048).

INTENSIVE FAST TRACK 1: PORTFOLIO
CAP 011
2 Credits/Units
22 hours of lecture

Prerequisite: Current CASAS test scores in all skills.

Improve the ability to listen actively and speak so others can understand. Upon successful completion of Intensive Fast Track 1, students will have gained the study skills as well as the academic skills to transition into Fast Track 2, Integrated English CAP coursework or I-BEST. HS21+ students will also receive Occupational Education credit toward their HS21+ diploma. CASAS test score between 211 and 220 in reading. ESL students must score at least 211 in listening. Or successful completion of Intensive Explorations (ESL 045, ESL 057, ESL 049) or Explorations (ESL 046, ESL 048).
### FAST TRACK 1: ORAL COMMUNICATION/TECHNOLOGY
**CAP 016**  6 Credits/Units
66 hours of lecture
**Prerequisite:** Current CASAS test scores in all skills.
Development of computer skills to support your ability to listen actively and speak so others can understand in the context of college and work. Upon successful completion of Fast Track 1 (both CAP 016 and CAP 018), students will have gained the study skills as well as the academic skills to transition into Fast Track 2, Integrated English CAP coursework or I-BEST. HS21+ students will also receive Occupational Education credit toward their HS21+ diploma. CASAS test score between 211 and 220 in reading. ESL students must score at least 211 in listening. OR successful completion of Intensive Explorations (ESL 045, ESL 047, ESL 049) or Explorations (ESL 046, ESL 048).

### FAST TRACK 1: WRITTEN COMMUNICATION/TECHNOLOGY
**CAP 018**  6 Credits/Units
66 hours of lecture
**Prerequisite:** Current CASAS test scores in all skills.
Development of computer skills as you improve your ability to read with understanding and convey your ideas in writing. Upon successful completion of Intensive Fast Track 1 (both CAP 016 and CAP 018), students will have gained the study skills as well as the academic skills to transition into Fast Track 2, Integrated English CAP coursework or I-BEST. HS21+ students will also receive Occupational Education credit toward their HS21+ diploma. CASAS test score between 211 and 220 in reading. ESL students must score at least 211 in listening. OR successful completion of Intensive Explorations (ESL 045, ESL 047, ESL 049) or Explorations (ESL 046, ESL 048).

### FAST TRACK 2: COMMUNICATION FOR COLLEGE TRANSITION
**CAP 021**  7 Credits/Units
77 hours of lecture
**Prerequisite:** Current CASAS test scores in all skills.
Development of both oral and written communication skills both face-to-face and on-line, focusing on college readiness. Upon successful completion of Fast Track 2: Communication for College Transition, students will have gained the skills to transition into Integrated English CAP coursework or I-BEST. HS21+ students will also receive elective credit toward their HS21+ diploma. CASAS test score 221 or higher in reading. OR successful completion of Intensive Explorations (ESL 045, ESL 047, ESL 049) or Explorations (ESL 046, ESL 048).

### ON-RAMP TO HEALTHCARE
**CAP 023**  6 Credits/Units
66 hours of lecture
**Prerequisite:** Current CASAS test scores in all skills.
Development of oral and written communication skills both face-to-face and on-line in the context of healthcare. Upon successful completion of On-Ramp to Healthcare, students will have gained the skills to transition into job training and college courses. HS21+ students will also receive credit toward their HS21+ diploma. CASAS test score 211 in reading. [PNP]

### ON-RAMP TO BUSINESS
**CAP 024**  6 Credits/Units
66 hours of lecture
**Prerequisite:** Current CASAS test scores in all skills.
Development of both oral and written communication skills in the context of Business. Upon successful completion of On-Ramp to Business, students will have gained the skills to transition into job training and college courses. HS21+ students will also receive 1 credit toward their HS21+ diploma. CASAS test score 211 in reading. [PNP]
INTEGRATED MATH AND OCCUPATIONS
CAP 040 8 Credits/Units
88 hours of lecture
Prerequisite: CASAS Math score up to 220.
For students needing to learn or review math fundamentals. Students will apply their math skills (e.g. whole numbers, fractions, decimals, integers, percents, basic geometry, standard American measurement, basic tables/graphs) in various occupational contexts. Successful completion of the course will provide 1 credit for Math and 1 credit for Occupational Education toward the HS21+ diploma.

INTEGRATED MATH AND SCIENCE
CAP 042 7 Credits/Units
77 hours of lecture
Prerequisite: CASAS Math score of 221-235 or successful completion of CAP 040 or instructor permission.
Students will apply their math skills (e.g. using integers, fractions, mixed numbers, order of operations, proportions, percents, algebraic expressions, multi-step equations, Metric system, standard and scientific notation, tables, graphs, diagrams) in the context of science. Successful completion of both CAP 042 and CAP 043 will provide 1 credit for Math and 1 credit for Lab Science toward the HS21+ diploma. Successful completion of CAP 042 without CAP 043 will provide 1 credit for Math and 0.5 elective credit toward the HS21+ diploma.

INTEGRATED MATH AND SCIENCE CAPSTONE
CAP 043 2 Credits/Units
22 hours of lecture
Prerequisite: A grade of ‘C’ or better in CAP 042, concurrent enrollment in CAP 042 or eligibility to take CAP 046 or higher math.
Supplements the materials in CAP 042 and introduces concepts from biology, chemistry and physics. Students will explore the scientific method through designing, implementing, and presenting a project using scientific inquiry. Successful completion of both CAP 042 and CAP 043 will provide 1 credit for Math and 1 credit for Lab Science toward the HS21+ diploma. Completion of this course without CAP 042 provides a non-lab science credit.

MATH APPLICATIONS
CAP 046 10 Credits/Units
110 hours of lecture
Prerequisite: CASAS Math score of 236 or higher or successful completion of CAP 042.
For students preparing to transition to MATH 107. Students will apply their math skills in appropriate contexts. Topics include complex expressions, equations, inequalities, compound inequalities, graphs and equations using point-slope and slope-intercept form, systems of equations using algebraic and graphing methods, exponential, radical and polynomial expressions and equations, quadratic, exponential and polynomial functions, quadratic equations, inverse and exponential functions, parabolic, exponential and logarithmic functions. Successful completion of the course will provide 1 credit for Math toward the HS21+ diploma.

TRANSITIONAL STUDIES MATH SUPPORT
CAP 049 3 Credits/Units
33 hours of lecture
Concurrent enrollment in CAP 040, CAP 042 or CAP 046.
Prerequisite: Current CASAS Math score.
Designed to provide additional instruction and support for student success in CAP Math classes. Reviews important concepts and skills introduced during CAP Math classes.

INTEGRATED ENGLISH AND HEALTH
CAP 061 7 Credits/Units
77 hours of lecture
Prerequisite: CASAS Reading score of 200-220.
For students who want to prepare for the GED or the HS21+ diploma. Integrates science, health and English writing skills to improve performance in an adult secondary education ABE Washington State Health and English course. Students will gain a deeper understanding of the human body’s systems while improving reading and writing skills. Successful completion of the course will provide 1 credit for Health toward the HS21+ diploma.

INTEGRATED ENGLISH & WA STATE HISTORY/FINE ARTS
CAP 064 7 Credits/Units
77 hours of lecture
Prerequisite: CASAS Reading score of 221 or above or successful completion of CAP 061.
For students who want to earn credits toward their High School 21 diploma, prepare for the GED test or improve their skills to transition to college-level courses. Integrates WA State history and Fine Arts with critical reading and writing skills. Successful completion of the course will provide 1-3 credits for English, 1 credit for WA State History and 1 credit for Fine Arts toward the HS21+ diploma.

INTEGRATED ENGLISH AND US HISTORY & GOVERNMENT
CAP 070 7 Credits/Units
77 hours of lecture
Prerequisite: CASAS Reading score of 221 or above or successful completion of CAP 061.
For students who want to earn credits toward their High School 21 diploma, prepare for the GED test or improve their skills to transition to college-level courses. Integrates US history and government with critical reading and writing skills. Successful completion of the course will provide 1-3 credits for English, 1 credit for US History 5 credit for Civics toward the HS21+ diploma.

INTEGRATED ENGLISH & SCIENCE/CWP
CAP 074 7 Credits/Units
77 hours of lecture
Prerequisite: CASAS Reading score of 221 or above or successful completion of CAP 061.
For students who want to earn credits toward their High School 21 diploma, prepare for the GED test or improve their skills to transition to college-level courses. Integrates Science and CWP with critical reading and writing skills. Successful completion of the course will provide 1-3 credits for English, 1 credit for Science and 1 credit for Contemporary World Problems toward the HS21+ diploma.

INTEGRATED ENGLISH/CWP (PP&I)
CAP 077 7 Credits/Units
77 hours of lecture
Prerequisite: Successful completion of CAP 064, 070, 074 or instructor recommendation.
For students who want to prepare for the GED, HS21+ diploma and/or college coursework. Students will gain a deeper understanding of the systems of power, privilege, and inequity and how they relate to current world problems. This is an advanced CAP writing course that will emphasize college-prep reading and writing skills. Successful completion of this course will provide 1 credit for Contemporary World Problems and 1 elective credit toward the HS21+ diploma.
### TRANSITIONAL STUDIES PREPARATION

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAP 078</td>
<td>2</td>
<td>CASAS Reading score of &lt;200-255.</td>
</tr>
</tbody>
</table>

For students who want to prepare for the HS21+ diploma. This course is required in the 1st or 2nd term of a student’s HS21+ pathway and is structured around the SBCTC Transitions Standards checklist. Primary goal is to provide specific program requirements, goal setting and promote student success as they transition. Successful completion of the course will provide 0.5 credit for Electives toward the HS21+ diploma.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAP 080</td>
<td>10</td>
<td>Appropriate placement by ABE, ESL, GED level completion, CASAS testing, or permission of department.</td>
</tr>
</tbody>
</table>

Variable topics in Basic Education Career and Academic Prep. Content to reflect the selected topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the term class schedule. Outcomes are determined by level of placement into the course and are based on the Washington State Basic Education Learning Indicators. Students must attempt a CASAS post-test after 45 hours of attendance in this course.

### OCCUPATIONAL EDUCATION

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAP 094</td>
<td>2</td>
<td>CASAS Reading score of 221 or above.</td>
</tr>
</tbody>
</table>

For students who need to earn occupational education credit for the HS21+ diploma. Students will gain a deeper understanding of preparing for a job and working successfully with co-workers. Successful completion of the course will provide occupational education credit toward the HS21+ diploma.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAP 095</td>
<td>2</td>
<td>CASAS Reading score of 221 or above.</td>
</tr>
</tbody>
</table>

For students who need to earn physical education credit for the HS21+ diploma. Students will gain a deeper understanding of physical education by creating a personalized self-directed exercise plan. Successful completion of the course will provide physical education credit toward the HS21+ diploma.

### PHYSICAL EDUCATION

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAP 096</td>
<td>2</td>
<td>CASAS Reading score of 221-255.</td>
</tr>
</tbody>
</table>

For students who need to earn elective credit for the HS21+ diploma. Students will work on independent projects in a variety of subject areas. Successful completion of the course will provide .5-2 elective credits toward the HS21+ diploma.

### ELECTIVES

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAP 097</td>
<td>2</td>
<td>CASAS Reading score of 221-255.</td>
</tr>
</tbody>
</table>

For students who need to earn elective credit for the HS21+ diploma. Students will work on independent projects in a variety of subject areas. Successful completion of the course will provide .5-2 elective credits toward the HS21+ diploma.
### COLLEGE PREPARATION (COLL)

<table>
<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>COLL 101</td>
<td>COLLEGE ESSENTIALS: INTRODUCTION TO CLARK</td>
</tr>
</tbody>
</table>

2 Credits/Units

22 hours of lecture

Introduction to Clark College for new students, focusing on making a successful transition to college life. Topics include goal setting, personal management skills, developing an academic plan, developing cultural competence and communication skills, financial literacy, and an introduction to student resources at the college. [GE, HR] [PNP]
## COMMUNICATION STUDIES
(CMST)

### INTRO TO MASS MEDIA
CMST&102  
55 hours of lecture  
Survey of the various major communication media, their primary functions and social impact. Explores the ways in which various mass media impact us and how we impact the mass media. Focuses on critical analysis of issues regarding the mass media to help students develop their own personal and informed approach toward the dynamics of mass communication in society and increase their media literacy. [HA, SE]

### COOPERATIVE WORK EXPERIENCE
CMST 199  
165 hours of conference  
Prerequisite: Consent of Instructional Unit.  
Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in HDEV 195, 198 or 200 required. [GE]

### INTERPERSONAL COMMUNICATION
CMST&210  
55 hours of lecture  
Person-to-person communication emphasizing theoretical principles and their application. How self-concept, perception, verbal and non-verbal attributes and attitudes influence communication within the family, between friends, and at work. [HR,OC,SE,HA]

### INTERCULTURAL COMMUNICATION
CMST 216  
55 hours of lecture  
Examination of the impact of culture on communication. Analysis of patterns of communications which affect the ability to establish clear understanding and effective interpersonal relationships. Skills to improve communication across cultural boundaries. [HA, SE]

### PUBLIC SPEAKING
CMST&220  
55 hours of lecture  
Introduction to speechmaking based primarily on a traditional public speaking approach. Aids students in developing theoretical understanding and practical application of oral communication skills. Techniques in controlling speech anxiety, how to structure and organize information to present to a variety of audiences; and physical and vocal delivery skills. [OC,HA,SE]

### SMALL GROUP COMMUNICATION
CMST&230  
55 hours of lecture  
Small group communication emphasizing theoretical principles and their application, enabling students to become more comfortable and competent participants in the group communication process. Emphasis will be on the study and application of the dynamics of group development, problem solving methodologies, and the use of power, including leadership and conflict. Formerly titled CMST 201. Credit not allowed for both CMST 201 and CMST 230. [HR,OC,SE,SS,HA]

---

### SELECTED TOPICS
CMST 280  
55 hours of lecture  
The course focuses on selected topics in Communication Studies. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the term class schedule. [SE]

### SPECIAL PROJECTS
CMST 290  
5 Credits/Units  
Prerequisite: Consent of Instructional Unit.  
Opportunity to plan, organize and complete special projects approved by the department. [GE]

### ORGANIZATIONAL COMMUNICATION
CMST 310  
55 hours of lecture  
Prerequisite: A grade of ‘C’ or better in CMST 210, CMST 220 or CMST 230.  
Introduction to the communication dynamics of an organization. Analyzes relationships between structural variables in the organization and informal communication channels, organizational culture, and strategic communication. Covers the major theories of organizational communication, identifying and defining primary concepts, applying them to discussions of real-world situations. Topics include public and human relations, conflict resolution, organizational structure, motivation, coaching, leadership, informal communication networks, corporate culture, socialization, globalization, the role of technology, and external communication as they relate to organizations. Theory and research are made more applicable through case studies of actual organizational problems/issues. [C]
COMPUTER AIDED DESIGN AND DRAFTING TECHNOLOGY (CADD)

CADD ORIENTATION
CADD 101 1 Credit/Unit
22 hours of lab
Combination of off-campus field trips to a variety of businesses and on-campus test-drives of several core CADD software applications seen on the field trips. Focus on exposure and orientation to core CADD software applications, and development of an educational plan. [GE]

CADD CAREERS
CADD 102 1 Credit/Unit
22 hours of lab
Prerequisite: A grade of ‘C’ or better in CADD 101.
Combination of off-campus field trips to a variety of businesses and on-campus test-drives of several core CADD software applications seen on the field trips. Focus on exposure and orientation to core CADD software applications beyond CADD 101 and development of a career plan. [GE]

BASIC
CADD 110 4 Credits/Units
16 hours of lecture / 55 hours of lab
Basic operations of the current version of SketchUp. Topics include screen features, drawing and editing 3D objects, using and applying material to surfaces, opening and saving files, and using AutoCAD drawing file data. Recommended for anyone comfortable using a PC. [GE]

CADD 120 4 Credits/Units
16 hours of lecture / 55 hours of lab
Basic operation of Rhinoceros, a 3D surface modeling software of interest to students in engineering, industrial design, and graphic design. Creating and editing of curves, surfaces, solids, and textures and lighting effects. Includes the use of plug-ins for rendering. Recommended for anyone comfortable using a PC. [GE]

CADD 130 4 Credits/Units
16 hours of lecture / 55 hours of lab
Basic operations of the current version of MicroStation. Covers screen features, command terminology, drawing and editing objects, working with 2D and 3D, using reference files, opening and saving drawing files, and printing. Recommended for anyone comfortable using a PC. [GE]

CADD 140 4 Credits/Units
16 hours of lecture / 55 hours of lab
Basic operations of the current version of AutoCAD. Screen features, drawing and editing objects, working with 2D, using both model space and layouts, dimensioning and dimension styles, using blocks, attributes, and xrefs, opening and saving files, and using templates. Recommended for anyone comfortable using a PC. [GE]

ARCHITECTURAL DRAFTING 1
CADD 141 4 Credits/Units
16 hours of lecture / 55 hours of lab
Prerequisite: A grade of ‘C’ or better in ENGR 113, and either ENGR 140 or CADD 140.
Beginning foundations of architectural drafting using AutoCAD Architecture. Topics include terminology, architectural symbols and standards, line weights and layer management. A standard multi-sheet drawing set for a residence will be developed and will include a site plan, foundation plan, floor plan, and elevations, and related basic residential construction processes. [GE]

INTERMEDIATE AUTOCAD
CADD 142 2 Credits/Units
11 hours of lecture / 22 hours of lab
Prerequisite: A grade of ‘C’ or better in ENGR 140 or CADD 140.
A continuation of AutoCAD. Topics covered include: review and continued work with blocks, attributes, and xref’s; creating and using dynamic blocks; using annotated text and dimension text; and an introduction to 3D.

CIVIL DRAFTING 1 WITH CIVIL 3D
CADD 143 4 Credits/Units
16 hours of lecture / 55 hours of lab
Prerequisite: A grade of ‘C’ or better in ENGR 113, and either ENGR 140 or CADD 140.
Beginning foundations of civil drafting concepts and practices. Introduction to terminology, symbols, multiple use blocks and details, origins and uses of survey data, contours, alignments, and profiles to describe/define project objects. Topics will include basic site considerations, basic types and construction of roads, site drainage, sewer systems, potable water, walks, driveways, and fire access. Class projects will use various applications to achieve data tables and calculations; drafting is not platform dependent but is biased towards use of AutoCAD. [GE]

BASIC SOLIDWORKS
CADD 150 4 Credits/Units
16 hours of lecture / 55 hours of lab
Parametric solids modeling with SolidWorks, covering the breadth of the software at a basic level. Create part, assembly, and drawing files, including design tables and multiple configurations. Recommended for anyone comfortable using a PC. [GE]

MECHANICAL DRAFTING 1 WITH SOLIDWORKS
CADD 154 4 Credits/Units
16 hours of lecture / 55 hours of lab
Prerequisite: A grade of ‘C’ or better in ENGR 113, and either ENGR 150 or CADD 150.
Mechanical drafting using SolidWorks. Focus on detailed control in annotating and producing drawings of parts and assemblies. Includes components in mechanical print reading. [GE]

INTERMEDIATE SOLIDWORKS - TOP DOWN DESIGN
CADD 155 4 Credits/Units
16 hours of lecture / 55 hours of lab
Prerequisite: CADD 150 or ENGR 150.
System design using SolidWorks in the context of an assembly. Focus on complex modeling of parts and assemblies. [GE]

INTRODUCTION TO CAM
CADD 160 2 Credits/Units
11 hours of lecture / 22 hours of lab
Introduction to CAM software for CNC machine operation. Recommended for anyone comfortable using a PC. [GE]
SOLIDWORKS FOR THE TRADES
CADD 161 3 Credits/Units
11 hours of lecture / 44 hours of lab
Prerequisite: Completion of with a grade of ‘C’ or concurrent enrollment in WELD 110 or MACH 241.
Intended for machinists, welders, and others involved directly in manufacturing. Provides a core foundation of the use of the SolidWorks CADD application. Focuses on part modeling with an emphasis on evaluation of part models for geometric and other properties. Also includes sheet metal part modeling and file export for subsequent CNC manufacturing.

BASIC REVIT: RESIDENTIAL
CADD 170 4 Credits/Units
16 hours of lecture / 55 hours of lab
Basic operations of the current version of Revit, as used in residential architectural design and drafting. Topics include screen features, drawing and editing 3D objects, using sheets and views, file management, and using pre-existing AutoCAD drawing file data. Recommended for anyone comfortable using a PC. [GE]

ADVANCED REVIT: COMMERCIAL
CADD 171 4 Credits/Units
16 hours of lecture / 55 hours of lab
Prerequisite: A grade of ‘C’ or better in CADD 170.
Revit Commercial will continue to build on the basic tools covered in the Basic Revit Residential course. This is a project-based course and will focus on building a commercial office building using the basic tools, but also focusing on more advanced tools required to complete a commercial project. Topics include: grids, reflected ceiling plans, interior and exterior elevations sections, interior design, schedules, site rendering, view templates, construction documents setup and work-sharing. [GE]

COOPERATIVE WORK EXPERIENCE
CADD 199 6 Credits/Units
198 hours of conference
Prerequisite: Consent of Instructional Unit and completion of or concurrent enrollment in HDEV 195, 198 or 200 required.
Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

PRESENTATION GRAPHICS
CADD 207 4 Credits/Units
16 hours of lecture / 55 hours of lab
Prerequisite: A grade of ‘C’ or better in CADD 141, CADD 143, or CADD 154.
Concepts of design and graphic principles for developing a variety of visual presentations by applying different graphic forms used for advertising, and showcasing graphic skills by producing portfolio quality work. [GE]

ARCHITECTURAL DRAFTING
CADD 210 3 Credits/Units
11 hours of lecture / 44 hours of lab
Prerequisite: A grade of ‘C’ or better in CADD 141.
Continuance of architectural drafting from CADD 141, with a focus on refinement and using industry standards. Create a drawing set for a residential structure, with review by local professionals. [GE]

AUTOCAD CUSTOMIZATION
CADD 214 3 Credits/Units
11 hours of lecture / 44 hours of lab
Prerequisite: A grade of ‘C’ or better in CADD 142.
Customizing buttons and toolbars, using AutoLISP to create new AutoCad commands. Introduction to custom dialog boxes. [GE]

TECHNICAL STATICS & STRENGTHS
CADD 215 3 Credits/Units
22 hours of lecture / 22 hours of lab
Prerequisite: A grade of ‘C’ or better in MATH 103.
Concurrency in CADD 216. Use of computational SolidWorks Simulation CADD applications in the design and analysis of engineering problems. Also, use of integrated surface/solid modeling techniques, motion analysis, and use of CADD in documentation of designs and analyses. Concurrent enrollment in CADD 215 [GE]

INTEGRATED COMPUTATIONAL DESIGN
CADD 216 3 Credits/Units
11 hours of lecture / 44 hours of lab
Prerequisite: A grade of ‘C’ or better in ENGR 150 or CADD 150, and MATH 103.
Continuance of civil drafting from CADD 143, with a focus on refinement and using industry standards. Create a drawing set for a residential subdivision, with review by local professionals. [GE]

MECHANICAL DRAFTING
CADD 240 3 Credits/Units
11 hours of lecture / 44 hours of lab
Prerequisite: A grade of ‘C’ or better in CADD 154.
Continuance of mechanical drafting from CADD 144 and/or CADD 154, with a focus on refinement and using industry standards. Create a drawing set for a residential subdivision, with review by local professionals. [GE]

SELECTED TOPICS
CADD 280 5 Credits/Units
55 hours of lecture
Prerequisite: Consent of Instructional Unit.
Course focuses on selected topics in EMET. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [GE]

SPECIAL PROJECTS
CADD 290 6 Credits/Units
66 hours of conference
Prerequisite: Consent of Instructional Unit.
Opportunity to plan, organize and complete special projects approved by the department. [GE]
Capstone project to expand knowledge by studying selected CADD topics in selected major area of study (architectural, civil, mechanical, or other) and producing a comprehensive portfolio-documented project. Projects must be pre-approved by the instructor. [GE]
### COMPUTER SCIENCE & ENGINEERING (CSE)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits/Units</th>
<th>Hours of Lecture/Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSE 101</td>
<td>Orientation for students interested in Engineering and Computer Science. Topics include exposure to Engineering and Computer Science educational/career opportunities and challenges, with emphasis on effective planning, communication, teamwork appropriate to these career fields. Credit not allowed for both CSE 101 and ENGR 101. [SE]</td>
<td>1</td>
<td>22 hours of lab</td>
</tr>
<tr>
<td>CSE 120</td>
<td>INTRO TO ELECTRICAL/COMPUTING</td>
<td>5</td>
<td>44 hours of lecture/33 hours of lab</td>
</tr>
<tr>
<td>CSE 121</td>
<td>INTRODUCTION TO C</td>
<td>5</td>
<td>55 hours of lecture</td>
</tr>
<tr>
<td>CSE 215</td>
<td>DISCRETE STRUCTURES</td>
<td>5</td>
<td>55 hours of lecture</td>
</tr>
<tr>
<td>CSE 222</td>
<td>INTRODUCTION TO DATA STRUCTURES</td>
<td>5</td>
<td>55 hours of lecture</td>
</tr>
<tr>
<td>CSE 223</td>
<td>DATA STRUCTURES &amp; OBJECT-ORIENTED PROGRAMMING</td>
<td>5</td>
<td>55 hours of lecture</td>
</tr>
<tr>
<td>CSE 224</td>
<td>PROGRAMMING TOOLS</td>
<td>5</td>
<td>55 hours of lecture</td>
</tr>
<tr>
<td>CSE 290</td>
<td>SPECIAL PROJECTS</td>
<td>5</td>
<td>55 hours of conference</td>
</tr>
</tbody>
</table>

**Prerequisite:** A grade of ‘C’ or better in College Trigonometry.

Introduction to electrical/computer science and engineering processes, principles, problem-solving techniques, and contemporary tools. Applies in-class learning to hands-on projects and explores current industry trends and implications. [SE]

**Prerequisite:** A grade of ‘C’ or better in MATH 151 (MATH 113), ENGR 120, CSE 120, ENGR 109 (ENGR 111) or CTEC 121; or consent of Instructional Unit.

Introduction to the C programming language. Emphasis on program design, verification, and testing. Programming related concepts in computer science will be covered. [SE]

**Prerequisite:** A grade of ‘C’ or better in CSE 121 and ENGR 250.

Discrete structures and analysis techniques for computing by building on students' skills in programming and logic. Topics include: functions, relations and their properties; sets, sequences and tuples; probability, counting (permutations and combinations); propositional logic and logical connectives; introduction to predicate logic and its limitations; formal proof strategies (counterexample, contraposition); contradiction, recursion, computational complexity; trees, graphs and traversal strategies; modeling computation (finite state turing machines).

**Prerequisite:** A grade of ‘C’ or better in CSE 121 and CSE 224, or consent of Instructional Unit.

Fundamentals of data structures and advanced programming techniques used in high-level languages such as C. Topics: trees, heaps, hash tables, sorting, searching, recursion, and algorithm analysis. [SE]

**Prerequisite:** A grade of ‘C’ or better in CSE 215 and CSE 222, or consent of Instructional Unit.

Study of data structures and the analysis of algorithms, object-oriented programming, concurrency, memory management. [SE]

**Prerequisite:** A grade of ‘C’ or better in CSE 121 or consent of Instructional Unit.

Study of tools and techniques that facilitate programming and debugging, including debuggers, profilers, and scripting. [SE]

**Prerequisite:** Consent of Instructional Unit.

Opportunity to plan, organize, and complete special projects approved by the department. [SE]
COMPUTING ESSENTIALS
CTEC 101 2 Credits/Units
22 hours of lecture
Prerequisite: Eligibility for ENGL 098.
Introduction to basic skills and problem solving involved with computer hardware, operating systems, and application programs with a special emphasis on conventions and skills universal to a variety of computing settings and skills which promote portability between systems and applications. Provides an overview of key skills in a variety of operating system environments and digital interactive settings. Skills and topics include: essential interactions in major operating system environments, basic hardware components of a personal computer system, an overview of file formats and management with an emphasis on backup and portable document strategies, basic interactions in e-mail and worldwide web including how to document and save web pages, and a survey of the purposes of various types of application programs. [GE]

INTRODUCTION TO MAC/OS
CTEC 103 3 Credits/Units
33 hours of lecture
Prerequisite: Eligibility for ENGL 098.
Introduction to the Macintosh operating system. Course emphasizes the feel and function of the Macintosh, conveying the Macintosh as a visual environment. Visual cues and identification of the concepts that make a Macintosh unique will be stressed. [GE]

IT SUPPORT
CTEC 104 3 Credits/Units
33 hours of lecture
Prerequisite: Eligibility for ENGL 098.
Communication skills for working in a technical environment. Topics covered: professional ethics and behavior, health and safety issues, and developing a service attitude. [GE, HR]

INFORMATION TECHNOLOGY FUNDAMENTALS
CTEC 106 5 Credits/Units
55 hours of lecture
Prerequisite: Eligibility for ENGL 098.
Provides foundational skills utilized in information and computer technology and a functional understanding of information technology-related careers. Topics include hardware and software technologies, configuring and setting up workstations, network fundamentals and computer security. Course is based on CompTIA IT Fundamentals certification. [GE]

POWERSHELL FUNDAMENTALS
CTEC 111 3 Credits/Units
33 hours of lecture
Prerequisite: Eligibility for ENGL 098.
Provides skills and experience in the Windows PowerShell command line environment for preparation towards careers in computer and information technology related fields. Topics include command line syntax, file system interactions and managing network systems in PowerShell, scripting, functions and using PowerShell with Active Directory.

PROGRAMMING ESSENTIALS
CTEC 112 5 Credits/Units
55 hours of lecture
Prerequisite: Eligibility for ENGL 101 or PTWR 135 and a 'C' or better in PTCS 110 or a MATH course with a prerequisite of MATH 096 or higher.
Course provides a participatory overview of essential foundational information technology and computer programming concepts. Topics include computing as a creative activity, abstraction, principles of computer operations, debugging, algorithmic thinking and problem solving, programming functions and operations, iteration principles, ethics in computing and the limitations of computing. Students will design and code simple programs. [GE]

INTERNET RESEARCH AND LIVING ONLINE
CTEC 115 3 Credits/Units
33 hours of lecture
Prerequisite: Eligibility for ENGL 098.
Introduction to global networking and the Internet with an emphasis on the basic skills for interacting and utilizing the Internet for research. Topics include strategies for locating, analyzing and evaluating information, as well as network fundamentals, Internet origins, social, legal and ethical issues regarding Internet interactions. [GE]

USER EXPERIENCE DESIGN
CTEC 117 4 Credits/Units
22 hours of lecture / 44 hours of lab
Prerequisite: Eligibility for ENGL 098.
Investigation into the field of user experience design, web usability and interaction design. Focus on strategies and best practices to better understand how to create successful user experiences. Topics include fundamentals of user centered design, user research, the role of design thinking in user experience design, user testing, information architecture and interface design. Students will design and conduct usability testing. [GE]

INFO TO PROGRAMMING & PROBLEM SOLVING
CTEC 121 5 Credits/Units
55 hours of lecture
Prerequisite: Eligibility for ENGL 101 or PTWR 135 and a grade of 'C' or better in PTCS 110 or a MATH course with a prerequisite of MATH 096 or higher.
Fundamental concepts related to designing and writing computer programs and procedures. Topics include: problem-solving techniques, program design, coding, de-bugging, testing and documentation. Students will use the Python programming language to write simple programs while being exposed to concepts common to all programming. The course serves as an available prerequisite pathway for further studies in programming. [CP]

HTML FUNDAMENTALS
CTEC 122 4 Credits/Units
44 hours of lecture
Prerequisite: Eligibility for ENGL 098.
Introduction to website development through the mastery of the fundamentals of HTML, XHTML, and CSS coding for web pages. Intended to give the student the basic skills required to hand-code web pages from scratch. A website will be developed in compliance with current web standards, practices, and usability. Topics include: XHTML, HTML5, CSS, CSS#, web server organization and structure, text editors, images, links, lists, forms, tables, and code validation. [SE]
JAVASCRIPT
CTEC 126  5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in CTEC 112, CTEC 121, or CSE 121 and a grade of 'C' or better in CTEC 122.
Introduction to the fundamentals and concepts of JavaScript including web scripting with jQuery, AJAX, and related libraries. Student will create dynamic websites and code demonstrating for debugging and testing JavaScript based design and code functionality. [GE]

PHP WITH SQL I
CTEC 127  5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in CTEC 112, CTEC 121 or CSE 121 and a grade of 'C' or better in CTEC 122.
This course is an introduction to the server-side programming language PHP and its use in creating dynamic web applications, providing students with a functional knowledge of database design, SQL statements, dynamic web applications, and the methods implemented in PHP for manipulating MySQL databases. [GE]

MICROSOFT WINDOWS OS FUNDAMENTALS
CTEC 130  3 Credits/Units
33 hours of lecture
Prerequisite: Eligibility for ENGL 098.
Fundamental Windows interactions and key skills and issues important in providing support for Windows users. Topics include basic interactions with Windows, system configuration, installing and upgrading systems, managing devices, system maintenance and other support issues.
Course is based on the Windows Operating System Microsoft Technology Associate (MTA) Certification, which students will have an opportunity to earn as a component of the course curriculum. [GE]

MICROSOFT NETWORKING FUNDAMENTALS
CTEC 131  3 Credits/Units
33 hours of lecture
Prerequisite: Eligibility for ENGL 098.
Foundational concepts and skills associated with computer networking. Topics include basics of local area networking and wide area networks, the OSI Model, wired and wireless networks, Internet Protocol/Transmission Control Protocol (TCP/IP), and network security. Course is based on the Networking Fundamentals Microsoft Technology Associate (MTA) Certification which students will have an opportunity to earn as a part of the course curriculum. [GE]

MICROSOFT WINDOWS SERVER FUNDAMENTALS
CTEC 132  4 Credits/Units
44 hours of lecture
Prerequisite: A grade of 'C' or better in NTEC 103 or consent of Instructional Unit.
Foundational skills associated with Windows server installation, performance management and server maintenance. Topics include roles of servers, active directory and storage. Course is based on the Windows Network Administration Server Microsoft Technology Associate (MTA) Certification, which students will have an opportunity to earn as a component of the course curriculum. Cannot get credit for both NTEC 132 and CTEC 132. [GE]

MICROSOFT SECURITY FUNDAMENTALS
CTEC 133  3 Credits/Units
33 hours of lecture
Prerequisite: Eligibility for ENGL 098.
Introduces concepts and fundamentals of network security. Topics include security layers, operating system security, network security and security software. Course is based on the Security Fundamentals Microsoft Technology Associate (MTA) Certification, which students will have an opportunity to earn as a component of the course curriculum. [GE]

MICROSOFT DATABASE ADMIN
CTEC 134  5 Credits/Units
55 hours of lecture
Prerequisite: Eligibility for ENGL 098.
Provides a foundational overview of concepts, practices, and operation as associated with designing, developing and administrating a database. Topics include core database concepts, creating database objects, manipulating data, data storage, and administering a database. Students will have an opportunity to earn the Microsoft Database Administration Fundamentals Microsoft Technology Associate (MTA) certification as a component of the course curriculum. Familiarity with Windows and MS Office highly recommended. [GE]

UNIX POWER TOOLS
CTEC 143  5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better CTEC 121 and CTEC 140, or consent of Instructional Unit.
Introduces concepts and fundamentals of network security. Topics include basic UNIX commands, shell scripting, and security software. Course is based on the Security Fundamentals Microsoft Technology Associate (MTA) certification as a component of the curriculum. Grade of 'C' or better in CTEC 112, CTEC 121, CSE 121, or consent of Instructional Unit. [GE]

UNIX POWER TOOLS
CTEC 143  5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better CTEC 121 and CTEC 140, or consent of Instructional Unit.
Continuing skills development using various basic UNIX tools in the shell environment; building on skills developed in prerequisite courses, students learn about shell scripts, sed, awk, and regular expressions; preparation for using UNIX or UNIX-like system power tools. [GE]

WEB SERVER TECHNOLOGY
CTEC 145  5 Credits/Units
55 hours of lecture
Prerequisite: Eligibility for ENGL 098.
Foundations of web server technologies with a focus on skills useful for web development. Topics include installation and configuration of Apache, MySQL, and PHP, and best practices in security. Interact with UNIX using basic commands in command line and GUI environments, administrate and maintain web hosting accounts. [GE]
service projects and professional development activities. An overview of the WordPress platform for individuals seeking to create websites for personal or professional use. Basics on WordPress use, installation, content management, and configuration as well as intermediate and more advanced areas such as WordPress Themes, Plugins, and use of advanced settings. Prior web publishing experience not required. Familiarity with web browsers and email is highly recommended. [GE]

**BUSINESS WEB PRACTICES**
CTEC 165 4 Credits/Units
44 hours of lecture
Business Web Practices surveys business standards and professional best practices for professions associated with web content creation, web design, and web development. Topics include distinctions between freelance, contracted and salaried work environments, web production practices in content strategy, project management, workflow and version control, current practices in marketing, web analytics and search engine optimization, and legal and ethical issues. Prerequisite: Eligibility for ENGL 098. [GE]

**WEB CONTENT AND SOCIAL MEDIA**
CTEC 166 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in ENGL 101 or PTWR 135; A grade of 'C' or better in CTEC 122 and CTEC 160.
Exploration and survey of best practices relating to the creation, curation and promotion of web content. Topics include: audience analysis, interaction design, content strategy and marketing, legal and ethical consideration, social media interactions, web accessibility and professional standards for written communications and design.

**COOPERATIVE WORK EXPERIENCE**
CTEC 199 5 Credits/Units
165 hours of clinical
Prerequisite: Consent of Instructional Unit and completion of or concurrent enrollment in HDEV 195, 198 or 200 required. Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

**HELP DESK TECHNICIAN I**
CTEC 200 3 Credits/Units
11 hours of lecture / 66 hours of clinical
Prerequisite: A grade of 'C' or better in CTEC 104 or consent of Instructional Unit.
Technical support work experience for a real world learning environment that supports technology needs for the local community with opportunities and experience to serve in project supervisory roles. All areas of customer technology support environments are emphasized including communication, networking, customer tracking, troubleshooting, documentation and customer relations. Activities include help desk service projects and professional development activities. [GE]

**HELP DESK TECHNICIAN II**
CTEC 201 3 Credits/Units
11 hours of lecture / 66 hours of clinical
Prerequisite: A grade of 'C' or better in CTEC 200 or consent of Instructional Unit.
Continuation of CTEC 200 Help Desk Technician I. Technical support work experience for a real world learning environment that supports technology needs for the local community with opportunities and experience to serve in project supervisory roles. All areas of customer technology support environments are emphasized including communication, networking, customer tracking, troubleshooting, documentation and customer relations. Activities include help desk service projects, professional development activities, meeting attendance and managing a help desk. [GE]

**INTRODUCTION TO MANAGED INFORMATION SYSTEMS**
CTEC 205 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in ENGL 101 or PTWR 135. Overview of the role of management information systems in business by supporting a wide range of organizational functions from routine organizational transactions to managerial strategic decision making. Emphasis is on terminology associated with IT and hands-on labwork utilizing common business and IT applications. Familiarity and prior experience with Microsoft Excel spreadsheets and Access databases is highly recommended. [GE]

**COMPTIA A+ FUNDAMENTALS**
CTEC 213 4 Credits/Units
44 hours of lecture
Prerequisite: Eligibility for ENGL 098, a grade of 'C' or better in CTEC 106 or instructor consent. Covers the skills required to install, configure and troubleshoot PC operating systems and networking software for desktop computers and mobile devices. Course is based on outcomes and objectives related to the CompTIA A+ certifications. [GE] [PNP]

**COMPTIA A+ OPERATING SYSTEMS & NETWORKING**
CTEC 214 4 Credits/Units
44 hours of lecture
Prerequisite: Eligibility for ENGL 098, a grade 'C' or better in CTEC 106 or instructor consent. Covers the skills required to install, configure and troubleshoot PC operating systems and networking software for desktop computers and mobile devices. Course is based on outcomes and objectives related to the CompTIA A+ certification. [GE] [PNP]

**PHP WITH SQL II**
CTEC 227 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in CTEC 127, or consent of Instructional Unit.
A continuation of the CTEC 127, PHP I course, extending PHP skills with object-oriented programming, API management, PHP security, AJAX integration, and version control. Current best practices in the commercial web industry will be emphasized. [GE]
COMPTIA SECURITY+
CTEC 233 5 Credits/Units
55 hours of lecture
Prerequisite: Eligibility for ENGL 098, a grade of 'C' or better in CTEC 131, or consent of Instructional Unit.
Covers the essential principles for network security and risk management. Topics include cloud security, expansion of Virtualization and how to secure it, mobile device security and analysis of metrics obtained from monitoring and tracking tools. Course is based on, and is intended for, students to prepare for the CompTIA Security+ certification.

[GE]

COMPTIA CYBERSECURITY
CTEC 235 5 Credits/Units
55 hours of lecture
Prerequisite: Eligibility for ENGL 098, a grade of 'C' or better in CTEC 233 or consent of Instructional Unit.
Covers critical knowledge and skills that are required to prevent, detect and combat cybersecurity threats. Covers tools such as packet sniffers, intrusion detection systems (IDS) and security information and event management (SIEM) systems. The class is based on the CompTIA Cybersecurity Analyst (CSA+) certification.

[GE]

UNIX NETWORK ADMINISTRATION & SECURITY
CTEC 240 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in CTEC 141, or consent of Instructional Unit.
Skills development for configuring and administering a TCP/IP network. Topics include configuring basic networking, client services, file sharing services, major network services, cryptography, user, file, and network security, and other relevant topics.

[GE]

APPLIED WEB DEVELOPMENT
CTEC 265 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in CTEC 127 and CTEC 126 or consent of Instructional Unit.
The skills and knowledge to interact, use and create Application Programming Interfaces (APIs) and provide integration between programs and services on the web. Content management system programming skills and best practices will also be addressed.

[GE]

WEB SKILLS PORTFOLIO
CTEC 293 3 Credits/Units
99 hours of clinical
Prerequisite: Concurrent enrollment in, or completion of CTEC 265 with a grade of 'C' or better.
Development of applied web programming skills and a coding portfolio website that will demonstrate a student's proficiency in various aspects of web development.

[GE]

WEB AND INTERFACE DESIGN I
CTEC 270 4 Credits/Units
22 hours of lecture / 44 hours of lab
Prerequisite: A grade of 'C' or better in CTEC 122.
Fundamentals of web design and site development. Students learn web authoring standards, tools and techniques to conceive, design, produce and publish web sites. Topics include client and marketing analysis, information architecture, conceptual and visual design, workflow and team process, coding, content integration and website testing.

WEB AND INTERFACE DESIGN II
CTEC 271 4 Credits/Units
22 hours of lecture / 44 hours of lab
Prerequisite: A grade of 'C' or better in CTEC 270.
Further study in web design and site development. Focus on web authoring trends and strategic methodology to better understand how to extend website functionality and value. Topics include strategies such as cross platform and browser compatibility, content management, search engine optimization, site statistics, accessibility, project management and maintenance planning.

SELECTED TOPICS
CTEC 280 6 Credits/Units
66 hours of lecture
Varying topics. May be repeated for credit.

[GE]

SPECIAL PROJECTS
CTEC 290 5 Credits/Units
Prerequisite: Consent of instructional unit.
Opportunity to plan, organize, and complete special projects approved by the department.

[GE]

WEB SKILLS PORTFOLIO
CTEC 293 3 Credits/Units
99 hours of clinical
Prerequisite: Concurrent enrollment in, or completion of CTEC 265 with a grade of 'C' or better.
Development of applied web programming skills and a coding portfolio website that will demonstrate a student's proficiency in various aspects of web development.

[GE]

CAPSTONE EXPERIENCE
CTEC 295 3 Credits/Units
33 hours of lecture
Prerequisite: Consent of Instructional Unit.
Capstone experience for CTEC degree and certificate, to assess and refine final skill set. Focus on developing and engaging in learning experiences to demonstrate and expand workplace skills and abilities. Development of employment-package resources and job-acquisition strategies.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits/Units</th>
<th>Prerequisites</th>
<th>Hours of Lecture/Lab</th>
<th>Concurrent Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUIS 110</td>
<td>CULINARY FUNDAMENTALS I</td>
<td>5</td>
<td>Eligible for ENGL 098 and MATH 030 or MATH 092.</td>
<td>22</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Introduction to fundamentals of cooking. Includes history of food service industry, professionalism in the workplace, kitchen safety and sanitation, nutrition, equipment, kitchen math, weights and measures, knife skills, aromatics and flavorings. Theory of cooking methods, stocks and sauces. Valid Washington State food handlers card.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CUIS 111</td>
<td>PROFESSIONAL COOKING I</td>
<td>8</td>
<td>Eligible for ENGL 098 and MATH 030 or MATH 092.</td>
<td>176</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hands-on preparation of product utilizing those skills introduced in culinary fundamentals I. Emphasizes kitchen safety, knife skills, basic cooking preparations, sanitation, stock preparation, basic meat/protein fabrication. Production for customer service and application of techniques through kitchen station rotation. Valid Washington State food handlers card.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CUIS 120</td>
<td>CULINARY FUNDAMENTALS II</td>
<td>5</td>
<td>Eligible for ENGL 098 and MATH 030 or MATH 092.</td>
<td>22</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Continuation of Culinary Fundamentals I with greater emphasis on cooking techniques, specific food and flavoring identification, nutrition with healthy cooking techniques, breakfast cookery, salads, cold dressings and sauces. Introduction to regional and international fare. Valid Washington State food handlers card.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CUIS 121</td>
<td>PROFESSIONAL COOKING II</td>
<td>8</td>
<td>Eligible for ENGL 098 and MATH 030 or MATH 092.</td>
<td>176</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hands-on preparation of product utilizing those skills introduced in Culinary Fundamentals I and II through kitchen station rotation. Emphasis on breakfast cookery, healthy cooking, regional and international dishes for customer service. Apply cooking techniques and refine customer service through kiosk service and station rotation. Valid Washington State food handlers card.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CUIS 130</td>
<td>CULINARY FUNDAMENTALS III</td>
<td>5</td>
<td>Eligible for ENGL 098 and MATH 030 or MATH 092.</td>
<td>22</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Introduction to restaurant-level cooking, menu planning, preparing/producing complete meals, restaurant and dining organization. Focus on recipe conversions, yields, and yield grades, fabrication, plate presentation, inventory and cost controls. Valid Washington State food handlers card.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CUIS 131</td>
<td>PROFESSIONAL COOKING III</td>
<td>8</td>
<td>Eligible for ENGL 098 and MATH 030 or MATH 092.</td>
<td>176</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hands-on preparation of product utilizing those skills introduced in culinary fundamentals theory through kitchen station rotation. Emphasis on breakfast cookery, healthy cooking, regional and international dishes for customer service. Apply cooking techniques and refine customer service through kiosk service and station rotation. Valid Washington State food handlers card.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CUIS 133</td>
<td>CLASSIC AND MODERN SOUPS AND SAUCES</td>
<td>2</td>
<td>Eligible for ENGL 098 and MATH 030 or MATH 092.</td>
<td>11</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hands-on exploration of classic soups and sauces and their advancement into the modern cuisine. Create updated versions to reflect today's culture and healthy lifestyle. Valid Washington State food handlers card.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CUIS 134</td>
<td>MEAT CUTTING AND FABRICATION</td>
<td>3</td>
<td>Eligible for ENGL 098 and MATH 030 or MATH 092.</td>
<td>11</td>
<td>Yes</td>
</tr>
<tr>
<td>CUIS 137</td>
<td>WINE, BEER, SPIRITS AND FOOD PAIRINGS</td>
<td>2</td>
<td>Eligible for ENGL 098 and MATH 030 or MATH 092.</td>
<td>11</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hands-on preparation of product utilizing those skills introduced in Culinary Fundamentals I and II through kitchen station rotation. Emphasis on breakfast cookery, healthy cooking, regional and international dishes for customer service. Apply cooking techniques and refine customer service through kiosk service and station rotation. Valid Washington State food handlers card.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CUIS 138</td>
<td>RESTAURANT BAKING</td>
<td>2</td>
<td>Eligible for ENGL 098 and MATH 030 or MATH 092.</td>
<td>11</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Introduction to restaurant style baking including yeast breads, biscuits, scones, muffins, cookies, pies, quick breads, plated desserts and sauces. Basic understanding of baking science. Valid Washington State food handlers card.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CUIS 139</td>
<td>BANQUET AND BUFFET PLANNING AND EXECUTION</td>
<td>2</td>
<td>Eligible for ENGL 098 and MATH 030 or MATH 092.</td>
<td>11</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Effective planning and execution of banquet and buffet operations including service, buffet settings, menu design, yields, and cooking techniques. Includes hors d'oeuvres production and basic garniture. Valid Washington State food handlers card.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
WINE
CUIS 145
33 hours of lecture
A course designed for the student to understand the components necessary to becoming a competent and consistent wine taster and appreciator, a valuable asset for the wine enthusiast.

CUISINE (CUIS)

APPRECIATION

3 Credits/Units

CUIS 211
176 hours of lab
Concurrent enrollment in CUIS 210.
Prerequisite: A grade of ‘C’ or better in CUIS 130, CUIS 131 and CUIS 200 or consent of Instructional Unit.
Utilizing skills and knowledge gained, focusing on international and regional cuisine, prepare meals for campus service. Build management skills by supervision of students in skills and teamwork to achieve food service goals through rotation within the food service areas and/or banquet and buffet settings applying appropriate customer relations. Valid Washington State food handlers card.

MANAGEMENT AND BANQUET THEORY

CUIS 220
5 Credits/Units
22 hours of lecture / 66 hours of lab
Concurrent enrollment in CUIS 221.
Prerequisite: A grade of ‘C’ or better in CUIS 210 and CUIS 211 or consent of Instructional Unit.
Explores the expectations of a kitchen manager through numerous aspects of the position including leadership, safety and sanitation, training, production and service, menu and sales analysis and cost control. Banquet and catering practices. Identify and arrange internship with a local food service vendor. Plan activities in preparation of final quarter capstone project. Valid Washington State food handlers card.

APPLIED PROFESSIONAL DEVELOPMENT

CUIS 200
9 Credits/Units
11 hours of lecture / 110 hours of lab
Concurrent enrollment in CUIS 231.
Prerequisite: A grade of ‘C’ or better in CUIS 220 and CUIS 221 or consent of Instructional Unit.
In conjunction with the management of assigned kitchen stations, students in their final quarter shall plan and execute one or more restaurant dinner service, and/or banquet service to include menu planning, inventory and requisition, kitchen management and function execution. Valid Washington State food handlers card.

INDUSTRY INTERNSHIP

CUIS 231
4 Credits/Units
132 hours of clinical
Concurrent enrollment in CUIS 230.
Prerequisite: A grade of ‘C’ or better in CUIS 220 and CUIS 221 or consent of Instructional Unit.
Supervised on-the-job work experience at an approved industry location in the local community with specific learning objectives and employer evaluation. Students will apply and hone their culinary skills, as well as, further develop employment skills within industry. Valid Washington State food handlers card.
DENTAL HYGIENE (DH)

SELECTED
DH 280
55 hours of lecture
Selected topics in dental hygiene. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Specific topics are listed in the quarterly class schedule. [PNP]

PHARMACOLOGY
DH 282
11 hours of lecture
Prerequisite: Consent of Dental Hygiene Program.
Introduction to the classification, pharmacodynamics, dosages, and therapeutic effects of drugs most commonly encountered or prescribed by the dental office. Topics include drugs of abuse, autonomic nervous system, gastrointestinal, respiratory, vitamin, and minerals. [GE]

CLINICAL DENTAL HYGIENE TECHNIQUES I
DH 283
6 Credits/Units
33 hours of lecture / 66 hours of lab
Prerequisite: Consent of the Dental Hygiene Program.
Basic theory and pre-clinical practice at the introductory level in patient assessment, care planning, management, and periodontal therapy. Includes prevention and control of oral disease and proper safety and infection control procedures. [GE]

ORAL MEDICINE
DH 284
2 Credits/Units
22 hours of lecture
Introduction to the evaluation of medical/dental histories in preparation for dental hygiene treatment. Includes the most commonly encountered oral and systemic diseases, pertinent drugs, and introduction in managing dental/medical emergencies. Prerequisite: Consent of the Dental Hygiene Program [GE]

PERIODONTICS
DH 285
3 Credits/Units
22 hours of lecture / 66 hours of lab
Introduction to histological and clinical characteristics of normal and diseased periodontium. Introduction to tooth accumulated materials and preventive oral aids. [GE]

DENTAL ANATOMY
DH 286
3 Credits/Units
33 hours of lecture
Prerequisite: Consent of the Dental Hygiene Program.
Anatomy, embryology, and histology of the human dentition and surrounding oral structures as they apply to the practice of dental hygiene. Emphasis on tooth development and associated vocabulary, tooth identification and differentiation, and tooth numbering systems. [GE]

SPECIAL PROJECTS
DH 290
15 Credits/Units
Prerequisite: Consent of Instructional Unit.
Opportunity to plan, organize and complete special projects approved by the department. [GE] [PNP]

INTRODUCTION TO DIGITAL MANAGEMENT SYSTEMS
DH 292
1 Credit/Unit
22 hours of lab
Prerequisite: Consent of the Dental Hygiene Program.
An introduction to axiUm - the digital management system designed for dental patient records, student clinical assessments, and radiography. Students will learn to navigate the system, enter data pertaining to clinical patient treatment, and track clinical skills assessments. [GE]

INTRODUCTION TO DENTAL MATERIALS/ASSISTING
DH 301
3 Credits/Units
22 hours of lecture / 22 hours of lab
Prerequisite: Consent of the Dental Hygiene Program.
Introduction to properties and manipulation of basic restorative materials including resin, bases, liners, varnishes, cements, and sealants. Introduction to four-handed chairside assisting, study model preparation, and pit and fissure sealant application. Clinical practice through assisting in restorative situations. [GE]

HEAD AND NECK ANATOMY
DH 303
3 Credits/Units
33 hours of lecture
Prerequisite: Consent of the Dental Hygiene Program.
Embryological, histological, and anatomical development of the head and neck as it applies to the practice of dental hygiene. [GE]

EDUCATIONAL THEORY AND APPLICATION
DH 304
2 Credits/Units
22 hours of lecture
Prerequisite: Consent of the Dental Hygiene Program.
Survey of principles and concepts of teaching and learning and use of motivational techniques as they apply to both group and individual education and cultural differences. Students will develop skills as a dental health educator and dental health resource person. [GE]

CLINICAL DENTAL HYGIENE TECHNIQUES II
DH 313
6 Credits/Units
17 hours of lecture / 99 hours of lab
Prerequisite: Consent of the Dental Hygiene Program.
Clinical practice in oral prophylaxis, preventive procedures, and patient management at the introductory level. [GE]

CLINICAL DENTAL HYGIENE TECHNIQUES III
DH 314
6 Credits/Units
17 hours of lecture / 99 hours of lab
Prerequisite: Consent of the Dental Hygiene Program.
Clinical practice at the introductory and developmental levels in patient assessment, care planning, management, and periodontal therapy. Includes prevention and control of oral disease and proper safety and infection control procedures. [GE]

CLINICAL DENTAL HYGIENE TECHNIQUES IV
DH 321
4 Credits/Units
97 hours of lab
Prerequisite: Consent of the Dental Hygiene Program.
Clinical practice at the introductory and developmental levels in patient assessment, care planning, management, and periodontal therapy. Includes prevention and control of oral disease and proper safety and infection control procedures. [GE]
an emphasis on fluoride and other remineralization strategies. [GE]

Presentation of cause, progression, and prevention of dental caries with an emphasis on fluoride and other remineralization strategies. [GE]

Prerequisite: Consent of the Dental Hygiene Program.

Radiographic theory, equipment, patient safety, and techniques for exposing, processing, and mounting dental radiographs. [GE]

22 hours of lecture

Prerequisite: Consent of the Dental Hygiene Program.

Second in a series on radiographic theory application and radiographic image interpretation. Continued experience in exposing, processing and mounting, and critiquing dental radiographs. [GE]

22 hours of lecture / 22 hours of lab

Prerequisite: Consent of the Dental Hygiene Program.

Third in a series on radiographic theory application and image interpretation. Includes principles of radiation biology, quality assurance, radiation health and protection. Introduction of principles of contemporary panoramic radiographic techniques and comprehensive analysis of panoramic images. [GE]

33 hours of lecture

Prerequisite: Consent of the Dental Hygiene Program.

Fundamentals of oral pathology including the inflammatory processes, tumor development, metabolic pathways and developmental disturbances. [GE]

11 hours of lecture

Prerequisite: Consent of the Dental Hygiene Program.

Basic ethical principles and ethical problem solving methods. Includes the Principles of Ethics of the American Dental Hygienist Association and Washington State Laws applicable to the practice of dental hygiene. These elements will enable the student to apply professional attitudes and judgments when treating clinical patients. [GE]

25 hours of lecture / 33 hours of lab

Prerequisite: Consent of the Dental Hygiene Program.

Integration of anatomy, physiology, pharmacology and the most commonly encountered emergency procedures as they apply to the administration of local anesthesia. Clinical practice in the administration of local anesthesia is a required component of the course. Weekly clinical lab practice focuses on the 8 most commonly administered injections. [GE]

22 hours of lecture

Prerequisite: Consent of the Dental Hygiene Program.

Presentation of cause, progression, and prevention of dental caries with an emphasis on fluoride and other remineralization strategies. [GE]

Prerequisite: Consent of the Dental Hygiene Program.

Continuation of the classification, pharmacodynamics, dosages, and therapeutic effects for drugs most commonly encountered or prescribed by the dental office. Topics include antimicrobial, antifungal, and antiviral medications, opioid and non-opioid analgesics, and cardiovascular medications. [GE]

11 hours of lecture

Prerequisite: Consent of the Dental Hygiene Program.

Continuation of the classification, pharmacodynamics, dosages, and therapeutic effects for drugs most commonly encountered or prescribed by the dental office. Topics include endocrine, psychotherapeutic, sedative/hypnotic, anti-anxiety, anticonvulsants, ophthalmic, antineoplastic, immune function, anti-Parkinson, and Alzheimer’s disease medications. [GE]

11 hours of lecture / 22 hours of lab

Prerequisite: Consent of the Dental Hygiene Program.

A systematic approach to the prevention and control of dental disease and the promotion of oral health through organized community efforts. Practical application of public health techniques in the assessment of the community to establish what types of oral health programs are needed. Basic principles of research and the development of the skills required for evaluation of professional research. [GE]

11 hours of lecture / 22 hours of lab

Prerequisite: Consent of the Dental Hygiene Program.

Continuation of Dental Public Health - Research Methods I. Advanced application of public health concepts to plan, implement and evaluate oral health programs that prevent and control dental disease and promote oral health for a designated population. Basic principles of research and the development of the skills required for evaluation of professional research. [GE]

22 hours of lab

Prerequisite: Consent of the Hygiene Program.

Continuation of Dental Public Health - Research Methods II. Implementation and evaluation of oral health programs at a variety of community settings. Basic principles of research and the development of the skills required for evaluation of professional research. [GE]

198 hours of lab

Prerequisite: Consent of the Dental Hygiene Program.

Introduction to development level of advanced instrumentation and patient treatment techniques. [GE]

198 hours of lab

Prerequisite: Consent of the Dental Hygiene Program.

Developmental level of advanced instrumentation and patient treatment techniques. [GE]
CLINICAL DENTAL HYGIENE TECHNIQUES VII

DH 414  9 Credits/Units
198 hours of lab
Demonstration and integration of advanced skills and knowledge with an emphasis on preparation for the practice of dental hygiene. Prerequisite: Consent of the Dental Hygiene Program [GE]

RESTORATIVE DENTISTRY I

DH 431  2 Credits/Units
11 hours of lecture / 22 hours of lab
Prerequisite: Consent of the Dental Hygiene Program.
Introduction to restorative techniques with emphasis on placement of amalgam and clinical experience with sealant application. [GE]

RESTORATIVE DENTISTRY II

DH 432  5 Credits/Units
22 hours of lecture / 66 hours of lab
Prerequisite: Consent of the Dental Hygiene Program.
Laboratory practice in expanded duties as allowed by Washington State law. Emphasis on placement of amalgam and composite restorations. [GE]

RESTORATIVE DENTISTRY III

DH 433  4 Credits/Units
11 hours of lecture / 66 hours of lab
Prerequisite: Consent of the Dental Hygiene Program.
Clinical and laboratory practice in expanded duties as allowed by Washington State law. Topics include restorative dentistry and associated procedures, dental analgesia, local anesthetic, current dental material evaluation and product selection for use in clinical practice. [GE]

RESTORATIVE DENTISTRY IV

DH 434  3 Credits/Units
11 hours of lecture / 44 hours of lab
Prerequisite: Consent of the Dental Hygiene Program.
Mastery of restorative skills to include clinical and lab practice in expanded duties as allowed by Washington State law. Completion of restorative capstone project, encompassing depth and breadth of knowledge acquired from supportive course work. [GE]

SPECIAL NEEDS POPULATIONS I

DH 451  1 Credit/Unit
11 hours of lecture
Prerequisite: Consent of the Dental Hygiene Program.
Issues regarding techniques and strategies for identifying, assessing, and treating patients with special needs and developing technological expertise to access special needs information through various media. [GE]

SPECIAL NEEDS POPULATIONS II

DH 452  1 Credit/Unit
11 hours of lecture
Prerequisite: Consent of the Dental Hygiene Program.
Researching academic, behavioral, and clinical techniques to determine the performance necessary in all phases of patient treatment for a population with special needs. In-depth independent research on a special needs population, as it relates to dental hygiene care. [GE]

SPECIAL NEEDS POPULATIONS III

DH 453  1 Credit/Unit
11 hours of lecture
Prerequisite: Consent of the Dental Hygiene Program.
Expansion of the research in academic, behavioral, and clinical techniques through the development and presentation of a table clinic in order to determine the performance necessary in all phases of patient treatment for a population with special needs. [GE]

NITROUS OXIDE SEDATION

DH 471  1 Credit/Unit
8 hours of lecture / 4 hours of lab
Prerequisite: Consent of the Dental Hygiene Program.
Exploration of nitrous oxide sedation as it applies to the practice of dentistry and dental hygiene. Emphasis on patient evaluation, pharmacodynamics, and administration methods and safety issues. Minimum of three clinical patient inductions and recoveries required. Meets multi state licensure requirements for the provisions of nitrous oxide and includes 10 hours of lecture, 3 clinical, and 1 hour written final for a total of 14 hours. [GE] [PNP]

PERIODONTICS II

DH 472  2 Credits/Units
22 hours of lecture
Prerequisite: Consent of the Dental Hygiene Program.
Etiological factors in the periodontal disease process including host response, contributing and risk factors, classifications of periodontal diseases, and HIV and periodontitis. Current methods used to assess and evaluate periodontal disease in a patient will be covered. [GE]

PERIODONTICS III

DH 473  2 Credits/Units
22 hours of lecture
Prerequisite: Consent of the Dental Hygiene Program.
Evidence-based periodontal disease treatment modalities including non-surgical procedures, modulation of the host response, antimicrobials, lasers, and reevaluation and maintenance procedures. [GE]

CAPSTONE

DH 484  3 Credits/Units
33 hours of lecture
Prerequisite: Consent of the Dental Hygiene Program.
The capstone course is an opportunity for students to demonstrate that they have achieved the learning outcomes established by the Clark College Dental Hygiene program. Designed to assess ethical, cognitive, affective, and psychomotor learning in a learner-centered and learner-directed manner. Students will create a resume and cover letter as well as develop their interview skills. The capstone course requires an e-portfolio, which serves as an instrument of program assessment. [GE]
DIESEL TECHNOLOGY (DIES)

CUMMINS ENGINES
DIES 096
33 hours of lecture
Specialized training in Cummins engine theory, troubleshooting, tune-up, maintenance, repair, and safety.

DIESEL FUNDAMENTALS
DIES 111
55 hours of lecture
Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092. Introduction to diesel engine construction and principles of operation. Basics of physics and engineering as related to operation of diesel engines. Basic shop tools and safety. [GE]

DIESEL PROCEDURES
DIES 112
55 hours of lecture / 110 hours of lab
Concurrent enrollment in DIES 111 recommended.
Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092. Disassembly, inspection, assembly, and adjustment of various diesel engines used in highway and off-highway vehicles. [GE] [PNP]

DIESEL ENGINES/FUEL SYSTEMS
DIES 113
55 hours of lecture
Concurrent enrollment in DIES 114 recommended.
Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092 and successful completion with a 'C' or better in DIES 111 and 112. Repair, adjustment and testing procedures for diesel engines, components and systems. Introduction to fuel systems used and electronic controls used on modern diesel engines. [GE]

DIESEL PROCEDURES
DIES 114
55 hours of lecture / 110 hours of lab
Concurrent enrollment in DIES 113 recommended.
Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092 and successful completion with a 'C' or better in DIES 111 and 112. Test, adjust, and diagnostics of engines and maintenance practices. [GE] [PNP]

DRIVE TRAINS
DIES 115
55 hours of lecture
Concurrent enrollment in DIES 116 recommended.
Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092 and successful completion with a 'C' or better in DIES 113 and 114. Principles of operation and basic construction of drive train components used in on- and off-highway equipment. [GE]

DIESEL PROCEDURES
DIES 116
55 hours of lecture / 110 hours of lab
Concurrent enrollment in DIES 115 recommended.
Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092 and successful completion with a 'C' or better in DIES 113 and 114. Disassembly, inspection, assembly, and adjustments of drive train components. [GE] [PNP]

BASIC ELECTRICAL
DIES 120
22 hours of lecture / 22 hours of lab
Concurrent enrollment in DIES 112.
Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092. Introduction to basic electrical fundamentals needed by technicians to diagnose and repair vehicle electrical systems. [GE]

ELECTRONIC ENGINE MANAGEMENT SYSTEMS
DIES 121
22 hours of lecture / 22 hours of lab
Concurrent enrollment in DIES 114.
Prerequisite: Eligibility for ENGL 098 and MATH 030 and successful completion with a 'C' or better in DIES 120. Introduction to electronic engine management systems and emission technology. [GE]

ELECTRONIC VEHICLE CONTROL SYSTEMS
DIES 122
22 hours of lecture / 22 hours of lab
Concurrent enrollment in DIES 116.
Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092 and successful completion with a 'C' or better in DIES 120. Introduction to electronic controls used in diesel and heavy equipment. [GE]

COOPERATIVE WORK EXPERIENCE
DIES 199
165 hours of clinical
Prerequisite: Consent of Instructional Unit. Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. [GE]

ELECTRICAL/ELECTRONIC SYSTEMS
DIES 221
55 hours of lecture
Concurrent enrollment in DIES 222 recommended.
Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092. Charging, starting, lighting, and control circuits and components used on heavy equipment and highway trucks. Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092 [GE]

DIESEL PROCEDURES
DIES 222
33 hours of lecture / 66 hours of lab
Concurrent enrollment in DIES 221 recommended.
Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092. Repair and maintenance of diesel and heavy equipment. Students will participate in customer repair projects. [GE] [PNP]

HYDRAULIC SYSTEMS
DIES 223
55 hours of lecture
Concurrent enrollment in DIES 224 recommended.
Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092. Theory and principles of operation of mobile hydraulic systems. [GE]

DIESEL PROCEDURES
DIES 224
55 hours of lecture / 110 hours of lab
Concurrent enrollment in DIES 223 recommended.
Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092 and successful completion with a 'C' or better in DIES 221 and 222. Repair and maintenance of diesel and heavy equipment. Students will participate in customer repair projects. [GE] [PNP]
BRAKES, STEERING, AND SUSPENSION

DIES 225 5 Credits/Units
55 hours of lecture
Concurrent enrollment in DIES 226 recommended.
Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092 and successful completion with a 'C' or better in DIES 223 and 224. Hydraulic and air brake systems, steering and suspension used on highway trucks, and heavy equipment. [GE]

DIESEL PROCEDURES

DIES 226 10 Credits/Units
55 hours of lecture / 110 hours of lab
Concurrent enrollment in DIES 225 recommended.
Prerequisite: Eligibility for ENGL 098 and MATH 030 or MATH 092 and successful completion with a 'C' or better in DIES 223 and 224. Repair and maintenance of diesel and heavy equipment. Students will participate in customer repair projects. [GE] [PNP]

SELECTED TOPICS

DIES 280 5 Credits/Units
55 hours of lecture
The course focuses on selected topics in Diesel. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the term class schedule. [GE] [PNP]

SPECIAL PROJECTS

DIES 290 5 Credits/Units
Prerequisite: Consent of Instructional Unit required. Opportunity to plan, organize and complete special projects approved by the department. [GE]
## Digital Media Arts (DMA)

### PHOTOshop Raster Graphics

- **DMA 101**: 22 hours of lecture / 44 hours of lab
  - Fundamentals of digital imaging using Adobe Photoshop. Focus on visual problem solving and software techniques to capture, correct, create and combine images for print and digital media. Topics include image sourcing, resolution, tone and color correction, retouching, painting, image manipulation, compositing, animated graphics, design and production considerations.

### Illustrator Vector Graphics

- **DMA 102**: 22 hours of lecture / 44 hours of lab
  - Fundamentals of vector drawing using Adobe Illustrator. Focus on visual problem solving and software techniques to draw, trace, transform and create graphics for print and digital media. Topics include drawing tools, path editing, shape manipulation, object layering, line styling, brush textures, typography, gradient shading, patterns, design and production considerations.

### Motion Graphics and Animation I

- **DMA 104**: 22 hours of lecture / 44 hours of lab
  - Introduction to motion design and 2D animation principles. Use digital tools to create visual content and messaging for digital media communications. Focus on concept ideation, narrative structure, animated storytelling, motion infographics, dynamic typography, integration of audio/visual and special effects. Includes design and production considerations.

### Professional Practices and Portfolio I

- **DMA 114**: 22 hours of lecture / 44 hours of lab
  - Examination of the digital media arts industry and practical experience in creating a personalized plan and portfolio. Gain a comprehensive understanding of the creative business market, professional practices, jobs, trends, technologies and opportunities. Activities include research, guest speakers, field trips, interviews, networking, online or in-person events, mid-program assessment, action planning, presentations and portfolio review.

### Cooperative Work Experience

- **DMA 199**: 132 hours of clinical
  - Supervised, work-based learning experience that enables students to demonstrate specialized occupational skills and knowledge. Specific learning objectives are developed by the College and the employer. Upon completion, employer and student evaluations are discussed.

### Video and Sound Production I

- **DMA 201**: 22 hours of lecture / 44 hours of lab
  - Introduction to video and sound production for online, mobile or digital media communication. Learn all aspects of the digital video workflow from pre-production context (concept, message, storyboard, scriptwriting) to production roles, methods and styles (narrative, documentary, persuasive, experimental) to post-production practices (video editing, audio and media integration, optimization and delivery platforms).

### Motion Graphics and Animation II

- **DMA 204**: 22 hours of lecture / 44 hours of lab
  - Further study in motion design and 2D animation strategies. Develop advanced proficiency to convey message and meaning through storytelling and integrated motion media presentations. Focus on conceptual thinking, information design, professional practices and workflow, visual messaging and marketing considerations. May include client projects or team-based experience.

### Professional Practices and Portfolio II

- **DMA 214**: 22 hours of lecture / 44 hours of lab
  - Continuation of professional practices and portfolio assessment. Industry research and strategic planning to develop individualized career paths or targeted higher education goals. Students learn about business considerations for freelancing or contract work, job search and employment strategies, and best practices for self-promotion and portfolio presentation.

### Professional Studio Experience

- **DMA 215**: 22 hours of lecture / 44 hours of lab
  - Students gain practical experience working as freelancers or on collaborative teams to produce digital media solutions for real-world clients, such as community or campus organizations and non-profit work. Students seek out client projects, engage in critical thinking and problem-solving, present and pitch ideas, write proposals, communicate with clients, facilitate the iterative design and production process and evaluate quality and user feedback.
# DRAMA (DRMA)

## INTRO TO THEATRE

**DRMA&101**

3 Credits/Units

33 hours of lecture

Overview of theatre. Roles of the actor, director, designers, and playwrights. Evolution of theatre through the ages. [HA, SE]

### ACTING I - DRAMA

**DRMA 140**

4 Credits/Units

33 hours of lecture / 22 hours of lab

Techniques and principles of acting. [HB, SE]

### ACTING II - THEATRE

**DRMA 141**

4 Credits/Units

33 hours of lecture / 22 hours of lab

**Prerequisite:** DRMA 140 (or THEA 140).

Continuation of DRMA 140. Emphasis on scene study, characterization, and period styles of acting. [HB, SE]

## BASIC STAGECRAFT

**DRMA 150**

4 Credits/Units

22 hours of lecture / 22 hours of lab / 110 hours of conference

Principles and techniques of scenery construction and painting. Students will also learn the use of shop tools. [HB, SE]

## STAGE MAKE-UP

**DRMA 152**

3 Credits/Units

33 hours of lecture

Design and application of stage make-up. Formerly THEA 152. [HB, SE]

## INTRODUCTION TO CINEMA

**DRMA 154**

5 Credits/Units

55 hours of lecture

An introductory course in film history, production techniques, aesthetics, and the social impact of the American film industry from 1900 to the present. [HA]

## COOPERATIVE WORK EXPERIENCE

**DRMA 199**

5 Credits/Units

165 hours of clinical

**Prerequisite:** Consent of Instructional Unit.

Supervised work experience in the community, completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. [GE]

## STAGE LIGHTING DESIGN

**DRMA 250**

3 Credits/Units

33 hours of lecture

Techniques and principles of stage and TV lighting design. Use of instruments and light control systems with a special emphasis on computerized light control. [HB, SE]

## INTRODUCTION TO SCRIPT ANALYSIS

**DRMA 254**

5 Credits/Units

55 hours of lecture

Close analysis and study of dramatic literature texts in terms of structure, genre, style, character, themes, language, and dramatic action. Plays are examined from the point of view of the actor, director, designer, producer, critic, scholar, writer, and audience. [GE, SE][PNP]

## SELECTED TOPICS

**DRMA 280**

3 Credits/Units

33 hours of lecture

Varying topics in theatre, as listed in the term class schedule. May be repeated for credit. [SE]

## SPECIAL PROJECTS

**DRMA 290**

5 Credits/Units

55 hours of lecture

**Prerequisite:** Consent of Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department in the areas of stage direction, scene lighting, costume design, make-up design, production or theatre history. [GE]
# Early Childhood Education (ECE)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours of Lecture/Lab</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ECE 100</strong></td>
<td>Introduction to the Value of Storytelling and the Use of Literature as a Tool in the Development of Children</td>
<td>33</td>
<td>3</td>
</tr>
<tr>
<td><strong>ECE 101</strong></td>
<td>Early Childhood Education Workshops</td>
<td>33</td>
<td>3</td>
</tr>
<tr>
<td><strong>ECE 102</strong></td>
<td>Science and Mathematics for Young Children</td>
<td>33</td>
<td>3</td>
</tr>
<tr>
<td><strong>ECE 103</strong></td>
<td>Reflective Practices in Early Learning</td>
<td>33</td>
<td>3</td>
</tr>
<tr>
<td><strong>ECE 104</strong></td>
<td>Partnerships with Families in Early Care &amp; Education</td>
<td>33</td>
<td>3</td>
</tr>
<tr>
<td><strong>ECE 105</strong></td>
<td>Individualized Instruction I</td>
<td>22</td>
<td>2</td>
</tr>
<tr>
<td><strong>ECE 106</strong></td>
<td>Individualized Instruction II</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td><strong>ECE 107</strong></td>
<td>Early Childhood Education Workshops</td>
<td>33</td>
<td>3</td>
</tr>
<tr>
<td><strong>ECE 108</strong></td>
<td>Literature and Storytelling for Children</td>
<td>22</td>
<td>2</td>
</tr>
<tr>
<td><strong>ECE 109</strong></td>
<td>Learning Experiences for Young Children I</td>
<td>33</td>
<td>3</td>
</tr>
<tr>
<td><strong>ECE 110</strong></td>
<td>Cooperative Work Experience</td>
<td>99</td>
<td>3</td>
</tr>
<tr>
<td><strong>ECE 111</strong></td>
<td>Learning Experiences for Young Children II</td>
<td>33</td>
<td>3</td>
</tr>
<tr>
<td><strong>ECE 112</strong></td>
<td>Learning Experiences for Young Children II Lab</td>
<td>66</td>
<td>3</td>
</tr>
<tr>
<td><strong>ECE 113</strong></td>
<td>Reflective Practices in Early Learning</td>
<td>33</td>
<td>3</td>
</tr>
<tr>
<td><strong>ECE 114</strong></td>
<td>Partnerships with Families in Early Care &amp; Education</td>
<td>33</td>
<td>3</td>
</tr>
<tr>
<td><strong>ECE 115</strong></td>
<td>Individualized Instruction I</td>
<td>22</td>
<td>2</td>
</tr>
<tr>
<td><strong>ECE 116</strong></td>
<td>Individualized Instruction II</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td><strong>ECE 117</strong></td>
<td>Early Childhood Education Workshops</td>
<td>33</td>
<td>3</td>
</tr>
<tr>
<td><strong>ECE 118</strong></td>
<td>Literature and Storytelling for Children</td>
<td>22</td>
<td>2</td>
</tr>
<tr>
<td><strong>ECE 119</strong></td>
<td>Learning Experiences for Young Children I</td>
<td>33</td>
<td>3</td>
</tr>
<tr>
<td><strong>ECE 120</strong></td>
<td>Learning Experiences for Young Children II</td>
<td>33</td>
<td>3</td>
</tr>
<tr>
<td><strong>ECE 121</strong></td>
<td>Learning Experiences for Young Children II Lab</td>
<td>66</td>
<td>3</td>
</tr>
<tr>
<td><strong>ECE 122</strong></td>
<td>Reflective Practices in Early Learning</td>
<td>33</td>
<td>3</td>
</tr>
<tr>
<td><strong>ECE 123</strong></td>
<td>Partnerships with Families in Early Care &amp; Education</td>
<td>33</td>
<td>3</td>
</tr>
</tbody>
</table>

**Prerequisites:**
- ECE 101
- ECE 102
- ECE 103
- ECE 104
- ECE 105
- ECE 106
- ECE 107
- ECE 108
- ECE 109
- ECE 110
- ECE 111
- ECE 112
- ECE 113
- ECE 114
- ECE 115
- ECE 116
- ECE 117
- ECE 118
- ECE 119
- ECE 120
- ECE 121
- ECE 122
- ECE 123

**General Education transfer requirements:**
- GE (General Education)

**Course Descriptions:**
- **Introduction to the Value of Storytelling and the Use of Literature as a Tool in the Development of Children:**
  - Online course in child growth and development from birth to age six years, including physical, emotional, cultural, cognitive, and creative age-related changes. Application to early childhood programs in centers and homes. [GE]

- **Science and Mathematics for Young Children:**
  - Explores the theories, issues, and applications of science and math concepts in activities and environments for preschool-aged children. Investigates the strategies of teaching through the discovery and use of science and math curriculums in their surroundings. [GE]

- **Individualized Instruction I:**
  - Theories and practices for inclusive early childhood education programs. Documents a student's interests, strengths, and needs and develops an inclusion plan that supports those areas. [GE]

- **Individualized Instruction II:**
  - Explores personal perceptions of disabilities and commonly held biases and the impact of environmental influences on ability. [GE]

- **Early Childhood Education Workshops:**
  - In-service and special topic seminars for those currently working with groups of young children. Each 3-week session is offered for one credit. Students may take any or all of the sessions. A maximum of six credits of ECE 111 may be applied to major area requirements for a degree in Early Childhood Education. [GE]

- **Literature and Storytelling for Children:**
  - Introduction to the value of storytelling and the use of literature as tools in the development of children. Literature and storytelling has the ability to speak to our ‘souls’ and it is the intent of this class to reclaim for some and validate for others the value of literature as a tool with children and for ourselves. Through small and large group discussions as well as diverse experiences, co-learners will have an opportunity to develop an understanding of book selection, delivery styles, bibliotherapy, and community resources for acquiring literature and networking with professionals in the field of Early Childhood Education. [GE]

- **Reflective Practices in Early Learning:**
  - A comprehensive overview and theoretical exploration of perspectives regarding multiple contexts including race, culture, ethnicity, language, class, gender, sexual orientation, atypical and typical abilities. Focus on biases that may impact learners’ work as reflective practitioners working with children and families. Focus on effective anti-bias strategies. Meets General Education transfer requirements. [GE]

- **Partnerships with Families in Early Care & Education:**
  - Developing effective partnerships with families in early care and education programs. Topics include family-centered theories and practices related to welcoming families and building relationships, communicating, working through conflicts, honoring diversity, family involvement and support, and parent education. [GE]

- **Cooperative Work Experience:**
  - Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluations. Completion of, or concurrent in, HDEV 195, 198, or 200 required. [GE]

- **Learning Experiences for Young Children II:**
  - Further develop curriculum planning processes with special emphasis on scheduling and project approach planning using observations of children’s play and knowledge of child development. Areas of study include science, math, group experiences, music/movement, and outdoors. Conduct case studies and provide peer support and feedback. [GE]

- **Learning Exp for Young Children II Lab:**
  - Further develop curriculum planning processes with a special emphasis on emergent and integrated thematic approaches while applying knowledge of multiple intelligences. Areas of study include parent/teacher relationships, teacher development stages, staff communication and relationships. In-depth study of individual and cultural diversity as related to knowledge of child development. [GE]
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits/Units</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 214</td>
<td>Learning Exp for Young Children III Lab</td>
<td>3</td>
<td>Concurrent enrollment in ECE 213 required.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Prerequisite:</strong> ECE 212, or consent of Instructional Unit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lab experiences in Early Childhood Education Laboratory School. Plan,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>implement and analyze plans in relation to relevant topics in ECE 213.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[GE]</td>
</tr>
<tr>
<td>ECE 215</td>
<td>Early Childhood Seminar</td>
<td>2</td>
<td>Concurrent enrollment in ECE 199, 15 hours per week required as field</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>placement for students in teaching degree program.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Prerequisite:</strong> ECE 214, or consent of Instructional Unit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Seminar on professionalism, ethics and issues in teaching and administration.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[GE]</td>
</tr>
<tr>
<td>ECE 280</td>
<td>Selected Topics</td>
<td>3</td>
<td>33 hours of lecture</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Selected topics in Early Childhood Education as listed in the term class</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>schedule. May be repeated for credit. [GE]</td>
</tr>
<tr>
<td>ECE 290</td>
<td>Special Projects</td>
<td>3</td>
<td><strong>Prerequisite:</strong> Consent of Instructional Unit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Opportunity to plan, organize and complete special projects approved by</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>the department. [GE]</td>
</tr>
</tbody>
</table>
Early Childhood Education (ECED)

Introduction to Early Childhood Education (ECED&105)
- 5 Credit/Units
- 55 hours of lecture
- Explore the foundations of early childhood education. Examine theories defining the field, issues, trends, best practices, and program models. Observe children, professionals and programs in action. [SE]

Health/Safety/Nutrition (ECED&107)
- 5 Credit/Units
- 55 hours of lecture
- Introduction to implementation of equitable health, safety and nutrition standards for the growing child in group care. Focus on federal Child Care Block Grant funding (CCDF) requirements, WA state licensing and Head Start Performance standards. Develop skills necessary to keep children healthy safe, report abuse neglect, and connect families to community resources. [GE]

Practicum-Nurturing Relations (ECED&120)
- 2 Credit/Units
- 11 hours of lecture / 22 hours of lab
- Concurrent enrollment in ECED 105.
- In an early learning setting, engage in establishing nurturing, supportive relationships with all children and professional peers. Focus on children's health safety, promoting growth development, and creating a culturally responsive environment. [SE]

Infants/Toddler Care (ECED&132)
- 3 Credit/Units
- 33 hours of lecture
- Examine the unique developmental needs of infants and toddlers. Study the role of the caregiver, relationships with families, developmentally appropriate practices, nurturing environments for infants and toddlers, and culturally relevant care. [GE]

Family Care Management (ECED&134)
- 3 Credit/Units
- 33 hours of lecture
- Learn how to manage a family childcare program. Topics include: licensing requirements, record-keeping, relationship building, communication strategies, guiding behavior, and promoting growth and development. [GE]

Administration of ECE (ECED&139)
- 3 Credit/Units
- 33 hours of lecture
- Develop administration skills required to develop, operate, manage and improve early childhood education and care programs. Acquire basic business management skills. Explore resources and supports for meeting Washington State licensing and professional NAEYC standards. [GE]

Curriculum Development (ECED&160)
- 5 Credit/Units
- 55 hours of lecture
- Investigate learning theory, program planning, tools and methods for curriculum development promoting language, fine/gross motor, social-emotional, cognitive and creative skills and growth in children birth through age 8 utilizing developmentally appropriate and culturally responsive practice. [GE]

Learning Environments (ECED&170)
- 3 Credit/Units
- 33 hours of lecture
- Focuses on the adult's role in designing, evaluating, and improving indoor and outdoor environments that ensure quality learning, nurturing experiences, and optimize the development of young children. [GE]

Language and Literacy (ECED&180)
- 3 Credit/Units
- 33 hours of lecture
- Teaching strategies for language acquisition and literacy skill development examined at each developmental stage (birth-age 8) through the four interrelated areas of speaking, listening, writing, and reading. [GE]

Observation and Assessment (ECED&190)
- 3 Credit/Units
- 33 hours of lecture
- Practice collecting and presenting observation data of children, teaching practices and learning centers in an early childhood setting. [GE]
**ECONOMICS (ECON)**

**INTRODUCTION TO ECONOMICS**
ECON 101  
3 Credits/Units  
33 hours of lecture  
Survey of economics. Key topics include current economic issues and processes related to ways individuals, groups, and whole societies produce, distribute, and utilize economic resources. This course is good preparation for the advanced Microeconomics and Macroeconomics courses. Credit not allowed for both Economics 101 and Economics 110. [SE, SS] [PNP]

**INTRODUCTION TO THE GLOBAL ECONOMY**
ECON 110  
5 Credits/Units  
55 hours of lecture  
Introduction to economic concepts and their use in the global economy. Topics include basic microeconomics and macroeconomics, international trade, balance of payments, exchange rates, international institutions, energy, war, and terrorism. Intended for economics and non-economics majors. This course is an alternative for Economics 101, with additional topics including in-depth study of international economic issues. Credit not allowed for both Economics 101 and Economics 110. [SE, SS]

**INTERNATIONAL ECONOMICS**
ECON 120  
3 Credits/Units  
Prerequisite: A grade of 'C' or better in ECON 101.  
International economics, for both economics majors and non-economic majors, emphasizes the fundamental economic concepts for understanding today's global economy. Topics include the basic concepts and tools of international economic analysis, including trade, trade policy, trading blocs, protectionism, exchange rate determination, managing currencies, multi-national corporations, labor, developing countries, and the environment. [SE, SS]

**MICRO ECONOMICS**
ECON 201  
5 Credits/Units  
55 hours of lecture  
Prerequisite: A grade of 'C' or better in either ECON 101 or MATH 095 or MATH 096 or consent of Instructional Unit.  
Essential market processes, structures, issues, and variables governing how individuals, firms and governmental entities allocate resources, produce and distribute goods and services, determine prices, evaluate trade-offs and effectively compete and grow. [SE, SS]

**MACRO ECONOMICS**
ECON 202  
5 Credits/Units  
55 hours of lecture  
Prerequisite: A grade of 'C' or better in either ECON 101 or MATH 095 or MATH 096 or consent of Instructional Unit.  
Broad economic principles, issues, structures, processes, and variables governing the dynamics of the United States and global economies. Problems of economic organization, market processes, role of government in the economy and society, money and banking processes and issues, measurement and determination of economic aggregates, fiscal and monetary policies, economic growth and development and international trade. [SE, SS]

**SELECTED TOPICS**
ECON 280  
5 Credits/Units  
55 hours of lecture  
Focus on selected topics in Economics. Because the course varies in theme and content, it is repeatable for credit. [GE, SE]

**SPECIAL PROJECTS**
ECON 290  
5 Credits/Units  
Prerequisite: Consent of Instructional Unit.  
Opportunity to plan, organize and complete special projects approved by the department. [GE]

**MANAGERIAL AND GLOBAL ECONOMICS**
ECON 405  
5 Credits/Units  
55 hours of lecture  
Reviews basic issues in microeconomics, macroeconomics, and global economics. Topics include allocation of resources, economic systems, economic institutions and incentives, market structures and prices, and productivity. Also included are issues related to the global marketplace, aggregate supply and demand, and governmental policy towards business. [SS]
EDUCATION (EDUC)

**CHILD**
EDUC&115
55 hours of lecture
Build foundation for explaining how children develop in all domains, conception through early adolescence. Explore various developmental theories, methods for documenting growth, and impact of brain development. Topics addressed stress, trauma, culture, race, gender identity, socioeconomic status, family status, language, and health issues. [GE]

**GUIDING**
EDUC&130
3 Credits/Units
33 hours of lecture
Examine the principles and theories promoting social competence in young children and creating safe learning environments. Develop skills promoting effective interactions, providing positive individual guidance, and enhancing group experiences. [GE]

**SCHOOL AGE CARE**
EDUC&136
3 Credits/Units
33 hours of lecture
Develop skills to provide developmentally appropriate and culturally relevant activities/care for children ages 5-12 in a variety of settings. Topics include: implementation of curriculum, preparation of environments, building relationships, guiding cognitive and social emotional development, and community outreach. [GE]

**CHILD, FAMILY, COMMUNITY**
EDUC&150
3 Credits/Units
33 hours of lecture
Integrate the family and community contexts in which a child develops. Explore cultures and demographics of families in society, community resources, strategies for involving families in the education of their child, and tools for effective communication. [GE, HR]

**COOPERATIVE WORK EXPERIENCE**
EDUC 199
5 Credits/Units
165 hours of clinical
Prerequisite: Consent of Instructional Unit.
Supervised work experience in education. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. [GE]

**INTRODUCTION TO EDUCATION**
EDUC&201
3 Credits/Units
33 hours of lecture
Concurrent enrollment in EDUC 210 required.
Overview of education as a discipline, a philosophy, and a profession. Recommended for future teachers and paraeducators. [SE]

**EXCEPTIONAL CHILD**
EDUC&203
3 Credits/Units
33 hours of lecture
Introduction to various topics regarding children with special needs and exploration of concepts of inclusion and individualized instruction. [GE]

**INTRODUCTORY FIELD EXPERIENCE**
EDUC 210
3 Credits/Units
11 hours of lecture / 44 hours of lab
Concurrent enrollment in EDUC& 201 required.
Orientation to teaching and life in the American system of schooling. Supervised volunteer field experience with a weekly, one-hour seminar. [GE]

**SELECTED TOPICS**
EDUC 280
5 Credits/Units
55 hours of lecture
Course focuses on selected topics in Education. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the quarterly class schedule.
EMERGENCY MEDICAL TECHNICIAN (EMT)

EMT 103 12 Credits/Units
77 hours of lecture / 110 hours of lab
Training in pre-hospital emergency care with clinical education experience. This is an accelerated EMT program that provides for supervised practice of skills taught in each lesson. As required by the Department of Transportation (DOT), this course is under the supervision of a Medical Program Director and EMT Coordinator. The course meets the requirements of State EMT certification. Course length is approximately 186 clock hours including the four integrated phases of education (lecture, laboratory, clinical and field experience).
**ENGINEERING (ENGR)**

**ENGR 101**  
22 hours of lab  
Orientation for students interested in Engineering and Computer Science. Topics include effective planning, communication, teamwork, and exposure to Engineering and Computer Science educational/career opportunities and challenges. Credit not allowed for both ENGR 101 and CSE 101. [SE] [PNP]

**INTRODUCTION TO DESIGN**  
44 hours of lecture / 33 hours of lab  
Introduction to the engineering method of problem solving through guided Engineering design projects. Focus on developing group skills, understanding the effects of different learning styles, producing strategies for innovation, and fostering creativity in problem solving. Cannot receive credit for both ENGR 104 and PHSC 104. [INS, SE]

**INTRO TO AEROSPACE ENGINEERING**  
11 hours of lecture / 22 hours of lab / 2 hours of conference  
Prerequisite: A grade of ‘C’ or better in College Trigonometry, and a grade of ‘C’ or better in or concurrent enrollment in, College Algebra. For students interested in pursuing a degree in aerospace engineering. Topics include history of aviation and spaceflight, careers in aerospace, foundations of physical principles that underlies aerodynamics, dynamic pressure, the standard atmosphere, and lift and drag coefficients. The course includes a team design project. [SE]

**BASIC AUTOCAD**  
16 hours of lecture / 55 hours of lab  
Basic operations of the current version of AutoCAD. Screen features, drawing and editing objects, working with 2D, using both model space and layouts, dimensioning and dimension styles, using blocks, attributes, and xrefs, opening and saving files, and using templates. Recommended for anyone comfortable using a PC. [GE]

**BASIC SOLIDWORKS**  
16 hours of lecture / 55 hours of lab  
Parametric solids modeling with SolidWorks, covering the breadth of the software at a basic level. Create part, assembly, and drawing files, including design tables and multiple configurations. Recommended for anyone with good computer skills. [SE]

**FIELD SURVEY I**  
33 hours of lecture / 44 hours of lab  
Concurrent enrollment in ENGR 121 lab required.  
Prerequisite: A grade of ‘C’ or better in MATH 151 (or MATH 113). Basic theory of surveying, measurement and calculation. Topics include: measurement and determination of boundaries, areas, and shapes; location through traversing techniques; error theory; compass adjustments; public land system; use of programmable calculators; and principles of measurements of distances, elevation and angles. [SE]

**INTRO TO ELECTRICAL/COMPUTER SCI & ENGINEERING**  
44 hours of lecture / 33 hours of lab  
Prerequisite: A grade of ‘C’ or better in College Trigonometry, and a grade of ‘C’ or better in or concurrent enrollment in College Algebra. Introduction to electrical engineering, computer science and engineering processes, principles, problem-solving techniques, and contemporary tools. Application of in-class learning to hands-on projects and exploration of current industry trends and implications. [SE]

**ENGINEERING SKETCHING AND VISUALIZATION**  
11 hours of lecture / 22 hours of lab  
Prerequisite: MATH 103 or equivalent, and completion of, or concurrent enrollment in MATH 111 or equivalent. Introduction to the engineering profession: its branches, principles, and practices. Engineering problem-solving, methods of analysis and design, and an introduction to engineering fundamentals. [SE]

**GEOMETRIC DIMENSIONING AND TOLERANCING**  
11 hours of lecture / 22 hours of lab  
Prerequisite: A grade of ‘C’ or better in ENGR 113 and either ENGR 140 or ENGR 150. Basics of geometric dimensioning and tolerancing: what it is and why use it, GDT symbols and their use, maximum and least material conditions, datums, and geometric characteristics. AutoCAD will be used to dimension drawings using GDT. [SE]
<table>
<thead>
<tr>
<th>COURSE</th>
<th>DEPARTMENT</th>
<th>CR/UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 208 22 hours of lecture / 22 hours of lab</td>
<td>ELECTRICAL &amp; COMPUTER SCIENCE</td>
<td>3</td>
</tr>
<tr>
<td><strong>Prerequisite:</strong> Concurrent enrollment in or completion of ENGR 107, ENGR 150, and MATH 151 with a grade of “C” or better in all courses. Introduction to the fundamentals of the flight of air and space craft. Topics include review of basic fluid flow and aerodynamics, circulation theory of lift, finite wings, aerodynamic performance, stability and control, propulsion, and space flight. The course includes a team design project.</td>
<td>[SE]</td>
<td></td>
</tr>
<tr>
<td>ENGR 209 22 hours of lecture / 22 hours of lab</td>
<td>MATERIALS</td>
<td>3</td>
</tr>
<tr>
<td><strong>Prerequisite:</strong> Completion of with a grade of “C” or concurrent enrollment in ENGR 207, and MATH 152. Introduction to compressible flow as applied to aerodynamics of aerospace systems. Topics include review of foundational principles, control volume analysis, compressible flow, normal and oblique shocks, Prandtl-Meyer flow, and overview of Fanno and Rayleigh flow. The course includes a team design project.</td>
<td>[SE]</td>
<td></td>
</tr>
<tr>
<td>ENGR 214 55 hours of lecture</td>
<td>DIGITAL</td>
<td>5</td>
</tr>
<tr>
<td><strong>Prerequisite:</strong> MATH 152 (or MATH 211). Solution of two and three dimensional vector systems using vector notation and free-body diagrams. Friction, centroids, moment of inertia, radius of gyration, and loads involved in structures, machines, and trusses.</td>
<td>[SE]</td>
<td></td>
</tr>
<tr>
<td>ENGR 215 55 hours of lecture</td>
<td>DYNAMICS</td>
<td>5</td>
</tr>
<tr>
<td><strong>Prerequisite:</strong> ENGR 214 and MATH 152 or (ENGR 211 and MATH 211). Kinematics and kinetics of particles, systems of particles and rigid bodies. Force/acceleration, work/energy and impulse/momentum problem solving techniques will be applied to two and three dimensional systems.</td>
<td>[SE]</td>
<td></td>
</tr>
<tr>
<td>ENGR 216 11 hours of lecture / 44 hours of lab</td>
<td>INTEGRATED COMPUTATIONAL DESIGN</td>
<td>3</td>
</tr>
<tr>
<td><strong>Prerequisite:</strong> Completion of or concurrent enrollment in ENGR 150, and ENGR 214. Use computational SolidWorks Simulation CADD applications in the design and analysis of engineering problems. Also, integrated surface/solid modeling techniques, motion analysis, and use of CADD in documentation of designs and analyses.</td>
<td>[SE]</td>
<td></td>
</tr>
<tr>
<td>ENGR 221 55 hours of lecture</td>
<td>MATERIALS SCIENCE</td>
<td>5</td>
</tr>
<tr>
<td><strong>Prerequisite:</strong> CHEM 142 (or CHEM 132). Basic structure and properties of materials. Phase equilibrium and transformations. Mechanical properties, electronic structure, thermal, electrical, and magnetic properties.</td>
<td>[SE]</td>
<td></td>
</tr>
</tbody>
</table>
SIGNALS AND SYSTEMS
ENGR 253 5 Credits/Units
44 hours of lecture / 33 hours of lab
Prerequisite: ENGR 252.
Concepts and applications in signal processing and linear system theory.
Utilization of Fourier Analysis in both continuous and discrete time
signals and systems. Role of sampling and the process of reconstructing
a continuous-time signal from its samples and basics of communication
systems. Application of Laplace transform and Z-transform. [SE]

DIGITAL SYSTEMS AND MICROPROCESSORS
ENGR 270 5 Credits/Units
44 hours of lecture / 33 hours of lab
Prerequisite: A grade of 'C' or better in ENGR 250 and CSE 121, or consent
of Instructional Unit.
Continuation of the Digital Design sequence. Covering synchronous/
asynchronous state machines, shift registers, arithmetic circuits and
devices, microprocessor internal and system architecture, design and
subsystem interfacing, assembly language, and programmable logic
deVICES, design for test, documentation standards, and use of computer-
based tools. [SE]

SELECTED TOPICS
ENGR 280 5 Credits/Units
55 hours of lecture
The course focuses on selected topics in Engineering. Topics vary, and
course theme and content change to reflect new topics. Because the
course varies in content, it is repeatable for credit for different topics. [SE]

SPECIAL PROJECTS
ENGR 290 6 Credits/Units
Prerequisite: Consent of Instructional Unit.
Opportunity to plan, organize and complete special projects approved by
the department. [GE]
ENGLISH (ENGL)

WRITING
ENGL 097
55 hours of lecture
Prerequisite: Recommending score on college writing skills placement test.
Emphasis on writing complete, correct sentences and unified, coherent paragraphs and short essays. Learn to build writing skills through pre-writing, drafting, revising, and editing, and develop analytical habits of mind, reading comprehension strategies, and digital literacy skills. Short essays and selected readings will be assigned. [CA]

ENGLISH COMPOSITION I
ENGL 101
55 hours of lecture
Prerequisite: A grade of 'C' or better in ENGL 097, or recommending score on the College writing skills placement test for ENGL 098.
Emphasis on expository writing and increasing control of grammar and mechanics. Students develop skills through pre-writing, drafting, revising, and editing. In-class and out-of-class writing required. [CA,SE]

ENGLISH COMPOSITION II
ENGL 102
55 hours of lecture
Prerequisite: A grade of 'C' or better in ENGL 098 or IELP 091 taken at 5 credits or recommending score on the writing skills placement test for ENGL 101.
Exposition and argument, emphasizing critical thinking in response to electronic and print texts. Focus on exploring, developing, and communicating ideas in a voice appropriate to the audience. Students strengthen skills through pre-writing, drafting, revising, and editing. In-class and out-of-class writing required. [CA,CT,WC,SE]

ADVANCED ENGLISH COMPOSITION
ENGL 103
33 hours of lecture
Prerequisite: ENGL 102 (or ENGL 102).
Emphasis on composing essays on complex ideas of cultural importance. Assignments based on reading and research in art, science, philosophy, and politics. [CA,SE]

ENGLISH GRAMMAR
ENGL 105
55 hours of lecture
Description and analysis of the structure of English language, using traditional grammar and syntax. Designed to fulfill the grammar requirement for English majors seeking Washington State teacher certification in English. [SE]

WRITING ABOUT FILM
ENGL 108
3 Credits/Units
33 hours of lecture
Prerequisite: A grade of 'C' or better in ENGL 101.
Focus on writing effective research essays analyzing international films. Emphasis on the composition process and the development of writing skills and evaluation sources, including prewriting, drafting, revising, editing, and documenting. Introduction to film terminology and techniques and the major approaches used in writing essays about films, including film history, national cinemas, genres, auteurs, and formalism, and ideological studies. [CA,WC,SE]

COMPOSITION FOR LITERATURE
ENGL 110
5 Credits/Units
55 hours of lecture
Prerequisite: ENGL 101 (ENGL 101).
Continued study in writing essays of exposition and argument emphasizing the interpretation of literature, with a focus on critical reading of literary texts using theories and appropriate use of documented sources to support the writer's ideas. Expanding academic writing skills of prewriting, drafting, revising, editing, and documenting. [WC,SE]

ETHICS AND POLICY IN HEALTHCARE I
ENGL 112
2 Credits/Units
22 hours of lecture
Concurrent enrollment in NURS 110, NURS 111, NURS 113, NURS 114, and NURS 115.
Prerequisite: Consent of the Nursing Department.
ENGL 112 explores values, ethics, and legal decision-making frameworks and policies used to support the well-being of people and groups within the context of the healthcare professions. Foundational concepts are introduced and discussed in the context of a first-year nursing student. [HA]

INTRO TO POETRY
ENGL&113
5 Credits/Units
55 hours of lecture
Study of poetry and poetic forms, including classic and contemporary examples, with an emphasis on developing critical reading skills as well as poetry representing diverse cultural perspectives. Introduction to the language and principles of literary analysis. [HA, GE, SE] [PNP]

INTRO TO DRAMA
ENGL&114
5 Credits/Units
55 hours of lecture
Revised course description: Study of drama as both literature and theater, from historical, philosophical, and artistic perspectives. Introduces methods and vocabulary of literary analysis to build close reading skills. [HA, GE, SE] [PNP]

INTRODUCTION TO CREATIVE WRITING
ENGL 121
5 Credits/Units
55 hours of lecture
Introduction to and practice at least two of the following genres: fiction, creative nonfiction, scriptwriting, and poetry. Develop polished pieces of original work, read and analyze of diverse examples of the genres, participate in class discussion and written critiques of student and published writing, and undertake writing exercises to develop key elements of craft, strategies for editing and revision. Completion of ENGL 101 recommended, but not required. [HB, SE]
**ENGL 125**

**INTRODUCTION TO LITERARY CRITICISM**
5 Credits/Units

55 hours of lecture

Exploration of literary criticism, with an emphasis on close reading skills. Study of significant literary critical approaches, including Marxism, feminism, and cultural studies. Emphasis on developing critical reading skills as well as how literary criticism reflects issues in contemporary culture such as xenophobia, apocalyptic fear, definitions of humanity, politics, religion, and power, and late capitalism. Introduction to the language and principles of literary analysis. [HA, SE] [PNP]

**ENGL 126**

**INTRODUCTION TO POETRY WRITING**
5 Credits/Units

55 hours of lecture

Exploration of poetry writing, with an emphasis on using literary devices to craft and revise original work through discussion of diverse examples of the genre and through written critiques of student and published writing. [HB, SE]

**ENGL 127**

**INTRODUCTION TO SHORT FICTION**
5 Credits/Units

55 hours of lecture

Exploration of creative nonfiction writing, with an emphasis on writing from personal experience. Development of polished pieces of nonfiction; reading and analysis of diverse examples of the genre; class discussion and written critiques of student and published writing; writing exercises to develop key elements of craft; strategies for editing and revision. [HB, SE] [PNP]

**ENGL 128**

**GRAPHIC FICTION WRITING**
5 Credits/Units

55 hours of lecture

Exploration of comic writing, with an emphasis on scripting conventions. Development of polished pieces of original fiction for visual rendering; reading and analysis of diverse examples of the medium; class discussion and written critiques of student and published writing; writing exercises to develop key elements of craft; strategies for editing and revision. [HB, GE, SE] [PNP]

**ENGL 129**

**CREATIVE NONFICTION WRITING**
5 Credits/Units

55 hours of lecture

Study of nonfiction writing, with an emphasis on developing critical reading skills and textual analysis of diverse examples of the genre; class discussion and written critiques of student and published writing; writing exercises to develop key elements of craft; strategies for editing and revision. [HB, SE] [PNP]

**ENGL 133**

**INTRODUCTION TO SHORT FICTION**
5 Credits/Units

55 hours of lecture

Study of short fiction, including classic and contemporary examples, with an emphasis on developing critical reading skills as well as how short fiction represents diverse cultural perspectives. Introduction to the language and principles of literary analysis. [HA, SE] [PNP]

**ENGL 136**

**INTRODUCTION TO NATIVE AMERICAN LITERATURE**
5 Credits/Units

55 hours of lecture

Introduction to Native American literature as a lens for the aesthetics, experience, and history of Native people within Native American literary criticism and larger American historical contexts. By integrating active learning strategies, coursework focuses on the multicultural nature of Native American literature and on the strategies with which Native writers mediate imbalances of power and systems of oppression within the Americas through prose, poetry, and visual texts. Introduces methods and vocabulary of literary analysis to build close reading skills. [GE, HA]

**ENGL 137**

**SCIENCE FICTION AND FANTASY**
5 Credits/Units

55 hours of lecture

Study of speculative fiction from fantasy to hard science with attempts to define its particular qualities and place in modern literature. Emphasizes developing critical reading skills as well as how science fiction and fantasy reflect issues in contemporary culture such as xenophobia, apocalyptic fear, definitions of humanity, politics, religion, and power, and late capitalism. Introduction to the language and principles of literary analysis. [HA, SE] [PNP]

**ENGL 143**

**INTRODUCTION TO MYTHOLOGY**
5 Credits/Units

55 hours of lecture

Study of significant world myths, including their sources and literary expressions. Introduces methods and vocabulary of mythological analysis to build close reading skills. [HA, SE] [PNP]

**ENGL 145**

**DETECTIVE FICTION**
5 Credits/Units

55 hours of lecture

Introduction to detective fiction, its typical styles and techniques, its interactive nature, and its capacity for social critique, with an emphasis on developing critical reading skills. Study of the ways in which detective fiction represents diverse culture perspectives, covering topics including early detective authors and the evolution of the popular image of the detective in American and British cultures. Introduction to the language and principles of literary analysis. [HA, SE] [PNP]

**ENGL 146**

**INTRODUCTION TO THE NOVEL**
5 Credits/Units

55 hours of lecture

Exploration of how the novel as a genre reflects cultures and societies. Emphasis on developing close reading skills and textual analysis of novels of varying lengths and types that present a diverse range of perspectives. [HA, SE] [PNP]

**ENGL 150**

**WRITING FOR THE WEB**
5 Credits/Units

55 hours of lecture

A survey of best practices for creating reader-centered, purpose-driven web communications: problem solving through the writing process, designing for interactivity, collaborating with other creators and shareholders, measuring and analyzing web metrics, and practicing legal and ethical standards. [PNP]

**ENGL 153**

**POPULAR CULTURE**
5 Credits/Units

55 hours of lecture

Introduction to American Popular Culture using methodology and theory from various disciplines: graphic arts, design, social media, music, television and cinema studies, advertising, communication studies, literature, and history. Central questions will focus on the ways popular culture serves not simply as a reflection of a culture’s beliefs and values, but also as a site of conversation between the various sub-groups that thrive in America. [HA]
### INTRODUCTION TO LGBTQ STUDIES

**ENGL 175**

- **5 Credits/Units**
- 55 hours of lecture
- An interdisciplinary survey of lesbian, gay, bisexual, and trans issues in the sciences, social science, and humanities with an emphasis on the period from 1900 to the present in the United States. Introduction to the most compelling aspects of modern cultural representation of and discourse on sexual and gender identity. [HA or SS]  

### NATURE AND THE HUMANITIES

**ENGL 176**

- **5 Credits/Units**
- 55 hours of lecture
- Interdisciplinary study of historical and current ways of ‘constructing’ and relating to nature in the Humanities. Topics include how cultures value nature, derive ethics and aesthetics from it, and interact with it in the creation of literature, art, architecture, social environments, social commentary, and legislation. Emphasis on 19th and 20th Century American cultures, with background in Asian, European, and Early American perspectives on nature. Can be linked with specific courses in the following departments for an integrated learning project: ART, BIOL, ENGL, ENVS, GEOL, MUSC, and PE. [HA]  

### COOPERATIVE WORK EXPERIENCE

**ENGL 199**

- **5 Credits/Units**
- 165 hours of clinical
- **Prerequisite:** Consent of Instructional Unit. For students interested in careers that emphasize writing, co-op work experience offers credit for supervised work in writing-related jobs. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. [GE]  

### TECHNICAL WRITING

**ENGL&235**

- **5 Credits/Units**
- 55 hours of lecture
- **Prerequisite:** A grade of ‘C’ or better in ENGL 101 or PTWR 135/ENGL 135. Study of advanced writing skills for typical work-world documents in a business/technical environment, with emphasis on document format, audience analysis, correspondence, formal and informal reports, research, and documentation. [CA,CT,SE,WC] [PNP]  

### LITERATURE BY WOMEN

**ENGL 240**

- **5 Credits/Units**
- 55 hours of lecture
- **Prerequisite:** A grade of ‘C’ or better in ENGL 101. Literature survey class that studies diverse fiction, nonfiction, drama, poetry, and relevant secondary theory by women authors reflecting a range of women’s narratives. Focus on written interpretation and essay-length analysis using concepts of power, privilege, and inequity. Credit not allowed for both ENGL 140 and ENGL 240. [HA,GE,SE] [PNP]  

### QUEER LITERATURE

**ENGL 243**

- **5 Credits/Units**
- 55 hours of lecture
- **Prerequisite:** A grade of ‘C’ or better in ENGL 101. An introductory survey of literature relevant to the gay, lesbian, bisexual, and trans communities and their historical predecessors from pre-modern times to the present. Emphasis on critical reading skills, analysis of power, privilege, and inequity, and written interpretation employing the principles and vocabulary of literary analysis. Credit not allowed for ENGL 254 or ENGL 243. [HA,GE,SE] [PNP]  

### AMERICAN LITERATURE I

**ENGL&244**

- **5 Credits/Units**
- 55 hours of lecture
- **Prerequisite:** A grade of ‘C’ or better in ENGL 101. Survey of American writing from the beginnings to 1865. Literature of all genres is read within historical and cultural settings. Students develop critical reading skills, identify diverse cultural perspectives, and make use of the language and principles of literary analysis to respond in writing to both canonical and non-canonical texts. Credit not allowed for both ENGL 268 and ENGL 244. [HA,GE,SE] [PNP]  

### AMERICAN LITERATURE II

**ENGL&245**

- **5 Credits/Units**
- 55 hours of lecture
- **Prerequisite:** A grade of ‘C’ or better in ENGL 101. Survey of American writing from World War I through the present. Literature of all genres is read within historical and cultural settings. Students develop critical reading skills, identify diverse cultural perspectives, and make use of the language and principles of literary analysis to respond in writing to both canonical and non-canonical texts. Credit not allowed for both ENGL 269 and ENGL 245. [HA,GE,SE] [PNP]  

### AMERICAN LITERATURE III

**ENGL&246**

- **5 Credits/Units**
- 55 hours of lecture
- **Prerequisite:** A grade of ‘C’ or better in ENGL 101. Survey of American writing World War I through the present. Literature of all genres is read within historical and cultural settings. Students develop critical reading skills, identify diverse cultural perspectives and make use of the language and principles of literary analysis to respond in writing to both canonical and non-canonical texts. Credit not allowed for both ENGL 270 and ENGL 246. [HA,GE,SE] [PNP]  

### NATURE AND THE HUMANITIES

**ENGL 270 and ENGL 246.** [HA, GE, SE] [PNP]  

**Prerequisite:** Credit not allowed for both ENGL 269 and ENGL 245. **Prerequisite:** Credit not allowed for both ENGL 264 and ENGL 226. **Prerequisite:** Credit not allowed for both ENGL 268 and ENGL 244. **Prerequisite:** Credit not allowed for both ENGL 140 and ENGL 240.
An introductory survey of literature relevant to the gay, lesbian, bisexual, and trans communities and their historical predecessors from pre-modern times to the present. [HA, SE] [PNP]

WORLD LITERATURE I
ENGL&254 5 Credits/Units

55 hours of lecture
Prerequisite: A grade of ‘C’ or better in ENGL 101.
Survies the literary, cultural, and human significance of influential works of international Western and non-Western literary traditions from the ancient world to the early Middle Ages. Approaches cultural diversity through a critical study of selected world masterpieces and their historical, social, political and philosophical frameworks through reading, reflection, and literary analysis. Evaluates in writing world literature in relation to global contexts. Credit not allowed for both ENGL 260 and ENGL 254. [HA,GE,SE] [PNP]

WORLD LITERATURE II
ENGL&255 5 Credits/Units

55 hours of lecture
Prerequisite: A grade of ‘C’ or better in ENGL 101.
Survies the literary, cultural, and human significance of influential works of international Western and non-Western literary traditions from the 10th to the 18th centuries. Approaches cultural diversity through a critical study of selected world masterpieces and their historical, social, political and philosophical frameworks through reading, reflection, and literary analysis. Evaluates in writing world literature in relation to global contexts. Credit not allowed for both ENGL 261 and ENGL 255. [HA,GE,SE] [PNP]

WORLD LITERATURE III
ENGL&256 5 Credits/Units

55 hours of lecture
Prerequisite: A grade of ‘C’ or better in ENGL 101.
Survies the literary, cultural, and human significance of influential works of international Western and non-Western literary traditions from the 19th to the 20th centuries. Approaches cultural diversity through a critical study of selected world masterpieces and their historical, social, political and philosophical frameworks through reading, reflection, and literary analysis. Evaluates in writing world literature in relation to global contexts. Credit not allowed for both ENGL 262 and ENGL 256. [HA,GE,SE] [PNP]

AMERICAN MULTIETHNIC LIT
ENGL 265 3 Credits/Units

33 hours of lecture
Prerequisite: A grade of ‘C’ or better in ENGL 101 or eligibility for ENGL 102.
Classics of American writing from the 19th to the 20th centuries. Emphasis on works of international Western and non-Western literary traditions from the 10th to the 18th centuries. Approaches cultural diversity through a critical study of selected world masterpieces and their historical, social, political and philosophical frameworks through reading, reflection, and literary analysis. Evaluates in writing world literature in relation to global contexts. Credit not allowed for both ENGL 265 and ENGL 255. [PNP]

AMERICAN LITERATURE
ENGL 267 3 Credits/Units

55 hours of lecture
Prerequisite: A grade of ‘C’ or better in ENGL 101 or eligibility for ENGL 102.
Survies survey of American writing from World War I to the present. Emphasis on writings as ‘windows’ to American ethnic experiences, cultures, and histories within larger American historical contexts. By building close reading, literary analysis, and writing skills, encourages students to develop understanding of political, social, and historic climate as it helps shape and is shaped by literature. [HA,SE] [PNP]

PACIFIC NORTHWEST LITERATURE
ENGL 271 5 Credits/Units

55 hours of lecture
Prerequisite: A grade of ‘C’ or better in ENGL 101 or eligibility for ENGL 102.
Focus on reading and writing about literature from the Pacific Northwest to explore how the region is defined, imagined, and represented in literature through an emphasis on close reading and literary analysis. Explores the development of regionalism, national and regional histories and other identity-producing media in diverse cultural contexts. [HA,SE] [PNP]
INTRODUCTION TO SHAKESPEARE  
ENGL 272  
5 Credits/Units

Prerequisite: A grade of 'C' or better in ENGL 101 or eligibility for ENGL 102.

Readings of Shakespeare's works including (but not limited to) selected tragedies, comedies, and historical plays. Shakespeare's works are read within their historical and cultural settings. Students will also learn methods of literary analysis and apply them in written papers. [HA,SE] [PNP]

ETHICS AND POLICY IN HEALTHCARE II  
ENGL 273  
3 Credits/Units

Concurrent enrollment in NURS 261, NURS 262, NURS 263 and NURS 264.

Prerequisite: A grade of 'C' or better in NURS 251, NURS 252, NURS 253 and NURS 254.

ENGL 273 explores values, ethics and legal decision-making frameworks and policies used to support the well-being of people and groups within the context of the healthcare professions including nurse practice acts, and state and federal laws. ENGL 273 is taught concurrently with NURS 261. The role of the professional nurse is examined in relation to policy and ethics with analysis of case studies allowing for application of concepts in the health care setting.

ADVANCED FICTION WRITING  
ENGL 275  
5 Credits/Units

Prerequisite: A grade of 'C' or better in ENGL 121, 125, or 127 or consent of Instructional Unit.

Continuation of introductory creative writing courses, with an emphasis on writing short fiction and advancing fundamental fiction writing skills. Further development of reading and analysis of diverse examples of fiction; class discussion and written critiques of student and published writing; writing exercises to continue to develop key elements of craft; strategies for editing and revision; participation in the larger literary world through an introduction to publication, literary readings, and other appropriate literary events. [HB, SE]

ADVANCED POETRY WRITING  
ENGL 276  
5 Credits/Units

Prerequisite: A grade of 'C' or better in ENGL 121 or 126.

Exploration of poetry writing and publication strategies, focusing on using literary devices to craft and revise original work through discussion of diverse examples of the genre, and through written critiques of student and published poetry. [HB,SE]

LITERARY PUBLICATION  
ENGL 277  
5 Credits/Units

Prerequisite: Eligibility for ENGL 101.

Exploration of publication strategies with a focus on selecting and editing short fiction, poetry, and creative non-fiction for Clark's art and literary journal, Phoenix. Topics include study of current literary journals, reading and analysis of diverse examples of published writing, development of original writing and interviews, collaborative work on design and layout, and participation in promotion and marketing for the journal. Intended for Phoenix literary staff, creative writing students, and others interested in the literary publication and editing. [HB] [PNP]

SELECTED TOPICS  
ENGL 280  
3 Credits/Units

33 hours of lecture

Course focuses on selected topics in English. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [SE]

SPECIAL PROJECTS  
ENGL 290  
5 Credits/Units

Prerequisite: Consent of Instructional Unit.

Opportunity to plan, organize, and complete special projects approved by the department. [GE]
ENGLISH AS A SECOND LANGUAGE (ESL)

ESL 003
22 hours of lecture
For new ESL students only; assessing new students in basic skills and learning styles; identifying barriers to their student success; helping students understand Clark College and Basic Education.

ESL 005
88 hours of lecture / 44 hours of lab
Variable topics in ESL and content to reflect the selected topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the term class schedule.

ESL 007
77 hours of lecture
Concurrent enrollment in ESL 009 ESL Foundations: Spoken/Written Communication.
Prerequisite: Current CASAS scores in listening from below 162 to 199. Learn to use basic problem-solving and technology to listen actively, read with understanding, and convey ideas in writing. Upon successful completion of both ESL 007 and ESL 009, students will have gained the skills to transition into Fast Track 1.

ESL 009
99 hours of lecture
Concurrent enrollment in ESL 007 ESL Foundations: Problem-solving and Technology.
Prerequisite: Current CASAS scores in reading from below 180 to 200 and CASAS scores in listening up to 199. Learn to listen actively, speak so others can understand, read with understanding, and convey ideas in writing. Upon successful completion of ESL 007 and ESL 009, students will have gained the skills to transition into Fast Track 1.

ESL 010
99 hours of lecture / 99 hours of lab
Prerequisite: CASAS score below 200 in Listening or Reading. This class will help you to improve your English skills in listening, speaking, reading, and writing. You will learn new skills to help you in your everyday life. You will learn about technology by using a computer to do some of your schoolwork. I-DEA is a blended course; half of your class time will be face-to-face (in the classroom with teacher and students), and half will be online (on the computer). Your teachers can help you with online work during lab time, after the face-to-face class time.

ESL 013
66 hours of lecture
Prerequisite: CASAS scores below 200 in Listening and/or Reading. Learn how and/or improve ability to listen, speak, read, and write basic English with the support of two teachers. Upon successful completion of Foundations (ESL 013): Communications and Foundations (ESL 015): Problem-solving and Technology, students will have gained the skills for higher level Transitional Studies courses.

ESL 015
55 hours of lecture
Prerequisite: CASAS score below 200 in Listening and/or Reading. Learn to apply numeracy, and collaborative reading for basic problem-solving and use technology to improve listening, reading and numeracy. Upon successful completion of Mini-ESL Foundations Part 2: Problem-solving and Technology and Mini-ESL Foundations Part 1: Spoken/Written Communication, students will have gained the skills for higher level Transitional Studies courses.

ESL 045
22 hours of lecture
Concurrent enrollment in ESL 047 and ESL 049.
Prerequisite: Current CASAS test scores in all skills. Introduction and development of study skills plus reflection on various strategies of successful college students. Upon successful completion of Intensive Explorations, students will have gained the technology (especially computer) and study skills as well as the oral and written communication skills to transition into Fast Track One. CASAS Listening test score between 200 and 209. CASAS Reading test score between 201 and 210.

EXPLORATIONS: ORAL COMMUNICATION/TECH
ESL 046
66 hours of lecture
Prerequisite: Current CASAS test scores in all skills. Introduction and development of technology (especially computer) skills to support oral communication. Development and practice of speaking and listening communication skills appropriate to ESL L4 (Intermediate ESL), and sufficient to prepare students for Fast Track 1. Upon successful completion of Explorations: Oral Communication/Tech., students will have gained the technology (especially compute) and study skills as well as the oral communication skills to transition into Fast Track 1. CASAS Listening test score between 200 and 209.

EXPLORATIONS: WRITTEN COMMUNICATION/TECH
ESL 048
66 hours of lecture
Prerequisite: Current CASAS test scores in all skills. Introduction and development of technology (especially computer) skills to support written communication. Development and practice of reading and writing communication skills appropriate to Intermediate ESL and sufficient to prepare students for Fast Track One. Upon successful completion of Explorations, students will have gained the technology (especially computer) and the oral and written communication skills to transition into Fast Track One. CASAS Reading test score between 201 and 210. OR successful completion of Foundations or ESL I-DEA.
INTENSIVE EXPLORATIONS: WRITTEN COMMUNICATION/TECH
ESL 049 7 Credits/Units

77 hours of lecture
Concurrent enrollment in ESL 045 and ESL 047.
Introduction and development of technology (especially computer) skills to support oral communication. Development and practice of reading and written communication skills appropriate to Intermediate ESL, and sufficient to prepare students for Fast Track One. Upon successful completion of Foundations Plus, students will gain the technology (especially computer) and study skills as well as the oral and written communication skills to transition into Fast Track One.

JUMPSTART READING/Writing 1-4
ESL 076 6 Credits/Units

66 hours of lecture
Covers basic strategies to learn to read and comprehend words and word groups in simple text. Also covers basic strategies to write short, structured sentences on familiar topics with some effort but with few errors. Both skills will help students to independently accomplish simple, well-defined, and structured reading and writing activities in a few comfortable and familiar settings.

ESL SELECTED TOPICS
ESL 080 10 Credits/Units

110 hours of lecture
Course will focus on selected ESL topics. Course theme and content will change to reflect the new topic. Because of the variations, this course is repeatable for credit for different topics.

ESL LITERACY SUPPORT
ESL 090 2 Credits/Units

22 hours of lecture
Prerequisite: CASAS Reading test score under 210 and teacher recommendation.
Learn how and/or improve ability to read with understanding and convey ideas in writing. Upon successful completion of ESL Literacy Support, students will have gained skills to improve performance on ESL reading/writing assessments.

ESL MATH FOR TRANSITION
ESL 093 2 Credits/Units

22 hours of lecture
Prerequisite: Current CASAS test scores in all skills.
Math such as fractions, decimals, operations, will be contextualized in real-life contexts, so students can transfer the skills outside of the classroom while they are preparing to transition to CAP Math. CASAS Listening score of 200 or higher. CASAS Reading score of 201 or higher. [PNP]

READING, SPEAKING AND US CITIZENSHIP
ESL 095 3 Credits/Units

33 hours of lecture
Prerequisite: Current CASAS scores in all skills.
Learn reading, writing and oral communication strategies including critical thinking to actively participate in various aspects of Civics including basic knowledge of US history and government, and incorporation of on-line resources for effective US Citizenship interview preparation and engaged citizenship. CASAS Listening and Reading scores of 190 or higher.
ENVIROMENTAL SCIENCE (ENVS)

INTRODUCTION TO ENVIRONMENTAL SCIENCE
ENVS&101
33 hours of lecture / 44 hours of lab
5 Credits/Units

Prerequisite: Eligibility for MATH 096.
Introduction to current topics in environmental science and fundamental principles of ecology. Topics include human population growth, natural resource use, biodiversity, climate change, species interactions, habitat alteration and fragmentation, ecosystem services, carrying capacity and sustainability. Labs will be hands-on investigations of the local environment where students will get an opportunity to collect samples and analyze the environmental quality through the study of soils, biodiversity and water. Many of the labs will be conducted in the field. This course is primarily intended for students majoring or minorin environmental science or environmental studies. [NS]

INTEGRATED ENVIRONMENTAL SCIENCE
ENVS 109
33 hours of lecture / 44 hours of lab
5 Credits/Units

Prerequisite: A grade of 'C' or better in MATH 030 or eligibility for MATH 092.
Introduction to scientific inquiry using the foundations of physical, earth and life sciences. Focus on developing the skills to answer basic questions about scientific phenomena through scientific investigations and the ability to assist and guide others through this process. Designed for non-science majors and addressing the curriculum needs of early childhood educators. [NS]

INTRODUCTION TO SOILS: A LIVING SYSTEM
ENVS 201
33 hours of lecture / 44 hours of lab
5 Credits/Units

An introduction to soils, including biological, chemical and physical properties. Examine the fundamentals of soil ecology, including soil-plant-water interactions, soil fertility, and soil formation. Topics will integrate the study of physical, chemical, geologic, atmospheric and biological systems. Human-soil interactions will be explored in the context of agricultural and ecological systems. [NS, GE, SE]

NATIVE PLANT PROPAGATION: PRINCIPLES & PRACTICE
ENVS 202
33 hours of lecture
3 Credits/Units

Plant propagation techniques, emphasizing native plants, propagation for restoration projects, and unique problems associated with providing appropriate plant material for restoration or conservation purposes. Emphasizes greenhouse and fieldwork, and includes lectures, field trips, and a class project.[NS, GE, SE]

FIELD STUDIES IN ENVIRONMENTAL SCIENCE
ENVS 208
22 hours of lecture / 124 hours of lab
8 Credits/Units

Prerequisite: Completion of a 100- or 200-level biology course, environmental science, or geology course with a grade of 'C' or better, or consent of instructor.
Experiential hands-on learning focusing on ecological relationships and environmental quality of the locations visited. Gain valuable and exciting first-hand experience using scientific and field equipment to take measurements and collect field data. Engage in a current issue pertaining to the area and participate in mock town hall meeting to learn about stakeholders and perspectives. Learn about various state and federal agencies and their approach to land management. Check the schedule to see which locations will be visited and the format for the exploration i.e. extended camping trip, day trips etc. Check schedule to see additional fees that cover food, lodging and transporation. [NS, GE, SE]

INTRODUCTION TO ECOLOGICAL RESTORATION
ENVS 218
33 hours of lecture / 44 hours of lab
5 Credits/Units

Prerequisite: 5 credits in any Environmental Science, Geology or BIOL 101, 140, 141, 142, 143, 145, 150, 208, 221, 222, 223, 224 or BIOL 101 with a grade of 'C' or better; or consent of Instructional Unit.
Learning field techniques required for ecological restoration, interacting with agency personnel and others working in the field of restoration. Participating in the collection, analysis and interpretation of data pertaining to ecological health of various habitats. Projects vary depending upon field locations and agency partnerships. [NS, SE]

ENVIRONMENTAL POLITICS
ENVS 231
55 hours of lecture
5 Credits/Units

Examines the relationship between industrial civilization and the natural environment by exploring underlying ecological philosophies and the economic and political processes by which environmental decisions are made. Emphasis on critical thinking and evaluating alternative points of view. [SS, SE]

SPECIAL PROJECTS
ENVS 290
5 Credits/Units

Prerequisite: Consent of Instructional Unit.
Opportunity to plan, organize, and complete special projects approved by the department. [GE]

SUSTAINABILITY & ENVIRONMENTAL PRACTICES
ENVS 430
44 hours of lecture / 22 hours of lab
5 Credits/Units

Investigate how environmental problems have arisen due to human activities (global warming, air pollution, waste disposal) and their impact on corporate practices, to include the corporate mission, competitive strategy, technology choices, production development decisions, production processes, and corporate responsibilities. Regulations and permits will be reviewed from the perspective of local planning departments. Changes to the environment by using resources at rates that exceed the system's ability to replenish them will also be covered. [NS]
GEOGRAPHY (GEOG)

INTRODUCTION TO GEOGRAPHY
GEOG 100
55 hours of lecture
Survey of our natural environment, earth-sun-moon relationships, cartography, weather and climate, landforms, soils, oceans, and water and biotic resources. Survey of the countries and major features of the world as well as geographic aspects of culture, including the past and present social, political and economic factors that are related to human perception, organization and use of the environment. [SE, SS]

WORLD REGIONAL GEOGRAPHY
GEOG 102
55 hours of lecture
Fundamental geographic concepts and examination of different world regions and the various physical, social, cultural, and political processes that create, shape, and affect them. Survey of several different world regions, such as Sub-Saharan Africa, Europe, the Middle East, Latin American and Southeast Asia, by examination of the environmental, cultural, historical, and economic processes that make each region unique, as well as its connections and commonalities with other world regions. [SE, SS]

HUMAN GEOGRAPHY
GEOG 200
55 hours of lecture
The course provides a foundation for the understanding of fundamental concepts and current ideas in Human Geography. The purpose of the course is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students will gain a broad understanding of the development of cultural, social, political and economic spaces at a variety of scales and the interaction of human societies with the biophysical environment. The significance of spatial and temporal scales will be introduced, and a consideration of ethics and values developed. [SE, SS]

PHYSICAL GEOGRAPHY
GEOG 205
55 hours of lecture
Foundation for the understanding of fundamental concepts and current ideas in physical geography. The systematic study of patterns and processes that have shaped the Earth's surface by understanding our natural environment, earth-sun-moon relationships, cartography, weather and climate, landforms, soils, oceans, and water and biotic resources. Survey continents, countries, natural resources as well as major physical features of our current global landscape. [NS, SE, SS]

ECONOMIC GEOGRAPHY
GEOG 207
55 hours of lecture
Broad patterns, courses, and consequences of interrelationships between economic and geographic forces, processes, and resources. Location of economic activity, population dynamics, strategic resources, global economic flashpoints, patterns/consequences of regional integration. Previously GEOG 107. Credit not allowed for GEOG 207, ECON 107 and GEOG 107. [SE, SS] [PNP]
GEOPOLITICS OF LATIN AMERICA & CARIBBEAN
GEOG 224 5 Credits/Units
55 hours of lecture
Geo-political survey of Latin America and the Caribbean, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. This course will also examine the importance and impact of Latin America and the Caribbean on the rest of the world, as well as examine the impact and influence of the rest of the world on the countries in this region. Credit not allowed for both GEOG 224 and POLS 224. [SS,GE,SE]

SELECTED TOPICS
GEOG 280 5 Credits/Units
55 hours of lecture
Course focuses on selected topics in Geography. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [SE]

SPECIAL PROJECTS
GEOG 290 5 Credits/Units
Prerequisite: Consent of Instructional Unit.
Opportunity to plan, organize and complete special projects approved by the department. [GE]
## GEOLOGY (GEOL)

<table>
<thead>
<tr>
<th>COURSE</th>
<th>CREDITS/UNITS</th>
<th>HOURS</th>
<th>DESCRIPTION</th>
<th>REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRO PHYSICAL GEOL</td>
<td>5 Credits/Units</td>
<td>33 hours of lecture / 44 hours of lab</td>
<td>A dynamic earth, geologic time, origin and identification of minerals and rocks. Volcanoes, earthquakes and the structure of earth in light of plate tectonic theory. One day field trip required. [NS, SE]</td>
<td></td>
</tr>
<tr>
<td>INTRO TO GEOL II: EARTH'S SURFACE PROCESSES</td>
<td>5 Credits/Units</td>
<td>33 hours of lecture / 44 hours of lab</td>
<td>Plate tectonics and the origin of ocean basins and continents. Mass wasting, glaciation, streams, groundwater, deserts, shorelines and deep sea sediments. One day field trip required. [NS, SE]</td>
<td></td>
</tr>
<tr>
<td>HISTORICAL GEOLOGY: THE EARTH THROUGH TIME</td>
<td>5 Credits/Units</td>
<td>33 hours of lecture / 44 hours of lab</td>
<td>Physical, chemical, and biologic evolution of the earth as determined from the rock record. Interpretation of ancient environments through stratigraphy and biostratigraphy. Plate tectonics, earth history, and fossil identification. Field trips required. [NS, SE]</td>
<td></td>
</tr>
<tr>
<td>NORTHWEST GEOLOGY</td>
<td>5 Credits/Units</td>
<td>55 hours of lecture</td>
<td>Geologic evolution of the Pacific Northwest emphasizing the development of the Cascades, Columbia River Plateau, Coast Ranges, Puget-Willamette Lowlands, San Juan Islands, High Lava Plains and the Okanogan Highlands. Field trips required. This class is a non-lab science. [NS, SE]</td>
<td></td>
</tr>
<tr>
<td>COOPERATIVE WORK EXPERIENCE</td>
<td>3 Credits/Units</td>
<td>99 hours of clinical</td>
<td>Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. [GE]</td>
<td></td>
</tr>
<tr>
<td>FIELD STUDIES IN GEOLOGY</td>
<td>6 Credits/Units</td>
<td>22 hours of lecture / 88 hours of lab</td>
<td>Field trip program to study the geologic evolution of an area. Emphasis on interpretation of rocks and their structure. Duration, scope and field trip localities will vary. Food and personal gear provided by student. Maxivans provided for travel. Day hikes may be required. [NS, SE]</td>
<td></td>
</tr>
<tr>
<td>SPECIAL PROJECTS</td>
<td>5 Credits/Units</td>
<td></td>
<td>Opportunity to plan, organize and complete special projects approved by the department. [GE]</td>
<td></td>
</tr>
</tbody>
</table>
HEALTH & PHYSICAL EDUCATION (HPE)

OCCUPATIONAL WELLNESS
HPE 220 3 Credits/Units
22 hours of lecture / 22 hours of lab
Study of wellness and work-life balance. Focusing on developing personalized behavior change strategies aimed at making progress toward optimal wellness in any occupation. Content includes time management, coping with workplace stress; building relationships with coworkers; wellness on a budget, disease prevention and injury prevention. Participating in physical activity is required. In addition to activities that improve strength, flexibility and cardiovascular fitness, other activities may include breathing, stress management, corrective exercise and lifting techniques. Fulfills the Health and Physical Education general education requirement. [HPE, GE, SE]

FITNESS-WELLNESS
HPE 258 3 Credits/Units
22 hours of lecture / 22 hours of lab
Exploration of the connection between fitness and health. Focusing on nutrition, stress, and developing a personalized health plan for lifelong physical activity. Participating in physical activity is required. Activities focus on improving flexibility, strength and cardiovascular fitness. Fulfills the Health and Physical Education general education requirement. [HPE, SE]

MIND BODY HEALTH
HPE 266 3 Credits/Units
22 hours of lecture / 22 hours of lab
Exploration of the mind/body connection. Focusing on health, illness, healing, and developing personalized behavior change strategies to advanced health. Participating in movement activities is required. Activities may include meditation, yoga, tai chi and breathing techniques in addition to activities that improve strength and cardiovascular fitness. Fulfills the Health and Physical Education general education requirement. [HPE, SE] [PNP]

SELECTED TOPICS
HPE 280 5 Credits/Units
55 hours of lecture
Varying topics in Health Physical Education and sports, as listed in the term class schedule. May be repeated for credit. [SE]

SPECIAL PROJECTS
HPE 290 5 Credits/Units
Prerequisite: Consent of Instructional Unit.
Opportunity to plan, organize and complete special projects approved by the department. [GE]
HEALTH (HLTH)

FOOD AND YOUR HEALTH
HLTH 100 2 Credits/Units
22 hours of lecture
Exploration of the connection between food choices and health with an emphasis on whole foods. Focus on developing personalized healthy strategies to advance health. [HE, SE] [PNP]

HEALTH FOR ADULT LIVING
HLTH 101 3 Credits/Units
33 hours of lecture
Exploration of the connection between personal choices and health across multiple dimensions of wellness. Focus on developing personalized behavior change strategies to advance health. [HE, SE]

ENVIRONMENTAL HEALTH
HLTH 103 2 Credits/Units
22 hours of lecture
Exploration of the connection between personal choices, human health, and the environment. Focus on developing personalized behavior change strategies to advance health. [HE, SE]

WEIGHT AND YOUR HEALTH
HLTH 104 2 Credits/Units
22 hours of lecture
Exploration of the multiple factors that contribute to weight-related behaviors and body image. Focus on developing a healthy relationship with food and physical activity, and practicing sustainable skills for effective lifestyle management. [HE, SE] [PNP]

HAPPINESS AND YOUR HEALTH
HLTH 108 2 Credits/Units
22 hours of lecture
Exploration of the connection between happiness and your health. Focuses on science-based strategies to increase happiness, including gratitude, social connections, mindfulness, and stress management. Students will develop personalized behavior change strategies to advance well-being. [HE, SE]

ADULT CPR AND FIRST AID
HLTH 120 1 Credit/Unit
11 hours of lecture
Introduction to adult CPR and general first aid skills that will prepare the student to recognize emergencies, make first aid decisions, and provide care. Upon successful completion of the course, students will receive Adult CPR and Standard First Aid certification.

WILDERNESS FIRST AID
HLTH 122 2 Credits/Units
22 hours of lecture
Prerequisite: Proof of current Adult CPR/AED certification (bring to first class).
Foundation of first aid principles and skills necessary to respond to emergencies where immediate emergency medical services are not available, such as wilderness, remote environments, and urban disasters. [GE, SE]

PEDIATRIC FIRST AID & CPR
HLTH 123 1 Credit/Unit
11 hours of lecture
First aid preparation to prevent injuries and respond to emergencies involving children and infants. Skills include child and infant CPR, use of an AED, first aid, and injury prevention. Successful completion of the course includes certification for first aid, child and infant CPR and AED.

HEALTHCARE PROVIDER CPR AND FIRST AID
HLTH 124 1 Credit/Unit
11 hours of lecture
Cardiopulmonary resuscitation and first aid and for health care providers as required by the Washington Occupation and Health Act. Designed specifically for healthcare providers. Upon successful completion of the course, students will receive Basic Life Support for the Healthcare Provider and First Aid Certifications from the American Heart Association. Students are required to purchase the required text and workbook (available at Clark College Bookstore) and bring to class. [PNP]

CO-OP WORK EXPERIENCE
HLTH 199 3 Credits/Units
99 hours of clinical
Prerequisite: Consent of Instructional Unit.
Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. [GE]

HUMAN SEXUALITY
HLTH 206 2 Credits/Units
22 hours of lecture
Exploration the connection between personal choices and sexual health through the life cycle. Using multiple perspectives, focuses on social, cultural, and historical influences on human sexuality. Topics include sexual biology, gender identity, gender expression, and physical and emotional attraction as well as the development of personalized behavior change strategies to promote safety and advance sexual health. [HE, SE]

WOMEN'S HEALTH
HLTH 207 3 Credits/Units
33 hours of lecture
Exploration of women-specific health issues across the lifespan using a multidimensional approach. Students will evaluate the impact of individual, institutional, and cultural influences on women's health in the United States. Personalized behavior change strategies to advance health will be developed. [HE, SE]

MEN'S HEALTH
HLTH 208 2 Credits/Units
22 hours of lecture
Exploration of men's personal health. Focus on social, cultural and historical influences and on developing personalized behavior change strategies to advance health. [HE, SE]

MULTICULTURAL HEALTH
HLTH 210 3 Credits/Units
33 hours of lecture
Exploration the complex interactions between culture, ethnicity, religion, gender, socioeconomic status, sexual orientation, age, social class, and ability as they relate to health behavior and outcomes. Develop personalized behavior change strategies to advance health. [HA, HE]

CANNABIS AND YOUR HEALTH
HLTH 212 2 Credits/Units
22 hours of lecture
Explores the connection between cannabis and health with a focus on comparing marijuana and hemp, examining scholarly peer-reviewed research findings for medicinal and recreational use, discussing local legalization issues and developing behavior change strategies to advance health. [HPE, SE]
HEALTHY AGING
HLTH 278 2 Credits/Units
22 hours of lecture
Exploration of the connection between personal choices and successful aging across multiple dimensions of wellness. Focus on developing personalized behavior change strategies to advance health. [HE, SE]

SELECTED TOPICS
HLTH 280 3 Credits/Units
33 hours of lecture
Course focuses on selected topics in health. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [SE]

SPECIAL PROJECTS
HLTH 290 5 Credits/Units
Prerequisite: Consent of Instructional Unit.
Opportunity to plan, organize and complete special projects approved by the department. [GE]
## HEALTH INFORMATICS (HI)

### INTRODUCTION TO US HEALTH CARE SYSTEM

**HI 201**

3 Credits/Units

33 hours of lecture

Introduction to U.S. health care systems: the major components and the interaction of elements within the system, including the history, issues and problems of today's system. Topics include the national context and history of health services, international health systems, the role of government in health care, health insurance, Medicaid, Medicare, managed care, hospitals and facilities, health workforce, medical technologies, access and quality of care and the future of the health care system. Focus on the future direction of healthcare and identifying likely changes. Readings and discussion cover consumer, industry and governmental agendas related to improving the US health care system. [GE]

### INTRODUCTION TO HEALTH CARE QUALITY

**HI 202**

3 Credits/Units

33 hours of lecture

Introduction to the principles, processes and procedures associated with measuring, managing and improving quality in the delivery of health care, health services and health care management. Presents various national efforts, systems and tools used in quality assessment, performance, improvement and measurement. [GE]

### INTRODUCTION TO HEALTH SERVICES MANAGEMENT

**HI 210**

3 Credits/Units

33 hours of lecture

Introduction to managerial skills and behaviors applied to components of health care organizations at several levels: including individual, interpersonal, group, intergroup, system, and inter-organization; managerial challenges faced by health care managers and skills essential for successfully planning, organizing, directing, and controlling. Topics include strategic and operational planning, human resource management, motivation, communication, conflict resolution, organizational structures, health care budgeting and finance. [GE]

### INTRODUCTION TO HEALTH INFORMATICS

**HI 211**

3 Credits/Units

33 hours of lecture

Introduction to health informatics, the application of computers, communication and information technologies combined with systems used in problem solving, decision making to improve health and health care. Topics include a survey of history, basic knowledge of health informatics, data management, standards and tools used in the support of health care delivery. Emphasis on impact of information technology on the health care industry and vice versa. Intended as a survey of the emerging field of health informatics, allowing interested students to learn its significance, its breadth, and its opportunities. [GE]
HEALTH OCCUPATIONS (HEOC)

BASIC CONCEPTS OF ANATOMY AND PHYSIOLOGY
HEOC 100 4 Credits/Units
33 hours of lecture / 22 hours of lab
Introduction to basic anatomical and physiological concepts as they apply to the following health occupations: EMT, Pharmacy Tech, Medical Assisting, and Phlebotomy. Basic overview of all body systems including the respiratory, muscular, urinary, reproductive, digestive, cardiovascular, lymphatic, immune, nervous, skeletal, integumentary and the senses. The course includes a laboratory component that is integral to the course concepts and skills. [GE]

HEALTH CARE DELIVERY & CAREER EXPLORATION
HEOC 104 3 Credits/Units
33 hours of lecture
An introduction to the healthcare delivery system in the United States and the many health professions available as career choices, as well as their academic, licensing, and certification requirements. [GE]

AIDS EDUCATION
HEOC 120 1 Credit/Unit
11 hours of lecture
A comprehensive look at AIDS, etiology, epidemiology, clinical manifestations, treatment, transmission, testing, legal, ethical and psychological issues. Fulfills Washington State Department of Licensing requirement for license renewal for persons governed by Chapter 18.130.RCW. [GE] [PNP]

PHARMACOLOGY FOR HEALTH ASSISTANTS
HEOC 130 3 Credits/Units
33 hours of lecture
Prerequisite: BIOL 164 (or 160) or HEOC 100, BMED 110, consent of Health Occupations or Business Technology Advisor.
Introduction to the basics of medication administration including trade and generic names of prescription and over-the-counter medications commonly prescribed, medication classifications, routes of administration, dosages, effects and implications and appropriate methods of documentation. [GE] [PNP]

LABORATORY PROCEDURES FOR THE MEDICAL OFFICE
HEOC 160 4 Credits/Units
22 hours of lecture / 44 hours of lab
Prerequisite: A grade of 'C' or better in BTEC 163 or consent of the Health Occupation Advisor.
Specimen collection and processing. Basic laboratory tests: blood count, microscopic urine tests; microbiology specimen handling (including gram smears and basic culture techniques) blood typing and prepared test kit use. Equipment use and maintenance. Re-agent storage and handling. Lab safety emphasized. [GE]

COOPERATIVE WORK EXPERIENCE
HEOC 199 5 Credits/Units
165 hours of clinical
Prerequisite: Consent of Instructional Unit.
Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. [GE]

SELECTED TOPICS
HEOC 280 5 Credits/Units
55 hours of lecture
Selected topics in Health Occupations. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Specific topics are listed in the term class schedule. [GE]

SPECIAL PROJECTS
HEOC 290 15 Credits/Units
Prerequisite: Consent of the Science and Health Sciences Dean.
Learning contract with the student to meet specialized needs of the individual. Credit based upon the type of learning activities planned. Credit not applicable toward a major at Clark College. [GE]
## HISTORY (HIST)

### WORLD CIVILIZATIONS
- **HIST&126**: 5 Credits/Units
  - 55 hours of lecture
  - The beginnings of civilization, c. 3500 BCE to the High Middle Ages, c. 950 CE. Areas to be covered include the ancient Near East, Egypt, India, China, Greece, Rome, and early medieval Europe. [SE, SS]

### WORLD CIVILIZATIONS II
- **HIST&127**: 5 Credits/Units
  - 55 hours of lecture
  - The High Middle Ages through the Late Middle Ages, the Renaissance and Reformation eras, the emergence of early modern society, witchcraft, the Enlightenment, the formation of nation-states and continued historical development in Europe, China, India, Africa, the Near East, plus Central and South America. [SE, SS]

### WORLD CIVILIZATIONS III
- **HIST&128**: 5 Credits/Units
  - 55 hours of lecture
  - The French Revolution through modern times. Incorporated into this framework are the political, military, economic, social, cultural and religious manifestations throughout the various regions of the world. [SE, SS]

### UNITED STATES HISTORY I
- **HIST&146**: 5 Credits/Units
  - 55 hours of lecture
  - Pre-Columbian era, colonial settlements and foundations of American institutions, seeds of revolution, Confederation and Constitution, federalism and states' rights, Jacksonian era. [SE, SS]

### UNITED STATES HISTORY II
- **HIST&147**: 5 Credits/Units
  - 55 hours of lecture
  - Antebellum reform, Manifest Destiny, roots of Southern secession, Civil War and Reconstruction, rise of big business and organized labor, immigration and assimilation, American Imperialism, Progressive reform movement and World War I. [SE, SS]

### UNITED STATES HISTORY III
- **HIST&148**: 5 Credits/Units
  - 55 hours of lecture
  - The Twenties, the Great Depression and the New Deal, World War II, the Cold War consensus, Vietnam and the Watergate era, globalization and the 21st century. [SE, SS]

### COOPERATIVE WORK EXPERIENCE
- **HIST 199**: 3 Credits/Units
  - 99 hours of clinical
  - **Prerequisite**: Consent of Instructional Unit.
  - Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. [GE]

### PACIFIC NORTHWEST HISTORY
- **HIST&214**: 5 Credits/Units
  - 55 hours of lecture
  - Survey of the political, cultural, economic and social development of the Pacific Northwest with special emphasis on Washington State history. [SE] [PNP]

### WOMEN IN U.S. HISTORY
- **HIST&215**: 5 Credits/Units
  - 55 hours of lecture
  - The role of women in America from the Native American women up to today. Included within these parameters will be women's contributions and status within the family, the economy, the religious communities, the legal and political systems, and the culture. [SE, SS] [PNP]

### NATIVE AMERICAN HISTORY
- **HIST&219**: 5 Credits/Units
  - 55 hours of lecture
  - A survey of Native American history from the pre-Columbian era to the Twentieth century. Topics include Indian cultures, treaty making and breaking, Indian patriots, and law and Indian rights. [SE]

### EAST ASIAN HISTORY
- **HIST 221**: 5 Credits/Units
  - 55 hours of lecture
  - Survey of Far Eastern history from 1800 to the present. Primary emphasis will be placed on Far East - United States diplomacy and the emergence of the Far East in the modern world. [SE]

### HISTORY OF GENOCIDE
- **HIST 231**: 3 Credits/Units
  - 33 hours of lecture
  - Examination of several incidences of genocide beginning with the extermination of the Herero of Namibia in the late 19th century; utilizing the definition of genocide developed by Raphael Lemkin and adopted by the United Nations; developing criteria for recognizing when and where genocide has occurred, based on reading and lectures; developing criteria to identify a genocide in the making; designing an action plan to extend the lessons of the course. [SE, SS]

### WOMEN IN WORLD HISTORY I
- **HIST 251**: 5 Credits/Units
  - 55 hours of lecture
  - A survey course exploring the role of women in world history from pre-historical times up to the pre-Industrial Age. Included within these parameters is the role of women in the family, economy, culture, religion and political structures of their given societies. Topics include: the development of patriarchy and misogyny; women's contributions to Eastern, Middle Eastern and Judeo/Christian religious experiences; and women's roles in Africa and South America. [SE, SS]

### WOMEN IN WORLD HISTORY II
- **HIST 252**: 5 Credits/Units
  - 55 hours of lecture
  - A survey course exploring the role of women in World History from the pre-Industrial Age to modern times. Included within these parameters is the role of women in the family, economy, culture, religion and political structures of their given societies. Topics include: the Scientific Revolution and the Enlightenment; origins of feminism; and the equal rights movement as it applies to voting, property ownership and areas of marriage and divorce. [SS, SE]
AMERICAN DIPLOMATIC HISTORY
HIST 255 5 Credits/Units
55 hours of lecture
The development of America's relationship with other governments and the global community from WWI to the First Gulf War, looking for specific patterns of behavior, such as isolationism, neutral rights, market expansion, brinkmanship and foreign intervention to explain how America's role and image in the world has changed over time. Topics include: World War I, The Good Neighbor Policy, World War II, The Cold War, The Vietnam War, Detente, and The First Gulf War. [SE]

AFRICAN HISTORY
HIST 260 5 Credits/Units
55 hours of lecture
Survey of the period from gathering/hunting societies through African independence, with focus on major events from an African perspective, including Africa's discovery of Europe, and resistance to colonialism. Prior completion of HIST 126, 127, or 128 (or HIST 101, 102 or 103) recommended. [SE] [PNP]

AFRICAN-AMERICAN HISTORY
HIST 275 5 Credits/Units
55 hours of lecture
Survey of the history of the African-American experience from 1619 to the present. [SE] [PNP]

SELECTED TOPICS
HIST 280 5 Credits/Units
55 hours of lecture
Selected topics in History as listed in the term class schedule. May be repeated for credit. [SE]

HISTORY OF LATIN AMERICA
HIST 285 5 Credits/Units
55 hours of lecture
Survey of Latin American history, examining social, economic, political, cultural and intellectual trends and developments from ancient civilizations to the present Latin America in transition. [SE]

SPECIAL PROJECTS
HIST 290 5 Credits/Units
Prerequisite: Consent of Instructional Unit.
Opportunity to plan, organize and complete special projects approved by the department. [GE]
### HONORS (HONS)

<table>
<thead>
<tr>
<th>HONORS SEMINAR: SELECTED TOPICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HONS 280</td>
</tr>
</tbody>
</table>

55 hours of lecture

The study of a single theme from a multi-disciplinary perspective.

Students should come to understand the interdisciplinary nature of education, and the relevance of education to contemporary issues.

The goal of the seminar is to provide students with information, methodologies, and experience beyond their major field of study.

Admission to the Honors Program required. [SE]

### SPECIAL PROJECTS: HONORS

| HONS 290                        | 6 Credits/Units |

**Prerequisite:** Consent of the Instructional Unit.

Opportunity to plan, organize and complete special projects approved by the department.
HUMAN DEVELOPMENT
(HDEV)

<table>
<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
<th>CREDITS/_UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDEV 100</td>
<td>CAREER AND LIFE PLANNING</td>
<td>3</td>
</tr>
<tr>
<td>33 hours of lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Examination of personal values, interests, personality preferences, skills and abilities for the purpose of determining career, educational and leisure activities. Introduction to career development theory, occupational information resources and decision-making strategies. Credit not allowed for both HDEV 100 and 101. [GE]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDEV 101</td>
<td>CAREER EXPLORATION</td>
<td>2</td>
</tr>
<tr>
<td>22 hours of lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategies for career choice and change: utilizing career assessment tools, personal preferences, and occupational resources to make informed career and educational decisions. Credit not allowed for both HDEV 100 and 101. [GE]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDEV 103</td>
<td>ANGER AND CONFLICT MANAGEMENT</td>
<td>2</td>
</tr>
<tr>
<td>22 hours of lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop self-control and positive personal power. Learn about personal anger triggers, appropriate versus inappropriate anger, family dynamics, communication, assertiveness, and conflict management strategies. Learn to use anger instead of letting it use you! Does not fulfill any court-mandated anger management course requirement. [GE,HR]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDEV 105</td>
<td>SELF-ESTEEM</td>
<td>2</td>
</tr>
<tr>
<td>22 hours of lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guided experience in self-motivation, values clarification, and empathetic regard for others. Structured small groups. [GE,HR]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDEV 116</td>
<td>MOTIVATION AND STUDY SKILLS</td>
<td>2</td>
</tr>
<tr>
<td>22 hours of lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategies for developing student behaviors and attitudes consistent with achieving success in college. Topics include campus resources to support student success; building effective study skills; developing skills for academic planning; time management and stress management. Appropriate for any student, particularly those working to improve basic skills and abilities necessary for higher level college courses. Credit not allowed for both HDEV 116 and 117. [GE]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDEV 117</td>
<td>COLLEGE SUCCESS</td>
<td>3</td>
</tr>
<tr>
<td>33 hours of lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategies for successful student performance, including goal setting, academic planning, critical thinking and stress management. Focus on building effective academic skills of planning, memorizing, reading, note taking and test taking; identifying, utilizing, and evaluating campus resources and support services; fostering student responsibility for individual learning and behaviors promoting student achievement. College-level reading skills recommended. Credit not allowed for both HDEV 116 and HDEV 117. [GE]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDEV 120</td>
<td>PRACTICAL REASONING AND DECISION MAKING</td>
<td>3</td>
</tr>
<tr>
<td>33 hours of lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop, analyze, evaluate and apply critical thinking to academic, career and personal pursuits. College level reading and eligibility for ENGL 101 are strongly recommended. [GE] [PNP]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDEV 123</td>
<td>RELATIONSHIPS</td>
<td>2</td>
</tr>
<tr>
<td>22 hours of lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategies for strengthening relationships of all types. Designed to help participants explore relationship patterns and styles; information and skill building to facilitate more successful and satisfying relationships both personally and professionally. [GE,HR]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDEV 125</td>
<td>BASIC MINDFULNESS SKILLS</td>
<td>2</td>
</tr>
<tr>
<td>22 hours of lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mindfulness skills practice enhances physical and psychological wellbeing. Students will learn basic theory and application of these techniques for an effective mindfulness practice. [GE] [PNP]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDEV 127</td>
<td>ASSERTIVENESS</td>
<td>3</td>
</tr>
<tr>
<td>33 hours of lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaches skills needed to achieve personal goals related to assertive behavior. Focuses on reducing emotional blocks and changing thoughts, feelings, and behavior to enable one to act in their own best interest and to express themselves in challenging situations without excessive anxiety or anger. Role play is used to demonstrate and practice skills. Recommended for both those who find it difficult to speak up and those who appear abrasive. [GE, HR]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDEV 127</td>
<td>INTRO TO SERVICE LEARNING &amp; CIVIC ENGAGEMENT</td>
<td>2</td>
</tr>
<tr>
<td>22 hours of lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The concept of service learning and its potential for inspiring civic engagement and community-based problem solving. Effective democratic citizenship demands awareness, knowledge, involvement, problem solving, and leadership. Through the development of a Community Action Project, we will explore all of these factors and their contributions to the development of democratic citizenship. Note: 10 hour service project requirement. [GE,HR]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDEV 186</td>
<td>STRESS MANAGEMENT</td>
<td>1</td>
</tr>
<tr>
<td>11 hours of lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress is an inevitable part of life affecting health, productivity, and relationships. Too little or too much stress can cause problems. Discover your unique reactions to stress and new options for handling stressful situations. [GE,HR]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDEV 195</td>
<td>WORKPLACE SUCCESS</td>
<td>1</td>
</tr>
<tr>
<td>11 hours of lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learn how to analyze your current work experiences to increase your success and potential for advancement. Gain knowledge specific to your work demands, develop transferable skills in human relations, information, and resource management. Satisfies the concurrent enrollment requirements for Co-op Work Experience. [GE,HR]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PORTFOLIO DEVELOPMENT
HDEV 198
1 Credit/Unit
11 hours of lecture
A career/employment portfolio will be developed, including a career goals statement, qualifications brief, resume, work samples, recommendations and references. Learn to effectively use the portfolio to achieve employment goals. Satisfies the concurrent enrollment requirement for co-op work experience. [GE, HR]

COOPERATIVE WORK EXPERIENCE
HDEV 199
5 Credits/Units
165 hours of clinical
Concurrent enrollment in HDEV 195, 198 or 200 required.
Prerequisite: Consent of Instructional Unit.
Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Course may be repeated for credit. Up to 15 credits may be used as general elective credit. [GE]

PROFESSIONAL DEVELOPMENT
HDEV 200
2 Credits/Units
22 hours of lecture
Job search strategies and techniques using the latest techniques and technologies, will be discussed and practiced, including preparing an electronic resume for the Internet, e-mail and computer scanner. Various methods to conduct your personalized labor market research, prepare effective cover letters, and how to secure informational or employment interviews will be learned. Guest speakers from local business and industry to speak about etiquette and ethics in the work place. May satisfy concurrent enrollment for Co-op Work Experience. [GE, HR]

SELECTED TOPICS
HDEV 280
3 Credits/Units
33 hours of lecture
Variety of topics in human development as listed in the term class schedule. May be repeated for credit. [GE]

SPECIAL PROJECTS
HDEV 290
5 Credits/Units
Prerequisite: Consent of Instructional Unit.
Opportunity to plan, organize and complete special projects approved by department 15 credits maximum. [GE]
HUMAN SERVICES
SUBSTANCE ABUSE (HSSA)

INTRO TO ADDICTIVE DRUGS
HSSA&101 5 Credits/Units

55 hours of lecture
Basic theories course: effects on the body, diagnosis, treatment, and prevention of substance abuse. Emphasis on alcohol abuse and related problems in individuals and society. [GE]
## INTENSIVE ENGLISH LANGUAGE PROGRAM (IELP)

### ESSENTIAL WRITING

**IELP 061**  
55 hours of lecture  
**Prerequisite:** Written assessment score of 0-2 and CaMLA EPT score of 1 to 39; or consent of Instructional Unit.  
For learners of English language who need to develop/improve writing skills at the beginning to low-intermediate level of academic English. Designed for students who have some prior English study, rather than true beginners. The goal is to develop writing skills for general and academic purposes, with emphasis on sentence and paragraph level writing. Students will improve written fluency as well as accuracy in writing, grammar, and vocabulary use.

### INTERMEDIATE WRITING

**IELP 071**  
5 credits/units  
**Prerequisite:** Written assessment score of 3 and CaMLA EPT score of 40-54; a grade of 'C' or better in IELP 061; or consent of Instructional Unit.  
For learners of English language who need to improve writing skills at the intermediate level of academic English. Includes review and mastery of skills developed in IELP 061. The goal is to develop writing skills for general and academic purposes, with emphasis on paragraph, short essay, and other short text writing. Students will improve written fluency as well as accuracy in writing, grammar, and vocabulary use. Credit not allowed for both ENL 081 and IELP 071.

### ESSENTIAL ORAL COMMUNICATION

**IELP 062**  
55 hours of lecture  
**Prerequisite:** CaMLA EPT score of 1 to 39; or consent of Instructional Unit.  
For learners of English language who need to develop/improve oral communication skills at the beginning to low-intermediate level of academic English. Designed for students who have had some prior English instruction, rather than true beginners. Students will develop skills and strategies for speaking and comprehending spoken English in general, and informal and formal academic contexts including conversations, small group and class discussion. They will also learn how and/or improve ability to listen actively, speak so others can understand and develop skills to improve communication across cultural boundaries.

### INTERMEDIATE ORAL COMMUNICATION

**IELP 072**  
5 credits/units  
**Prerequisite:** A grade of 'C' or better in IELP 062; CaMLA EPT score of 40-54; or consent of Instructional Unit.  
For learners of English language who need to develop/improve oral communication skills at the intermediate level of academic English. Students will develop skills and strategies to carry out some complex medium-length communication tasks in informal and formal academic contexts including conversations, small group, class discussion and short presentations and will learn how and/or improve ability to listen actively, speak so others can understand and develop skills to improve communication across cultural boundaries. Credit not allowed for both ENL 082 and IELP 072.

### ESSENTIAL READING

**IELP 063**  
55 hours of lecture  
**Prerequisite:** CaMLA EPT score of 1 to 39; or consent of Instructional Unit.  
This course is for learners of English language who need to develop/improve reading skills at the beginning to low-intermediate level of academic English. This course meets the needs of students who have had some prior English study, rather than true beginners. The primary goal of this course is to develop reading ability for general and academic reading, and improve comprehension of a range of simple, single and multi-paragraph texts. This course prepares students for IELP 073.

### INTERMEDIATE READING

**IELP 073**  
5 credits/units  
**Prerequisite:** CaMLA EPT score of 49-54; a grade of 'C' or better in IELP 063; or consent of Instructional Unit.  
For learners of English who need to improve reading skills at the intermediate level of academic English. The primary goal is to develop reading ability for general and academic reading, and improve comprehension of a range of authentic and some modified multi-paragraph texts. Credit not available for both ENL 099A-Reading and IELP 073.

### ESSENTIAL INTEGRATED SKILLS

**IELP 064**  
33 hours of lecture  
**Prerequisite:** Written assessment score of 0-2 and CaMLA EPT score of 1 to 39; or consent of Instructional Unit.  
For learners of English language who need to develop/improve all language skills at the beginning to low-intermediate level of academic English. Meets the needs of students who have had some prior English study, rather than true beginners. The primary goal is to develop/improve English skills, while exploring basic content in units and beginning to utilize learning technology at Clark as well as developing basic problem solving skills.

### INTERMEDIATE INTEGRATED SKILLS

**IELP 074**  
3 credits/units  
**Prerequisite:** Written assessment score of 3 and CaMLA EPT score of 40-54; a grade of 'C' or better in IELP 064; or consent of Instructional Unit.  
For learners of English language who need to improve all language skills at the intermediate level of academic English. The primary goal is to improve English skills, while exploring academic content, utilizing learning technology and developing problem solving skills.
ADVANCED WRITING
IELP 081 5 Credits/Units
55 hours of lecture
Prerequisite: Written assessment score of 4 and CaMLA EPT score of 55-64; a grade of 'C' or better in IELP 071; or consent of Instructional Unit.
For non-native speakers of English who need to improve writing skills at the advanced level of academic English. Includes review and mastery of skills developed in IELP 071. The goal is to develop writing skills for academic purposes, with emphasis on complex sentences and mid-length texts such as essays and other types of academic writing. Students will improve written fluency as well as accuracy in writing, grammar, and vocabulary use. Credit not allowed for both ENL 091 and IELP 081.

ADVANCED ORAL COMMUNICATION
IELP 082 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in IELP 072; CaMLA EPT score of 55-64; or consent of Instructional Unit.
For learners of English language who need to develop/improve oral communication skills at the advanced level of academic English. Students will develop skills and strategies to carry out complex extended communication tasks in informal and formal academic contexts (conversation, group discussion, and simple academic informational or persuasive presentations), improve their ability to listen actively, speak so others can understand and develop skills to improve communication across cultural boundaries. Credit not allowed for both ENL 092 and IELP 082.

ADVANCED READING
IELP 083 5 Credits/Units
55 hours of lecture
Prerequisite: CaMLA EPT score of 55-64; a grade of 'C' or better in IELP 073; or consent of Instructional Unit.
For learners of English language who need to improve reading skills at the advanced level of academic English. The primary is to develop reading ability for general and academic reading and improve comprehension of a range of authentic, basic college-level materials. Credit not allowed for both ENL 099 and IELP 083.

ADVANCED INTEGRATED SKILLS
IELP 084 3 Credits/Units
33 hours of lecture
Prerequisite: Written assessment score of 4 and CaMLA EPT score of 55-64; a grade of 'C' or better in IELP 074; or consent of Instructional Unit.
For learners of English language who need to improve all language skills at the advanced level of academic English. The primary goal is to develop advanced English skills, while exploring a range of academic content, utilizing learning technology and developing problem solving skills.

UPPER ADVANCED WRITING
IELP 091 5 Credits/Units
55 hours of lecture
Prerequisite: Written assessment score of 5 and CaMLA EPT score of 65-74; a grade of 'C' or better in IELP 081; or consent of Instructional Unit.
For learners of English language who need to improve writing skills at the upper advanced level of academic English. Includes review and mastery of skills developed in IELP 081. The goal is to develop writing skills for academic purposes, with emphasis on complex sentences and mid-length texts such as essays and other types of academic writing. Students will improve written fluency as well as accuracy in writing, grammar and vocabulary use in preparation for transfer into college-level courses.
JAPANESE (JAPN)

JAPANESE I
JAPN&121 5 Credits/Units
55 hours of lecture
Primary emphasis on oral communication with additional practice in basic reading and writing. Not open to native speakers except with instructor’s permission. [HA, SE]

JAPANESE II
JAPN&122 5 Credits/Units
55 hours of lecture
Continuation of JAPN 121. Not open to native speakers except with instructor’s permission. Completion of JAPN 121 or equivalent required. [HA, SE]

JAPANESE III
JAPN&123 5 Credits/Units
55 hours of lecture
Continuation of JAPN 122. Not open to native speakers except with instructor’s permission. Completion of JAPN 122 or equivalent required. [HA, SE]

STUDY ABROAD ORIENTATION
JAPN 150 1 Credit/Unit
11 hours of lecture
Prerequisite: A grade of ‘C’ or better or concurrent enrollment in JAPN 122 or above; or consent of Instructional Unit. Preparing students to travel with the Clark College study abroad program in Japan. Successful completion of this course required for students to participate in the travel abroad program. Application and acceptance into the study abroad program also required. [SE]

JAPANESE READING AND WRITING I
JAPN 151 1 Credit/Unit
11 hours of lecture
Reading and writing about various themes and topics in Japanese and English. Focus on manga; short literature, Japanese cultural readings, and letters from Japan. Instruction in English. No prior Japanese experience necessary. [SE][PNP]

JAPANESE READING AND WRITING II
JAPN 152 1 Credit/Unit
11 hours of lecture
Prerequisite: A grade of ‘C’ or better in JAPN 151.
Continuation of reading and writing about various themes and topics in Japanese and English. Focus on manga, short literature, Japanese cultural readings, and letters from Japan. Instruction in English. No prior experience in Japanese necessary. [SE][PNP]

JAPANESE READING AND WRITING III
JAPN 153 1 Credit/Unit
11 hours of lecture
Prerequisite: A grade of ‘C’ or better in JAPN 152.
Continuation of reading and writing about various themes and topics in Japanese and English. Focus on manga, short literature, Japanese cultural readings, and letters from Japan. Instruction in English. No prior experience in Japanese necessary. [SE][PNP]

JAPANESE CULTURE AND SOCIETY
JAPN 171 5 Credits/Units
55 hours of lecture
Introductory study of Japanese culture and society with various topics. Includes learning the traditional elements that have shaped Japanese values such as history, religion, and art. Expands to discuss the social changes and current social issues. Topics include education, gender roles, family structure, etc. Hands-on study is included such as Japanese etiquette, tea ceremony, and calligraphy. [SE]

COOPERATIVE WORK EXPERIENCE
JAPN 199 8 Credits/Units
264 hours of clinical
Prerequisite: Consent of Instructional Unit.
Summer cooperative work experience in Japan. Requires use of Japanese language. Enroll in this course Spring quarter prior to participation abroad. [GE, SE]

JAPANESE IV
JAPN&221 5 Credits/Units
55 hours of lecture
Continuation of First-Year Japanese: speaking, reading and writing with primary emphasis on oral communication. [HA, SE]

JAPANESE READING AND WRITING IV
JAPN&222 5 Credits/Units
55 hours of lecture
Prerequisite: JAPN 221 or equivalent.
Continuation of First-Year Japanese: speaking, reading and writing with primary emphasis on oral communication. [HA, SE]

SELECTED TOPICS
JAPN 280 5 Credits/Units
55 hours of lecture
Course focuses on selected topics in Japanese. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [SE]

SPECIAL PROJECTS
JAPN 290 5 Credits/Units
Prerequisite: Consent of Instructional Unit.
Opportunity to plan, organize and complete special projects approved by the department.
INTRODUCTION TO JOURNALISM

JOUR 101
55 hours of lecture
Prerequisite: ENGL 101 (or ENGL 101) eligibility required.
Introduction to skills fundamental to journalism and newswriting, as well as an understanding of the role and significance of journalists and their work. Topics include the evolution in media and news today, ethical challenges, shifts in audience involvement and technological advances. Writing-intensive activities to master a clear, concise, accurate style. [HA, GE, SE]

COLLEGE NEWS PRODUCTION

JOUR 110
66 hours of lab
Prerequisite: A grade of 'C' or better in JOUR 101, or equivalent, or consent of the Instructional Unit.
Apply and expand upon the skills and lessons acquired in JOUR 101 to produce the Clark College newspaper, 'The Independent.' Develop new expertise and insight in multimedia reporting and editing; photojournalism; digital production and delivery of news; workplace professionalism; ethics; teamwork; advanced reporting, writing and story development; critique; alternative story forms; and project and time management. Besides lectures and lessons, the format includes field work (research) and writing, collaborative problem-solving, exercises, quizzes and production of the final news product. [GE, SE]

DIGITAL NEWS

JOUR 111
55 hours of lecture
Prerequisite: A grade of 'C' or better in JOUR 101 or consent of the Instructional Unit.
Writing-intensive instruction and training in digital news, including an introduction to and practice in online news delivery tools, including audio and video reporting and editing, social media, data visualization, blogs and others. Emphasis on ethical issues. Considerable hands-on work requiring high motivation to work independently as well as collaboratively with classmates and instructor. [HA, GE, SE]

COLLEGE NEWS PRODUCTION

JOUR 120
66 hours of lab
Prerequisite: A grade of 'C' or better in JOUR 101, and successful completion of JOUR 110 or its equivalent, or consent of the Instructional Unit.
Apply and expand upon the skills and lessons acquired in JOUR 101 to produce the Clark College newspaper, 'The Independent.' Develop new expertise and insight in multimedia reporting and editing; photojournalism; digital production and delivery of news; workplace professionalism; ethics; teamwork; advanced reporting, writing and story development; critique; alternative story forms; and project and time management. Besides lectures and lessons, the format includes field work (research) and writing, collaborative problem-solving, exercises, quizzes and production of the final news product. [GE, SE]

COLLEGE NEWS PRODUCTION

JOUR 130
66 hours of lab
Prerequisite: A grade of 'C' or better in JOUR 101, and successful completion of JOUR 120 or its equivalent, or consent of the Instructional Unit.
Apply and expand upon the skills and lessons acquired in JOUR 101 to produce the Clark College newspaper, 'The Independent.' Develop new expertise and insight in multimedia reporting and editing; photojournalism; digital production and delivery of news; workplace professionalism; ethics; teamwork; advanced reporting, writing and story development; critique; alternative story forms; and project and time management. Besides lectures and lessons, the format includes field work (research) and writing, collaborative problem-solving, exercises, quizzes and production of the final news product. [GE, SE]
COLLEGE NEWS PRODUCTION

JOUR 230 3 Credits/Units

66 hours of lab

**Prerequisite:** A grade of ‘C’ or better in JOUR 101, and successful completion of JOUR 220 or its equivalent, or consent of the Instructional Unit.

Apply and expand upon the skills and lessons acquired in JOUR 101 to produce the Clark College newspaper, 'The Independent.' Develop new expertise and insight in multimedia reporting and editing; photojournalism; digital production and delivery of news; workplace professionalism; ethics; teamwork; advanced reporting, writing and story development; critique; alternative story forms; and project and time management. Besides lectures and lessons, the format includes field work (research) and writing, collaborative problem-solving, exercises, quizzes and production of the final news product. [GE, SE]

NEWS EDITING

JOUR 272 3 Credits/Units

33 hours of lecture

**Prerequisite:** ENGL 135 (or ENGL 111) or JOUR 101.

Basic editing skills. Emphasis on proofreading, clarity, trimming headlines. Basic modular layout, editor responsibilities and Associated Press Style. [GE]

SELECTED TOPICS:

JOUR 280 3 Credits/Units

33 hours of lecture

The course focuses on selected topics in Journalism. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the term class schedule. [GE]

SPECIAL PROJECTS

JOUR 290 5 Credits/Units

**Prerequisite:** Consent of Instructional Unit.

Opportunity to plan, organize, and complete special projects approved by the department. [GE]
MACHINING TECHNOLOGY (MACH)

BASIC GENERAL MACHINING PROCESSES
MACH 111 5 Credits/Units
22 hours of lecture / 66 hours of lab
Instruction and practical application in general shop safety, safe practices and dangers of a machine shop environment. Demonstrations of proper use of micrometers and measurement tools. Procedures for deburring parts. Types of drill bits and their uses. Drill bit sharpening. Use of bandsaws and bandsaw blade welders. [GE]

BASIC ENGINE LATHE PROCESSES I
MACH 112 5 Credits/Units
22 hours of lecture / 66 hours of lab
Prerequisite: A grade of 'C' or better in MACH 111 or concurrent enrollment in MACH 111.
Instruction and practical application of engine lathe nomenclature and safety. Calculate speeds and feeds for use with an engine lathe. Setup and operation of engine lathe for the basic operations of turning, facing and drilling. [GE]

BASIC VERTICAL MILLING PROCESSES I
MACH 113 5 Credits/Units
22 hours of lecture / 66 hours of lab
Prerequisite: A grade of 'C' or better in MACH 111 or concurrent enrollment in MACH 111.
Instruction and practical application using nomenclature and safety for the vertical mill. Setup indicators and edge finders. Operations to include squaring of a work piece, drilling and reaming holes in various materials. [GE]

BASIC ENGINE LATHE PROCESSES II
MACH 112 5 Credits/Units
22 hours of lecture / 66 hours of lab
Prerequisite: MACH 111 and MACH 112.
Instruction and practice to use engine lathe for turning material both concentric and straight, creating square shoulders, and facing a part. Drilling with the tailstock. Cutting external UNF and UNC threads. The use and care of taps. [GE]

BASIC VERTICAL MILLING PROCESSES II
MACH 123 5 Credits/Units
22 hours of lecture / 66 hours of lab
Prerequisite: MACH 111 and MACH 113.
Instruction and practical application using the vertical mill for drilling procedures, squaring of a workpiece, and reaming operations. Practice in machine setups to complete these operations. [GE]

BASIC SURFACE GRINDER PROCESSES
MACH 131 5 Credits/Units
22 hours of lecture / 66 hours of lab
Prerequisite: A grade of 'C' or better in MACH 111.
Instruction and practice of safe usage of the surface grinders. Instruction of nomenclature for surface grinders. The use and care of handtools for inspection and setup of the surface grinder. Identify and safely use grinding wheels to grind workpiece flat and parallel, setup and operation to dress various shapes. [GE]

BASIC ENGINE LATHE PROCESSES III
MACH 132 5 Credits/Units
22 hours of lecture / 66 hours of lab
Prerequisite: MACH 111, MACH 112 and MACH 122.
Instruction and practical application using the engine lathe with four jaw chucks, cutting multiple start and acme threads. Use of formulas and different methods for cutting tapers. [GE]

BASIC VERTICAL MILLING PROCESSES III
MACH 133 5 Credits/Units
22 hours of lecture / 66 hours of lab
Prerequisite: MACH 111, MACH 113 and MACH 123.
Instruction and practical application using the vertical milling machine with an indexing head. Application of form cutting tools, keyway cutters, and face milling. Prerequisite: MACH 111, MACH 113 and MACH 123 [GE]

COOPERATIVE WORK EXPERIENCE
MACH 199 5 Credits/Units
165 hours of clinical
Prerequisite: Consent of Instructional Unit.
Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. [GE]

ELEMENTARY METALLURGY LAB
MACH 236 2 Credits/Units
44 hours of lab
Concurrent enrollment in MACH 236 required.
Introduction to physical metallurgy, oriented towards the machinist trade. Covers destructive and non-destructive testing, steel manufacturing and its classification, identification methods, alloy steel, cast and wrought iron, heat treating. Cannot receive credit for MTEC 235 and WELD 235 and MACH 235. [GE]

ADVANCED PRECISION MEASUREMENT
MACH 241 5 Credits/Units
22 hours of lecture / 66 hours of lab
Introducing the concepts and vocabulary of basic measuring systems and tools, basic tolerance, print reading, calibration fundamentals, surface measurements, threads and thread inspection, hole inspection, optical comparator operation and use, CMM operation and use and GDT basics and inspection techniques. All required modules will be completed on the Tooling U website. Before moving on, the student will complete each module with 80% or higher and a certificate. [GE]

INTRO TO CNC LATHE CONVERSATIONAL PROGRAMMING
MACH 242 5 Credits/Units
22 hours of lecture / 66 hours of lab
Prerequisite: Completion of the 100-level Machining series or consent of Instructional Unit.
Setup and operation of Haas TL-1 CNC Lathe. Creating and editing Intuitive Programming System conversational programs. [GE]
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACH 243</td>
<td>INTRO TO CNC MILL CONVERSATIONAL PROGRAMMING</td>
<td>5</td>
</tr>
<tr>
<td>MACH 251</td>
<td>TOOLING CONCEPTS</td>
<td>5</td>
</tr>
<tr>
<td>MACH 252</td>
<td>CNC LATHE SETUP AND OPERATION</td>
<td>5</td>
</tr>
<tr>
<td>MACH 253</td>
<td>CNC MILLING SETUP AND OPERATION</td>
<td>5</td>
</tr>
<tr>
<td>MACH 261</td>
<td>ADVANCED EDM PROCESSES</td>
<td>5</td>
</tr>
<tr>
<td>MACH 262</td>
<td>ADVANCED CNC LATHE PROGRAMMING</td>
<td>5</td>
</tr>
<tr>
<td>MACH 263</td>
<td>ADVANCED MILLING 3D PROGRAMMING AND MACHINING</td>
<td>5</td>
</tr>
<tr>
<td>MACH 280</td>
<td>SELECTED TOPICS</td>
<td>5</td>
</tr>
<tr>
<td>MACH 290</td>
<td>SPECIAL PROJECTS</td>
<td>6</td>
</tr>
</tbody>
</table>

22 hours of lecture / 66 hours of lab

**Prerequisite:** Completion of the 100-level Machining series or consent of Instructional Unit.

Setup and operation of TRAK bed mill. Creating and editing PROTO TRAK conversational programs. [GE]

**Prerequisite:** Completion of the 100-level Machining series or consent of Instructional Unit.

Concepts of metal removal, quality systems, and workholding. [GE]

**Prerequisite:** Completion of the 100-level Machining series or consent of Instructional Unit.

Instruction and practical application for the safe setup, operation, and Interactive Graphics Function programming of HAAS ST-10 CNC lathe. Produce and edit NC programs on the CNC lathe. [GE]

**Prerequisite:** Completion of the 100-level Machining series or consent of Instructional Unit.

Setup and operation of the Haas vertical mill. Manually create and edit M and G code numerical control programs for the Haas vertical mill. [GE]

**Prerequisite:** Completion of the 100-level Machining series or consent of Instructional Unit.

Instruction and practical application for the safe setup, operation, and Mastercam software programming of the Charmilles Wire Electric Discharge Machine (EDM). Produce and edit Mastercam NC programs for the Charmilles Wire EDM. Cannot receive credit for both MACH 261 and 231. [GE]

**Prerequisite:** Completion of the 100-level Machining series or consent of Instructional Unit.

Instruction and practical application for the safe setup, operation, and Mastercam software programming of Okuma CNC lathe. Produce and edit Mastercam NC programs for the Okuma CNC lathe. Cannot receive credit for both MACH 262 and 232. [GE]

**Prerequisite:** Completion of the 100-level Machining series or consent of Instructional Unit.

Use 2D and 3D geometry within cam software (Mastercam) to produce CNC programs for vertical mills. Cannot receive credit for both MACH 263 and 233. [GE]

Selected topics in Machining as listed in the term class schedule. Repeatable for credit. [GE]
Activities include practical training and coaching techniques. [GE,HR] Coaching situations, and supporting employees to improve performance. Appropriate type of training, distinguishing between training and employees. Topics include identifying training needs, selecting the appropriate type of training, group interactions, and organizational politics, power, and influence. Applications include leading in business, not-for-profit organizations, clubs, and social organizations. [GE,HR]

**LEADERSHIP PRINCIPLES**

MGMT 122 3 Credits/Units

33 hours of lecture

Developing practical leadership skills to influence the organizational performance for managers and non-managers. Topics include leadership roles and styles; the communication process; team building and interactions; and organizational politics, power, and influence. Applications include leading in business, not-for-profit organizations, clubs, and social organizations. [GE,HR]

**TEAM BUILDING AND GROUP BEHAVIOR**

MGMT 125 3 Credits/Units

33 hours of lecture

Methods for creating, developing, and nurturing work groups and teams in the workplace to achieve organizational objectives. Focus on the effective roles of the supervisor and team members. Topics include group behavior for problem-solving, group learning, conflict resolution, and team interactions and communications. [GE,HR]

**PROJECT MANAGEMENT**

MGMT 126 4 Credits/Units

44 hours of lecture

Introduction to current practices in successful project management and creating a quality project plan. Case examples provide the opportunity for first-hand practice in developing the individual steps of a project cycle, using current software in project management. [GE]

**HUMAN RESOURCES MANAGEMENT**

MGMT 128 3 Credits/Units

33 hours of lecture

Developing an understanding of the functions and skills needed by supervisors concerning employment recruitment, selection and placement, staff planning and development, job descriptions and analysis, promotions, transfers, separations, wage and salary administration, and EEO requirements. [GE,HR]

**LEGAL ISSUES IN EMPLOYEE RELATIONS**

MGMT 132 3 Credits/Units

33 hours of lecture

Study of human resource topics such as employment law, hiring, discrimination, employment-at-will, drug testing, health insurance, unemployment, worker’s compensation, wages and hours; and civil rights. Focus on due process for both public and private employees, including labor relations and collective bargaining. [GE,HR]

**PRODUCTION AND OPERATIONS MANAGEMENT**

MGMT 133 3 Credits/Units

33 hours of lecture

Techniques for improving productivity and quality and reducing waste. Topics include measuring quality and productivity, process definition and control, problem-solving, continuous improvement, and personal productivity for the production and service environment. [GE]

**COOPERATIVE WORK EXPERIENCE**

MGMT 199 5 Credits/Units

165 hours of clinical

**Prerequisite:** Completion of one class with a ‘C’ or better in Business, Economics, or Management. Up to 5 credits for supervised work training in an approved job. Completion of or concurrent enrollment in BTEC 147 or HDEV 195, 198, or 200 required. Written consent of Instructional Unit. [GE]
SELECTED TOPICS
MGMT 280
5 Credits/Units
55 hours of lecture
Varying topics in supervisory management, as listed in the term class schedule. May be repeated for credit. [GE]

SPECIAL PROJECTS
MGMT 290
5 Credits/Units
Prerequisite: Consent of Instructional Unit.
Opportunity to plan, organize and complete special projects approved by the department. [GE]
MATHEMATICS (MATH)

ELEMENTARY ALGEBRA
MATH 090 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in MATH 030 or MATH 092 or CAP 042, or recommending score on placement test.

Numeric and algebraic expressions, linear equations and inequalities, in one variable, the coordinate plane, lines, systems of linear equations and inequalities in two variables, functions, integer exponents, polynomials. Designed for the student who is prepared to take algebra at an accelerated pace.

ALGEBRA
MATH 091 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in MATH 089 or MATH 090 or MATH 092 or eligibility for MATH 097.

A continuation of MATH 089. Integer exponents, polynomials, factoring, rational expressions, evaluating and graphing functions.

APPLIED ELEMENTARY ALGEBRA
MATH 092 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in CAP 042 or MATH 030, or recommending score on placement test.

Provides students with a foundation in elementary algebra skills and applications, and prepares them for intermediate algebra. Topics include: numeracy; mathematical thinking; proportional reasoning; algebraic expressions; linear equations and inequalities in one variable; the coordinate plane; linear equations in two variables and graphing; systems of linear equations; and dimensional analysis. College success strategies are integrated throughout the course. [CP]

ALGEBRA
MATH 093 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in MATH 091.

A continuation of MATH 091. Radical expressions, rational exponents, quadratic equations, exponential and logarithmic functions.

INTERMEDIATE ALGEBRA
MATH 095 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in MATH 090 or MATH 091 or CAP 046, or recommending score on placement test.

A continuation of MATH 090. Factoring, rational expressions, radical expressions, rational exponents, quadratic equations, exponential and logarithmic functions. Designed for the student who is prepared to take algebra at an accelerated pace. [CP]

APPLIED INTERMEDIATE ALGEBRA
MATH 096 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in MATH 092 or 098 or 090 or 091, or CAP 046, or recommending score on placement test.

Covers intermediate algebra skills and applications, and prepares students for college-level mathematics. Topics include: functions; exponent rules; polynomial operations and basic factoring; defining and solving quadratic, rational and radical equations; and basic exponential and logarithmic equations and functions. Applications of these techniques to modeling and solving real-world problems are emphasized. College success strategies are integrated throughout the course. [CP]

INTERMEDIATE ALGEBRA IN SOCIETY
MATH 097 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in MATH 089 or MATH 090 or MATH 092 or eligibility for MATH 095.

Polynomials, dimensional analysis, proportions, functions, radicals, quadratic equations and inequalities, exponential and logarithmic functions, and an introduction to statistics, in preparation for MATH 107. This course may only be used as a prerequisite for MATH 107.

COLLEGE TRIG WITH SUPPLEMENTAL INSTRUCTION
MATH 102 5 Credits/Units
55 hours of lecture / 55 hours of conference
Prerequisite: A grade of 'C' or better in MATH 096, recommending score on the placement test, or consent of the mathematics department.

Covers the same topics as college trigonometry (Math 103), with additional instructional time spent on essential pre-college topics which are not covered in the applied algebra sequence (MATH 092, MATH 096). Trigonometric ratios, right angle trigonometry, law of sines, law of cosines, radian measure, trigonometric identities, inverse trigonometric functions, trigonometric equations, graphs of trigonometric functions, polar coordinates, and two-dimensional vectors. This is a challenging and technical course primarily intended for those majoring in Mathematics, Physical Science or Engineering. It is a preparatory class for the four-term Calculus series. [CP, Q, SE]

COLLEGE TRIGONOMETRY
MATH 103 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in MATH 093 or 095 or 096, or recommending score on placement test.

Covers the same topics as college trigonometry (Math 103), with additional instructional time spent on essential pre-college topics which are not covered in the applied algebra sequence (MATH 092, MATH 096). Trigonometric ratios, right angle trigonometry, law of sines, law of cosines, radian measure, trigonometric identities, inverse trigonometric functions, trigonometric equations, graphs of trigonometric functions, polar coordinates, and two-dimensional vectors. This is a challenging and technical course primarily intended for those majoring in Mathematics, Physical Science or Engineering. It is a preparatory class for the four-term Calculus series. [Q, SE]

FINITE MATH WITH SUPPLEMENTAL INSTRUCTION
MATH 104 5 Credits/Units
55 hours of lecture / 55 hours of conference
Prerequisite: A grade of 'C' or better in MATH 096, recommending score on the placement test, or consent of the mathematics department.

Covers the same topics as finite mathematics (MATH 105), with additional instructional time spent on essential pre-college topics which are not covered in the applied algebra sequence (MATH 092, MATH 096). Lines; linear systems; matrices; linear programming using geometric and simplex methods; mathematics of finance; polynomial, rational, exponential and logarithmic functions and models. [CP, Q, SE]

FINITE MATHEMATICS
MATH 105 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in MATH 093 or 095 or 096, or recommending score on placement test.

Covers the same topics as finite mathematics (MATH 105), with additional instructional time spent on essential pre-college topics which are not covered in the applied algebra sequence (MATH 092, MATH 096). Lines; linear systems; matrices; linear programming using geometric and simplex methods; mathematics of finance; polynomial, rational, exponential and logarithmic functions and models. [Q, SE]
MATH & 107 | IN SOCIETY
---|---
MATH 110 | 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in MATH 093 or 095 or 096 or 097, or a grade of 'B' or better in CAP 046, or recommending score on placement test.
This study of a variety of mathematical topics including mathematical models, finance, statistics, and probability. Additional topics may include number theory, geometry, voting theory, networks, apportionment and other topics. For students who do not plan to take additional mathematics. [Q, SE]

COLLEGE ALGEBRA WITH SUPPLEMENTAL INSTRUCTION
---
MATH 111 | 5 Credits/Units
55 hours of lecture / 55 hours of conference
Prerequisite: A grade of 'C' or better in MATH 096, or recommending score on the placement test, or consent of the mathematics department.
Covers the same topics as college algebra (MATH 111), with additional instructional time spent on essential pre-college topics which are not covered in the applied algebra sequence (MATH 092, MATH 096). An introduction to functions from symbolic, numerical, and graphical points of view. Topics include linear, polynomial, rational, radical, logarithmic, and exponential functions, systems of equations, conic sections, and mathematical modeling. This is a challenging and technical course primarily intended for those majoring in Mathematics, Physical Science or Engineering. It is a preparatory class for the four-term Calculus series. [CP, Q, SE]

MATH 122 | FOR ELEMENTARY TEACHERS
---
MATH 123 | 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in MATH 093 or 095 or 096, or recommending score on placement test.
The first of a three-term sequence of courses designed for prospective elementary school teachers. Focus on problem solving, set theory, numeration systems, whole number arithmetic, and fractions. [Q, SE]

MATH 124 | FOR ELEMENTARY TEACHERS
---
MATH 125 | 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in MATH 122.
The third of a three-term sequence of courses designed for prospective elementary school teachers. Focus on integers, decimals, number theory; elementary statistics, combinatorics and probability, functions and their graphs. Study of data analysis and probability including problem solving techniques and concepts in algebra. May be taken concurrently with MATH 123, the second course in the sequence. [Q, SE]

MATH 140 | FOR LIFE SCIENCES
---
MATH 141 | 6 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in MATH 103 and 111, or recommending score on placement test.
Survey of differentiation and integration with applications to problems in Biology and Environmental Science. Please see advisor for transferability. [Q, SE]

INTRODUCTION TO STATISTICS
---
MATH& 146 | 3 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in MATH 093 or 095 or 096, or recommending score on placement test.
Descriptive statistical methods, probability, binomial and normal probability distributions, estimation of parameters, tests of hypotheses, and regression analysis are included among other statistical topics with applications to fields of nursing, science, engineering, and social science. [Q]

STATISTICS II
---
MATH 147 | 3 Credits/Units
33 hours of lecture
Prerequisite: A grade of 'C' or better in MATH 146.
Inference techniques involving two or more populations; regression inference, analysis of variance (ANOVA), and Chi-square tests are included among other statistical topics with applications to fields of nursing, science, engineering, and social science. [Q]

CALCULUS I
---
MATH& 148 | 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in Finite Math or College Algebra or recommending score on placement test.
Introductory calculus with applications for business, life sciences, and social sciences. Differential, integral, and elementary multivariate calculus. Credit allowed for only one of MATH 140, MATH 106 and MATH 148. [Q, SE]

CALCULUS II
---
MATH& 151 | 5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in College Trigonometry and College Algebra or recommending score on placement test.
The second of a three-term sequence of courses designed for prospective elementary school teachers. Focus on geometric shapes, measurement, triangle congruence and similarity, coordinate geometry, transformations, trigonometry and geometric problem solving. May be taken concurrently with MATH 124, the third course in the sequence. [Q, SE]
CALCULUS II
MATH&152  5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in MATH 151 (MATH 113).
Second course in the four term calculus sequence intended primarily for
students of mathematics, the physical sciences, or engineering. Topics
include techniques of integration, applications of integration, conics,
parametric equations, polar coordinates, and polar equations. Credit not
allowed for both MATH 211 and MATH 152. [Q, SE]

CALCULUS III
MATH&153  5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in MATH 152 (MATH 211).
Third course in the four term calculus sequence intended for students
of mathematics, the physical sciences, or engineering. Topics include
sequences and series, three-dimensional vectors and lines, planes,
cylindrical and spherical coordinates; and vector valued functions and
their derivatives, integrals, and applications. Credit not allowed for both
MATH 212 and MATH 153. [Q, SE]

COOPERATIVE WORK EXPERIENCE
MATH 199  5 Credits/Units
165 hours of clinical
Prerequisite: Consent of Instructional Unit.
Supervised work experience in an approved job. Completion of specific
learning objectives and employer evaluation. Completion of, or concurrent
enrollment in, HDEV 195, 198, or 200 required. [GE]

LINEAR ALGEBRA
MATH 215  5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in MATH 152 (MATH 211).
An introduction to Linear Algebra. This course is intended primarily for
students of Mathematics, the Physical Sciences, or Engineering. Topics
include systems of linear equations, matrices, linear transformations,
vectors, vector spaces, eigenvalues, and orthogonality. Applications will
also be explored. Credit not allowed for both MATH 215 and MATH 216.
[Q, SE]

DIFFERENTIAL EQUATIONS
MATH 221  5 Credits/Units
55 hours of lecture
Prerequisite: Concurrent enrollment in MATH 254 (MATH 213) or a grade
of 'C' or better in MATH 254 (MATH 213).
Elementary theory and applications of ordinary differential equations.
Linear equations, linear systems, Laplace transforms, boundary value
problems, series and iterative methods. Credit not allowed for both
MATH 221 and MATH 241. [Q, SE]

CALCULUS IV
MATH&254  5 Credits/Units
55 hours of lecture
Prerequisite: A grade of 'C' or better in MATH 153 (or MATH 212).
Fourth course in the four term calculus sequence intended primarily for
students of mathematics, the physical sciences, or engineering. Covers
the calculus of functions of several variables. Topics include limits;
partial derivatives, iterated integrals, and their applications, vector fields;
gradient; divergence and curl; line and surface integrals; and classic
vector calculus theorems. Credit not allowed for both MATH 213 and
MATH 254. [Q, SE]
## MECHATRONICS (MTX)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits/Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTX 100</td>
<td>INDUSTRIAL</td>
<td>1 Credit/Unit</td>
<td>11 hours of lecture</td>
</tr>
<tr>
<td></td>
<td>SAFETY</td>
<td></td>
<td>Concurrent enrollment in MTX 101 or consent of Instructional Unit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Prerequisite:</strong> A grade of ‘C’ or better in ENGL 098 and MATH 096 or higher, or eligibility for ENGL 101 and College level MATH.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fundamentals of DC circuits with emphasis on algebraic analysis of resistive networks. Includes hands-on experience in DC circuit construction, measurement and troubleshooting. [GE]</td>
</tr>
<tr>
<td>MTX 101</td>
<td>DC</td>
<td>3 Credits/Units</td>
<td>11 hours of lecture / 44 hours of lab</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Concurrent enrollment in MTX 100 or consent of Instructional Unit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Prerequisite:</strong> A grade of ‘C’ or better in MTX 100, MTX 101, MATH 096 or PTCS 110 or equivalent.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fundamentals of AC resistive, capacitive and inductive networks with emphasis placed on methods of analysis and circuit characteristics. Includes hands-on experience in AC circuit construction, measurement, and troubleshooting. [GE]</td>
</tr>
<tr>
<td>MTX 102</td>
<td>AC</td>
<td>4 Credits/Units</td>
<td>22 hours of lecture / 44 hours of lab</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Prerequisite:</strong> A grade of ‘C’ or better in MTX 100 or MTX 101, MATH 096 or MTX 102 or equivalent.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fundamentals of measurement tools. Topics include basic measurement, S.I. and U.S. customary measurement, precision measurement tools and dimensional gauging. [GE]</td>
</tr>
<tr>
<td>MTX 103</td>
<td>BASIC</td>
<td>2 Credits/Units</td>
<td>11 hours of lecture / 22 hours of lab</td>
</tr>
<tr>
<td></td>
<td>MEASUREMENT</td>
<td></td>
<td>Concurrent enrollment in MTX 100 or consent of Instructional Unit.</td>
</tr>
<tr>
<td></td>
<td>TOOLS</td>
<td></td>
<td><strong>Prerequisite:</strong> A grade of ‘C’ or better in MATH 096 or higher or eligibility for College level MATH.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fundamentals of measurement tools. Topics include basic measurement, S.I. and U.S. customary measurement, precision measurement tools and dimensional gauging. [GE]</td>
</tr>
<tr>
<td>MTX 105</td>
<td>BASIC</td>
<td>3 Credits/Units</td>
<td>22 hours of lecture / 22 hours of lab</td>
</tr>
<tr>
<td></td>
<td>HYDRAULICS</td>
<td></td>
<td>Concurrent enrollment in MTX 100 or consent of Instructional Unit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fundamentals of hydraulics. Topics include hydraulic power systems, hydraulic circuits, principles of hydraulic pressure and flow and various types of hydraulic valves. [GE]</td>
</tr>
<tr>
<td>MTX 106</td>
<td>FLUID</td>
<td>4 Credits/Units</td>
<td>22 hours of lecture / 44 hours of lab</td>
</tr>
<tr>
<td></td>
<td>POWER</td>
<td></td>
<td><strong>Prerequisite:</strong> Concurrent enrollment in or completion of with a grade of ‘C’ or better in MTX 100 or consent of Instructional Unit.</td>
</tr>
<tr>
<td></td>
<td>SYSTEMS</td>
<td></td>
<td>Explore the fundamentals of fluid power systems, both compressible and non-compressible fluid types. Engage in various hands-on activities to solidify their understanding of fluid power concepts, components and circuit configuration and design. [GE]</td>
</tr>
<tr>
<td>MTX 107</td>
<td>BASIC</td>
<td>2 Credits/Units</td>
<td>11 hours of lecture / 22 hours of lab</td>
</tr>
<tr>
<td></td>
<td>PNEUMATICS</td>
<td></td>
<td>Concurrent enrollment in MTX 102.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Prerequisite:</strong> Successful completion of MTX 100 and MTX 101 or consent of Instructional Unit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fundamentals of pneumatics. Topics include pneumatic power systems, basic pneumatic circuits principles of pneumatic pressure and flow and pneumatic speed control. [GE]</td>
</tr>
<tr>
<td>MTX 110</td>
<td>ELECTRIC</td>
<td>4 Credits/Units</td>
<td>22 hours of lecture / 44 hours of lab</td>
</tr>
<tr>
<td></td>
<td>MOTOR</td>
<td></td>
<td><strong>Prerequisite:</strong> A grade of ‘C’ or better in MTX 102 or consent of Instructional Unit.</td>
</tr>
<tr>
<td></td>
<td>CONTROL</td>
<td></td>
<td>Fundamentals of electric motor control. Topics include electrical safety, control transformers, overload protection, ladder logic, control relays, electronic sensors, and other topics related to the fundamental operation of electronic motor control. [GE]</td>
</tr>
<tr>
<td>MTX 113</td>
<td>ELECTRICAL</td>
<td>2 Credits/Units</td>
<td>11 hours of lecture / 22 hours of lab</td>
</tr>
<tr>
<td></td>
<td>POWER</td>
<td></td>
<td>Concurrent enrollment in MTX 102.</td>
</tr>
<tr>
<td></td>
<td>DISTRIBUTION</td>
<td></td>
<td><strong>Prerequisite:</strong> Successful completion of MTX 100 and MTX 101 or consent of Instructional Unit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fundamentals of electrical power distribution as it relates to mechatronics. Topics include an introduction to raceways, conduit bending, rigid conduit, flexible conduit, conductors, disconnects, overcurrent protection, conduit sizing, and wire pulling techniques. [GE]</td>
</tr>
<tr>
<td>MTX 117</td>
<td>MECHATRONICS</td>
<td>2 Credits/Units</td>
<td>11 hours of lecture / 22 hours of lab</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Concurrent enrollment in MTX 102 or consent of Instructional Unit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Prerequisite:</strong> Successful completion of MTX 102 or consent of Instructional Unit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fundamentals of mechatronics. Topics include automation operations, control systems, mechatronic safety, component adjustments, manual operation, pneumatic and electric pick and place. [GE]</td>
</tr>
<tr>
<td>MTX 120</td>
<td>MECHANICAL</td>
<td>3 Credits/Units</td>
<td>22 hours of lecture / 22 hours of lab</td>
</tr>
<tr>
<td></td>
<td>DRIVES</td>
<td></td>
<td><strong>Prerequisite:</strong> Successful completion of MTX 102 or consent of Instructional Unit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Introduction to mechanical drive systems. Topics include mechanical power transmission safety, machine installation, motor mounting, shaft speed measurement, torque and power measurement, v-belt, chain and spur gear drives and other topics as well. Advantages of each system type will be discussed and compared. [GE]</td>
</tr>
<tr>
<td>MTX 121</td>
<td>SEMICONDUCTORS</td>
<td>3 Credits/Units</td>
<td>11 hours of lecture / 44 hours of lab</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Prerequisite:</strong> A grade of ‘C’ or better in MTX 101 and MTX 102 or consent of Instructional Unit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fundamentals and applications of diodes, transistors and special-purpose semiconductor devices. Includes hands-on experience in semiconductor circuit construction, measurement and troubleshooting. [GE]</td>
</tr>
</tbody>
</table>
**MECHATRONICS (MTX)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTX 102</td>
<td>Fundamentals of electrical wiring for degree or certification consideration.</td>
<td>11 hours of lecture / 44 hours of lab</td>
<td>3</td>
</tr>
</tbody>
</table>

**Prerequisite:** Successful completion of MTX 102 or consent of Instructional Unit.

Fundamentals of the pick and place robot using the SMC system. Topics include pneumatic robotic systems, preventive maintenance and troubleshooting as well as pneumatic robot control. [GE]

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTX 100</td>
<td>SERVO ROBOT</td>
<td>22 hours of lecture / 22 hours of lab</td>
<td>3</td>
</tr>
</tbody>
</table>

**Prerequisite:** Successful completion of MTX 102 or consent of Instructional Unit.

Introduction to the articulated arm servo robot using the SMC system. Topics include basic robot operation, teach point programming, PC software programming, application development, flexible manufacturing cells, quality control and production control. [GE]

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTX 125</td>
<td>PIPING</td>
<td>11 hours of lecture / 22 hours of lab</td>
<td>2</td>
</tr>
</tbody>
</table>

**Concurrent enrollment in MTX 102.**

**Prerequisite:** Successful completion of MTX 100 and MTX 101 or consent of Instructional Unit.

Fundamentals of piping. Topics include metal piping systems, metal piping installation, metal tubing systems and hoses. [GE]

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTX 130</td>
<td>PROGRAMMABLE LOGIC CONTROLLERS 1</td>
<td>22 hours of lecture / 44 hours of lab</td>
<td>4</td>
</tr>
</tbody>
</table>

**Prerequisite:** A grade of ‘C’ or better in MTX 102 and MATH 096 or consent of Instructional Unit.

Introduction to programmable logic controllers. Topics include basic programming of PLCs, PLC motor control methods, discrete I/O interfacing, event sequencing, timers, counters and program control instructions. [GE]

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTX 132</td>
<td>SIEMENS PLC LVL I</td>
<td>22 hours of lecture / 44 hours of lab</td>
<td>4</td>
</tr>
</tbody>
</table>

**Prerequisite:** A grade of ‘C’ or better in MTX 100, MTX 101, and MTX 102 or consent of Instructional Unit.

Introduction to Siemens programmable logic controllers. Topics include basic programming of PLCs, PLC motor control methods, discrete I/O interfacing, event sequencing, timers, counters and program control instructions. Exposure to the Siemens STEP 7 programming. May prepare them for Siemens PLC Level 1 certification. [GE]

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTX 135</td>
<td>INDUSTRIAL ELECTRICAL WIRING</td>
<td>11 hours of lecture / 44 hours of lab</td>
<td>3</td>
</tr>
</tbody>
</table>

**Prerequisite:** Successful completion of MTX 102 or consent of Instructional Unit.

Fundamentals of industrial electrical wiring. Topics include electrical prints, electrical panels, wiring between panels, wire color coding, control system wiring and wire bundling. A final grade of ‘C’ or better is required for degree or certification consideration. [GE]

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTX 140</td>
<td>ROBOTIC SYSTEMS</td>
<td>22 hours of lecture / 44 hours of lab</td>
<td>4</td>
</tr>
</tbody>
</table>

**Prerequisite:** A grade of ‘C’ or better in MTX 102, consent of Instructional Unit.

Fundamentals of the pick and place robots using the SMC system. Topics include pneumatic robotic systems, preventive maintenance and troubleshooting as well as pneumatic robot control. Introduction to the articulated arm servo robot using the SMC system including basic robot operation, teach point programming, PC software programming, application development, flexible manufacturing cells, quality control and production control. [GE]

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTX 145</td>
<td>ELECTRICAL POWER &amp; DISTRIBUTION SYSTEMS</td>
<td>22 hours of lecture / 44 hours of lab</td>
<td>4</td>
</tr>
</tbody>
</table>

**Prerequisite:** A grade of ‘C’ or better in MTX 100, MTX 101, and MTX 102 or consent of Instructional Unit.

Fundamentals of residential, commercial, and industrial electrical wiring as it relates to mechatronics. Topics include an introduction to raceways, conduit bending, rigid conduit, flexible conduit, conductors, disconnects, overcurrent protection, conduit sizing, wire pulling techniques, electrical prints, electrical panels, wiring between panels, wire color coding, control system wiring, and wire bundling. [GE]

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTX 150</td>
<td>MECHANICAL DRIVES 2</td>
<td>11 hours of lecture / 22 hours of lab</td>
<td>2</td>
</tr>
</tbody>
</table>

**Prerequisite:** A grade of ‘C’ or better in MTX 120 or consent of Instructional Unit.

Intermediate concepts of mechanical drive systems. Topics include heavy-duty v-belts, v-belt selection and maintenance, synchronous belt drives, lubrication concepts, precision shaft alignment techniques and heavy duty chain drives. Advantages of each system type will be discussed and compared. [GE]

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTX 152</td>
<td>DC DRIVES</td>
<td>22 hours of lecture / 44 hours of lab</td>
<td>2</td>
</tr>
</tbody>
</table>

**Prerequisite:** Successful completion of MTX 102 or consent of Instructional Unit.

Introduction to DC drives. Topics include DC motion control, SCR control, DC spindle drives, DC axis drives and DC pulse width modulation drives. [GE]

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTX 153</td>
<td>ELECTRIC MOTOR CONTROL 2</td>
<td>22 hours of lecture / 44 hours of lab</td>
<td>4</td>
</tr>
</tbody>
</table>

**Prerequisite:** A grade of ‘C’ or better in MTX 110 or consent of Instructional Unit.

Introduction to electric motor control troubleshooting techniques. Techniques include control component, motor starter and systems troubleshooting methods. Related topics include various motor braking methods and power distribution. [GE]
MECHATRONICS SYSTEMS FUNDAMENTALS
MTX 175 3 Credits/Units
22 hours of lecture / 22 hours of lab
Prerequisite: A grade of 'C' or better in MTX 101, MTX 102, and MTX 121, or consent of Instructional Unit.
Fundamentals of mechatronic systems troubleshooting. Topics include mechatronics safety, automation operations, open and closed-loop control systems, system block diagrams, block diagram transfer functions, system troubleshooting using block diagrams down to component level, manual operation methods used to troubleshoot automated systems, component adjustments, applications with pneumatic and electric integrated pick and place robot systems. [GE]

MECHANICAL SYSTEMS
MTX 180 5 Credits/Units
22 hours of lecture / 66 hours of lab
Prerequisite: A grade of 'C' or better in MTX 100, MTX 101, and MTX 102 or consent of Instructional Unit.
Topics include mechanical power transmission safety, machine installation, motor mounting, shaft speed measurement, torque and power measurement, v-belt, chain and spur gear drives, heavy-duty v-belts, v-belt selection and maintenance, synchronous belt drives, lubrication concepts, precision shaft alignment techniques and heavy duty chain drives, various bearing types as used in mechanical drive systems as well as advanced gear drives, plain bearings, ball bearings, roller bearings and anti-friction bearings, as well as gaskets and seals. Advantages and disadvantages of each system type will be discussed and compared. [GE]

CO-OP WORK EXPERIENCE
MTX 199 5 Credits/Units
165 hours of clinical
Prerequisite: Completion of, or concurrent enrollment in HDEV 105, 198 or 200 required.
Work-based learning experience that enables students to apply specialized occupational theory, skills and concepts. Specific objectives are developed by the College and the employer. Consent of Instructional Unit. [GE]

FLOW PROCESS CONTROL
MTX 205 5 Credits/Units
33 hours of lecture / 44 hours of lab
Prerequisite: Successful completion of MTX 102 with a grade of 'C' or better or consent of Instructional Unit.
Introduction to level/flow process control using the SMC system. Topics include control concepts, safety, sight gauges, instrument tags, piping and instrumentation diagrams, loop controllers, final control elements, level management, liquid level control, methods of automatic control as well as other concepts. [GE]

THERMAL PROCESS CONTROL
MTX 207 5 Credits/Units
33 hours of lecture / 44 hours of lab
Prerequisite: Successful completion of MTX 102 with a grade of 'C' or better or consent of Instructional Unit.
Introduction to thermal process control using the SMC system. Topics include process control concepts, safety, instrument tag fundamental, piping and instrumentation diagrams, thermal energy, basic temperature control elements, final control elements, temperature sensors, and temperature transmitters. [GE]

ELECTRO-FLUID POWER
MTX 210 4 Credits/Units
22 hours of lecture / 44 hours of lab
Prerequisite: Successful completion of MTX 102 with a grade of 'C' or better or consent of Instructional Unit.
Fundamentals of electro-fluid power. Topics include electrical control systems, basic control devices, power devices, control relays, sequencing, timer and pressure control and circuit applications. [GE]

MECHATRONICS 2
MTX 216 5 Credits/Units
33 hours of lecture / 44 hours of lab
Prerequisite: A grade of 'C' or better in MTX 110, MTX 121, MTX 140 or consent of Instructional Unit.
Advanced concepts of manufacturing stations of the SMC system as it applies to mechatronics. Topics include flexible materials handling, robot workstations, inventory control, serial robot communications, PLC communications, barcode pallet tracking, manufacturing execution systems, manufacturing management and simulation, ethernet operation and applications. [GE]

WORKPLACE ORGANIZATION AND PRACTICES
MTX 220 2 Credits/Units
11 hours of lecture / 22 hours of lab
Prerequisite: Successful completion of MTX 102 with a grade of 'C' or better or consent of Instructional Unit.
Introduction to the enterprise system: topics include technology sectors, team concepts, product design, business presentation and business presentation software. [GE]

SEMICONDUCTORS 2
MTX 221 3 Credits/Units
11 hours of lecture / 44 hours of lab
Prerequisite: A grade of 'C' or better in MTX 121, or consent of Instructional Unit.
Fundamentals and system applications of integrated circuit operational amplifiers (op-amp). Op-amp fundamentals consisting of: the input differential amplifier, data sheet parameters, circuit configuration with negative feedback, impedances, troubleshooting, closed and open loop response, positive feedback and stability, op-amp compensation, with circuit applications. Op-amp inverting, non-inverting, comparator, summing amplifier, integrator, differentiator, instrumentation, trans- conductance current-to-voltage converter, trans-impedance voltage-to-current converter, peak detector, timer, voltage regulator, and active filter circuit operation and troubleshooting. [GE]

WORK TEAMS AND PRODUCT DESIGN
MTX 223 3 Credits/Units
22 hours of lecture / 22 hours of lab
Prerequisite: Successful completion of MTX 102 with a grade of 'C' or better or consent of Instructional Unit.
Intermediate concepts of the enterprise system. Topics include team development, team problem solving, product design analysis and engineering impacts. [GE]
<table>
<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
<th>CREDITS/UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTX 224</td>
<td>Digital Electronics Fundamentals</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>22 hours of lecture / 66 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> A grade of 'C' or better in MTX 102 and MTX 121 or consent of Instructional Unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introduction to digital circuit building, operation, and troubleshooting. Digital circuit fundamentals consisting of: numbering systems, number conversion and coding, digital logic gates, combinational logic,flip-flops, counters, shift registers, and memory devices, with circuit applications. Digital circuit building, operation, and troubleshooting, ending with an introduction to microprocessor architecture, instructions, and operation. [GE]</td>
<td></td>
</tr>
<tr>
<td>MTX 240</td>
<td>Process Control Systems</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>33 hours of lecture / 66 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> A grade of 'C' or better in PTCS 110 and MTX 102 or consent of Instructional Unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Process control system measurement, control and adjustment. Topics include process control concepts, safety, sight gauges, instrument tags, piping and instrumentation diagrams, loop controllers, final control elements, level management, liquid level control, methods of automatic control thermal energy, temperature control elements, and various sensors, and transmitters and their calibration including inside environment control techniques, concepts and controls. [GE]</td>
<td></td>
</tr>
<tr>
<td>MTX 225</td>
<td>Speed Control Systems</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>11 hours of lecture / 22 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> A grade of 'C' or better in MTX 101, 102, and 121; or concurrent enrollment in MTX 101, 102, and 121; or consent of Instructional Unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introduction to speed control systems. Topics include variable frequency AC drives, VFD speed and torque, VFD acceleration, deceleration, braking, VFD fault diagnostics and troubleshooting as well as SCR motor control. [GE]</td>
<td></td>
</tr>
<tr>
<td>MTX 227</td>
<td>Mechanical Drives</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>22 hours of lecture / 44 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> A grade of 'C' or better in MTX 150 or consent of Instructional Unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introduction to various bearing types as used in mechanical drive systems as well as advanced gear drives. Topics include plain bearings, ball bearings, roller bearings and anti-friction bearings, as well as gaskets and seals and advanced gear drives. [GE]</td>
<td></td>
</tr>
<tr>
<td>MTX 230</td>
<td>Advanced Programmable Logic Controllers</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>22 hours of lecture / 44 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> A grade of 'C' or better in MTX 107, equivalent, or consent of Instructional Unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Advanced concepts of pneumatics and vacuum concepts as well as troubleshooting as they apply to industry standards using the SMC training system. Topics include moving loads pneumatically, vacuum systems, air compressors, air preparation troubleshooting, troubleshooting pneumatic cylinders, motor and rotary actuator troubleshooting, vacuum system troubleshooting and other topics as well. [GE]</td>
<td></td>
</tr>
<tr>
<td>MTX 232</td>
<td>Digital Electronics Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>11 hours of lecture / 44 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> A grade of 'C' or better in MTX 101, MTX 102, and MTX 121 or consent of Instructional Unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fundamentals and system applications of digital integrated circuits. Digital integrated circuit fundamentals consisting of: numbering systems, number conversion and coding, digital logic gates, combinational logic,flip-flops, counters, shift registers, and memory devices, with circuit applications. Digital circuit building, operation, and troubleshooting, ending with an introduction to microprocessor architecture, instructions, and operation. [GE]</td>
<td></td>
</tr>
<tr>
<td>MTX 250</td>
<td>Advanced Pneumatics and Vacuum</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>22 hours of lecture / 22 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> A grade of 'C' or better in MTX 107, equivalent, or consent of Instructional Unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Advanced concepts of pneumatics and vacuum concepts as well as troubleshooting as they apply to industry standards using the SMC training system. Topics include moving loads pneumatically, vacuum systems, air compressors, air preparation troubleshooting, troubleshooting pneumatic cylinders, motor and rotary actuator troubleshooting, vacuum system troubleshooting and other topics as well. [GE]</td>
<td></td>
</tr>
<tr>
<td>MTX 270</td>
<td>Advanced Fluid Power Systems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>66 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> Consent of Instructional Unit. Integration of Mechatronics course concepts and skills. Activities include five weeks of lab time for a student team to create a manufacturing scenario using the SMC automated manufacturing equipment. [GE]</td>
<td></td>
</tr>
<tr>
<td>MTX 275</td>
<td>Process Control Systems</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>22 hours of lecture / 66 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> A grade of 'C' or better in MTX 106. Advanced concepts of electronically controlled fluid power and vacuum systems. Topics include electrical control systems, basic control devices, power devices, control relays, sequencing, timer and pressure control and circuit applications. Advanced concepts of pneumatics and vacuum troubleshooting as they apply to industry including moving loads pneumatically, vacuum systems, air compressors, air preparation troubleshooting, troubleshooting pneumatic cylinders, motor and rotary actuator troubleshooting, vacuum system troubleshooting and other topics. [GE]</td>
<td></td>
</tr>
<tr>
<td>MTX 280</td>
<td>Selected Topics</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>55 hours of conference</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Selected topics in mechatronics. Topics vary and course theme and content change to reflect new topics. Because the course varies in contents it is repeatable for credit. Individual topics are listed in the term class schedules. [SE]</td>
<td></td>
</tr>
</tbody>
</table>
PROJECT MANAGEMENT AND LEAN MANUFACTURING
MTX 285 2 Credits/Units
11 hours of lecture / 22 hours of lab
Prerequisite: Successful completion of MTX 102 with a grade of 'C' or better or consent of Instructional Unit.
Introduction to project management within the enterprise system.
Various topics include project management, lean manufacturing and industrial engineering systems. [GE]

SPECIAL PROJECTS
MTX 290 5 Credits/Units
55 hours of conference
Prerequisite: Consent of Instructional Unit.
Opportunity to plan, organize, and complete special projects approved by the department. [GE]

MANUFACTURING SYSTEM PRINCIPLES
MTX 292 4 Credits/Units
33 hours of lecture / 22 hours of lab
Prerequisite: A grade of 'C' or better in PTCS 110 or MATH 096 or equivalent, MTX 121 and PTWR 135 or consent of Instructional Unit.
Introduction to the enterprise system: topics include technology sectors, team concepts, product design and engineering impacts, business presentation and business presentation software, enterprise economics, and marketing basics. [GE]

ORGANIZATIONAL ENTREPRENEURSHIP
MTX 295 3 Credits/Units
22 hours of lecture / 22 hours of lab
Prerequisite: A grade of 'C' or better in MTX 101, 102, 121; or concurrent enrollment in MTX 101, 102, and 121; or consent of Instructional Unit.
Introduction to economics and marketing techniques applicable to the business enterprise. Topics include enterprise economics, marketing basics and entrepreneurship. [GE]

CAPSTONE/FINAL PROJECT
MTX 296 4 Credits/Units
11 hours of lecture / 66 hours of lab
Prerequisite: Instructor permission only.
Work as a team and create a manufacturing scenario using the SMC FMS-200 flexible manufacturing system equipment OR work independently on a final project that incorporates the prior coursework in Mechatronics Technology. [GE]
## ATOMESOLOGY (METR)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits/Units</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>METR 101</td>
<td>ATMOSPHERE AND THE ENVIRONMENT</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>44 hours of lecture / 22 hours of lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fundamental theories in meteorology and current topics in the atmospheric sciences are developed conceptually for non-science students interested in the changing environment. Topics include atmospheric structure and composition, global circulation and atmospheric motions, clouds and precipitation, weather patterns and weather prediction, tornadoes, hurricanes, the greenhouse effect, atmospheric ozone, air pollution, and El Nino. [NS, SE]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>METR 201</td>
<td>GLOBAL CLIMATE CHANGE</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>33 hours of lecture / 44 hours of lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> Eligibility for MATH 092 (Applied Elementary Algebra). An introduction to Earth’s complex climate system and how it has changed over time. The role of the atmosphere, oceans, biosphere, geosphere, and extraterrestrial factors on Earth’s present climate will be examined, as well as the impacts to human and biological systems. Data and instrumentation used to measure and describe Earth’s present and past climate will be explored. Future climate predictions will be discussed along with potential adaption and mitigation efforts. [NS,GE,SE]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>METR 290</td>
<td>SPECIAL PROJECTS</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> Consent of Instructional Unit. Opportunity to plan and complete special projects approved by the Instructional Unit. [GE]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MUSIC (MUSC)

FUNDAMENTALS OF MUSIC
MUSC 098
2 Credits/Units
22 hours of lecture
Fundamentals of reading and writing music including clefs, pitch, scales, chords and rhythm.

SPECIAL SEMINARS
MUSC 100
5 Credits/Units
55 hours of lecture
Special workshops on various musical topics as listed in the term class schedule. [HA, SE]

BEGINNING PIANO CLASS
MUSC 101
2 Credits/Units
22 hours of lecture
Beginning-level study of the piano. [HB, SE]

READING RHYTHM LAB
MUSC 103
2 Credits/Units
44 hours of lab
Learn or improve reading of musical rhythms. Self-paced, individualized instruction using tapes. Placement in program via pre-test. Covers basic to professional level. [HB, SE]

MUSIC IN EARLY CHILDHOOD EDUCATION
MUSC 106
3 Credits/Units
33 hours of lecture
Introduction to music as a teaching tool for young children, and to the importance of music in the educational development of children. Students develop skills in reading music, working with the musical abilities of young children, and using music in the classroom. [HB, SE]

BEGINNING GUITAR CLASS
MUSC 110
2 Credits/Units
22 hours of lecture
Beginning-level study of the guitar. [HB, SE]

BEGINNING VOICE CLASS
MUSC 115
2 Credits/Units
11 hours of lecture / 22 hours of lab
Basic technique and knowledge about singing. No previous experience or music study required. [HB, SE]

MUSIC HISTORY: MIDDLE AGES TO BAROQUE
MUSC 116
5 Credits/Units
55 hours of lecture
Music of the Middle Ages, Renaissance and Baroque studied in context of its cultural and historical environment. Recordings of Gregorian chant, polyphonic music of the Renaissance (des Pres and Palestrina) and Baroque music (Bach, Frescobaldi, Corelli, Monteverdi, and Handel) listened to and studied. [HA, SE]

MUSIC HISTORY: CLASSICAL/ROMANTIC
MUSC 117
5 Credits/Units
55 hours of lecture
Music of the classical and romantic eras studied in context of its cultural and historical environment. Recordings of Haydn, Mozart, Beethoven, Schubert, Wagner, Brahms, and others listened to and studied. [HA, SE]

MUSIC HISTORY: TWENTIETH CENTURY
MUSC 118
5 Credits/Units
55 hours of lecture
Music of the twentieth century studied in context of its cultural and historical environment. Recordings and live performances. Debussy, Stravinsky, Schoenberg, Berg, Hindemith, Stockhausen, and others listened to and studied in context of 20th century culture. [SE, HA]

EAR TRAINING
MUSC&121
1 Credit/Unit
22 hours of lab
Learning to write what is heard in melodic and intervallic ways. Sight singing and chord recognition. Develops rhythmic, melodic, and harmonic perception skills through dictation, sight singing and drill. [HB, SE]

EAR TRAINING
MUSC&122
1 Credit/Unit
22 hours of lab
Prerequisite: MUSC 121 or consent of Instructional Unit.
Continuation of MUSC 121. Learning to write what is heard in melodic and intervallic ways. Sight-singing and chord recognition. Develops rhythmic, melodic, and harmonic perception skills through dictation, sight-singing and drill. [HB, SE]

EAR TRAINING
MUSC&123
1 Credit/Unit
22 hours of lab
Prerequisite: MUSC 122 or consent of Instructional Unit.
Continuation of MUSC 122. Learning to write what is heard in melodic and intervallic ways. Sight-singing and chord recognition. Develops rhythmic, melodic, and harmonic perception skills through dictation, sight-singing and drill. [HB, SE]

ROCK MUSIC
MUSC 125
3 Credits/Units
33 hours of lecture
Rhythm, melody, harmony, timbre, text uses, and form in current rock music. Problems and definitions of these elements with illustrations from various styles of rock music. [HA, SE]

WORLD FOLK MUSIC
MUSC 127
3 Credits/Units
33 hours of lecture
Folk music in selected cultures beginning with the Anglo-American folk song. Music and cultural values. Role of music in folk cultures. Appreciation of differences in music styles as they relate to their social settings. [HA, SE]

JAZZ APPRECIATION
MUSC 135
3 Credits/Units
33 hours of lecture
Jazz Appreciation is intended to provide students with relevant and compelling facts about jazz that illustrate its colorful history, its mixture of ethnic diversity, and the impact the music has had on American popular culture. The class utilizes multimedia presentations and music examples to guide students through an interactive process of learning how to listen to jazz, a chronology of significant jazz periods, the societal events that impact each period, and the biographies and significance of key musicians. [HA, SE]
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits/Units</th>
<th>Hours</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 137</td>
<td>CLARK COLLEGE CHORALE</td>
<td>2</td>
<td>11</td>
<td>Audition or consent of Instructional Unit. The Clark College Chorale performs a wide variety of choral literature including classical masterworks and non-classical genres for both male and female as well as mixed-voicing choral music. Open to all students and community members, the Chorale performs a minimum of one concert per term with possible additional performances. [HB, SE] [PNP]</td>
</tr>
<tr>
<td>MUSC 138</td>
<td>CLARK COLLEGE CHORALE</td>
<td>2</td>
<td>11</td>
<td>Audition or consent of Instructional Unit. The Clark College Chorale performs a wide variety of choral literature including classical masterworks and non-classical genres for both male and female as well as mixed-voicing choral music. Open to all students and community members, the Chorale performs a minimum of one concert per term with possible additional performances. [HB, SE] [PNP]</td>
</tr>
<tr>
<td>MUSC 139</td>
<td>CLARK COLLEGE CHORALE</td>
<td>2</td>
<td>11</td>
<td>Audition or consent of Instructional Unit. The Clark College Chorale performs a wide variety of choral literature including classical masterworks and non-classical genres for both male and female as well as mixed-voicing choral music. Open to all students and community members, the Chorale performs a minimum of one concert per term with possible additional performances. [HB, SE] [PNP]</td>
</tr>
<tr>
<td>MUSC&amp;141</td>
<td>MUSIC THEORY I</td>
<td>5</td>
<td>55</td>
<td>Concurrent enrollment in MUSC&amp; 121 required. First-year musicianship. Sound sources and nature of sound. Writing skills and use of musical symbol-notation. Basic vocabulary of music. Introduction to forms, composition, and analysis. Open to all students. [HA, SE]</td>
</tr>
<tr>
<td>MUSC&amp;142</td>
<td>MUSIC THEORY II</td>
<td>5</td>
<td>55</td>
<td>Concurrent enrollment in MUSC&amp; 122 required. Prerequisite: MUSC 141 or consent of Instructional Unit. Continuation of MUSC 141. Addition to the I 6-4, II, VI, III chords to harmonic tones, ear training in melodic and rhythmic concepts. Intervals and introduction to the keyboard. [HA, SE]</td>
</tr>
<tr>
<td>MUSC&amp;143</td>
<td>MUSIC THEORY III</td>
<td>5</td>
<td>55</td>
<td>Concurrent enrollment in MUSC&amp; 123 required. Prerequisite: MUSC 142 or consent of Instructional Unit. Continuation of MUSC 142. Chromatic chords, popular song forms and jazz-related harmonies and forms. [HA, SE]</td>
</tr>
<tr>
<td>MUSC 150</td>
<td>ORCHESTRA</td>
<td>2</td>
<td>11</td>
<td>Performance of orchestral literature from a variety of periods and styles. [HB, SE]</td>
</tr>
<tr>
<td>MUSC 151</td>
<td>ORCHESTRA</td>
<td>2</td>
<td>11</td>
<td>Performance of orchestral literature from a variety of periods and styles. [HB, SE]</td>
</tr>
<tr>
<td>MUSC 152</td>
<td>ORCHESTRA</td>
<td>2</td>
<td>11</td>
<td>Performance of orchestral literature from a variety of periods and styles. [HB, SE]</td>
</tr>
<tr>
<td>MUSC 154</td>
<td>WOMEN'S CHORAL ENSEMBLE</td>
<td>2</td>
<td>11</td>
<td>Audition or consent of Instructional Unit. Performance of choral music from a variety of periods and styles written for women's voices. [HB, SE] [PNP]</td>
</tr>
<tr>
<td>MUSC 155</td>
<td>WOMEN'S CHORAL ENSEMBLE</td>
<td>2</td>
<td>11</td>
<td>Audition or consent of Instructional Unit. Performance of choral music from a variety of periods and styles written for women's voices. [HB, SE] [PNP]</td>
</tr>
<tr>
<td>MUSC 156</td>
<td>WOMEN'S CHORAL ENSEMBLE</td>
<td>2</td>
<td>11</td>
<td>Audition or consent of Instructional Unit. Performance of choral music from a variety of periods and styles written for women's voices. [HB, SE] [PNP]</td>
</tr>
<tr>
<td>MUSC 170</td>
<td>APPLIED VOICE</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private voice lessons. [HB, SE]</td>
</tr>
<tr>
<td>MUSC 171</td>
<td>APPLIED VOICE</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private voice lessons. [HB, SE]</td>
</tr>
<tr>
<td>MUSC 172</td>
<td>APPLIED VOICE</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private voice lessons. [HB, SE]</td>
</tr>
<tr>
<td>MUSC 173</td>
<td>APPLIED PIANO</td>
<td>1</td>
<td>11</td>
<td>MUSC 201 and written consent of Instructional Unit required. Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
</tr>
<tr>
<td>MUSC 174</td>
<td>APPLIED PIANO</td>
<td>1</td>
<td>11</td>
<td>MUSC 201 and written consent of Instructional Unit required. Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits/Units</td>
<td>Prerequisite</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>----------------------------------</td>
<td>---------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>MUSC 175</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 180</td>
<td>CONCERT BAND</td>
<td>2 Credits/Units</td>
<td>Improving their vocal skills. Interpretation of music literature. Open to all students interested in public concert per term. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 181</td>
<td>CONCERT BAND</td>
<td>2 Credits/Units</td>
<td>Prerequisite: MUSC 201 and written consent of Instructional Unit required.</td>
<td></td>
</tr>
<tr>
<td>MUSC 182</td>
<td>CONCERT BAND</td>
<td>2 Credits/Units</td>
<td>No auditions necessary to enroll but the ability to read music on your respective instrument is required. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 183</td>
<td>CONCERT CHOIR</td>
<td>2 Credits/Units</td>
<td>Improvisation on one or more of the traditional jazz band instruments or through vocal interpretation. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 184</td>
<td>CONCERT CHOIR</td>
<td>2 Credits/Units</td>
<td>Jazz improvisation skills not required, but strong music reading skills are required, to be assessed at the beginning of the term. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 185</td>
<td>CONCERT CHOIR</td>
<td>2 Credits/Units</td>
<td>Improvisation on one or more of the traditional jazz band instruments or through vocal interpretation. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 186</td>
<td>JAZZ IMPROVISATION</td>
<td>2 Credits/Units</td>
<td>Jazz improvisation skills not required, but strong music reading skills are required, to be assessed at the beginning of the term. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 195</td>
<td>JAZZ ENSEMBLE</td>
<td>2 Credits/Units</td>
<td>No auditions necessary to enroll but the ability to read music on your respective instrument is required. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 196</td>
<td>JAZZ ENSEMBLE</td>
<td>2 Credits/Units</td>
<td>Improvisation on one or more of the traditional jazz band instruments or through vocal interpretation. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 197</td>
<td>JAZZ ENSEMBLE</td>
<td>2 Credits/Units</td>
<td>Improvisation on one or more of the traditional jazz band instruments or through vocal interpretation. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 201</td>
<td>INTERMEDIATE PIANO CLASS</td>
<td>2 Credits/Units</td>
<td>Improvisation on one or more of the traditional jazz band instruments or through vocal interpretation. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 205</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 206</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 207</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 208</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 209</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 210</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 211</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 212</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 213</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 214</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 215</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 216</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 217</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 218</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 219</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 220</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 221</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 222</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 223</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 224</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 225</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 226</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 227</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 228</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 229</td>
<td>APPLIED</td>
<td>1 Credit/Unit</td>
<td>Private piano lessons. For students with some previous keyboard experience. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
<td>Hours</td>
<td>Prerequisites</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
<td>---------</td>
<td>-------</td>
<td>---------------</td>
</tr>
<tr>
<td>MUSC 202</td>
<td>ADVANCED PIANO CLASS</td>
<td>2 Credits</td>
<td>22 hours</td>
<td>MUSC 201 or consent of Instructional Unit.</td>
</tr>
<tr>
<td>MUSC 210</td>
<td>INTERMEDIATE GUITAR CLASS</td>
<td>2 Credits</td>
<td>22 hours</td>
<td>MUSC 110 or consent of Instructional Unit.</td>
</tr>
<tr>
<td>MUSC&amp;221</td>
<td>EAR TRAINING 4</td>
<td>1 Credit</td>
<td>22 hours</td>
<td>MUSC 123.</td>
</tr>
<tr>
<td>MUSC&amp;222</td>
<td>EAR TRAINING 5</td>
<td>1 Credit</td>
<td>22 hours</td>
<td>MUSC 221.</td>
</tr>
<tr>
<td>MUSC&amp;223</td>
<td>EAR TRAINING 6</td>
<td>1 Credit</td>
<td>22 hours</td>
<td>MUSC 222.</td>
</tr>
<tr>
<td>MUSC&amp;231</td>
<td>MUSIC THEORY IV</td>
<td>3 Credits</td>
<td>33 hours</td>
<td>Concurrent enrollment in MUSC&amp; 221 required.</td>
</tr>
<tr>
<td>MUSC&amp;232</td>
<td>MUSIC THEORY V</td>
<td>3 Credits</td>
<td>33 hours</td>
<td>Concurrent enrollment in MUSC&amp; 222 required.</td>
</tr>
<tr>
<td>MUSC&amp;233</td>
<td>MUSIC THEORY VI</td>
<td>3 Credits</td>
<td>33 hours</td>
<td>Concurrent enrollment in MUSC&amp; 223 required.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Hours</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 237</td>
<td>CLARK COLLEGE Chorale</td>
<td>2 Credits</td>
<td>11 hours</td>
<td>Audition or consent of Instructional Unit.</td>
<td>Performance of choral music from a variety of periods and styles. [HB, SE]</td>
</tr>
<tr>
<td>MUSC 238</td>
<td>ORCHESTRA</td>
<td>2 Credits</td>
<td>11 hours</td>
<td>Performance of orchestral literature from a variety of periods and styles. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 239</td>
<td>WOMEN'S CHORAL ENSEMBLE</td>
<td>2 Credits</td>
<td>11 hours</td>
<td>Performance of choral music from a variety of periods and styles. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>MUSC 240</td>
<td>WOMEN'S CHORAL ENSEMBLE</td>
<td>2 Credits</td>
<td>11 hours</td>
<td>Performance of choral music from a variety of periods and styles. [HB, SE]</td>
<td></td>
</tr>
<tr>
<td>Course</td>
<td>Code</td>
<td>Credits/Units</td>
<td>Description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------</td>
<td>---------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>WOMEN'S CHORAL ENSEMBLE</strong></td>
<td>MUSC 255</td>
<td>2</td>
<td>11 hours of lecture / 22 hours of lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>APPLIED VOICE</strong></td>
<td>MUSC 270</td>
<td>1</td>
<td>11 hours of lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>APPLIED VOICE</strong></td>
<td>MUSC 271</td>
<td>1</td>
<td>11 hours of lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>APPLIED VOICE</strong></td>
<td>MUSC 272</td>
<td>1</td>
<td>11 hours of lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>APPLIED VOICE</strong></td>
<td>MUSC 273</td>
<td>1</td>
<td>11 hours of lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>APPLIED VOICE</strong></td>
<td>MUSC 274</td>
<td>1</td>
<td>11 hours of lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>APPLIED VOICE</strong></td>
<td>MUSC 275</td>
<td>1</td>
<td>11 hours of lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CONCERT CHOIR</strong></td>
<td>MUSC 281</td>
<td>2</td>
<td>11 hours of lecture / 22 hours of lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CONCERT CHOIR</strong></td>
<td>MUSC 282</td>
<td>2</td>
<td>11 hours of lecture / 22 hours of lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CONCERT CHOIR</strong></td>
<td>MUSC 283</td>
<td>2</td>
<td>11 hours of lecture / 22 hours of lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CONCERT CHOIR</strong></td>
<td>MUSC 284</td>
<td>2</td>
<td>11 hours of lecture / 22 hours of lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CONCERT CHOIR</strong></td>
<td>MUSC 285</td>
<td>2</td>
<td>11 hours of lecture / 22 hours of lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SPECIAL PROJECTS</strong></td>
<td>MUSC 290</td>
<td>5</td>
<td>Opportunity to plan, organize and complete special projects approved by the department. [HB, GE]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
JAZZ ENSEMBLE
MUSC 295
2 Credits/Units
11 hours of lecture / 22 hours of lab
Open to all students who perform on saxophone, trumpet, trombone, guitar, piano, bass, and drum set. Topics include performance techniques of jazz styles and repertoire and introduction to a wide variety of jazz subjects from improvisation and jazz history to understanding Latin/Afro-Cuban jazz rhythm. Additional topics include musical excellence and skills for teamwork and leadership. Jazz improvisation skills not required, but strong music reading skills are required, to be assessed at the beginning of the term. [HB, SE]

JAZZ ENSEMBLE
MUSC 296
2 Credits/Units
11 hours of lecture / 22 hours of lab
Open to all students who perform on saxophone, trumpet, trombone, guitar, piano, bass, and drum set. Topics include performance techniques of jazz styles and repertoire and introduction to a wide variety of jazz subjects from improvisation and jazz history to understanding Latin/Afro-Cuban jazz rhythm. Additional topics include musical excellence and skills for teamwork and leadership. Jazz improvisation skills not required, but strong music reading skills are required, to be assessed at the beginning of the term. [HB, SE]

JAZZ ENSEMBLE
MUSC 297
2 Credits/Units
11 hours of lecture / 22 hours of lab
Open to all students who perform on saxophone, trumpet, trombone, guitar, piano, bass, and drum set. Topics include performance techniques of jazz styles and repertoire and introduction to a wide variety of jazz subjects from improvisation and jazz history to understanding Latin/Afro-Cuban jazz rhythm. Additional topics include musical excellence and skills for teamwork and leadership. Jazz improvisation skills not required, but strong music reading skills are required, to be assessed at the beginning of the term. [HB, SE]

APPLIED INSTRUMENT:FLUTE
MUSCA101
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private flute lessons. [HA, SE]

APPLIED INSTRUMENT:VIOLIN
MUSCA102
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit.
Private violin lessons. [HB, SE]

APPLIED INSTRUMENT:CELLO
MUSCA103
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private cello lessons. [HB, SE]

APPLIED INSTRUMENT:VIOLA
MUSCA104
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private viola lessons. [HB, SE]

APPLIED INSTRUMENT:TRUMPET
MUSCA105
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private trumpet lessons. [HB, SE]

APPLIED INSTRUMENT:GUITAR
MUSCA106
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private guitar lessons. [HB, SE]

APPLIED INSTRUMENT:CLARINET
MUSCA107
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private clarinet lessons. [HB, SE]

APPLIED INSTRUMENT:BASS
MUSCA108
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private bass lessons. [HB, SE]

APPLIED INSTRUMENT:HORN
MUSCA109
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private horn lessons. [HB, SE]

APPLIED INSTRUMENT:BASSOON
MUSCA110
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private bassoon lessons. [HB, SE]

APPLIED INSTRUMENT:TROMBONE
MUSCA111
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private trombone lessons. [HB, SE]

APPLIED INSTRUMENT:SAX
MUSCA112
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private sax lessons. [HB, SE]

APPLIED INSTRUMENT:PERCUSSION
MUSCA113
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instruction Unit.
Private percussion lessons. [HB, SE]

APPLIED INSTRUMENT:OBOE
MUSCA114
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private oboe lessons. [HB, SE]

APPLIED INSTRUMENT:EUPHONIUM
MUSCA115
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private euphonium lessons. [HB, SE]

APPLIED INSTRUMENT:TUBA
MUSCA116
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private tuba lessons. [HB, SE]
APPLIED INSTRUMENT: FLUTE
MUSCA131
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private flute lessons. Continuation of MUSCA 101. [HB, SE]

APPLIED INSTRUMENT: VIOLIN
MUSCA132
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private violin lessons. Continuation of MUSCA 102. [HB, SE]

APPLIED INSTRUMENT: CELLO
MUSCA133
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private cello lessons. Continuation of MUSCA 103. [HB, SE]

APPLIED INSTRUMENT: VIOLA
MUSCA134
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private viola lessons. Continuation of MUSCA 104. [HB, SE]

APPLIED INSTRUMENT: TRUMPET
MUSCA135
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private trumpet lessons. Continuation of MUSCA 105. [HB, SE]

APPLIED INSTRUMENT: GUITAR
MUSCA136
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private guitar lessons. Continuation of MUSCA 106. [HB, SE]

APPLIED INSTRUMENT: CLARINET
MUSCA137
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private clarinet lessons. Continuation of MUSCA 107. [HB, SE]

APPLIED INSTRUMENT: BASS
MUSCA138
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private bass lessons. Continuation of MUSCA 108. [HB, SE]

APPLIED INSTRUMENT: HORN
MUSCA139
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private horn lessons. Continuation of MUSCA 109. [HB, SE]

APPLIED INSTRUMENT: BASSOON
MUSCA140
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private bassoon lessons. Continuation of MUSCA 110. [HB, SE]

APPLIED INSTRUMENT: TROMBONE
MUSCA141
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private trombone lessons. Continuation of MUSCA 111. [HB, SE]

APPLIED INSTRUMENT: SAX
MUSCA142
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private sax lessons. Continuation of MUSCA 112. [HB, SE]

APPLIED INSTRUMENT: PERCUSSION
MUSCA143
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private percussion lessons. Continuation of MUSCA 113. [HB, SE]

APPLIED INSTRUMENT: OBOE
MUSCA144
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private oboe lessons. Continuation of MUSCA 114. [HB, SE]

APPLIED INSTRUMENT: EUPHONIUM
MUSCA145
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private euphonium lessons. Continuation of MUSCA 115. [HB, SE]

APPLIED INSTRUMENT: Tuba
MUSCA146
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private tuba lessons. Continuation of MUSCA 116. [HB, SE]

APPLIED INSTRUMENT: FLUTE
MUSCA147
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private flute lessons. Continuation of MUSCA 131. [HB, SE]

APPLIED INSTRUMENT: VIOLIN
MUSCA148
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private violin lessons. Continuation of MUSCA 132. [HB, SE]

APPLIED INSTRUMENT: CELLO
MUSCA149
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private cello lessons. Continuation of MUSCA 133. [HB, SE]

APPLIED INSTRUMENT: VIOLA
MUSCA150
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private viola lessons. Continuation of MUSCA 134. [HB, SE]

APPLIED INSTRUMENT: TRUMPET
MUSCA151
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private trumpet lessons. Continuation of MUSCA 135. [HB, SE]

APPLIED INSTRUMENT: GUITAR
MUSCA152
1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private guitar lessons. Continuation of MUSCA 136. [HB, SE]
<table>
<thead>
<tr>
<th>Applied Instrument</th>
<th>Course Code</th>
<th>Credits/Unit</th>
<th>Lecture Hours</th>
<th>Prerequisite Description</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clarinet</td>
<td>MUSCA 177</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private clarinet lessons. Continuation of MUSCA 137. [HB, SE]</td>
<td>Private clarinet lessons. Continuation of MUSCA 137. [HB, SE]</td>
</tr>
<tr>
<td>Horn</td>
<td>MUSCA 179</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private horn lessons. Continuation of MUSCA 139. [HB, SE]</td>
<td>Private horn lessons. Continuation of MUSCA 139. [HB, SE]</td>
</tr>
<tr>
<td>Bassoon</td>
<td>MUSCA 180</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private bassoon lessons. Continuation of MUSCA 140. [HB, SE]</td>
<td>Private bassoon lessons. Continuation of MUSCA 140. [HB, SE]</td>
</tr>
<tr>
<td>Trombone</td>
<td>MUSCA 181</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private trombone lessons. Continuation of MUSCA 141. [HB, SE]</td>
<td>Private trombone lessons. Continuation of MUSCA 141. [HB, SE]</td>
</tr>
<tr>
<td>Sax</td>
<td>MUSCA 182</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private sax lessons. Continuation of MUSCA 142. [HB, SE]</td>
<td>Private sax lessons. Continuation of MUSCA 142. [HB, SE]</td>
</tr>
<tr>
<td>Percussion</td>
<td>MUSCA 183</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private percussion lessons. Continuation of MUSCA 143. [HB, SE]</td>
<td>Private percussion lessons. Continuation of MUSCA 143. [HB, SE]</td>
</tr>
<tr>
<td>Oboe</td>
<td>MUSCA 184</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private oboe lessons. Continuation of MUSCA 144. [HB, SE]</td>
<td>Private oboe lessons. Continuation of MUSCA 144. [HB, SE]</td>
</tr>
<tr>
<td>Euphonium</td>
<td>MUSCA 185</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private euphonium lessons. Continuation of MUSCA 145. [HB, SE]</td>
<td>Private euphonium lessons. Continuation of MUSCA 145. [HB, SE]</td>
</tr>
<tr>
<td>Tuba</td>
<td>MUSCA 186</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private tuba lessons. Continuation of MUSCA 146. [HB, SE]</td>
<td>Private tuba lessons. Continuation of MUSCA 146. [HB, SE]</td>
</tr>
<tr>
<td>Flute</td>
<td>MUSCA 201</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private flute lessons. Continuation of MUSCA 171. [HB, SE]</td>
<td>Private flute lessons. Continuation of MUSCA 171. [HB, SE]</td>
</tr>
<tr>
<td>Viola</td>
<td>MUSCA 204</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private viola lessons. Continuation of MUSCA 174. [HB, SE]</td>
<td>Private viola lessons. Continuation of MUSCA 174. [HB, SE]</td>
</tr>
<tr>
<td>Trumpet</td>
<td>MUSCA 205</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private trumpet lessons. Continuation of MUSCA 175. [HB, SE]</td>
<td>Private trumpet lessons. Continuation of MUSCA 175. [HB, SE]</td>
</tr>
<tr>
<td>Guitar</td>
<td>MUSCA 206</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private guitar lessons. Continuation of MUSCA 176. [HB, SE]</td>
<td>Private guitar lessons. Continuation of MUSCA 176. [HB, SE]</td>
</tr>
<tr>
<td>Clarinet</td>
<td>MUSCA 207</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private clarinet lessons. Continuation of MUSCA 177. [HB, SE]</td>
<td>Private clarinet lessons. Continuation of MUSCA 177. [HB, SE]</td>
</tr>
<tr>
<td>Bass</td>
<td>MUSCA 208</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private bass lessons. Continuation of MUSCA 178. [HB, SE]</td>
<td>Private bass lessons. Continuation of MUSCA 178. [HB, SE]</td>
</tr>
<tr>
<td>Horn</td>
<td>MUSCA 209</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private horn lessons. Continuation of MUSCA 179. [HB, SE]</td>
<td>Private horn lessons. Continuation of MUSCA 179. [HB, SE]</td>
</tr>
<tr>
<td>Bassoon</td>
<td>MUSCA 210</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private bassoon lessons. Continuation of MUSCA 180. [HB, SE]</td>
<td>Private bassoon lessons. Continuation of MUSCA 180. [HB, SE]</td>
</tr>
<tr>
<td>Trombone</td>
<td>MUSCA 211</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private trombone lessons. Continuation of MUSCA 181. [HB, SE]</td>
<td>Private trombone lessons. Continuation of MUSCA 181. [HB, SE]</td>
</tr>
<tr>
<td>Sax</td>
<td>MUSCA 212</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required. Private sax lessons. Continuation of MUSCA 182. [HB, SE]</td>
<td>Private sax lessons. Continuation of MUSCA 182. [HB, SE]</td>
</tr>
<tr>
<td>Applied Instrument</td>
<td>Course Code</td>
<td>Credits/Unit</td>
<td>Lectures</td>
<td>Prerequisite</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>-------------</td>
<td>--------------</td>
<td>----------</td>
<td>-------------------------------------------------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>Applied Percussion</td>
<td>MUSCA213</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private percussion lessons. Continuation of MUSCA 183. [HB, SE]</td>
</tr>
<tr>
<td>Applied Oboe</td>
<td>MUSCA214</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private oboe lessons. Continuation of MUSCA 184. [HB, SE]</td>
</tr>
<tr>
<td>Applied Euphonium</td>
<td>MUSCA215</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private euphonium lessons. Continuation of MUSCA 185. [HB, SE]</td>
</tr>
<tr>
<td>Applied Tuba</td>
<td>MUSCA216</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private tuba lessons. Continuation of MUSCA 186. [HB, SE]</td>
</tr>
<tr>
<td>Applied Flute</td>
<td>MUSCA231</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private flute lessons. Continuation of MUSCA 201. [HB, SE]</td>
</tr>
<tr>
<td>Applied Violin</td>
<td>MUSCA232</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private violin lessons. Continuation of MUSCA 202. [HB, SE]</td>
</tr>
<tr>
<td>Applied Cello</td>
<td>MUSCA233</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private cello lessons. Continuation of MUSCA 203. [HB, SE]</td>
</tr>
<tr>
<td>Applied Viola</td>
<td>MUSCA234</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private viola lessons. Continuation of MUSCA 204. [HB, SE]</td>
</tr>
<tr>
<td>Applied Trumpet</td>
<td>MUSCA235</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private trumpet lessons. Continuation of MUSCA 205. [HB, SE]</td>
</tr>
<tr>
<td>Applied Guitar</td>
<td>MUSCA236</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private guitar lessons. Continuation of MUSCA 206. [HB, SE]</td>
</tr>
<tr>
<td>Applied Clarinet</td>
<td>MUSCA237</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private clarinet lessons. Continuation of MUSCA 207. [HB, SE]</td>
</tr>
<tr>
<td>Applied Bass</td>
<td>MUSCA238</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private clarinet lessons. Continuation of MUSCA 208. [HB, SE]</td>
</tr>
<tr>
<td>Applied Horn</td>
<td>MUSCA239</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private horn lessons. Continuation of MUSCA 209. [HB, SE]</td>
</tr>
<tr>
<td>Applied Bassoon</td>
<td>MUSCA240</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private bassoon lessons. Continuation of MUSCA 210. [HB, SE]</td>
</tr>
<tr>
<td>Applied Trombone</td>
<td>MUSCA241</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private trombone lessons. Continuation of MUSCA 211. [HB, SE]</td>
</tr>
<tr>
<td>Applied Sax</td>
<td>MUSCA242</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private sax lessons. Continuation of MUSCA 212. [HB, SE]</td>
</tr>
<tr>
<td>Applied Percussion</td>
<td>MUSCA243</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private percussion lessons. Continuation of MUSCA 213. [HB, SE]</td>
</tr>
<tr>
<td>Applied Oboe</td>
<td>MUSCA244</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private oboe lessons. Continuation of MUSCA 214. [HB, SE]</td>
</tr>
<tr>
<td>Applied Euphonium</td>
<td>MUSCA245</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private euphonium lessons. Continuation of MUSCA 215. [HB, SE]</td>
</tr>
<tr>
<td>Applied Tuba</td>
<td>MUSCA246</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private tuba lessons. Continuation of MUSCA 216. [HB, SE]</td>
</tr>
<tr>
<td>Applied Flute</td>
<td>MUSCA271</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private flute lessons. Continuation of MUSCA 231. [HB, SE]</td>
</tr>
<tr>
<td>Applied Violin</td>
<td>MUSCA272</td>
<td>1</td>
<td>11</td>
<td>Written consent of Instructional Unit required</td>
<td>Private violin lessons. Continuation of MUSCA 232. [HB, SE]</td>
</tr>
</tbody>
</table>
APPLIED INSTRUMENT: CELLO
MUSCA273 1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private cello lessons. Continuation of MUSCA 233. [HB, SE]

APPLIED INSTRUMENT: VIOLA
MUSCA274 1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private viola lessons. Continuation of MUSCA 234. [HB, SE]

APPLIED INSTRUMENT: TRUMPET
MUSCA275 1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private trumpet lessons. Continuation of MUSCA 235. [HB, SE]

APPLIED INSTRUMENT: GUITAR
MUSCA276 1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private guitar lessons. Continuation of MUSCA 236. [HB, SE]

APPLIED INSTRUMENT: CLARINET
MUSCA277 1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private clarinet lessons. Continuation of MUSCA 237. [HB, SE]

APPLIED INSTRUMENT: BASS
MUSCA278 1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private bass lessons. Continuation of MUSCA 238. [HB, SE]

APPLIED INSTRUMENT: HORN
MUSCA279 1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private horn lessons. Continuation of MUSCA 239. [HB, SE]

APPLIED INSTRUMENT: TROMBONE
MUSCA280 1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private trombone lessons. Continuation of MUSCA 240. [HB, SE]

APPLIED INSTRUMENT: SAX
MUSCA282 1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private sax lessons. Continuation of MUSCA 242. [HB, SE]

APPLIED INSTRUMENT: PERCUSSION
MUSCA283 1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private percussion lessons. Continuation of MUSCA 243. [HB, SE]

APPLIED INSTRUMENT: OBOE
MUSCA284 1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private oboe lessons. Continuation of MUSCA 244. [HB, SE]

APPLIED INSTRUMENT: EUPHONIUM
MUSCA285 1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private euphonium lessons. Continuation of MUSCA 245. [HB, SE]

APPLIED INSTRUMENT: Tuba
MUSCA286 1 Credit/Unit
11 hours of lecture
Prerequisite: Written consent of Instructional Unit required.
Private tuba lessons. Continuation of MUSCA 246. [HB, SE]
**NETWORK TECHNOLOGY (NTEC)**

**IP SUBNETTING**

NTEC 103  
22 hours of lecture / 22 hours of lab  
Prerequisite: A grade of 'C' or better in CAP 042 or eligible for MATH 089 or MATH 092. Covers the Internet Protocol (IP) numbering systems IPv4 and IPv6. Includes the following concepts: calculation and converting numbers between DECimal, BINary, and HEXadecimal number systems; understanding the meaning of IP numbers, the purpose/role of the various parts of the number, types/classes of numbers; understanding how to subnet these number ranges using both traditional and VLSM approaches; create supernets, summary routes, and hierarchical addressing schemes. No prior computer or network knowledge or experience is required. [GE]

**INFORMATION SECURITY FUNDAMENTALS**

NTEC 125  
22 hours of lecture / 22 hours of lab  
Prerequisite: A grade of 'C' or better in NTEC 103, or consent of Instructional Unit. Builds an understanding of network security topics including how hacker attacks are carried out and how to select the right security solutions for each type of risk. Students learn to create clear and enforceable security policies and to keep them up to date; to establish reliable processes responding to security advisories; to use encryption effectively and recognize its limitations; to secure networks with firewalls, routers, and other devices; and to prevent attacks aimed at wireless networks. [GE]

**WINDOWS MTA SERVER ADMINISTRATION FUNDAMENTALS**

NTEC 132  
22 hours of lecture / 22 hours of lab  
Prerequisite: A grade of 'C' or better or concurrent enrollment in NTEC 103 or consent of Instructional Unit. Help students prepare for the Microsoft Technology Associate (MTA) Exam by building an understanding of server installation, server roles, active directory, storage, server performance management, and server maintenance. [GE]

**CLOUD COMPUTING FUNDAMENTALS**

NTEC 142  
22 hours of lecture / 22 hours of lab  
Prerequisite: A grade of 'C' or better in NTEC 103, or consent of Instructional Unit. Helps students prepare for the CompTIA Cloud Essentials certification by building an understanding of the following Cloud Computing topics: technical understanding of the foundations of Cloud Computing as compared to traditional IT; integrating Cloud Computing into IT infrastructure; creating economic value by implementing Cloud innovations; and integrating Cloud Computing into an organization's existing compliance, risk and regulatory framework. [GE]

**LINUX ESSENTIALS**

NTEC 151  
44 hours of lecture / 44 hours of lab  
Prerequisite: Eligibility for MATH 030 or MATH 092, or consent of Instructional Unit. Explores the basics of Linux, the world's most popular operating system. Includes system administration skills (using the command line, how to configure a computer running Linux, and basic networking), basic open source concepts. This course may help students prepare for attaining the LPI (Linux Professional Institute) Linux Essentials industry certification. [GE]

**COOPERATIVE WORK EXPERIENCE**

NTEC 199  
198 hours of clinical  
Prerequisite: Completion of or concurrent enrollment in HDEV 195 and 198 or 200 and consent of Instructional Unit. Supervised work experience in an approved job. Completion of specific learning objectives and employee evaluation. [GE] [FNP]

**DEPLOYING LINUX SERVER SERVICES**

NTEC 220  
44 hours of lecture / 44 hours of lab  
Prerequisite: A grade of 'C' or better in NTEC 151, or consent of Instructional Unit. Knowledge and skills for using LINUX Server OS to setup LAN/WAN connections and authentication; and to explore features of the network operating systems, such as FTP, email, web server, file server, print server, remote desktop, DNS, DHCP, and users and groups. [GE]

**CISCO CCNA 1: INTRODUCTION TO NETWORKS**

NTEC 221  
6 Credits/Units  
44 hours of lecture / 44 hours of lab  
Prerequisite: Completion of NTEC 103 with a grade of 'C' or better, or concurrent enrollment in NTEC 103, or consent of Instructional Unit. Introduction to the architecture, structure, functions, components, and models of the Internet, and other computer networks. Covers the principles and structure of IP addressing. The fundamentals of Ethernet concepts, media, and operations are introduced to provide foundation for the basics of network administration. Students will learn to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Part one of a two-course sequence that helps prepare students for the CCENT (Cisco Certified Entry Networking Technician) industry certification, and part one of a four-course sequence that helps prepare students for the CCNA Routing Switching industry certification. [GE]

**CISCO CCNA 2: ROUTING & SWITCHING ESSENTIALS**

NTEC 222  
6 Credits/Units  
44 hours of lecture / 44 hours of lab  
Prerequisite: A grade of 'C' or better in NTEC 221, or consent of Instructional Unit. Learn the architecture, components, and operations of routers and switches in a small network, how to configure a router and a switch for basic functionality; troubleshoot routers and switches; resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. Part two of a two-course sequence that helps prepare students for the CCENT (Cisco Certified Entry Networking Technician) industry certification, and part two of a four-course sequence that helps prepare students for the CCNA Routing Switching industry certification. [GE]
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTEC 223</td>
<td>CISCO CCNA 3: SCALING NETWORKS</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>44 hours of lecture / 44 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> A grade of 'C' or better in NTEC 222, or consent of Instructional Unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Describes the architecture, components, and operations of routers and switches in a larger and more complex network. Students learn the following: how to configure routers and switches for advanced functionality; to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, STP, and VTP in both IPv4 and IPv6 networks. Students will also develop the knowledge and skills needed to implement DHCP and DNS operations in a network. This course is part-three of a four-course sequence that helps prepare students for the CCNA Routing Switching industry certification. [GE]</td>
<td></td>
</tr>
<tr>
<td>NTEC 224</td>
<td>CISCO CCNA 4: CONNECTING NETWORKS</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>44 hours of lecture / 44 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> A grade of 'C' or better in NTEC 222, or consent of Instructional Unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Discusses the WAN technologies and network services required by converged applications in a complex network. Enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students team the following: how to configure and troubleshoot network devices, resolve common issues with data link protocols; develop the knowledge and skills needed to implement IPSec and virtual private network (VPN) operations in a complex network. This course is part-four of a four-course sequence that helps prepare students for the CCNA Routing Switching industry certification. [GE]</td>
<td></td>
</tr>
<tr>
<td>NTEC 225</td>
<td>CISCO CCNA SECURITY</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>44 hours of lecture / 44 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> A grade of 'C' or better in NTEC 222, or consent of Instructional Unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Preparation to obtain CCNA Security Certification. Course meets the needs of IT professionals responsible for network security. Developing skills for job roles such as Network Security Specialists, Security Administrators, and Network Security Support Engineers. Skills include installation, troubleshooting and monitoring of network devices to maintain integrity; confidentiality and availability of data and devices. Competency in the technologies that Cisco uses in its security structure. Introduction to core security technologies as well as how to develop security policies and mitigate risks. [GE]</td>
<td></td>
</tr>
<tr>
<td>NTEC 226</td>
<td>CISCO CCNA VOICE</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>44 hours of lecture / 44 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> A grade of 'C' or better in NTEC 222, or consent of Instructional Unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Preparation to obtain Cisco CCNA Voice certification. Required skill set for specialized job roles in voice technologies such as voice technologies administrator, voice engineer, and voice manager; in-demand skills in VoIP technologies such as IP PBX, IP telephony, handset, call control, and voicemail solutions; and exposure to the Cisco Unified Communications architecture and design covering mobility, presence, and TelePresence applications. [GE]</td>
<td></td>
</tr>
<tr>
<td>NTEC 234</td>
<td>MICROSOFT SERVER ADMINISTRATOR 1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>44 hours of lecture / 44 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> A grade of 'C' or better in NTEC 132 and NTEC 103, or consent of Instructional Unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Covers installing and configuring Windows Server. Introduction to Active Directory Domain Services, Managing Active Directory Domain Services Objects, Automating Active Directory Domain Services Administrative, Implementing Networking Services, Implementing Local Storage, Implementing File and Print Services, Implementing Group Policy, Implementing Server Virtualization with Hyper-V. This course is part-one of a three-course sequence that helps prepare students for the MCSA (Microsoft Certified Solutions Associate) industry certification. [GE]</td>
<td></td>
</tr>
<tr>
<td>NTEC 235</td>
<td>MICROSOFT SERVER ADMINISTRATOR 2</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>44 hours of lecture / 44 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> A grade of 'C' or better in both NTEC 132 and NTEC 103, or consent of Instructional Unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Covers the following: administration of Windows Server; implementing a Group Policy infrastructure; managing User and Service Accounts; maintaining Active Directory Domain Services; configuring and troubleshooting DNS; configuring and troubleshooting Remote Access; installing, configuring and troubleshooting the Network Policy Server role; optimizing File Services; increasing File System Security; implementing Update Management. This course is part-two of a three-course sequence that helps prepare students for the MCSA (Microsoft Certified Solutions Associate) industry certification. [GE]</td>
<td></td>
</tr>
<tr>
<td>NTEC 236</td>
<td>MICROSOFT SERVER ADMINISTRATOR 3</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>44 hours of lecture / 44 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> A grade of 'C' or better in NTEC 132 and NTEC 103, or consent of Instructional Unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Covers the following: administration of Windows Server; implementing a Group Policy infrastructure; managing User and Service Accounts; maintaining Active Directory Domain Services; configuring and troubleshooting DNS; configuring and troubleshooting Remote Access; installing, configuring and troubleshooting the Network Policy Server role; optimizing File Services; increasing File System Security; implementing Update Management. This course is part-three of a three-course sequence that helps prepare students for the MCSA (Microsoft Certified Solutions Associate) industry certification. [GE]</td>
<td></td>
</tr>
<tr>
<td>NTEC 238</td>
<td>MICROSOFT SQL SERVER ADMINISTRATION</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>22 hours of lecture / 44 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Prerequisite:</strong> A grade of 'C' or better or concurrent enrollment in NTEC 103 and NTEC 132, or consent of Instructional Unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Covers the skills necessary for installing and configuring Microsoft’s SQL Server along with setting up a database and associated objects. Course focuses upon the role of Database Administrator in managing procedures to ensure that data is consistently, reliably available, and recoverable. Students will manage SQL Server instances and databases. Also includes optimizing and troubleshooting SQL Server, implementing basic security and data integrity measures, and granting data access privileges to individual users. [GE]</td>
<td></td>
</tr>
<tr>
<td>COURSE CODE</td>
<td>COURSE TITLE</td>
<td>CREDITS/UNITS</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>NTEC 239</td>
<td>Microsoft Office 365 Administration</td>
<td>3 Credits/Units</td>
</tr>
<tr>
<td></td>
<td>22 hours of lecture / 22 hours of lab</td>
<td></td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>A grade of 'C' or better or concurrent enrollment in NTEC 103 and NTEC 132, or consent of Instructional Unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Microsoft Office 365 is powered by the cloud and designed to help meet reliability, security, and user productivity needs. Students will plan, deploy, and operate Microsoft Office 365 including its identities, dependencies, requirements, and supporting technologies. Students will configure administrative roles, manage user and group accounts, implement security and monitor Office 365 availability. [GE]</td>
<td></td>
</tr>
<tr>
<td>NTEC 242</td>
<td>Datacenter Virtualization Technology</td>
<td>6 Credits/Units</td>
</tr>
<tr>
<td></td>
<td>44 hours of lecture / 44 hours of lab</td>
<td></td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>A grade of 'C' or better in NTEC 142, or consent of Instructional Unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fundamentals of server and desktop virtualization. Topics include practical and conceptual skills for understanding basic virtualization concepts, comparison of physical servers and virtualized servers, skills for planning and implementing datacenter virtualization, the virtualized approach to datacenters with functions and services of their components, plus the various components, concepts and skill-sets associated with virtualization. [GE]</td>
<td></td>
</tr>
<tr>
<td>NTEC 252</td>
<td>Linux Administration</td>
<td>6 Credits/Units</td>
</tr>
<tr>
<td></td>
<td>44 hours of lecture / 44 hours of lab</td>
<td></td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>A grade of 'C' or better in NTEC 151 or consent of Instructional Unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Builds on the skills learned in NTEC 151 - Linux Essentials course. Covers the following: system architecture, Linux installation and package management, GNU and UNIX commands, devices, Linux file systems, and file system hierarchy standards. This course may help students prepare for taking the COMPTIA LINUX+/LPi (Linux Professional Institute) LPIC-1 industry certification (Exam 101). [GE]</td>
<td></td>
</tr>
<tr>
<td>NTEC 253</td>
<td>Linux Administration - 2</td>
<td>6 Credits/Units</td>
</tr>
<tr>
<td></td>
<td>44 hours of lecture / 44 hours of lab</td>
<td></td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>A grade of 'C' or better in NTEC 252 or consent of Instructional Unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Course description revision: Builds on the skills learned in the NTEC 151 and NTEC 252. Covers the following: shells, scripting and data management, interfaces and desktops, administrative tasks, essential system services, networking fundamentals, and security. This course may help students prepare for taking the COMPTIA LINUX+/LPi (Linux Professional Institute) LPIC-1 industry certification (Exam 102). [GE]</td>
<td></td>
</tr>
<tr>
<td>NTEC 280</td>
<td>Selected Topics</td>
<td>6 Credits/Units</td>
</tr>
<tr>
<td></td>
<td>66 hours of lecture</td>
<td></td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>Consent of Instructional Unit. Topics vary. May be repeated for credit. [GE]</td>
<td></td>
</tr>
<tr>
<td>NTEC 290</td>
<td>Special Projects</td>
<td>6 Credits/Units</td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>Consent of Instructional Unit. Opportunity to plan, organize, and complete special projects approved by the department. [GE]</td>
<td></td>
</tr>
<tr>
<td>NTEC 297</td>
<td>CAPSTONE Experience: Network Technologies</td>
<td>3 Credits/Units</td>
</tr>
<tr>
<td></td>
<td>11 hours of lecture / 22 hours of lab</td>
<td></td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>Cisco CCENT certification, or Microsoft MCP Server 2012/2016 certification required, completion of all required core coursework related to degree, and consent of Instructional Unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course will normally be taken during the final term of the program. Students will apply their skills on many topics covered in the other degree program courses. Students will complete a project in a team/small group setting as they create a network design proposal document, design an enterprise network to meet established user requirements, create detailed documentation plans for implementation, create a functional demo/mock-up, and make a final presentation to the class. This course will provide students a hands-on experience designing an enterprise network based on user requirements. Topics include all aspects of network planning, design, and troubleshooting.</td>
<td></td>
</tr>
<tr>
<td>NTEC 298</td>
<td>CAPSTONE Experience: Microsoft Technologies</td>
<td>3 Credits/Units</td>
</tr>
<tr>
<td></td>
<td>11 hours of lecture / 22 hours of lab</td>
<td></td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>Microsoft MCP Server 2012 or 2016 certification required, completion of all core coursework related to degree, and consent of Instructional Unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course will normally be taken during the final term of the program. Students will apply their skills on many topics covered in the other degree program courses. Students will complete a project in a team/small group setting as they create a network design proposal document, design an enterprise network to meet established user requirements, create detailed documentation plans for implementation, create a functional demo/mock-up, and make a final presentation to the class. This course will provide students a hands-on experience designing an enterprise network based on user requirements. Topics include all aspects of network planning, design, and troubleshooting.</td>
<td></td>
</tr>
<tr>
<td>NTEC 321</td>
<td>Enterprise Networking Foundation</td>
<td>5 Credits/Units</td>
</tr>
<tr>
<td></td>
<td>33 hours of lecture / 44 hours of lab</td>
<td></td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>Consent of Instructional Unit. Provides a wide overview of computer networking concepts with emphasis on configuring, managing and maintaining essential network devices. Offers instruction and practice in implementing network security, standards, and protocols as well as troubleshooting network problems and creating virtualized networks. May prepare students to attain the industry certification CompTIA Network+. [GE]</td>
<td></td>
</tr>
<tr>
<td>Course Title</td>
<td>Code</td>
<td>Credits/Units</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>--------</td>
<td>---------------</td>
</tr>
<tr>
<td><strong>Cybersecurity Programming &amp; Scripting Foundation</strong></td>
<td>NTEC 361</td>
<td>5</td>
</tr>
<tr>
<td><strong>IOT Foundation: Connecting Things</strong></td>
<td>NTEC 364</td>
<td>5</td>
</tr>
<tr>
<td><strong>Big Data &amp; Analytics Foundation</strong></td>
<td>NTEC 365</td>
<td>5</td>
</tr>
<tr>
<td><strong>Cybersecurity Foundation</strong></td>
<td>NTEC 371</td>
<td>5</td>
</tr>
<tr>
<td><strong>Cybersecurity Penetration Testing</strong></td>
<td>NTEC 472</td>
<td>5</td>
</tr>
<tr>
<td><strong>Cybersecurity Analyst</strong></td>
<td>NTEC 473</td>
<td>5</td>
</tr>
<tr>
<td><strong>Cybersecurity Operations</strong></td>
<td>NTEC 475</td>
<td>5</td>
</tr>
<tr>
<td><strong>Capstone Project</strong></td>
<td>NTEC 499</td>
<td>5</td>
</tr>
</tbody>
</table>
## NURSING (NURS)

### FOUNDATIONS OF NURSING CONCEPTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 110</td>
<td>2</td>
<td>22 hours of lecture&lt;br&gt;Concurrent enrollment in NURS 111, 113, 114, and 115 and ENGL 112. <strong>Prerequisite:</strong> Consent of Instructional Unit, completion of MATH 146 and PSYC 100 with a grade of 'C' or better. Introduction to professional nursing; topics include health promotion and health care delivery systems, professional roles and standards, nurse-client relationships, and theoretical basis for nursing practice. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]</td>
</tr>
</tbody>
</table>

### FOUNDATIONS OF CLINICAL NURSING

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 111</td>
<td>2</td>
<td>44 hours of lab&lt;br&gt;Concurrent enrollment is required in NURS 110, 113, 114, 115 and ENGL 112. <strong>Prerequisite:</strong> Consent of Instructional Unit, completion of MATH 146 and PSYC with a grade of 'C-' or better. Introduction to nursing practice in the community setting with emphasis on direct patient care of the older adult. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]</td>
</tr>
</tbody>
</table>

### LIFESPAN ASSESSMENT CONCEPTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 113</td>
<td>3</td>
<td>33 hours of lecture&lt;br&gt;Concurrent enrollment in NURS 110, 111, 114, 115 and ENGL 112. <strong>Prerequisite:</strong> Consent of Instructional Unit, completion of MATH 146 and PSYC 100 with a grade of 'C-' or better. Introduction to health assessment and physical examination throughout the lifespan, and an introduction to nursing skills. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]</td>
</tr>
</tbody>
</table>

### NURSING SKILLS APPLICATION I

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 114</td>
<td>1</td>
<td>22 hours of lab&lt;br&gt;Concurrent enrollment in NURS 110, 111, 113, 115 and ENGL 112. <strong>Prerequisite:</strong> Consent of Instructional Unit, completion of MATH 146 and PSYC 100 with a grade of 'C-' or better. Practice and nursing skill achievement on NURS 113 competencies. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]</td>
</tr>
</tbody>
</table>

### NURSING SKILLS LAB I

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 115</td>
<td>2</td>
<td>44 hours of lab&lt;br&gt;Concurrent enrollment in NURS 110, 111, 113, 114 and ENGL 112. <strong>Prerequisite:</strong> Consent of Instructional Unit, completion of MATH 146 and PSYC 100 with a grade of 'C-' or better. Supervised skills practice and competency achievement in the nursing skills lab. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]</td>
</tr>
</tbody>
</table>

### MEDICAL SURGICAL NURSING CONCEPTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 135</td>
<td>3</td>
<td>33 hours of lecture&lt;br&gt;Concurrent enrollment in NURS 136, 137, 138 and NUTR 139. <strong>Prerequisites:</strong> A grade of 'C-' or better in NURS 122, 127, 128, PSYC 122 and 124 and an 'S' in NURS 123 or consent of Instructional Unit. Introductory nursing management of medical-surgical health issues. Topics include but are not limited to: patient teaching/discharge planning, rehabilitation of medical-surgical patients, fluid and electrolytes, shock management, the immune response, infectious diseases, diabetes (including pediatric, adult and gestational), musculoskeletal disorders and the care of patients in the peri-operative setting. All topics address patients throughout the lifespan, and include obstetric patients in a medical-surgical setting. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]</td>
</tr>
</tbody>
</table>

### FAMILY-CENTERED NURSING CONCEPTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 122</td>
<td>2</td>
<td>22 hours of lecture&lt;br&gt;Concurrent enrollment in NURS 123, 127, 128, PSYC 122 and 124. <strong>Prerequisite:</strong> A grade of 'C' or better in NURS 110, 113, 114, 115 and ENGL 112 and a 'S' in NURS 111 or consent of Instructional Unit. Theory and the nursing process related to the care of healthy children and their families. Physiologic and psychological adaption during the childbearing and childrearing years, emphasis on the nurse's role in health promotion and education in the care of culturally diverse families in the community. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]</td>
</tr>
</tbody>
</table>

### FAMILY-CENTERED CLINICAL NURSING

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 123</td>
<td>4</td>
<td>88 hours of lab&lt;br&gt;Concurrent enrollment in NURS 122, 123, 128, PSYC 122 and 124. <strong>Prerequisite:</strong> A grade of 'C' or better in NURS 110, 113, 114, 115 and ENGL 112 and an 'S' in NURS 111 or consent of Instructional Unit. Application of theoretical, assessment, and practice concepts for nursing care of the family prenatally through the child years. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]</td>
</tr>
</tbody>
</table>

### NURSING SKILLS APPLICATION II

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 127</td>
<td>1</td>
<td>22 hours of lab&lt;br&gt;Concurrent enrollment in NURS 122, 123, 128, PSYC 122 and 124. <strong>Prerequisite:</strong> A grade of 'C' or better in NURS 110, 113, 114, 115 and ENGL 112 and an 'S' in NURS 111 or consent of Instructional Unit. Practice and nursing skill achievement on NURS 126 competencies. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]</td>
</tr>
</tbody>
</table>

### NURSING SKILLS LAB II

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 128</td>
<td>2</td>
<td>44 hours of lab&lt;br&gt;Concurrent enrollment in NURS 122, 123, 127, PSYC 122 and 124. <strong>Prerequisite:</strong> A grade of 'C' or better in NURS 110, 113, 114, 115 and ENGL 112 and an 'S' in NURS 111 or consent of Instructional Unit. Practice and nursing skill achievement of NURS 127 competencies. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]</td>
</tr>
</tbody>
</table>
MEDICAL-SURGICAL  CLINICAL  NURSING I
NURS 136  5 Credits/Units
110 hours of lab
Concurrent enrollment in NURS 135, 137, 138 and NUTR 139.
Prerequisite: A grade of 'C' or better in NURS 122, 127, 128, PSYC 122 and 124 and an 'S' in NURS 123 or consent of Instructional Unit. Introductory medical/surgical concepts applied to the clinical nursing management of the patient in the acute care and community setting. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]

NURSING SKILLS APPLICATION III
NURS 137  1 Credit/Unit
22 hours of lab
Concurrent enrollment in NURS 135, 136, 138 and NUTR 139.
Prerequisite: A grade of 'C' or better in NURS 122, 127, 128, PSYC 122 and 124 and an 'C' in NURS 123 or consent of Instructional Unit. Instruction and practice of nursing skills related to the care of the medical-surgical patient. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]

MEDICAL-SURGICAL  CLINICAL  NURSING II
NURS 242  8 Credits/Units
176 hours of lab
Concurrent enrollment in NURS 241 and NUTR 240.
Prerequisite: A grade of 'C' or better in NURS 135, 137, 138 and NUTR 139 and an 'S' in NURS 136 or consent of Instructional Unit. Application of advanced medical-surgical concepts with emphasis on the management of the acutely ill client. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]

MEDICAL-SURGICAL NURSING CONCEPTS III
NURS 251  2 Credits/Units
22 hours of lecture
Concurrent enrollment in NURS 252 and PSYC 253.
Prerequisite: A grade of 'C' or better in NURS 241 and NUTR 240 and an 'S' in NURS 242 or consent of Instructional Unit. The study of common medical-surgical issues related to hormonal control, sensory perception, movement and coordination, and cancer. Emphasis is placed on the nurse’s role as primary caregiver, manager and educator for a group of patients. The student will learn to plan and organize care for a group of patients with emphasis on the nursing process, rehabilitation, education, and the patient care delivery system. All topics address patients throughout the lifespan, and includes obstetric patients in a medical-surgical setting. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]

ADVANCED HOLISTIC CLINICAL NURSING
NURS 252  8 Credits/Units
176 hours of lab
Concurrent enrollment in NURS 251 and PSYC 253.
Prerequisite: A grade of 'C' or better in NURS 241 and NUTR 240 and an 'S' in NURS 242 or consent of Instructional Unit. Emphasis is placed on the nurse’s role as caregiver, manager and educator for a group of patients across medical-surgical and mental health settings. In the med/surg setting, the student will plan and organize care for a group of patients with emphasis on the nursing process, rehabilitation, education, and the patient care delivery system. In the mental health setting, the student will experience caring for patients in both inpatient and outpatient environments. Patient problems relate to functional impairment within acute and chronic phases of mental illness. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]

PROFESSIONAL LEADERSHIP TRANSITION TO PRACTICE
NURS 261  1 Credit/Unit
11 hours of lecture
Concurrent enrollment in NURS 262, 263, 264 and ENGL 273.
Prerequisite: A grade of 'C' or better in NURS 251 and PSYC 253 and an 'S' in NURS 252, or consent of Instructional Unit. Theory of leadership and management principles applied by the professional nurse in the clinical setting. Topics include professional ethics, the Nurse Practice Act, change theory, evidence-based practice, quality control, fiscal management and nursing delegation in the clinical area. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]

MEDICAL/SURGICAL  CLINICAL  NURSING I
NURS 199  5 Credits/Units
165 hours of clinical
Prerequisite: Consent of Instructional Unit. Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. [GE]

MEDICAL-SURGICAL NURSING CONCEPTS II
NURS 241  3 Credits/Units
33 hours of lecture
Concurrent enrollment in NURS 242 and NUTR 240.
Prerequisite: A grade of 'C' or better in NURS 135, 137, 138 and NUTR 139 and an 'S' in NURS 136 or consent of Instructional Unit. Nursing management of medical-surgical health issues involving cardiac, respiratory, renal and gastrointestinal systems in the acute care or community setting. Planning nursing interventions to include prevention of disease and promotion of wellness. Emphasis on the biopsychosocial effects of acute and chronic illness. All topics address patients throughout the lifespan, and includes obstetric patients in a medical-surgical setting. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]
PROFESSIONAL LEADERSHIP SENIOR PRACTICUM
NURS 262
6 Credits/Units
132 hours of lab
Concurrent enrollment in NURS 261, 263, 264 and ENGL 273.
Prerequisite: A grade of 'C' or better in NURS 251 and PSYC 253 and an 'S' in NURS 252, or consent of Instructional Unit.
Advanced client care in a specialty of the student's interest. Clinical areas include acute care, critical care and care of clients in the community setting. Emphasis is on developing leadership skills and independent practice as a professional nurse. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]

PROFESSIONAL ROLE IN COMMUNITY SERVICE
NURS 263
1 Credit/Unit
22 hours of lab
Concurrent enrollment in NURS 261, 262, 264 and ENGL 273.
Prerequisite: A grade of 'C' or better in NURS 251 and PSYC 253 and an 'S' in NURS 252, or consent of Instructional Unit.
Emphasis is on the role of the nurse serving her/his community as a volunteer and client advocate. The student will perform community service and work with agencies that provide services in our community for our at risk populations. The student also will have the opportunity to mentor novice peers in the nursing program. These courses are linked; failure in one, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]

CAPSTONE NCLEX PREPARATION
NURS 264
1 Credit/Unit
11 hours of lecture
Concurrent enrollment in NURS 261, 262, 263 and ENGL 273.
Prerequisite: A grade of 'C' or better in NURS 251 and PSYC 253 and an 'S' in NURS 252, or consent of Instructional Unit.
A ten-hour course geared toward helping the student prepare for the NCLEX test. This course will include strategies for success, key critical-thinking strategies, as well as review of content, questions and rationales. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]

SELECTED TOPICS
NURS 280
5 Credits/Units
55 hours of lecture
Selected topics in nursing. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Specific topics are listed in the quarterly class schedule. [GE]

SPECIAL PROJECTS
NURS 290
15 Credits/Units
Prerequisite: Consent of Instructional Unit.
Opportunity to plan, organize and complete special projects approved by the faculty of the department. [GE]
NUTRITION (NUTR)

NUTRITION

NUTR&101  3 Credits/Units
33 hours of lecture
Prerequisite: A grade of ‘C’ or better in CHEM 121 or higher.
Examines the scientific, economic, cultural, ethnic, and psychological implications of nutrition in relation to health across the lifespan and in the context of healthcare professions. Covers principles of balance nutrition, physiology and metabolism of nutrients, and changing nutritional needs throughout the human life span. [NS]

NUTRITION IN HEALTHCARE I

NUTR 139  1 Credit/Unit
11 hours of lecture
Concurrent enrollment in NURS 135, 136, 137, 138.
Prerequisite: A grade of ‘C’ or better in NUTR 101 and successful completion of the 1st and 2nd terms of the Nursing Program.
Examines the scientific, economic, cultural, ethnic, and psychological implications of nutrition in relation to health across the lifespan and in the context of healthcare professions. This course will cover the principles of nutrition in nursing and nutrition in health promotion from infants to older adults.

NUTRITION IN HEALTHCARE II

NUTR 240  1 Credit/Unit
11 hours of lecture
Concurrent enrollment in NURS 241 and 242.
Prerequisite: A grade of ‘C’ or better in NUTR 101, NUTR 139 and successful completion of the first year of the Nursing Program.
Builds on the concepts introduced in NUTR 101 and NUTR 139.
Examines of the scientific, economic, cultural, ethnic, and psychological implications of nutrition in relation to health across the lifespan and in the context of healthcare professions. This course will cover nutrition in the nursing clinical practice including nutrition needs and limitations of patients with acute and chronic illnesses. [NS]
## PHARMACY TECHNICIAN (PHAR)

<table>
<thead>
<tr>
<th>COURSE</th>
<th>CREDITS/UNITS</th>
<th>HOURS OF LECTURE/LAB</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OVERVIEW OF PHARMACY</strong></td>
<td><strong>PHAR 100</strong></td>
<td>2 Credits/Units</td>
<td>22 hours of lecture&lt;br&gt;Overview of pharmacy with particular focus on the technician in pharmacy practice settings including job roles, resources and ethical standards of practice. [GE]</td>
</tr>
<tr>
<td><strong>A MINI DOSE OF PHARMACY</strong></td>
<td><strong>PHAR 101</strong></td>
<td>1 Credit/Unit</td>
<td>11 hours of lecture&lt;br&gt;A preview of the practice of pharmacy. Identifies the role of the pharmacy technician, explores various pharmacy practice settings for employment, beginning basics of the language of pharmacy, both in written and oral forms. [GE]</td>
</tr>
<tr>
<td><strong>INTRODUCTION TO PHARMACY</strong></td>
<td><strong>PHAR 105</strong></td>
<td>4 Credits/Units</td>
<td>44 hours of lecture&lt;br&gt;Prerequisite: A grade of ‘C’ or better in BMED 110 and consent of Instructional Unit.&lt;br&gt;Introduction to the role of the pharmacy technician in a variety of pharmacy practice settings including history, personnel, resources, and ethical standards of pharmacy practice. [GE]</td>
</tr>
<tr>
<td><strong>PHARMACY CALCULATIONS</strong></td>
<td><strong>PHAR 110</strong></td>
<td>3 Credits/Units</td>
<td>33 hours of lecture&lt;br&gt;Prerequisite: Consent of HEOC advisor.&lt;br&gt;Basic math and arithmetic skills as they relate to pharmacy practice. Calculations and manipulations of metrics and related dosages. Pharmacy topics related to mathematical functions are emphasized. [GE]</td>
</tr>
<tr>
<td><strong>PHARMACOLOGY</strong></td>
<td><strong>PHAR 112</strong></td>
<td>5 Credits/Units</td>
<td>55 hours of lecture&lt;br&gt;Prerequisite: A grade of ‘C’ or better in PHAR 105.&lt;br&gt;First of 2-term sequence in pharmacology. Topics include pharmacokinetic and pharmacodynamic principles of drug therapy. Focus on absorption, distribution, metabolism, excretion, drug classification, indication for use, dose, and side effects of the most common drugs, including antibiotics and anti-anxiety agents, antipsychotics, anticonvulsants and other CNS disorder agents, hormone therapy, chemotherapy, antiretrovirals, as well as topicals, ophthalmics and otics. [GE]</td>
</tr>
<tr>
<td><strong>PHARMACY PRACTICE AND TECHNOLOGY</strong></td>
<td><strong>PHAR 114</strong></td>
<td>4 Credits/Units</td>
<td>33 hours of lecture / 22 hours of lab&lt;br&gt;Prerequisite: Consent of HEOC advisor.&lt;br&gt;Pharmacy skills and knowledge essentials to the practice of pharmacy at the work site. Topics include correlation of terminology, computer system manipulation, use of current and emerging technology, and practical application of pharmacy dispensing activities. [GE]</td>
</tr>
<tr>
<td><strong>PHARMACY EXTERNSHIP I</strong></td>
<td><strong>PHAR 118</strong></td>
<td>4 Credits/Units</td>
<td>132 hours of clinical&lt;br&gt;Concurrent enrollment in PHAR 119 required.&lt;br&gt;Prerequisite: A grade of ‘C’ or better in PHAR 105 and consent of Instructional Unit.&lt;br&gt;Practical on-the-job instruction in the knowledge base required of a pharmacy assistant (technician) in the work force. Community pharmacies/facilities will be used for this course. [GE]</td>
</tr>
<tr>
<td><strong>PHARMACY EXTERNSHIP SEMINAR I</strong></td>
<td><strong>PHAR 119</strong></td>
<td>2 Credits/Units</td>
<td>22 hours of lecture&lt;br&gt;Concurrent enrollment in PHAR 118 and written consent of Instructional Unit.&lt;br&gt;First of 2-term sequence coordinating with PHAR 118 externship experience at work site. Topics include professionalism, productivity, handling challenging situations, and continuing education, with emphasis on success in the workplace. Group work, case study analysis, journal entries and a final written paper are required. [GE] [PNP]</td>
</tr>
<tr>
<td><strong>PHARMACOLOGY II</strong></td>
<td><strong>PHAR 122</strong></td>
<td>5 Credits/Units</td>
<td>55 hours of lecture&lt;br&gt;Prerequisite: Completion of PHAR 112 and written consent of the Instructional Unit required.&lt;br&gt;Second of 2-term sequence in pharmacology. Topics include pharmacokinetic and pharmacodynamic principles of drug therapy. Focus on absorption, distribution, metabolism, excretion, drug classification, indication for use, dose, and side effects of the most common drugs, including antidepressants and anti-anxiety agents, antipsychotics, anticonvulsants and other CNS disorder agents, hormone therapy, chemotherapy, antiretrovirals, as well as topicals, ophthalmics and otics. [GE]</td>
</tr>
<tr>
<td><strong>PHARMACY LAW</strong></td>
<td><strong>PHAR 123</strong></td>
<td>2 Credits/Units</td>
<td>22 hours of lecture&lt;br&gt;Prerequisite: Consent of Instructional Unit required.&lt;br&gt;Prerequisite: written consent of Instructional Unit required.&lt;br&gt;State and federal laws and regulations that pertain to the duties of pharmacy technicians. Revised Code of Washington and Washington Administrative Codes will be reviewed. [GE]</td>
</tr>
<tr>
<td><strong>PHARMACY COMPOUNDING</strong></td>
<td><strong>PHAR 127</strong></td>
<td>4 Credits/Units</td>
<td>33 hours of lecture&lt;br&gt;Overview of sterile products and aseptic technique for compounding of sterile products, intravenous (IV) drug delivery systems and equipment related to compounding and administration of IV products. Combination of lecture and lab projects. [GE]</td>
</tr>
<tr>
<td><strong>PHARMACY EXTERNSHIP II</strong></td>
<td><strong>PHAR 128</strong></td>
<td>4 Credits/Units</td>
<td>132 hours of clinical&lt;br&gt;Concurrent enrollment in PHAR 129 required.&lt;br&gt;Prerequisite: Completion of PHAR 105 and written consent of Instructional Unit required.&lt;br&gt;Continued practical, on-the-job instruction in the knowledge base required of a pharmacy (technician) in the work force. [GE]</td>
</tr>
</tbody>
</table>
PHARMACY EXTERNSHIP SEMINAR II

PHAR 129 2 Credits/Units
22 hours of lecture
Concurrent enrollment in PHAR 128 and written consent of Instructional Unit required.
Second of 2-term sequence coordinating with PHAR 128 externship experience. Topics include work ethics, interpersonal communication, problem solving, and success in the work place emphasized.
Components include group work, case study analysis, journal entries and a final written and oral project. [GE]

SELECTED TOPICS
PHAR 280 5 Credits/Units
55 hours of lecture
Selected topics in pharmacy. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, is repeatable for credit. Specific topics are listed in the quarterly class schedule. [GE] [PNP]

SPECIAL PROJECTS
PHAR 290 15 Credits/Units
Prerequisite: Consent of Instructional Unit required.
Opportunity to plan, organize and complete special projects approved by the faculty of the department. [GE] [PNP]
INTRODUCTION TO PHILOSOPHY (PHIL)

PHIL&101 INTRODUCTION TO PHILOSOPHY
5 Credits/Units
55 hours of lecture
Introduction to some of the major questions, controversies, and problems discussed in philosophy. Examine various philosophical theses by developing reasoned arguments for and against them. Learn through this course not only what some other people have thought about interesting questions, but also how to do philosophy - how to think well and critically about important matters concerning action and belief. [HA, SE]

CRITICAL THINKING

PHIL&115 INTRODUCTION TO CRITICAL THINKING
5 Credits/Units
55 hours of lecture
Focus on looking at the arguments encountered on a daily basis, through news, social media, friends and family members, etc. Learn to consider these encounters critically, determining whether an argument is actually being given, is worth accepting, and/or contains fallacious reasoning. Learn about mistakes in logic and reasoning, how to determine who counts as an expert, and what makes a claim justified. Consider common roadblocks to critical thinking, including confirmation bias, stereotyping, and more. A central purpose is to learn about tools to independently assess daily information to help make better decisions both personally and on a social level. [HB][PNP]

TRADITIONAL LOGIC

PHIL&117 TRADITIONAL LOGIC
5 Credits/Units
55 hours of lecture
Prerequisite: A grade of ‘C’ or better in MATH 093 or 095 or 096, or eligibility for college level math, or equivalent placement demonstrated is required.
Focus on sentence logic with proofs and Aristotelian logic with Venn Diagrams. Includes formulation of propositions, logical inference, syllogisms (categorical, hypothetical, etc.), and fallacies. [SE]

SYMBOLIC LOGIC

PHIL&120 SYMBOLIC LOGIC
5 Credits/Units
55 hours of lecture
Prerequisite: A grade of ‘C’ or better in MATH 093, MATH 095, MATH 096 or eligibility for college level math.
Rigorous examination of logical theory emphasizing modern symbolic or formal logic. Content includes truth-functional logic, propositional logic with proofs, and predicate logic with quantifiers and proofs. Applications include computer science, cognitive science, artificial intelligence, linguistics, mathematics, law, engineering, and philosophy. [HA, Q, SE]

INTRODUCTION TO ANCIENT AND MEDIEVAL PHILOSOPHY

PHIL 215 INTRODUCTION TO ANCIENT AND MEDIEVAL PHILOSOPHY
5 Credits/Units
55 hours of lecture
Introduces ancient western philosophy from its Greek roots through its development in Socrates, Plato, and Aristotle, and others. Examine various philosophical theses critically and explore longstanding arguments still relevant today that pertain to morality, social justice, and the limits of what one can know. [HA, SE]

INTRODUCTION TO EARLY MODERN PHILOSOPHY

PHIL 216 INTRODUCTION TO EARLY MODERN PHILOSOPHY
5 Credits/Units
55 hours of lecture
Introduction to selected great thinkers and ideas of the sixteenth, seventeenth and eighteenth centuries, including the collapse of the medieval synthesis leading to the rise of the modern scientific mentality, followed by an examination of the philosophical struggle between the rationalism and the empiricism. [HA, SE]

INTRODUCTION TO LATE MODERN PHILOSOPHY

PHIL 217 INTRODUCTION TO LATE MODERN PHILOSOPHY
5 Credits/Units
55 hours of lecture
Introduces major thinkers and ideas of the nineteenth and twentieth century. Various philosophical movements are explored, including German idealism, process philosophy, political philosophy, and existentialism. [HA, SE]

ETHICS

PHIL 240 INTRODUCTION TO ETHICS
5 Credits/Units
55 hours of lecture
Introduction to ethical behavior that is grounded in thoughtful philosophical argument. Learn about ethical theories from a variety of philosophical backgrounds and learn to apply the values prominent in the theories to everyday action. [HA, SE]

PHILOSOPHY OF RELIGION

PHIL 251 PHILOSOPHY OF RELIGION
5 Credits/Units
55 hours of lecture
Explores the concept of God, the nature of religious experience, the difficulties inherent in the use of religious language, classical proofs for the existence of God, the relationship between faith and reason, and the problem of evil. [HA, SE]

SELECTED TOPICS

PHIL 280 SELECTED TOPICS
5 Credits/Units
55 hours of lecture
Varying topics in philosophy, as listed in the term class schedule. May be repeated for credit. [HA, SE]

SPECIAL PROJECTS

PHIL 290 SPECIAL PROJECTS
5 Credits/Units
Prerequisite: Completion of two philosophy courses and consent of Instructional Unit.
Opportunity to plan, organize and complete special projects approved by the department. [HA, GE]

ETHICS IN MANAGEMENT

PHIL 420 ETHICS IN MANAGEMENT
5 Credits/Units
55 hours of lecture
Examines the role of ethics and social responsibility in the management of public and private sectors of organizations and businesses. Theoretical concepts in business ethics will be applied to real-world situations based on challenges managers face. An emphasis on contemporary trends and corporate responsibilities with respect to ethical, legal, economic, regulatory conditions, and the needs of stakeholders in the global marketplace will be included. Case studies will be used to explore real-world ethical and social responsibility situations. [HA]
PHLEBOTOMY (PHLE)

PHLEBOTOMY EDUCATION W/LAB
PHLE 115 3 Credits/Units
22 hours of lecture / 22 hours of lab
Prerequisite: High school completion or equivalent; ENGL 098 or higher (or placement into ENGL 101 or higher); consent from the Credentials Office and acceptance into the Phlebotomy Program.
Training and skill development in a variety of venipuncture collection methods, skin punctures, and proper specimen handling procedures, as dictated by the Clinical and Laboratory Standards Institute (CLSI). Emphasis is placed on patient identification, specimen labeling, quality assurance, and infection prevention through use of standard precautions. [GE]

BASIC LABORATORY FOR THE PHLEBOTOMIST
PHLE 116 3 Credits/Units
11 hours of lecture / 44 hours of lab
Prerequisite: A grade of 'C' or better or concurrent enrollment in PHLE 115 and consent of department chair.
Learn to perform basic laboratory procedures that are required during specimen processing and testing in a laboratory setting. Procedures include capillary microcollection, pipetting, creating aliquots, centrifugation, implementing infection control and quality control practices, and performing CLIA-waived laboratory tests. [GE]

PHLEBOTOMY CLINICAL EXPERIENCE
PHLE 197 5 Credits/Units
150 hours of clinical
Prerequisite: A grade of 'C' or better in PHLE 115 and PHLE 116, approval of all requirements for clinical placement, and consent of the department chair.
Supervised phlebotomy experience in a healthcare facility. Provides students with the opportunity to apply knowledge and skills in performing clinical laboratory procedures and to develop professional interactions with healthcare workers and patients. Cannot receive credit for both PHLE 197 and HEOC 197. [GE]

PHLEBOTOMY CLINICAL SEMINAR
PHLE 198 1 Credit/Unit
11 hours of lecture
Concurrent enrollment in PHLE 197 is required.
Prerequisite: A grade of 'C' or better in PHLE 115 and PHLE 116, approval of all requirements for clinical placement, and consent of the department chair.
Develop tools and skills to aid in professionalism and future employment in the phlebotomy field. Includes resume building, interviewing skills, preparation for national phlebotomy certification exam and WA State Phlebotomy Licensure. Continuing education and research surrounding up-to-date phlebotomy practices and challenges in practice are other integral components of the course. [GE]
**PHYSICAL EDUCATION (PE)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
<th>Lab Hours</th>
<th>Description</th>
</tr>
</thead>
</table>
| CARDIO                      |               |           |                                                                zhoudoe 22 hours of lab  
Basic group exercise to music, primarily targeting cardiovascular conditioning. [PE,SE][PNP]                                                                |
| INTRODUCTION TO RUNNING     | 1 Credit/Unit | 22 hours  | Develop fitness through running, emphasizing various training methods, individual program development, and health benefits. [PE,SE][PNP]                                                                         |
| BENCH STEP AEROBICS         | 1 Credit/Unit | 22 hours  | Introduction to high-intensity/low impact exercise promoting overall body strength and cardiovascular fitness that involves stepping up and down on a bench step platform to music. [PE,SE][PNP]          |
| CIRCUIT FITTING            | 1 Credit/Unit | 22 hours  | An individualized systematic approach to cardiovascular fitness through the use of multiple weight machines and aerobic equipment. Pre and post fitness assessments conducted. [PE,SE][PNP] |
| SPEED, AGILITY, AND QUICKNESS | 1 Credit/Unit |           | Focuses on biomechanics of running, development of speed, agility and personal quickness. Learning of drills and enhancement of skills to improve personal performance. [PE,SE][PNP] |
| INDEPENDENT FITNESS PROGRAM | 2 Credits/Units | 44 hours | A self-paced conditioning course for the motivated, self-directed student. Design, implement and document a goal-oriented fitness program with instructor advice and approval. Areas of concentration will be the three components of fitness: Cardiovascular endurance, muscular strength and muscular flexibility training. [PE,SE][PNP] |
| FUNCTIONAL FITTING         | 1 Credit/Unit | 22 hours  | Utilizing functional movement patterns to improve core stabilization, posture, and balance. [PE,SE][PNP]                                                                                                       |
| STRENGTH AND STRETCH       | 1 Credit/Unit | 22 hours  | Utilizing body weight and portable fitness equipment to improve muscular strength, tone, and flexibility. [PE,SE][PNP]                                                                                          |
PILATES-BEGINNING
PE 124 1 Credit/Unit
22 hours of lab
Methods of conditioning covers the basic principles and exercise technique needed to increase core strength and stabilization, improve coordination, balance, postural awareness, and increase muscular flexibility and stamina. [PE,SE][PNP]

ROCK CLIMBING
PE 125 1 Credit/Unit
22 hours of lab
Basics of rock climbing. Focus on belay techniques and knot tying skills along with the essential styles of climbing safety and efficiently. [PE,SE][PNP]

KETTLEBELL CONDITIONING
PE 126 1 Credit/Unit
22 hours of lab
Utilizing kettlebells in a variety of conditioning activities to develop muscular strength, power, cardiovascular endurance, and flexibility. Course will emphasize proper kettlebell technique and how to structure an exercise plan to meet individual goals. [HPE,PE,SE][PNP]

BOOT CAMP-BEGINNING
PE 129 2 Credits/Units
44 hours of lab
Introduction to physical fitness for military purposes; emphasis on basic conditioning and discipline. This course is open to all students. [PE,SE][PNP]

BASKETBALL
PE 140 1 Credit/Unit
22 hours of lab
Ball handling, shooting, passing, offensive and defensive techniques, rules, strategy and competitive play. [PE,SE][PNP]

BOWLING
PE 143 1 Credit/Unit
22 hours of lab
Techniques, styles of play, rules of courtesy, scoring and competitive games. [PE,SE][PNP]

FENCING-FOIL
PE 147 1 Credit/Unit
22 hours of lab
Movement of fencing plus defense, offense, rules of boutting, officiating, and competition. [PE,SE][PNP]

GOLF
PE 148 1 Credit/Unit
22 hours of lab
Fundamentals and practice of golf. Focuses on full-swing fundamentals, chipping, pitching, putting, golf strategies, and rules of the game. [PE,SE][PNP]

SOCCER
PE 150 1 Credit/Unit
22 hours of lab
Focus on individual offensive and defensive skills, game strategy, rules, and team tactics through the use of small-sided games and individual drills. [PE,SE][PNP]

SOFTBALL
PE 153 1 Credit/Unit
22 hours of lab
Skills, rules and team play. [PE,SE][PNP]

TENNIS
PE 155 1 Credit/Unit
22 hours of lab
Basic tennis skills including grip, foot work, and strokes, such as backhand, forehand, volley and serve. The drop shot, lob, and overhead shots will be introduced, as will singles and doubles strategies, rules, scoring and court etiquette. [PE,SE][PNP]

VOLLEYBALL
PE 158 1 Credit/Unit
22 hours of lab
Introduction to the fundamental skills and strategies of organized volleyball. Volleyball requires development of the following individual skills: forearm pass, set, spike, block, dig, and serve. In addition, students will gain an understanding of elementary team strategies. Students will learn to practice effective communication with teammates. [PE,SE][PNP]

BILLIARDS-BEGINNING
PE 162 1 Credit/Unit
22 hours of lab
Introduction to fundamental skills and strategies. Development of individual skills including stance, form, technique, vocabulary, and strategy. [PE,SE][PNP]

ULTIMATE FRISBEE-BEGINNING
PE 163 1 Credit/Unit
22 hours of lab
Ultimate Frisbee fundamentals: individual skill development, rules, game play, and strategies. [PE,SE][PNP]

AQUA EXERCISE
PE 171 1 Credit/Unit
22 hours of lab
Conditioning through water exercises for students with or without swimming ability. Increased fitness with emphasis on stretching, flexibility, and abdominal and back strength. [PE,SE][PNP]

SCUBA-BEGINNING
PE 173 2 Credits/Units
11 hours of lecture / 22 hours of lab
Prerequisite: Swimming ability. Classroom lectures and discussion, swimming pool practice, and diving safety. Supervised experience in open water training optional at extra cost. Successful completion qualifies student for certification card. [PE,SE][PNP]

BEGINNING SWIMMING
PE 175 1 Credit/Unit
22 hours of lab
Learn and improve swimming, water survival, and safety skills. Introduction to Red Cross swimming strokes, while developing individual skill, endurance and comfort in the water. [PE,SE][PNP]

SWIMMING-INTERMEDIATE
PE 176 1 Credit/Unit
22 hours of lab
Continuation of PE 175 for students who need additional instruction and practice to improve and increase their swimming skill and confidence. [PE,SE][PNP]
<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Credits/Units</th>
<th>Lab Hours</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swim Conditioning - Beginning</td>
<td>PE 179</td>
<td>1 Credit/Unit</td>
<td>22 hours of lab</td>
<td>Ability to swim comfortably in the deep end of pool. Emphasizes swimming fitness through lap swimming. Students will participate in a workout designed to address their particular fitness and skill level. [PE,SE][PNP]</td>
</tr>
<tr>
<td>Hiking</td>
<td>PE 182</td>
<td>1 Credit/Unit</td>
<td>22 hours of lab</td>
<td>Experience hiking off-campus on designated trails. Course emphasizes basic safety and survival skills and practices low-impact hiking methods. [PE,SE][PNP]</td>
</tr>
<tr>
<td>Primary Rowing - Beginning</td>
<td>PE 183</td>
<td>1 Credit/Unit</td>
<td>22 hours of lab</td>
<td>Must pass swimming test prior to first class. Introduction to the sport of rowing. Includes basic technique and terminology, related water safety, development of strength, endurance and flexibility. Skills include rowing, strength training, cardiovascular training. See Course Information Sheet outside OSC 206 for more information. [PE,SE][PNP]</td>
</tr>
<tr>
<td>Cooperative Work Experience</td>
<td>PE 199</td>
<td>5 Credits/Units</td>
<td>165 hours of clinical</td>
<td>Consent of Instructional Unit. Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. [PE,GE][PNP]</td>
</tr>
<tr>
<td>Cardio Conditioning - Intermediate</td>
<td>PE 200</td>
<td>1 Credit/Unit</td>
<td>22 hours of lab</td>
<td>Intermediate group exercise to music, primarily targeting cardiovascular conditioning. [PE,SE][PNP]</td>
</tr>
<tr>
<td>Fitness Walking - Intermediate</td>
<td>PE 202</td>
<td>2 Credits/Units</td>
<td>44 hours of lab</td>
<td>PE 102. Intermediate fitness walking with emphasis on walking programs and technique. [PE,SE][PNP]</td>
</tr>
<tr>
<td>Bench Step Aerobics - Intermediate</td>
<td>PE 203</td>
<td>1 Credit/Unit</td>
<td>22 hours of lab</td>
<td>PE 103. Intermediate high-intensity/low impact exercise program using a bench step promoting overall body strength and cardiovascular fitness. [PE,SE][PNP]</td>
</tr>
<tr>
<td>Circuit Fitness - Intermediate</td>
<td>PE 204</td>
<td>1 Credit/Unit</td>
<td>22 hours of lab</td>
<td>PE 104. An individualized systematic approach to cardiovascular fitness through the use of multiple weight machines and aerobic equipment. Pre and post fitness assessments conducted. [PE,SE][PNP]</td>
</tr>
<tr>
<td>Speed, Agility, and Quickness</td>
<td>PE 207</td>
<td>1 Credit/Unit</td>
<td>22 hours of lab</td>
<td>PE 107. Additional drills to further advance personal ability in running, quickness, speed. Includes advanced plyometric training techniques. [PE,SE][PNP]</td>
</tr>
<tr>
<td>Independent Fitness - Intermediate</td>
<td>PE 208</td>
<td>2 Credits/Units</td>
<td>44 hours of lab</td>
<td>PE 108. A continuation of the self-paced conditioning course, plus setting and implementing an additional personalized health related goal to be determined at the first individual meeting with instructor. [PE,SE][PNP]</td>
</tr>
<tr>
<td>Functional Fitness</td>
<td>PE 211</td>
<td>1 Credit/Unit</td>
<td>22 hours of lab</td>
<td>PE 111. Continuation of PE 111. Utilizing functional movement patterns to improve core stabilization, posture, and balance. More advanced techniques introduced. [PE,SE][PNP]</td>
</tr>
<tr>
<td>Strength and Stretch</td>
<td>PE 212</td>
<td>1 Credit/Unit</td>
<td>22 hours of lab</td>
<td>PE 112. Continuation of PE 112. Utilizing body weight and portable fitness equipment to improve muscular strength, tone, and flexibility. [PE,SE][PNP]</td>
</tr>
<tr>
<td>Total Body Conditioning - Intermediate</td>
<td>PE 213</td>
<td>2 Credits/Units</td>
<td>44 hours of lab</td>
<td>PE 113. Continuation of individualized conditioning program for developing the various components of fitness. Additional focus on learning principles of fitness to create personalized workouts. [PE,SE][PNP]</td>
</tr>
<tr>
<td>Triathlon Training</td>
<td>PE 214</td>
<td>2 Credits/Units</td>
<td>44 hours of lab</td>
<td>Theoretical basis and competencies needed to safely and effectively train to complete a small triathlon will be explored. Activities include swimming, cycling and running along with a self-contained mini triathlon at course conclusion. Students must know how to swim and have their own bicycle. [PE,SE][PNP]</td>
</tr>
<tr>
<td>Weight Training - General II</td>
<td>PE 215</td>
<td>1 Credit/Unit</td>
<td>22 hours of lab</td>
<td>Designed for the student who is interested in a more in-depth approach to advanced weight training exercises, programs, and systems. [PE,SE][PNP]</td>
</tr>
<tr>
<td>Fitness Center - Intermediate</td>
<td>PE 216</td>
<td>1 Credit/Unit</td>
<td>22 hours of lab</td>
<td>Introduction to the fundamental skills necessary to implement a physical activity program in a fitness center setting. Students develop and implement an exercise program appropriate to their fitness level and individual needs using a variety of cardiovascular and resistance machines. [PE,SE][PNP]</td>
</tr>
</tbody>
</table>
WEIGHT TRAINING-POWER LIFTING II

**Physical Education (PE)**

**WEIGHT TRAINING-POWER**

**WEIGHT TRAINING-POWER II**

**PE** 217

2 Credits/Units

44 hours of lab

**Prerequisite:** PE 117.

Continued application of skill and conditioning level. Application of workout design and training theory will also be covered and applied. Assessment of personal fitness parameters. [PE,SE][PNP]

**CARDIO**

**KICKBOXING-INT**

**PE** 220

1 Credit/Unit

22 hours of lab

**Prerequisite:** PE 120.

Continuation of PE 120. Intermediate students will demonstrate more advanced techniques and perform moves that require greater conditioning. Combines aerobic dance and martial arts, including American Kickboxing and Thai Boxing, in a format that increases cardiovascular endurance, sharpens reflexes and enhances power. [PE,SE][PNP]

**YOGA-INTERMEDIATE**

**HEART-INTERMEDIATE**

**PE** 221

1 Credit/Unit

22 hours of lab

**Prerequisite:** PE 121.

A continuation of Hatha yoga technique. Students will practice more advanced postures and a deeper exploration of body-mind centering. [PE,SE][PNP]

**HEALTHY**

**CLIMBING-INTERMEDIATE**

**PE** 223

1 Credit/Unit

22 hours of lab

**Prerequisite:** PE 123.

Continuation of exercise designed to lower risk for heart disease or to promote cardiac recovery. Study of healthy nutrition and stress reduction in the prevention of heart disease. [GE,PE,SE][PNP]

**PILATES-INTERMEDIATE**

**CAMP-INTERMEDIATE**

**PE** 224

1 Credit/Unit

22 hours of lab

**Prerequisite:** PE 124.

Continuation of Pilates method of conditioning needed to increase core strength and stabilization, improve coordination, balance, postural awareness, and increase muscular flexibility and stamina. [PE,SE][PNP]

**ROCK**

**SOCCER-INTERMEDIATE**

**PE** 225

1 Credit/Unit

22 hours of lab

**Prerequisite:** Completion of PE 125 or consent of Instructional Unit.

Learn advanced rock climbing methods. Bouldering technique and Lead Climbing skills will be taught, taking the student beyond the skills learned in PE 125. [PE,SE][PNP]

**BOOT**

**SOCCER-INTERCOLLEGIATE ADVANCED**

**PE** 229

2 Credits/Units

44 hours of lab

**Prerequisite:** PE 129.

Continuation of physical fitness for military purposes; emphasis on basic conditioning, discipline, and leadership. This course is open to all students. [PE,SE][PNP]

**BASKETBALL-INTERMEDIATE**

**BASKETBALL CONDITIONING-INTERMEDIATE**

**PE** 240

1 Credit/Unit

22 hours of lab

**Prerequisite:** PE 140.

Continuation of skills, practice, and competitive play. [PE,SE][PNP]

**BASKETBALL**

**BASKETBALL CONDITIONING**

**PE** 242

2 Credits/Units

44 hours of lab

**Prerequisite:** PE 142.

Further emphasis on fitness through running, related skills, and weight training activities. [PE,SE][PNP]

**BOWLING-INTERMEDIATE**

**PE** 243

1 Credit/Unit

22 hours of lab

**Prerequisite:** PE 143.

Advanced instruction in all phases of bowling including league play and competition. [PE,SE][PNP]

**FENCING-FOIL,SABRE/EPEE**

**FENCING-FOIL INTERMEDIATE**

**PE** 246

1 Credit/Unit

22 hours of lab

**Prerequisite:** PE 147.

Skill refinement and advanced technique for experienced foil fencers. [PE,SE][PNP]

**GOLF-INTERMEDIATE**

**PE** 248

1 Credit/Unit

22 hours of lab

**Prerequisite:** PE 150.

Focus on learning and applying more advanced individual skills utilizing small and large groups to demonstrate more advanced team tactics. [PE,SE][PNP]

**SOCCER-INTERCOLLEGIATE ADVANCED**

**PE** 251

2 Credits/Units

44 hours of lab

**Prerequisite:** PE 158.

Further development of individual skills, team offenses and defenses learned in the beginning level PE 158. [PE,SE][PNP]

**SOFTBALL-INTERMEDIATE**

**PE** 253

1 Credit/Unit

22 hours of lab

**Prerequisite:** PE 153.

Continuation of skills, team play, offensive and defensive strategy, and team organization. [PE,SE][PNP]

**SOFTBALL-INTERMEDIATE**

**PE** 255

1 Credit/Unit

22 hours of lab

**Prerequisite:** PE 155.

Continuation of skills, team play, offensive and defensive strategy, and team organization. [PE,SE][PNP]

**TENNIS-INTERMEDIATE**

**PE** 258

1 Credit/Unit

22 hours of lab

**Prerequisite:** PE 158.

Continuation of skills, team play, offensive and defensive strategy, and team organization. [PE,SE][PNP]

**TENNIS-INTERMEDIATE**

**PE** 259

1 Credit/Unit

22 hours of lab

**Prerequisite:** PE 155.

Continuation of skills, team play, offensive and defensive strategy, and team organization. [PE,SE][PNP]
VOLLEYBALL-POWER
PE  260  1 Credit/Unit
22 hours of lab
Prerequisite: PE 158 and PE 258 or competitive experience.
Higher level of volleyball for the advanced player utilizing advanced skills and drills. Emphasis will be placed on advanced offensive and defensive strategies. [PE,SE][PNP]

BILLIARDS-INTERMEDIATE
PE  262  1 Credit/Unit
22 hours of lab
Prerequisite: PE 162.
Continuation of PE 162. Further development of more complex shots and strategies (English, duck, bunk, diamond). Provide assistance to the 100 level students with their basic stance and technique. [PE,SE][PNP]

ULTIMATE FRISBEE-INTERMEDIATE
PE  263  1 Credit/Unit
22 hours of lab
Prerequisite: PE 163.
Continuation of individual skill development, rules, game play, and strategies for the intermediate level ultimate Frisbee player. [PE,SE][PNP]

AQUA EXERCISE-INTERMEDIATE
PE  271  1 Credit/Unit
22 hours of lab
Prerequisite: PE 171.
Continuation of water exercise conditioning through stretching, flexibility, abdominal and back strength. [PE,SE][PNP]

SWIMMING-STROKE IMPROVEMENT
PE  275  1 Credit/Unit
22 hours of lab
Prerequisite: PE 175.
Review Red Cross swimming strokes, water survival and safety skills. For the swimmer who is comfortable in deep water and can swim 25 yards. [PE,SE][PNP]

SWIM CONDITIONING-INTERMEDIATE
PE  279  1 Credit/Unit
22 hours of lab
Prerequisite: PE 179.
Continued practice of swimming fitness through lap swimming. Students will participate in a workout designed to address their particular fitness and skill level. [PE,SE,GE][PNP]

SELECTED TOPICS
PE  280  5 Credits/Units
55 hours of lecture
The course focuses on selected topics in Physical Education. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the term class schedules. [PE, SE]

HIKING-INTERMEDIATE
PE  282  1 Credit/Unit
22 hours of lab
Continuation of hiking skills with focus on advanced safety and survival skills. Explore local hiking options, practice low-impact hiking methods on longer, more challenging hikes, and plan a future hike. [PE,SE,GE][PNP]
## PHYSICAL EDUCATION DANCE (PEDNC)

### BALLET-BEGINNING

**PEDNC130**  
1 Credit/Unit  
22 hours of lab  
Beginning ballet technique including barre and centre work. [PE, SE]

### BALLET-BEGINNING

**PEDNC130**  
1 Credit/Unit  
22 hours of lab  
Beginning ballet technique including barre and centre work. [PE, SE]

### BALLROOM DANCE: MIXED

**PEDNC131**  
3 Credits/Units  
66 hours of lab  
Fundamentals, forms and pattern of ballroom dance. Develop confidence through practice with a variety of partners in both smooth and Latin style dances to include: waltz, tango, fox trot, quick step and Viennese waltz, mambo, cha cha, rhumba, samba, salsa.

### BALLROOM DANCE: SMOOTH

**PEDNC132**  
1 Credit/Unit  
22 hours of lab  
Fundamentals, forms and pattern of ballroom dance. Develop confidence through practice with a variety of partners. Smooth style dances include waltz, tango, fox trot, quick step and Viennese waltz. [PE, SE]

### BALLROOM DANCE: LATIN

**PEDNC133**  
1 Credit/Unit  
22 hours of lab  
Fundamentals, forms and pattern of ballroom dance. Develop confidence through practice with a variety of partners. Latin style dances include: mambo, cha cha, rhumba, samba, salsa. [PE, SE]

### CONTEMPORARY DANCE

**PEDNC134**  
1 Credit/Unit  
22 hours of lab  
Fundamentals and techniques of modern dance and rhythmic self-expression. [PE, SE]

### SWING DANCE-BEGINNING

**PEDNC135**  
1 Credit/Unit  
22 hours of lab  
Basic patterns and partnering skills for East Coast Swing (jive), West Coast Swing (hustle), and Lindy Hop. Course covers dance technique, partnering skills, patterns and music identification. [PE, SE]

### MODERN DANCE

**PEDNC136**  
1 Credit/Unit  
22 hours of lab  
Beginning Modern Jazz technique. Students will study fundamental moves and learn a routine. [PE, SE]

### HIP-HOP DANCE

**PEDNC137**  
1 Credit/Unit  
22 hours of lab  
Introduction to basic dance techniques, floor combinations, balance, and longer dance routines of hip hop dance. Develop confidence and skill through practice. [PE, SE]

### TAP DANCE

**PEDNC138**  
1 Credit/Unit  
22 hours of lab  
Introduction to beginning tap dance. Basic fundamentals will be studied and combinations will be put to use daily. Routines will be learned. [PE, SE]

### ZUMBA

**PEDNC140**  
1 Credit/Unit  
22 hours of lab  
A fusion of Latin and international music-dance themes, featuring aerobic/fitness interval training with a combination of fast and slow rhythms that tone and sculpt the body. [PE, SE]

### HULA

**PEDNC141**  
1 Credit/Unit  
22 hours of lab  
Focus on Hawaiian traditional dance forms. [PE, SE]

### AFRICAN DANCE

**PEDNC142**  
1 Credit/Unit  
22 hours of lab  
Introduction to African dance, which focuses on drumming, rhythm, and music predominantly of West Africa. [PE, SE]

### BOLLYWOOD

**PEDNC143**  
1 Credit/Unit  
22 hours of lab  
Introduction to dances of India, sometimes referred to as Indian Fusion. Dance styles focus on semi-classical, regional, folk, bhangra, and everything in between—up to westernized contemporary bollywood dance. [PE, SE]

### IRISH DANCE

**PEDNC144**  
1 Credit/Unit  
22 hours of lab  
Introduction to Irish dance, focusing on soft shoe and Ceili (group) dances. Dances include reel, jig, and hornpipe. [PE, SE]

### BELLY DANCE

**PEDNC145**  
1 Credit/Unit  
22 hours of lab  
Gain knowledge of movement and dance steps, culture and history, various rhythms, country of origin and related movements. Egyptian music is the predominant focus. [PE, SE]

### BALLET-INTERMEDIATE

**PEDNC230**  
1 Credit/Unit  
22 hours of lab  
Prerequisite: PEDNC 130.  
Stronger techniques with more advanced steps and combinations including toe. [PE, SE]

### BALLROOM DANCE-INTERMEDIATE: MIXED

**PEDNC231**  
3 Credits/Units  
66 hours of lab  
Prerequisite: PEDNC 131.  
Fundamentals, forms and pattern of ballroom dance. Develop confidence through practice with a variety of partners in both smooth and Latin style dances to include: waltz, tango, fox trot, quick step and Viennese waltz, mambo, cha cha, rhumba, samba, salsa. [PE, SE]

### BALLROOM DANCE-INTERMEDIATE: SMOOTH

**PEDNC232**  
1 Credit/Unit  
22 hours of lab  
Prerequisite: PEDNC 131 or PEDNC 132.  
Fundamentals, forms and pattern of ballroom dance. Develop confidence through practice with a variety of partners. Smooth style dances include waltz, tango, fox trot, quick step and Viennese waltz. [PE, SE]
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Credits/Units</th>
<th>Prerequisite(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEDNC233</td>
<td>BALLROOM DANCE-INTERMEDIATE: LATIN</td>
<td>1</td>
<td>1 Credit/Unit</td>
<td>PEDNC 131 or PEDNC 132.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>22 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fundamentals, forms and pattern of ballroom dance. Develop confidence through practice with a variety of partners. Latin dance sections will include: mambo, cha cha, rumba, samba, and salsa. [PE,SE]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEDNC234</td>
<td>CONTEMPORARY DANCE-INTERMEDIATE</td>
<td>1</td>
<td>1 Credit/Unit</td>
<td>PEDNC 134.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>22 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intermediate techniques with opportunities for individual and group composition. [PE,SE]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEDNC235</td>
<td>SWING DANCE-INTERMEDIATE</td>
<td>1</td>
<td>1 Credit/Unit</td>
<td>PEDNC 135.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>22 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Includes partnering techniques such as leverage, posture, hovering, contrary body movement, rise and fall, and sway, and styling such as Cuban motion for Latin, spring action for East Coast Swing and heel leads for smooth. Introduction to opposite role as lead/follow. [PE,SE]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEDNC236</td>
<td>MODERN JAZZ-INTERMEDIATE</td>
<td>1</td>
<td>1 Credit/Unit</td>
<td>PEDNC 136.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>22 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Refinement of jazz technique and skill improvement. [PE,SE]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEDNC237</td>
<td>HIP-HOP DANCE-INTERMEDIATE</td>
<td>1</td>
<td>1 Credit/Unit</td>
<td>PEDNC 137.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>22 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intermediate study of dance techniques, floor combinations, balance, and longer dance routines of hip hop dance. Develop more confidence and skill through practice. [PE,SE]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEDNC238</td>
<td>TAP DANCE-INTERMEDIATE</td>
<td>1</td>
<td>1 Credit/Unit</td>
<td>PEDNC 138.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>22 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intermediate tap dance techniques. Going beyond the basic fundamentals, intermediate level steps and combinations will be studied and put to use daily. Routines will be learned. Student choreography may be included. [PE,SE]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEDNC240</td>
<td>ZUMBA DANCE-INTERMEDIATE</td>
<td>3</td>
<td>3 Credits/Units</td>
<td>PEDNC 140.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>66 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A fusion of Latin and International music-dance themes, featuring aerobic/fitness interval training with a combination of fast and slow rhythms that tone and sculpt the body. [PE,SE]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEDNC241</td>
<td>HULA DANCE-INTERMEDIATE</td>
<td>1</td>
<td>1 Credit/Unit</td>
<td>PEDNC 141.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>22 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Focus on Hawaiian traditional dance forms. [PE,SE]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEDNC242</td>
<td>AFRICAN DANCE-INTERMEDIATE</td>
<td>1</td>
<td>1 Credit/Unit</td>
<td>PEDNC 142.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>22 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Continuation of African dance, which focuses on drumming, rhythm, and music predominantly of West Africa. [PE,SE]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEDNC243</td>
<td>BOLLYWOOD DANCE-INTERMEDIATE</td>
<td>1</td>
<td>1 Credit/Unit</td>
<td>PEDNC 143.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>22 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Continuation of the dances of India, sometimes referred to as Indian Fusion. Dance styles focus on semi-classical, regional, folk, bhangra, and everything in between—up to westernized contemporary bollywood dance. [PE,SE]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEDNC244</td>
<td>IRISH DANCE-INTERMEDIATE</td>
<td>1</td>
<td>1 Credit/Unit</td>
<td>PEDNC 144.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>22 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intermediate Irish Dance course on more advanced soft shoe solo and Ceili (group) dances. Dances include the reel, jig, and hornpipe. [PE,SE]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEDNC245</td>
<td>BELLY DANCE-INTERMEDIATE</td>
<td>1</td>
<td>1 Credit/Unit</td>
<td>PEDNC 145.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>22 hours of lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Continuation of the skills learned in PEDNC 145, plus new variations and intermediate study of Middle Eastern Dance techniques. [PE,SE]</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PHYSICAL EDUCATION EXCERCISE SCIENCE (PEEXS)

CARE AND PREVENTION OF ATHLETIC INJURIES
PEEXS291 3 Credits/Units
22 hours of lecture / 22 hours of lab
Prerequisite: A grade of 'C' or better in FT 150, BIOL 164, or BIOL 251, or consent of Instructional Unit.
Injury prevention in sports through understanding of conditioning, biomechanics, taping, bandaging, nutrition, immediate post-injury care, and rehabilitation of sports injury. [SE] [PNP]

MENTAL PERFORMANCE IN SPORTS
PEEXS293 3 Credits/Units
33 hours of lecture
Theories and strategies of mental preparation for improvement in individual and team performances. Discussion topics include: personality, motivational model, time management/goal setting techniques. Coach profiles, team communication, steps to team building, stress management and performance anxiety and imagery will also be covered. A review of current literature and the case analysis method will provide opportunity for individual and group application of presented materials. [SE] [PNP]

SPORT IN SOCIETY
PEEXS294 3 Credits/Units
33 hours of lecture
Explores the relationship which exists between the multifaceted world of sport and society. Discussion topics include: racism, gender in equality, aggression, deviancy, media/commercialism, as well as youth sports. Discussion will also include the concept of play, competition and the rapid development of youth sport programs and their impact on the family unit. [PE, SE] [PNP]

INTRODUCTION TO SPORTS OFFICIATING
PEEXS295 2 Credits/Units
22 hours of lecture
This is an introductory course to sports officiating, exploring basic officiating skills including but not limited to communication, conflict management, professionalism, and personal fitness. In addition, practical experience in sport-specific officials associations will prepare students for national and local certifications that will enhance employment opportunities.
PHYSICAL EDUCATION
MARTIAL ARTS (PEMAR)

T'AI CHI
PEMAR150 1 Credit/Unit
22 hours of lab
T'ai Chi is an ancient form of mental and spiritual discipline developed in China. The movements of the t'ai chi form are slow and deliberate, helping with relaxation, focus, strengthening, and balance. [PE, SE]

MARTIAL ARTS: TAE KWON DO
PEMAR151 1 Credit/Unit
22 hours of lab
Tae Kwon Do is a Korean martial art that predominately focuses on kicking. [PE, SE]

MARTIAL ARTS: KUNG FU
PEMAR152 1 Credit/Unit
22 hours of lab
Kung-Fu is a Chinese method of self-defense. Students will learn history, philosophy, basic strikes, blocks, and escapes from various attacks and grabs. [PE, SE]

MARTIAL ARTS: BRAZILIAN JIU-JITSU
PEMAR153 1 Credit/Unit
22 hours of lab
Brazilian Jiu-Jitsu is a Brazilian sport/self defense that uses grappling, wrestling, and locking techniques. A uniform is required. [PE, SE]

MARTIAL ARTS: JUDO
PEMAR154 1 Credit/Unit
22 hours of lab
Judo is a close-quarter combat martial art where students learn falling techniques, basic takedowns, escapes, and joint locks. [PE, SE]

SELF DEFENSE
PEMAR155 1 Credit/Unit
22 hours of lab
This course is designed to teach the student basic self-defense techniques as well as situational awareness through class participation and discussion. [PE, SE]

T'AI CHI - INTERMEDIATE
PEMAR250 1 Credit/Unit
22 hours of lab
Prerequisite: PEMAR 150.
T'ai Chi is an ancient form of mental and spiritual discipline developed in China. The movements of the t'ai chi form are slow and deliberate, helping with relaxation, focus, strengthening, and balance. [PE, SE]

MARTIAL ARTS-INTERMEDIATE: TAE KWON DO
PEMAR251 1 Credit/Unit
22 hours of lab
Prerequisite: PEMAR 151.
Tae Kwon Do is a Korean martial art that predominately focuses on kicking. [PE, SE]

MARTIAL ARTS-INTERMEDIATE: KUNG FU
PEMAR252 1 Credit/Unit
22 hours of lab
Prerequisite: PEMAR 152.
Kung-Fu is a Chinese method of self-defense. Students will learn history, philosophy, basic strikes, blocks, and escapes from various attacks and grabs. [PE, SE]
PHYSICAL SCIENCE (PHSC)

GENERAL PHYSICAL SCIENCE
PHSC 101 5 Credits/Units
44 hours of lecture / 22 hours of lab
How the world around us behaves depends on the nature of matter and energy. Physical laws are presented in this course that describe the interaction of matter and energy. These laws are used to help explain experiences from daily life. For the non-science major, with little or no science background. [NS, SE]

PHSC 102 5 Credits/Units
44 hours of lecture / 22 hours of lab
A chemistry-focused physical science class, in which we will explore practical applications of chemical reactions. Different branches of chemistry such as inorganic, organic, biochemistry and green chemistry will be discussed as they pertain to the real world. For non-science majors with little or no science background. No prerequisites are required. [NS, SE]

PHSC 104 5 Credits/Units
44 hours of lecture / 33 hours of lab
Introduction to the engineering method of problem solving through guided Engineering design projects. Focus on developing group skills, understanding the effects of different learning styles, producing strategies for innovation, and fostering creativity in problem solving. Cannot receive credit for both PHSC 104 and ENGR 104. [NS, SE]

PHSC 106 3 Credits/Units
33 hours of lecture
Prerequisite: A grade of 'C' or better in ENGL 098, or eligibility for ENGL 101.
Introduction to basic chemical concepts using cooperative learning and the backdrop of environmental science. This course is writing-intensive, requiring weekly essays discussing select chemical applications in the world around us. Topics include: energy and nutrient flow through the ecosystem; chemical hurdles facing agriculture; chemical, physical, and nuclear reactions of energy production; ramifications of chemical pollution; green chemical solutions. Intended for non-science majors with little or no scientific background. [NS, SE]

PHSC 110 5 Credits/Units
33 hours of lecture
Prerequisite: Eligibility for MATH 096.
Introduction to the Scientific Method and the principles of Physics, and Chemistry through the investigation of Science Fiction. Learn to distinguish between science and pseudoscience. Through the investigation of science fiction TV shows and films we will establish and investigate both accepted scientific principles and examine and invalidate others. [NS, SE] [PNP]

PHSC 199 3 Credits/Units
99 hours of clinical
Prerequisite: Consent of Instructional Unit.
Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. [GE]

SELECTED TOPICS
PHSC 280 5 Credits/Units
55 hours of lecture
The course focuses on selected topics in Physical Sciences. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the quarterly class schedule. [GE]
PHYSICS (PHYS)

APPLIED PHYSICS

PHYS 090
44 hours of lecture / 22 hours of lab
Topics include force, motion, torque, energy, power, friction, electricity, magnetism, mechanical advantage, fluids, metric measurement, elasticity, heat, temperature, heat transfer, and heat engines. Open to all students seeking an Applied Science degree.

PHYSICS

PHYS 091
11 hours of lecture
Concurrent enrollment in PHYS & 124 is required. Methods of problem-solving in physics. [PNP]

PHYSICS

PHYS 092
11 hours of lecture
Concurrent enrollment in PHYS& 125 required. Methods of problem-solving in physics. [PNP]

PHYSICS

PHYS 093
11 hours of lecture

PHYSICS

PHYS 094
11 hours of lecture
Concurrent enrollment in PHYS 221 required. Methods of problem-solving in physics.

PHYSICS

PHYS 095
11 hours of lecture

PHYSICS

PHYS 096
11 hours of lecture

PHYSICS

PHYS100
44 hours of lecture
Concurrent enrollment in PHYS 101 Lab course required.
**Prerequisite:** MATH 090 or equivalent. Introduction to basic physics concepts for non-science majors, technical students, or students who desire a PHYS 121 or 221 preparatory course. [NS, SE]

PHYSICS LAB NON-SCI MAJORS

PHYS&101
33 hours of lab
Concurrent enrollment in PHYS 101 course required or consent of the instructor. Laboratory study of basic physics concepts for non-science majors, technical students, or students who desire a PHYS 121 or 221 preparatory course. [NS, SE]

PHYSICS LAB

PHYS 091
5 Credits/Units
44 hours of lecture / 22 hours of lab
Topics include force, motion, torque, energy, power, friction, electricity, magnetism, mechanical advantage, fluids, metric measurement, elasticity, heat, temperature, heat transfer, and heat engines. Open to all students seeking an Applied Science degree.

CALCULATIONS

PHYS 091
1 Credit/Unit

CALCULATIONS

PHYS 092
1 Credit/Unit

CALCULATIONS

PHYS 093
1 Credit/Unit

CALCULATIONS

PHYS 094
1 Credit/Unit

CALCULATIONS

PHYS 095
1 Credit/Unit

CALCULATIONS

PHYS 096
1 Credit/Unit

CALCULATIONS

PHYS100
4 Credits/Units

GENERAL PHYSICS LAB I

PHYS&124
33 hours of lab
Concurrent enrollment in PHYS& 134. Exploration of classical physics topics in mechanics through laboratory experience. [NS, SE]

GENERAL PHYSICS LAB II

PHYS&125
33 hours of lab
Concurrent enrollment in PHYS& 135. Exploration of classical physics topics in fluids, thermodynamics, and sound through laboratory experience. [NS, SE]

GENERAL PHYSICS LAB III

PHYS&126
33 hours of lab
Concurrent enrollment in PHYS& 136. Exploration of classical physics topics in electricity and magnetism, optics, and modern physics through laboratory experience. [NS, SE]

ENGINEERING PHYSICS LAB I

PHYS&231
33 hours of lab
Concurrent enrollment in PHYS& 241. Students will explore classical physics topics in mechanics through laboratory experience. [NS, SE]
ENGINEERING PHYSICS LAB II
PHYS&232 1 Credit/Unit
33 hours of lab
Concurrent enrollment in PHYS 242.
Students will explore classical physics topics in fluids, thermodynamics, and sound through laboratory experience. [NS, SE]

ENGINEERING PHYSICS LAB III
PHYS&233 1 Credit/Unit
33 hours of lab
Concurrent enrollment in PHYS 243.
Students will explore classical physics topics in electricity and magnetism, optics, and modern topics through laboratory experience. [NS, SE]

ENGINEERING PHYSICS I
PHYS&241 4 Credits/Units
44 hours of lecture
Concurrent enrollment in PHYS 231 and PHYS 094.
Prerequisite: Completion of or concurrent enrollment in MATH 152 (or MATH 211).
Classical physics topics in mechanics. For students majoring in engineering, chemistry, physics, geology, or mathematics. Beginning course of a three-term sequence offered each year starting fall and winter terms. [NS, SE]

ENGINEERING PHYSICS II
PHYS&242 4 Credits/Units
44 hours of lecture
Concurrent enrollment in PHYS 232 and PHYS 095.
Prerequisite: A grade of ‘C’ or better in PHYS 241.
Physics topics in fluids, heat, thermodynamics, sound, electricity, and magnetism. Second term of a three-term sequence beginning with PHYS 241. [NS, SE]

ENGINEERING PHYSICS III
PHYS&243 4 Credits/Units
44 hours of lecture
Concurrent enrollment in PHYS 233 and PHYS 096.
Prerequisite: A grade of ‘C’ or better in PHYS 242.
Topics in electricity, magnetism, atomic and nuclear physics, and optics. Third term of a three-term sequence beginning with PHYS 241. [NS, SE]

SPECIAL PROJECTS
PHYS 290 5 Credits/Units
Prerequisite: Consent of Instructional Unit.
Opportunity to plan, organize and complete special projects approved by the department. [GE]
## POLITICAL SCIENCE (POLS)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 111</td>
<td>55 hours of lecture</td>
<td>5</td>
</tr>
<tr>
<td>POLS 131</td>
<td>55 hours of lecture</td>
<td>5</td>
</tr>
<tr>
<td>POLS 199</td>
<td>99 hours of clinical work experience</td>
<td>3</td>
</tr>
<tr>
<td>POLS&amp;203</td>
<td>55 hours of lecture</td>
<td>5</td>
</tr>
<tr>
<td>POLS 200</td>
<td>55 hours of lecture</td>
<td>5</td>
</tr>
<tr>
<td>POLS 220</td>
<td>55 hours of lecture</td>
<td>5</td>
</tr>
<tr>
<td>POLS 221</td>
<td>55 hours of lecture</td>
<td>5</td>
</tr>
<tr>
<td>POLS 222</td>
<td>55 hours of lecture</td>
<td>5</td>
</tr>
<tr>
<td>POLS 223</td>
<td>55 hours of lecture</td>
<td>5</td>
</tr>
<tr>
<td>POLS 229</td>
<td>55 hours of lecture</td>
<td>5</td>
</tr>
<tr>
<td>POLS 231</td>
<td>55 hours of lecture</td>
<td>5</td>
</tr>
<tr>
<td>POLS 280</td>
<td>55 hours of lecture</td>
<td>5</td>
</tr>
<tr>
<td>POLS 290</td>
<td>55 hours of lecture</td>
<td>5</td>
</tr>
</tbody>
</table>

### Prerequisites

- POLS 111, 131 or POLS 203 (or POSC 111, 131 or 211), or consent of Instructional Unit.

### Description

- **THE GEOPOLITICS OF CHINA, JAPAN & EAST ASIA**
  - POLS 222
  - Description: Geo-political survey of China, Japan and East Asia, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. This course will also examine the importance and impact of China, Japan and East Asia on the rest of the world, as well as examine the impact and influence of the rest of the world on China, Japan and East Asia. Credit not allowed for both POLS 222 and GEOG 222. [SE]

- **THE GEOPOLITICS OF SOUTH AND CENTRAL ASIA**
  - POLS 223
  - Description: Geo-political survey of South and Central Asia, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. This course will also examine the importance and impact of South and Central Asia on the rest of the world, as well as examine the impact and influence of the rest of the world on South and Central Asia. Credit not allowed for both POLS 223 and GEOG 223. [SE]

- **THE GEOPOLITICS OF THE MIDDLE EAST**
  - POLS 220
  - Description: Geo-political survey of the Middle East, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. This course will also examine the importance and impact of the Middle East on the rest of the world, as well as the impact and influence of the rest of the world on the Middle East. Credit not allowed for both POLS 220 and GEOG 220. [SE]

- **THE GEOPOLITICS OF AFRICA**
  - POLS 221
  - Description: Geo-political survey of Africa, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. This course will also examine the importance and impact of Africa on the rest of the world, as well as examine the impact and influence of the rest of the world on Africa. Credit not allowed for both POLS 221 and GEOG 221. [SE]
PROFESSIONAL BAKING (PBAK)

ARTISAN BREADS
PBAK 110 9 Credits/Units
22 hours of lecture / 154 hours of lab
Concurrent enrollment in PBAK 111.
Prerequisite: Eligible for ENGL 098 and MATH 030 or MATH 092.
Begins with straight doughs and progresses through overnight fermentation, enrichment, pre-ferments, sourdoughs, rye breads, history of bread-making, professionalism in the workplace, safety and sanitation, equipment use and safety, baker’s math, weights and measures and note-taking. Valid Washington State food handlers card.

EARLY MORNING PRODUCT
PBAK 111 5 Credits/Units
22 hours of lecture / 66 hours of lab
Concurrent enrollment in PBAK 110.
Prerequisite: Eligible for ENGL 098 and MATH 030 or MATH 092.
Covers early morning product and their methods; scones, biscuits and muffins. Includes many specialty and seasonal product such as cake donuts, yeast-raised donuts, fruit pies and cream pies. Covers professionalism in the workplace, bakeshop safety and sanitation, equipment use and safety, baker’s math, weights and measures. Students are required to take thorough notes on all lectures, demos and processes. Valid Washington State food handlers card.

VIENNOISERIE
PBAK 120 9 Credits/Units
22 hours of lecture / 154 hours of lab
Concurrent enrollment in PBAK 121.
Prerequisite: Eligible for ENGL 098 and MATH 030 or MATH 092.
Covers laminated doughs, brioche and sweet doughs. Students will learn various pre-ferments, mixing, fermentation, laminating techniques, makeup of product, proofing and baking. Also covered is professionalism in the workplace, safety and sanitation, equipment use and safety, baker’s math, weights and measures. Students will learn to assemble a variety of classic cakes, tortes and tart crusts, creams, custards, mousses, butter creams and fillings. Valid Washington State food handlers card.

COOKIES, BROWNIES, BARS AND QUICK BREADS
PBAK 121 5 Credits/Units
22 hours of lecture / 66 hours of lab
Concurrent enrollment in PBAK 120.
Prerequisite: Eligible for ENGL 098 and MATH 030 or MATH 092.
Covers production of a variety of cookies by method such as bar, rolled, cut, scooped, refrigerator and decorated. Also covered are brownies, layered bars, cheesecake bars and quick breads. Also covers professionalism in the workplace, safety and sanitation, equipment use and safety, baker’s math, weights and measures and note-taking. Valid Washington State food handlers card.

BEGINNING CAKE DECORATING
PBAK 125 3 Credits/Units
22 hours of lecture / 22 hours of lab
Prerequisite: Consent of Instructional Unit.
Covers the basics of cake decorating. Includes professionalism in the workplace, bakeshop safety and sanitation, equipment use and safety. Bas tools of cake decorating and their applications, cutting, filling, crumb frosting and final frosting a cake, borders, writings, basic flowers, and color scheme will be covered. Valid Washington State food handlers card.

INTERMEDIATE CAKE DECORATING
PBAK 126 3 Credits/Units
22 hours of lecture / 22 hours of lab
Prerequisite: A grade of ‘C’ or better in PBAK 125.
Continuation of the basics of cake decorating. Covers professionalism in the workplace, bakeshop safety and sanitation, equipment use and safety. The basic tools of cake decorating and their applications, cutting, filling, crumb frosting and final frosting a cake, borders, writings, extended flower working, and color scheme will be covered. Fondant and fondant working tools will be introduced. Valid Washington State food handlers card.

ADVANCED CAKE DECORATING
PBAK 127 3 Credits/Units
22 hours of lecture / 22 hours of lab
Prerequisite: A grade of ‘C’ or better in PBAK 126.
Continuation of the Intermediate Cake Decorating course. Covers professionalism in the workplace, bakeshop safety and sanitation, equipment use and safety. The basic tools of cake decorating and their applications, cutting, filling, crumb frosting and final frosting a cake, borders, writings, basic flowers, and color scheme will be covered. Continued work with fondant and color working. Valid Washington State food handlers card.

CAKES, DESSERTS AND TORTES
PBAK 130 9 Credits/Units
22 hours of lecture / 154 hours of lab
Concurrent enrollment in PBAK 131.
Prerequisite: Eligible for ENGL 098 and MATH 030 or MATH 092.
Covers the mixing methods of various types of cakes and tortes. Includes tart crusts, creams, custards, mousses, butter creams and fillings. Students will learn to assemble a variety of classic cakes, tortes and desserts as well as more modern cakes, from start to finish. Also covered is professionalism in the workplace, safety and sanitation, equipment use and safety, baker’s math, weights and measures and note-taking. Valid Washington State food handlers card.

RETAIL OPERATIONS AND BARISTA
PBAK 131 5 Credits/Units
22 hours of lecture / 66 hours of lab
Concurrent enrollment in PBAK 130.
Prerequisite: Eligible for ENGL 098 and MATH 030 or MATH 092.
Students will learn how to set up the retail area for daily operation, how to make a variety of specialty coffees, cold drinks, Italian sodas and featured drinks. Marketing for effective sales, efficient and friendly customer service and the proper operation of POS system will also be discussed. Valid Washington State food handlers card.

APPLIED PROFESSIONAL DEVELOPMENT
PBAK 200 9 Credits/Units
11 hours of lecture / 176 hours of lab
Prerequisite: Successful completion of PBAK 110, PBAK 111, PBAK 120, PBAK 121, PBAK 130 and PBAK 131.
Students will spend two weeks in each of four areas; Artisan bread, Viennoiserie, cakes and tortes, early morning/store/retail. Utilizing acquired skills and knowledge, they will be responsible for production of all product for the retail store. They will create and follow a production schedule, inventory and store product, do mise en place for the next day and clean the station at the end of each day. Valid Washington State food handlers card.
PRODUCTION BAKING
PBAK 210 9 Credits/Units
22 hours of lecture / 154 hours of lab
Concurrent enrollment in PBAK 211.
Prerequisite: A grade of 'C' or better in PBAK 200 and eligibility for ENGL 098 and MATH 030 or MATH 092.
Utilizing acquired skills, students will operate and manage their own production bakery. They will produce product needed for sale in the retail store from the following areas; breakfast items, Vienoisserie, artisan bread, bars, cookies, cakes and dessert items. They will be responsible for planning a daily production schedule, inventory, purchase of necessary ingredients, costing and maintaining daily operation of their station. Valid Washington State food handlers card.

CHOCOLATE LAB
PBAK 211 5 Credits/Units
22 hours of lecture / 66 hours of lab
Concurrent enrollment in PBAK 211.
Prerequisite: A grade of 'C' or better in PBAK 200 and eligibility for ENGL 098 and MATH 030 or MATH 092.
Students will learn the origin of chocolate as well as the various types, brands, flavor profiles and qualities of chocolate. Practical application will include tempering chocolate, fillings, shelling and bottoming chocolates. Also covered is professionalism in the workplace, safety and sanitation, equipment use and safety, baker’s math, weights and measures and note-taking. Valid Washington State food handlers card.

PAstry CHEF/RESTAURANT BAKING
PBAK 220 9 Credits/Units
22 hours of lecture / 154 hours of lab
Concurrent enrollment in PBAK 221.
Prerequisite: A grade of 'C' or better in PBAK 200 and eligible for ENGL 098 and MATH 030 or MATH 092.
Students will be responsible for meeting with the chef of the CTO station to determine the baking/dessert needs for the restaurant each day. They will design and create a dessert menu for the restaurant and upon approval and will make desserts for the daily lunch service. Students will provide a variety of breads/rolls for lunch service and will be required to generate a production schedule that includes daily mise en place, purchasing of required ingredients, inventory and maintenance of the station. Must demonstrate ability to plan and execute production for maximum efficiency and accuracy using proper sanitation practices. Valid Washington State food handlers card.

RETAIL/MERCHANDISING, INVENTORY/PURCHASING
PBAK 221 5 Credits/Units
22 hours of lecture / 66 hours of lab
Concurrent enrollment in PBAK 220.
Prerequisite: A grade of 'C' or better in PBAK 200 and eligible for ENGL 098 and MATH 030 or MATH 092.
Students will learn how to set up the retail area for daily operation, how to make a variety of specialty coffees, cold drinks, Italian sodas and featured drinks. They will learn marketing for effective sales, efficient and friendly customer service. Students will learn proper operation of POS system as well as professionalism in the workplace, safety and sanitation, equipment use and safety. Valid Washington State food handlers card.

CAPSTONE PROJECT
PBAK 230 6 Credits/Units
11 hours of lecture / 110 hours of lab
Concurrent enrollment in PBAK 231.
Prerequisite: A grade of 'C' or bettering PBAK 200 and eligible for ENGL 098 and MATH 030 or MATH 092.
Students will have five weeks to prepare and execute a display covering one of the following areas: Vienoisserie, Artisan breads, Viennese table, Plated Desserts or Dessert Bar. Each student will receive a complete list of requirements at the beginning of the class. The project will be presented to the faculty for judging. Instruction also covers career development. Valid Washington State food handlers card.

INDUSTRY INTERNSHIP
PBAK 231 4 Credits/Units
132 hours of clinical
Concurrent enrollment in PBAK 230.
Prerequisite: A grade of 'C' or better in PBAK 200 and eligible for ENGL 098 and MATH 030 or MATH 092.
Students will complete a five week externship at an approved bakeshop. Prior to starting the externship, students will generate a list of learning objectives for the externship. Students are required to keep a daily journal of their experience. All paperwork must be turned in upon completion of the externship. Valid Washington State food handlers card.
PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS (PTCS)

PTCS 110  5 Credits/Units
55 hours of lecture

Prerequisite: A grade of 'C' or better in MATH 030 or MATH 092 or CAP 042 or recommending score on placement test.

Intended for students enrolled in career technical education programs. It includes topics from algebra, geometry, statistics, inductive reasoning, and trigonometry with an emphasis on applications and measurement. This course will satisfy the computational requirement for the Certificate of Proficiency, Associate of Applied Science and the Associate of Applied Technology.
PROFESSIONAL TECHNICAL WRITING (PTWR)

INTRODUCTION TO APPLIED TECHNICAL WRITING

PTWR 135  5 Credits/Units

55 hours of lecture

Prerequisite: A grade of 'C' or better in ENGL 098 taken at 5 credits or recommending score on the writing skills placement test for ENGL 101.

Introduction to principles of effective workplace communication: focus on methods of writing clear, concise documents for technical audiences and purposes; summarizing technical information; collaborating successfully in small groups. For students of all technical fields. [CA,CT,GE]
GENERAL
PSYC&100
5 Credits/Units
55 hours of lecture
Prerequisite: Eligibility for enrollment in ENGL 101.
The scientific study of behavior and mental processes including research methods, psychobiological processes, learning, memory, psychological disorders, psychotherapy, and other topics to be determined by the instructor. [SE,HR,SS][PNP]

PSYCHOLOGY
PSYC 100
55 hours of lecture
Prerequisite: Eligibility for enrollment in ENGL 101.
The scientific study of behavior and mental processes including research methods, psychobiological processes, learning, memory, psychological disorders, psychotherapy, and other topics to be determined by the instructor. [SE,HR,SS][PNP]

PSYCHOSOCIAL ISSUES IN HEALTH CARE I
PSYC 122
1 Credit/Unit
11 hours of lecture
Concurrent enrollment in NURS 122, NURS 123, NURS 124, NURS 127, NURS 128, and PSYC 124.
Prerequisite: A grade of 'C' or better in PSYC 100, NURS 110, NURS 111, NURS 113, NURS 114, and ENGL 112.
Examines some determinants of health and illness including social, psychological, environmental, spiritual, and cultural dimensions across the lifespan and within the context of health care. Application of concepts from previous courses in psychology and sociology to the direct care of patients/clients in various healthcare settings. Focus on women, children, and families. Taught concurrently with NURS 122. [SS]

PSYCHOSOCIAL ISSUES IN HEALTH CARE II
PSYC 124
2 Credits/Units
22 hours of lecture
Concurrent enrollment in NURS 122, NURS 123, NURS 127, and NURS 128.
Prerequisite: A grade of 'C' or better in NURS 110, NURS 111, NURS 113, NURS 114, and NURS 115.
Examines some determinants of health and illness including social, psychological, environmental, spiritual, and cultural dimensions across the lifespan and within the context of health care. Application of concepts from previous courses in psychology to the direct care of patients/clients in various healthcare settings. Focus on therapeutic communication and behavioral symptomology specific to anxiety, depression, delirium and agitation. [SS]

COOPERATIVE WORK EXPERIENCE
PSYC 199
5 Credits/Units
165 hours of clinical
Prerequisite: Consent of Instructional Unit.
Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. [GE]

LIFESPAN
PSYC&200
5 Credits/Units
55 hours of lecture
Principles and theories of human growth and development; the interaction of psychological, biological, and social factors throughout the life span. Prior completion of PSYC 100 or (PSYC 101) recommended. [SE,HR,SS]

SOCIAL
PSYC 203
5 Credits/Units
55 hours of lecture
Effects of social environment and interpersonal processes on both individual and collective behaviors. Socialization, impression formation and management, attitude formation and change, prejudice, aggression, altruism, leadership, power, conformity, environmental psychology, and other topics. [HR,SE,SS]
INTRO TO SOCIOLOGY
SOC 101
5 Credits/Units
55 hours of lecture
Prerequisite: Eligibility for enrollment in ENGL 101.
Introduces the sociological perspectives that explain human interaction, social institutions, and social change. Examines these social phenomena from a variety of sociological perspectives, including the functionalist, conflict, and symbolic-interactionist. [HR,SE,SS]

MARRIAGE AND FAMILY EXPERIENCES IN THE U.S.
SOC 121
5 Credits/Units
55 hours of lecture
Marriage and family experiences will be examined along with other social institutions that affect the marriage and family relationships in a changing U.S. culture. [HR,SE,SS]

RACE AND ETHNICITY IN THE U.S.
SOC 131
5 Credits/Units
55 hours of lecture
The sociological perspectives of race and ethnicity, including an examination of prejudice and discrimination from the interpersonal to the institutional level. Application of concepts and theories to both historical and current events in the U.S. [HR,SE,SS]

INTRODUCTION TO ISLAM
SOC 141
3 Credits/Units
33 hours of lecture
Introduction to the world of Islam and Muslim populations. Topics include Islam as a way of life in a socio-cultural context and the ways this religion affects the individual, family, and social life in various Islamic societies. Focus on analyzing Islam both in theory and in practice. [SE]

WORLD RELIGIONS
SOC 161
5 Credits/Units
55 hours of lecture
Introduction to the historical origins, central teachings, and devotional practices of the major religious traditions: Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity, and Islam. Topics include religion as a way of life in a socio-cultural context and the ways religion affects the individual, family and social life. [HA,SE,SS,GE]

COOPERATIVE WORK EXPERIENCE
SOC 199
5 Credits/Units
165 hours of clinical
Prerequisite: Consent of Instructional Unit.
Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment HDEV 195, 198 or 200 required. [GE]

SOCIAL PROBLEMS: THE PURSUIT OF SOCIAL JUSTICE
SOC 201
5 Credits/Units
55 hours of lecture
Prerequisite: A grade of ‘C’ or better in SOC 101 or PSYC 100 (or SOC 101 or PSYC 101).
Study of the magnitude and consequences of social problems in the US from a sociological; power, privilege and inequity; and cross cultural perspective. Examinations that promote social justice and equity. Topics include: poverty, crime and the US justice system, the environment, racial and economic inequalities, gender identity, substance abuse and terrorism. [HR,SE,SS][PNP]

DEATH AND DYING
SOC 220
3 Credits/Units
33 hours of lecture
A comprehensive survey of death, dying, bereavement, and other losses and their societal impacts upon people. Various cultural attitudes, traditions and changing values surrounding death and dying will be explored. [HR,SE,SS]

DOMESTIC VIOLENCE
SOC 230
5 Credits/Units
55 hours of lecture
Prerequisite: SOC 101 or PSYC 100 (or SOC 101 or PSYC 101) or WS 101.
Introducing historical and current ideas, myths and empirical research regarding domestic partner abuse. Defining abuse and examining cultural, social, family and psychological factors associated with offenders and victims: why, how, who, and what responses have been tried. [SE]

CRIMINOLOGY AND DELINQUENCY
SOC 240
5 Credits/Units
55 hours of lecture
Prerequisite: SOC 101 or PSYC 100 (or SOC 101 or PSYC 101).
An introductory examination of delinquency, crime, deviant behavior and social control among adults and legal minors in contemporary society. Historical and contemporary explanations of criminological and juvenile delinquency theory, social control, treatment of offenders and programs for prevention. [SE]

SOCIOLOGY: SELECTED TOPICS
SOC 280
5 Credits/Units
55 hours of lecture
Varying topics in Sociology as listed in the term class schedule. May be repeated for credit. [SE]

SPECIAL PROJECTS
SOC 290
5 Credits/Units
Prerequisite: Consent of Instructional Unit.
Opportunity to plan, organize and complete special projects approved by the department. [GE]

ORGANIZATIONAL BEHAVIOR
SOC 315
5 Credits/Units
55 hours of lecture
Focus on understanding social and group dynamics and managing relationships in organizations. Gain practical experience in managing teams, resolving conflict, and building effective relationships across cultural differences. Special emphasis will be placed on social equity in the workplace and managing difficult behavioral human situations, whether among employees within the organization or with external stakeholders [GE,SS]
SPANISH (SPAN)

SPANISH I
SPAN&121
5 Credits/Units
55 hours of lecture
Emphasis on listening/speaking skills, with additional practice in reading/writing and exploring cultural themes. Topics covered: greetings; regular and irregular verbs in present tense; question formation and responses; vocabulary about family, friends, studies, hobbies and likes/dislikes. [HA, SE]

SPANISH II
SPAN&122
5 Credits/Units
55 hours of lecture
For students who have successfully completed SPAN 121, one term of college Spanish or one recent year of high school Spanish with a grade of 'B' or higher. Emphasis on listening/speaking skills, with additional practice in reading/writing and exploring cultural themes. Students who enroll in this class should be able to conjugate verbs in the present tense (using the correct subject pronouns) and speak about likes and dislikes, family, friends, activities, and routines. [HA, SE]

SPANISH III
SPAN&123
5 Credits/Units
55 hours of lecture
For students who have successfully completed SPAN 122, two terms of college Spanish, or two years of recent high school Spanish with a grade of 'B' or higher. Emphasis on listening/speaking skills, with additional practice in reading/writing and exploring cultural themes. Students who enroll in this class should be able to converse and write using verbs in the present and simple past tense. This class focuses on how to narrate in the past tense and introduces more complex grammar structures such as the subjunctive mood. Heritage speakers of Spanish welcome. [HA, SE]

CONVERSATIONAL SPANISH
SPAN 141
3 Credits/Units
33 hours of lecture
Prerequisite: SPAN 122 or equivalent.
Intensive practice in Spanish conversation. Discussion in small groups of contemporary topics common to American and Hispanic societies. [HB, SE]

STUDY ABROAD ORIENTATION
SPAN 150
1 Credit/Unit
11 hours of lecture
Prerequisite: A grade of 'C' or better or concurrent enrollment in SPAN 122 or above; or consent of Instructional Unit.
Preparing students to travel with the Clark College study abroad program in Spanish-speaking country. Successful completion of this course required for students to participate in the travel abroad program.
Application and acceptance into the study abroad program also required. [SE]

COOPERATIVE WORK EXPERIENCE
SPAN 199
10 Credits/Units
330 hours of clinical
Prerequisite: Consent of Instructional Unit.
Summer cooperative work experience in a Spanish-speaking country.
Requires use of Spanish language. Enroll in this course Spring quarter prior to participation abroad. [GE, SE]
# SURVEYING & GEOMATICS (SURV)

## INTRODUCTION TO GPS

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURV 100</td>
<td>2</td>
</tr>
</tbody>
</table>

11 hours of lecture / 22 hours of lab  
**Prerequisite:** A grade of 'C' or better in MATH 093, 095, or 096 or qualifying score on placement test.  
Introduction to global positioning tools. Fundamental concepts and use of modern handheld GPS. Includes field work and use of basic GPS software. [GE]

## FUNDAMENTALS OF SURVEY

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURV 102</td>
<td>2</td>
</tr>
</tbody>
</table>

11 hours of lecture / 22 hours of lab  
Introduction to concepts of map reading, coordinate systems, the Public Land Survey System, basic legal descriptions of real property, plotting field data and creating a plat, and the minimum requirements for preparing plats in the State of Washington. No field work required. [GE]

## COMPUTATION AND PLATTING

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURV 104</td>
<td>5</td>
</tr>
</tbody>
</table>

55 hours of lecture  
**Prerequisite:** A grade of 'C' or better in College Trigonometry.  
Basic coordinate geometry, curves and solutions, conversions, statistics and error analysis, traverse calculations, inversing, coordinate positions, and area calculations. [GE]

## FIELD SURVEY I

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURV 121</td>
<td>5</td>
</tr>
</tbody>
</table>

33 hours of lecture / 44 hours of lab  
Concurrent enrollment in Lab.  
**Prerequisite:** A grade of 'C' or better in MATH 095 or MATH 096 or equivalent placement score.  
Basic theory of surveying, measurement and calculation. Topics include measurement and determination of boundaries, areas, shapes, and location through traversing techniques, error theory, compass adjustments, public land system, and use of programmable calculators. Also covers principles of measurements of distances, elevation and angles. [GE]

## FIELD SURVEY II

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURV 122</td>
<td>5</td>
</tr>
</tbody>
</table>

33 hours of lecture / 44 hours of lab  
**Prerequisite:** A grade of 'C' or better in SURV 121.  
Theories of electronic distance measurement, instrument calibration and analysis; principles of route location and design; theories of circular, parabolic, and spiral curves; highway and railway geometric design; area and volumes of earthwork; and mass diagrams. [GE]

## PROFESSIONAL ETHICS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURV 123</td>
<td>1</td>
</tr>
</tbody>
</table>

11 hours of lecture  
**Prerequisite:** Completion of, or concurrent enrollment in, SURV 121.  
Survey safety, ethics, and communication. Problem solving methods, procedures, and human relations related to on-the-job work experience in field surveying. [GE] [PNP]

## INTRODUCTION TO GIS

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURV 125</td>
<td>3</td>
</tr>
</tbody>
</table>

22 hours of lecture / 22 hours of lab  
**Prerequisite:** Eligibility for MATH 096.  
Introduction to Geographic Information Systems (GIS) methods and theory. Background and development of GIS technology. Introduction to relational and spatial databases and spatial analysis. [GE]

## SURVEYING

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURV 163</td>
<td>5</td>
</tr>
</tbody>
</table>

33 hours of lecture / 44 hours of lab  
**Prerequisite:** A grade of 'C' or better in SURV 122.  
Introduction to elements of horizontal and vertical route alignment and layout. Use design software and a total station for the construction of a section of road. Include the construction of a topographic map, a centerline alignment, and a final plan and profile showing centerline alignment. Use of topographic data for earthwork computations for proposed route. [GE]

## CO-OP WORK EXPERIENCE

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURV 199</td>
<td>5</td>
</tr>
</tbody>
</table>

165 hours of clinical  
**Prerequisite:** A grade of 'C' or better in SURV 121.  
Work-based learning experience that enables students to apply specialized occupational theory, skills and concepts. Specific objectives are developed by the College and the employer. [GE]

## BOUNDARY SURVEYS

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURV 202</td>
<td>4</td>
</tr>
</tbody>
</table>

44 hours of lecture  
**Prerequisite:** Completion of or concurrent enrollment in SURV 121.  
Principles and laws relating to boundary surveys, including their creation, ownership, and the role of the surveyor; introduction to the Public Land Survey System, including history, proportioning and evidence analysis. Topics include boundary history and boundary surveys, rights in land, junior/senior title rights, retracement of original surveys, deed first/survey first, common and case law, ranking/prioritizing evidence, controlling monuments and corners, errors in legal descriptions and plats. [GE]

## LEGAL DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURV 203</td>
<td>3</td>
</tr>
</tbody>
</table>

33 hours of lecture  
**Prerequisite:** A grade of 'C' or better in SURV 121.  
Research and practice pertaining to the legal aspects of writing land description documents used in real property; written research project required. [GE]

## BOUNDARY LAW I

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURV 223</td>
<td>3</td>
</tr>
</tbody>
</table>

33 hours of lecture  
**Prerequisite:** A grade of 'C' or better in SURV 121.  
Introduction to statute law, common law, case law, and legal principles of land boundaries and the practice of land surveying in Washington. Topics include an introduction to principles of professional practice and ethical consideration. [GE]

## SUBDIVISION PLANNING A & PLATTING

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURV 225</td>
<td>3</td>
</tr>
</tbody>
</table>

33 hours of lecture  
**Prerequisite:** A grade of 'C' or better in SURV 102 and 122.  
A study of selected state laws and regulations pertaining to the surveying profession that affect the surveying of division of lands; layout and design of subdivisions; environmental considerations and site analysis procedures. [GE]
ARC GIS I
SURV 250  3 Credits/Units
22 hours of lecture / 22 hours of lab

**Prerequisite:** A grade of 'C' or better in SURV 125.
Introduction to ArcGIS. GIS concepts, methodologies, and techniques. [GE]

MAP PROJECTIONS
SURV 252  2 Credits/Units
22 hours of lecture

**Prerequisite:** Completion of or concurrent enrollment in SURV 121.
Overview of map projections with emphasis on conformal projections used in the geomatics profession. U.S. State Plane Coordinate system, implementation, and computations. [GE]

INTRODUCTION TO GPS
SURV 253  2 Credits/Units
11 hours of lecture / 22 hours of lab

**Prerequisite:** A grade of 'C' or better in SURV 252.
Introduction to global positioning tools. Fundamental concepts and use of modern handheld GPS. Includes field work and use of basic GPS software. [GE]

SURVEY SOFTWARE APPLICATIONS
SURV 264  4 Credits/Units
33 hours of lecture / 22 hours of lab

**Prerequisite:** A grade of 'C' or better in SURV 121.
Use of surveying and related software to solve and plot assignments in traverse calculations, horizontal and vertical curve alignments, profiles, contours, and earthwork calculations. Some hand generated plots and calculations will be made to supplement the computer calculations. [GE]

SELECTED TOPICS
SURV 280  6 Credits/Units
44 hours of lecture
Course focuses on selected topics in Surveying. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [SE]

SPECIAL PROJECTS
SURV 290  5 Credits/Units

**Prerequisite:** Consent of Instructional Unit.
Opportunity to plan, organize, and complete special projects approved by the department. [GE]
TUTORING (TUTR)

TUTORING
TUTR 185 3 Credits/Units
66 hours of lab
Introduction to methods and techniques in tutoring. Tutoring training assignments in various disciplines. [GE]

TUTORING-WRITING
TUTR 186 3 Credits/Units
66 hours of lab
Introduction to strategies for effectively tutoring writers at all stages of the writing process and experience working one-on-one with writing across the disciplines. [GE]
**WELDING (WELD)**

**INTRODUCTION TO WELDING**

WELD 102  
6 Credits/Units  
44 hours of lecture / 44 hours of lab  
**Prerequisite:** A grade of 'C' or better, or concurrent enrollment in HLTH 120, and eligibility for MATH 030 or MATH 092.  
An introduction to the welding industry and the various career paths available within the industry. Practical application in general shop safety and department-required training on metal working equipment. [GE]

**WELDING BLUEPRINT READING**

WELD 110  
5 Credits/Units  
55 hours of lecture  
Interpretation of welding blueprints, welding symbols, tolerances and structural shapes. [GE]

**WELDED SCULPTURE LAB I**

WELD 120  
3 Credits/Units  
66 hours of lab  
Concurrent enrollment in ART 295 required.  
Development of a rudimentary expressive design language using welded metal as a medium. Exploration of beginning welding and metal-working skills. [GE]

**WELDED SCULPTURE LAB II**

WELD 121  
3 Credits/Units  
66 hours of lab  
Concurrent enrollment in ART 296 required.  
Three dimensional design problems are explored while creating a welded metal sculpture. Gas metal arc welding and plasma arc cutting are introduced. Use of hydraulic power equipment and metal cut-off equipment is covered. [GE]

**WELDED SCULPTURE LAB III**

WELD 122  
3 Credits/Units  
66 hours of lab  
Concurrent enrollment in ART 297 required.  
A fabricated welded metal sculpture is created while learning advanced metal working skills. The gas tungsten arc welding process and resistance welding are covered. [GE]

**GAS METAL ARC WELDING**

WELD 140  
6 Credits/Units  
33 hours of lecture / 66 hours of lab  
Concurrent enrollment in WELD 141 or consent of Instructional Unit.  
**Prerequisite:** A grade of 'C' or better in WELD 102 or consent of Instructional Unit.  
Instructional theory and application of Gas Metal Arc Welding processes on ferrous metals. [GE]

**FLUX CORE ARC WELDING**

WELD 141  
6 Credits/Units  
33 hours of lecture / 66 hours of lab  
Concurrent enrollment in WELD 140 or consent of Instructional Unit.  
**Prerequisite:** A grade of 'C' or better in WELD 102, 140 and 141 or consent of Instructional Unit.  
Instructional theory and application of arc cutting processes/oxyfuel cutting and flux core arc welding processes on ferrous metals. [GE]

**GAS METAL ARC FABRICATION**

WELD 142  
6 Credits/Units  
33 hours of lecture / 66 hours of lab  
Concurrent enrollment in WELD 143 or consent of Instructional Unit.  
**Prerequisite:** A grade of 'C' or better in WELD 102, 140 and 141 or consent of Instructional Unit.  
Instructional theory and application of arc cutting processes/oxyfuel cutting and flux core arc welding processes on ferrous metals. [GE]

**SHIELDED METAL ARC WELDING**

WELD 143  
6 Credits/Units  
33 hours of lecture / 66 hours of lab  
Concurrent enrollment in WELD 142 or consent of Instructional Unit.  
**Prerequisite:** A grade of 'C' or better in WELD 102, 140 and 141, or consent of Instructional Unit.  
Application of concepts of flux core arc welding processes on ferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. [GE]

**GAS TUNGSTEN ARC WELDING**

WELD 144  
6 Credits/Units  
33 hours of lecture / 66 hours of lab  
Concurrent enrollment in WELD 144 or consent of Instructional Unit.  
**Prerequisite:** A grade of 'C' or better in WELD 102, 140 and 141, or consent of Instructional Unit.  
Instructional theory and application of arc cutting processes/oxyfuel cutting and shielded metal arc welding processes on ferrous metals. [GE]

**SHIELDED METAL ARC FABRICATION**

WELD 145  
6 Credits/Units  
33 hours of lecture / 66 hours of lab  
Concurrent enrollment in WELD 144 or consent of Instructional Unit.  
**Prerequisite:** A grade of 'C' or better in WELD 102, 142 and 143, or consent on Instructional Unit.  
Instructional theory and application of arc cutting processes/oxyfuel cutting and shielded metal arc welding processes on ferrous metals. [GE]

**WELDING CERTIFICATION**

WELD 156  
2 Credits/Units  
44 hours of lab  
**Prerequisite:** Successful completion with a 'C' or better of WELD 102 and consent of Instructional Unit.  
Students will review the requirements to earn program required AWS welding certifications. [GE] [PNP]

**COOPERATIVE WORK EXPERIENCE**

WELD 199  
5 Credits/Units  
165 hours of clinical  
**Prerequisite:** Consent of Instructional Unit.  
Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

**GAS TUNGSTEN ARC FABRICATION**

WELD 240  
6 Credits/Units  
33 hours of lecture / 66 hours of lab  
Concurrent enrollment in WELD 241 or consent of Instructional Unit.  
**Prerequisite:** A grade of 'C' or better in WELD 102, 144 and 145, or consent of Instructional Unit.  
Instructional theory and application of arc cutting process/oxyfuel cutting and gas tungsten arc welding processes on ferrous metals. [GE]
GAS METAL ARC FABRICATION

WELD 241 6 Credits/Units
33 hours of lecture / 66 hours of lab
Concurrent enrollment in WELD 240 or consent of Instructional Unit.
Prerequisite: A grade of ‘C’ or better in WELD 102, 144 and 145, or consent of Instructional Unit.
Application of concepts of gas tungsten arc welding processes on ferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. [GE]

ADVANCED WIRE FEED WELDING

WELD 242 6 Credits/Units
33 hours of lecture / 66 hours of lab
Concurrent enrollment in WELD 243 or consent of Instructional Unit.
Prerequisite: A grade of ‘C’ or better in WELD 102, 142, 240 and 241, or consent of Instructional Unit.
Advanced instructional theory and application of arc cutting processes/oxyfuel cutting, sub-arc welding and wire feed welding processes on ferrous and nonferrous metals. [GE]

ADVANCED WIRE FEED FABRICATION

WELD 243 6 Credits/Units
33 hours of lecture / 66 hours of lab
Concurrent enrollment in WELD 242 or consent of Instructional Unit.
Prerequisite: A grade of ‘C’ or better in WELD 102, 143, 240 and 241 or consent of Instructional Unit.
Application of concepts of wire feed welding processes on ferrous and nonferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. [GE]

ADVANCED GAS TUNGSTEN ARC WELDING

WELD 244 6 Credits/Units
33 hours of lecture / 66 hours of lab
Concurrent enrollment in WELD 243 or consent of Instructional Unit.
Prerequisite: A grade of ‘C’ or better in WELD 102, 240, 242 and 243 or consent of Instructional Unit.
Advanced instructional theory and application of arc cutting processes/oxyfuel cutting and gas tungsten arc welding processes on ferrous and nonferrous metals. [GE]

ADVANCED GAS TUNGSTEN ARC FABRICATION

WELD 245 6 Credits/Units
33 hours of lecture / 66 hours of lab
Concurrent enrollment in WELD 244 or consent of Instructional Unit.
Prerequisite: A grade of ‘C’ or better in WELD 102, 241, 242 and 243, or consent of Instructional Unit.
Application of concepts of advanced gas tungsten arc welding processes on nonferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. [GE]

SELECTED TOPICS

WELD 280 6 Credits/Units
66 hours of lecture
Selected topics in Welding as listed in the term class schedule.
Repeatable for credit. [GE]

SPECIAL PROJECTS

WELD 290 5 Credits/Units
Prerequisite: Consent of Instructional Unit required.
Projects assigned according to needs and abilities of the student. Hours arranged with instructor. Maximum of 15 credits allowed toward a certificate or degree. [GE]
## WOMEN'S STUDIES (WS)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits/Units</th>
<th>Hours of Lecture</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>WS 101</td>
<td>INTRODUCTION TO WOMEN'S STUDIES</td>
<td>5</td>
<td>55</td>
<td>A grade of 'C' or better in ENGL 098 taken at 5 credits or recommended score on the writing placement test for ENGL 101. Contemporary feminist theory analyzing systems of power, privilege and inequity particularly with respect to gender, race, class, sexuality, age, and ability. Topics may include women and gender socialization, family, work, politics, health, sexuality, body image, violence, spirituality, art, and culture. Fulfills either Humanities or Social Science distribution requirements for the A.A. transfer degree. [HA, HR, SE, SS]</td>
</tr>
<tr>
<td>WS 201</td>
<td>WOMEN AROUND THE WORLD</td>
<td>3</td>
<td>33</td>
<td>Study of current issues affecting women. International feminism, reproductive rights, women in leadership, and affirmative action from a cross-cultural perspective. Fulfills either humanities or social science distribution requirements for the associate degree. [HA, SE, SS]</td>
</tr>
<tr>
<td>WS 210</td>
<td>WOMEN'S CULTURE</td>
<td>3</td>
<td>33</td>
<td>A study of women's art and women in the arts, with emphasis on the roles and images of women in fine and folk art, music, film and mythology. Examines the historical events and sociological factors influencing those roles and images. Fulfills either humanities or social science distribution requirements for the A.A. transfer degree. [HA, SE, SS]</td>
</tr>
<tr>
<td>WS 220</td>
<td>RACE, CLASS, GENDER AND SEXUALITY</td>
<td>5</td>
<td>55</td>
<td>Studies the social construction of difference, inequality and privilege in race, class, gender, sex, and sexual orientation in the U.S. Examines how these categories are created, maintained, and experienced; how meaning is assigned to those categories; and how social constructions can be challenged. [SE, SS] [PNP]</td>
</tr>
<tr>
<td>WS 225</td>
<td>RACISM &amp; WHITE PRIVILEGE IN THE U.S.</td>
<td>3</td>
<td>33</td>
<td>Critical examination of racism and white privilege in the U.S. analyzing systems of power, privilege and inequity; racial identity; and intercultural competence. [SE, SS] [PNP]</td>
</tr>
<tr>
<td>WS 280</td>
<td>SELECTED TOPICS</td>
<td>3</td>
<td>33</td>
<td>This course focuses on selected topics in women's studies. Topics vary and course theme and content change to reflect new topics. This course may be repeated for credit. [SE]</td>
</tr>
<tr>
<td>WS 290</td>
<td>SPECIAL PROJECTS</td>
<td>5</td>
<td></td>
<td>Opportunity to plan, organize and complete special projects approved by the department. [GE]</td>
</tr>
</tbody>
</table>

**Prerequisite:** Consent of Instructional Unit.
ENROLLMENT, AID AND COLLEGE LIFE

- Academic Standards Policy (p. 276)
- Advising (p. 278)
- Career Services (p. 279)
- College Life (p. 280)
- Credential Evaluations Office (p. 286)
- Enrollment Services (p. 289)
- eLearning (p. 293)
- Financial Aid (p. 294)
- Registration (p. 300)
- Special Instructional Programs and Locations (p. 305)
- Student Orientation (p. 306)
- Student Success Programs (p. 307)
ACADEMIC STANDARDS POLICY

www.clark.edu/clark-and-community/about/policies-procedures/academic_standards/index.php (http://www.clark.edu/about/governance/policies-procedures/academic_standards/)

The College develops and enforces academic standards for all credit students. The purpose of academic standards is to quickly identify and alert students with low academic achievement and to provide those students assistance for improving their academic performance, such as advising them to utilize student support services. In some cases, students who fail to make satisfactory progress will not be allowed to enroll.

Visit Clark’s Academic Standards Policy website (https://catalog.clark.edu/enrollment-aid-college-life/academic-standards-policy/www.clark.edu/clark-and-community/about/policies-procedures/academic_standards/) for up-to-date information on the policy, procedures, and a flowchart.

Academic Standards Procedure

Academic Concern
The first time the term grade point average (GPA) falls below 2.0, students will be placed on Academic Concern.

- The college will send an e-mail to students’ Clark e-mail accounts that offers information about the Academic Standards process and explains what happens at each stage.
- Students will receive a listing of college resources and a recommendation to take advantage of services.

Academic Intervention
The second time the term grade point average (GPA) falls below 2.0, students will be placed on Academic Intervention.

- By the third week of the subsequent term, students must attend a group workshop or meet with a designated staff member.
- Students must complete an academic success plan that outlines steps for improving academic performance.
- Students may lose the ability to carry a full course load.
- If students do not attend the workshop or meet with a designated staff member, they will be blocked from registering for classes.

One (1) Term Academic Dismissal
If students have previously been placed on Academic Concern and Academic Intervention statuses, and both their term and cumulative grade point averages (GPA) are below 2.0, they will be placed on One-Term Academic Dismissal.

- Students will be blocked from registering for classes while on One-Term Academic Dismissal status.
- Students may appeal One-Term Academic Dismissal.
  - Students may appeal to the Academic Standards Committee for immediate reinstatement.
  - The college will send an e-mail to students’ Clark e-mail accounts that outlines the appeal process. The Appeal Form for One-Term Dismissal is available online.
  • Students must submit a personal statement and all documents requested, and any documentation that supports their statements. The Academic Standards Committee’s decisions will be made and communicated to students before the first day of classes.
  • Factors considered in determining an appeal may include academic aptitude, change of major, extenuating circumstances, lapse of time, and relevant experience since suspension that will predict academic success.
  - If students do not appeal, or if their appeals are denied, they will be administratively dropped from classes and paid tuition will be refunded.
  - Students will receive information about how to return from One-Term Academic Dismissal. They must complete a Request to Return to College Form no later than three weeks before the first day of classes for the term in which they plan to return. Students will be notified about the process, expectations, and timeline to make an appointment with a designated staff member. Students must prepare a written plan in advance that includes the following items for discussion with the staff member:
    • Short-term educational goals;
    • Specific plans to overcome barriers and improve academic progress;
    • A proposed course schedule.
  - Upon returning from One-Term Academic Dismissal, students must earn a term grade point average (GPA) of 2.0 or higher in order to be approved to register for the subsequent term. If they do not earn a term grade point average (GPA) of 2.0 or higher upon return from One-Term Academic Dismissal, they will be placed on Four-Term Academic Dismissal.

Four (4) Term Academic Dismissal
If students have previously been placed on Academic Concern, Academic Intervention, and One-Term Academic Dismissal statuses, and both their term and cumulative grade point averages (GPA) remain below 2.0, they will be placed on Four-Term Academic Dismissal.

- Students will be blocked from registering for classes while on Four-Term Academic Dismissal.
- There is no appeal process for Four-Term Academic Dismissal.
- Students will be administratively dropped from registered classes and paid tuition will be refunded.
- Students will receive information about how to return from Four-Term Academic Dismissal. They must complete a Request to Return to College Form no later than three weeks before the first day of classes for the term in which they plan to return. Students will be notified about the process, expectations, and timeline to make an appointment with a designated staff member. Students must prepare a written plan in advance that includes the following items for discussion with the staff member:
  • Short-term educational goals;
  • Specific plans to overcome barriers and improve your academic progress;
  • A proposed course schedule.

Factors considered in determining an appeal may include academic aptitude, change of major, extenuating circumstances, lapse of time, and relevant experience since suspension that will predict academic success.

- If students do not appeal, or if their appeals are denied, they will be administratively dropped from classes and paid tuition will be refunded.
- Students will receive information about how to return from One-Term Academic Dismissal. They must complete a Request to Return to College Form no later than three weeks before the first day of classes for the term in which they plan to return. Students will be notified about the process, expectations, and timeline to make an appointment with a designated staff member. Students must prepare a written plan in advance that includes the following items for discussion with the staff member:
  • Short-term educational goals;
  • Specific plans to overcome barriers and improve academic progress;
  • A proposed course schedule.
• The designated staff member will review the plan with the student and outline specific conditions he or she must meet for return from Four-Term Academic Dismissal. Once the plan is finalized, the student will be placed on Return from Four-Term Academic Dismissal status.

Upon returning from Four-Term Academic Dismissal, students must earn a term grade point averages (GPA) of 2.0 or higher in order to be approved to register for the subsequent term. If they do not earn a term grade point averages (GPA) of 2.0 or higher upon return from Four-Term Academic Dismissal, they will be placed on One-Term Academic Dismissal.

**Academic Standards for Professional/Technical Programs**

Students in certain professional/technical programs must receive grades of 'C' or better in program core courses to advance in the program class sequences. Students should refer to the department descriptions under their associated pages located on the index of the Academic Plans (https://catalog.clark.edu/academic-plans/) portion of the catalog for further information.
The mission statement for Clark College advising is:

By providing accurate, timely, and consistent information, Advising personnel, in collaboration with faculty, will guide, support, and help students develop lifelong learning skills; assist students as they plan and achieve their educational and career goals; and work with students to establish a lasting relationship with Clark College. As a result of working with advising personnel, students will:

- Develop an understanding of their own educational pathway so that remaining classes and timeliness of completion are clear and accurate.
- Develop an educational plan that addresses academic, career, and life goals.
- Develop an awareness of their own personal responsibility within the advising process.
- Develop skills to successfully navigate and use campus services and tools.

To ensure the communication of accurate program information to all Clark students, advising is required for all new degree and certificate students to Clark and at certain checkpoints during the degree or certificate progress. The advising system at Clark College is an educational process that assists students as they pursue educational, career, and life goals. It is expected that students will build relationships with advisors during their time at Clark College and, over the course of their degree or certificate, will attain the objectives listed above.
CAREER SERVICES

360-992-2902
http://www.clark.edu/enroll/careers/index.php
Online job database system: www.clark.edu/cc/penguinjobs

Career Services provides the resources and strategies for choosing a college major; developing career plans; finding jobs, internships, and volunteer opportunities; and making successful career transitions. Resources include a computer lab, an extensive library of books and videos, and one-on-one appointments with career and employment specialists. Services are free and open to students, former students, and the general public.

Career Center resources:
• Assistance in assessing personal skills and interests to explore career options or select a course of study.
• Detailed descriptions of more than 1,000 occupations and industries.
• Information about employment outlooks, labor trends, wages, and job preparation.
• Databases of universities, technical training programs, and scholarships in Washington, Oregon, and the United States.
• Strong Interest Inventory and Myers-Briggs Type Indicator assessments, including a career report and 90-minute small group interpretation of results.

Employment services and work experience opportunities for students:
• An online job database system, Penguin Jobs, on the Career Services website: www.clark.edu/cc/penguinjobs.
• Institutional hire job referrals for on- and off-campus student employment opportunities.
• Local and statewide full- and part-time job listings.

Job search and employment preparation services:
• Assistance with resume writing, cover letters, and interviewing skills.
• Job- and career-related workshops and resources.

Financial literacy:
• One-on-one appointments for free financial coaching.
• Money-themed student success workshops.

Employer services:
• Free on-campus recruiting table.
• Free advertisement of job and internship vacancies.
• Multiple career events each year, including targeted job fairs and employer guest speakers discussing various career fields.
• Opportunities to serve on college advisory boards.

• Equal opportunity guidelines are followed and applicants are referred on a non-discriminatory basis for all possible co-op, internship, volunteer, or job placements.

Cooperative Education/Internship Work Experiences
360-992-2154

Clark College recognizes the value to students of actual experience in a work environment and has developed a nationally recognized program which allows credits to be earned for that experience under controlled conditions.

The purpose of Cooperative Education Work Experience (co-op) is to provide on-the-job experience that complements students’ academic career goals and that furnishes an opportunity for career exploration. Co-op involves the faculty, student, and employer in determining learning objectives and evaluating the student’s progress in achieving those objectives. Students may use internship experiences to test their interest in a field or their fit in the work environment of a particular industry.
COLLEGE LIFE

Archer Gallery
360-992-2246
http://www.clark.edu/campus-life/arts-events/archer/index.php

Archer Gallery has been exhibiting fine art in Southwest Washington since 1978, consistently presenting an impressive list of artists and exhibits. Focusing on Northwest and Washington artists, the gallery also exhibits works by national artists. Featuring both established and emerging talents, the cultural, social, and ethnic diversity of the region is expressed in the exhibition schedule.

Archer Gallery is located on the lower level at the south entrance of the Penguin Union Building and features 2,000 square feet of exhibition space. All exhibits are free and open to students and the community. Support for the Archer Gallery is provided by the Associated Students of Clark College (ASCc), the Clark College Foundation, the College, and donations from individuals. Archer Gallery is wheelchair accessible.

Athletics
Clark College Penguins
360-992-2691
http://www.clarkpenguins.com/index.aspx

Clark College is a member of the Northwest Athletic Conference (NWAC). The NWAC is the parent organization and coordinates and regulates both men's and women's athletics for thirty-six (36) community colleges located in Idaho, Oregon, Washington, and British Columbia. Clark sponsors intercollegiate teams in soccer, cross country, basketball, track and field, softball, and soccer; and for men in soccer, cross country, basketball, baseball, and track and field. Students interested in intercollegiate sports should contact the Athletics Department.

Penguin Athletic Club
360-992-2301

Through individual, family, and corporate memberships, the Clark College Penguin Athletic Club (PAC) provides funding for athletic scholarships, special events, recognition for student athletes, coaching enhancements, and general support for all eleven (11) Clark teams competing for the Penguins. Membership in the PAC provides special discounts on both alumni and PAC events, free admission to all home regular season games, and the opportunity to utilize the Clark College Thompson Fitness Center for a nominal fee per term or per year. For more information, please contact the PAC office.

Bookstore
360-992-2149 Fax: 360-992-2862
bookstore@clark.edu
www.clarkbookstore.com

The Clark College Bookstore, owned and operated by the College, is located in Gaiser Hall and provides shipments or reservations (https://www.clarkbookstore.com/site_csi_full.asp#Online%20Textbook%20Reservation) from the store website. The store stocks required textbooks and supplies as requested by classroom instructors and vigorously supports students' interest by maintaining the lowest possible price for textbooks of any college in the region. Additionally, the store facilitates numerous solutions to help Clark students stretch their educational budgets including a comparison shopping tool (https://www.clarkbookstore.com/site_text_path.asp), textbook and calculator rentals (https://www.clarkbookstore.com/site_rentals.asp), peer-to-peer textbook exchange (https://www.clarkbookstore.com/swap_main.asp), and more.

The bookstore supports the interests of the broader community by selling specialty and educational items, logo items, apparel, gifts, cards, food and beverages, various reference and test preparation items, and more. Personal services available in store include faxing, notary public, special orders, Clark College Theatre and event tickets (https://www.clarkbookstore.com/site_theatre.asp), USPS stamps, C-Tran bus passes (http://www.clark.edu/campus-life/student_ID.php), payment for parking and student IDs (http://www.clark.edu/campus-life/student_ID.php) and more.

Information regarding accepted payment methods (https://www.clarkbookstore.com/site_payment_options.asp), returns/exchanges (https://www.clarkbookstore.com/site_returns.asp), and more can be obtained by visiting us in store or online at www.clarkbookstore.com (https://www.clarkbookstore.com/).

Bulletin Boards
360-992-2336

The majority of college bulletin boards are used for college or departmental information only. All bulletin boards are identified with the assigned posting monitor. The posting monitor is responsible for postings. Complete bulletin board guidelines and a listing of campus bulletin boards and their classification may be obtained from the Facilities Services Office located in the Facilities Services building (FST).

Signs or posters may not be placed on wood, glass, painted, plastered, or metal surfaces. Only thumbtacks may be used on bulletin boards. Staples are not permitted. Materials placed improperly will be removed by college personnel.

Child and Family Services
360-992-2393

Toddler and Preschool Childcare Services, Summer School-Age Program

The Child and Family Studies program is located at the north end of the Clark College main campus. Child care and early education services with family support options are available to Clark College students, faculty, staff, and the local community. Child care services are available for children twelve (12) months and walking through five (5) years of age. During the summer, services are available for children up to ten (10) years of age. Contact the program for more information or to arrange a tour. Services are available from 7:30 a.m. through 6:00 p.m. Monday – Friday.

Event Scheduling
360-992-2713

The hub of campus life is the Student Center in Gaiser Hall. This facility provides space for dances, concerts, dinner theater, lectures, and other college/community events. College rooms are available for small and large meetings of students, staff, and community groups. A use
agreement will be sent to those contracting for college facilities outlining responsibilities and privileges. Space utilization cannot conflict with regularly scheduled classes or activities, and space is assigned on a first-come, first-served basis. There is a charge for use of college facilities by off-campus groups. To arrange for the use of any college space, contact the Event Scheduling office.

Student Life
360-992-2441
Facebook: Clark College Student Life
Instagram & Twitter: clarkstudents
Penguin Union Building 160

The Office of Student Life coordinates programs, support services, and activities that enhance the educational experience of a diverse student population and fosters the intellectual and personal development of students on campus.

Student Life services and resources include:

• The Associated Students of Clark College (ASCC) Student Government;
• The Activities Programming Board (APB);
• 50-plus events and activities each year including Welcome Week, Involvement Fair, and Spring Thing – see our online events calendar for more information;
• Clubs, programs, committees, and other student involvement opportunities;
• Free coffee, Monday-Friday mornings;
• Quick-stop computer lab;
• Student-use kitchen, including refrigerator, microwave, toaster and hot water;
• Relaxing game room where you can enjoy TV, a massage chair, board games, and more;
• FREE student planner;
• Free one-time legal consultation services;
• Discounted C-Tran bus passes;
• Discounted Fitness Center passes;
• Student-use lockers.

For more information on any of these services, contact the Office of Student Life, located in the Penguin Union Building, room 160, visit us online, or connect with us on social media.

Student Clubs and Programs

Clubs and programs provide students an opportunity to develop leadership skills, responsibility, and apply academic, vocational and/or personal learning through involvement on campus and in the community. With more than 50 clubs and programs to choose from, students are bound to find something to match their interests. Clubs and programs may have an educational, national, cultural, political, activity and/or religious focus.

Student Government – Associated Students of Clark College (ASCC)

Recognized by the Board of Trustees as the representative body of Clark College students, ASCC Student Government consists of seven-members that act as a liaison between students, faculty, staff, administration, and the community. They are charged with review and implementation of the ASCC Constitution and Bylaws, committee appointments, club promotion and approval, recruitment for student involvement, oversight of the Services and Activities (S&A) fees, and keeping students informed about legislative policies that directly affect them. All enrolled students are members of ASCC and are thus eligible to participate in events.

Activities Programming Board (APB)

With the motto, “We run the fun!” this five-member group is charged with the creation of a comprehensive events calendar to include awareness, cultural, educational, family, and social events for Clark students. Hosting 40+ events each year, including the annual Spring Thing event, it is easy to find an opportunity to relax, learn, and connect at Clark. To find out more about upcoming events visit our online events calendar.

Student Publications
The Independent
http://www.clarkcollegeindependent.com/ (https://clarkcollegeindependent.com/)

Working at The Independent offers students hands-on journalism experience. Working with one or more aspects of the newspaper (writing, editing, photography, layout, advertising, and business management) provides an introduction to the journalism profession as well as a means of earning credit. Some staff positions are paid. The Independent serves as a major communication link between students, student government, faculty, staff, and administration.

Phoenix
http://www.clark.edu/academics/programs/english/phoenix.php

Phoenix, Clark College’s literary and arts magazine, is funded by ASCC to encourage the creative efforts of Clark College students. All Clark College students registered in the immediate spring, summer, fall, or winter terms prior to publication may submit fiction, poetry, flat artwork and photographs of three-dimensional work. Under the direction of the faculty advisors from English and from Art, staff members practice budgeting, marketing, writing, editing, judging, and layout skills. Volunteer student staff members are welcome; some paid student staff positions exist.

Computer Services
Computer Labs

Students enrolled in credit classes may use the open computer lab facilities at Clark College. Students are required to use their college-supplied network account to access computer resources in the labs. Open computer labs are available at the following locations:

• Applied Arts AAA, Rm. 116
• Bauer Hall, Rm. 101 and Rm. 102
dental hygiene students. Services provided may include exams, x-rays, scaling and polishing, sealants, fillings, tooth whitening, education needs of the students. Services provided may include exams, x-rays, scaling and polishing, sealants, fillings, tooth whitening, and safer-sex items are available free of charge.

Computer Proficiency: A Statement to Students
Students at Clark College, in order to succeed here and in communities outside the college, need to be familiar with and capable of using computers and computer software. Both upper division college work and the requirements of the workplace demand such skills. Many Clark College faculty will require students to access class materials on the Internet, use a word processor, e-mail, and databases as part of regular course activities.

Students need to determine which computer skills are appropriate to their areas of study and take positive steps to acquire and use them early. To facilitate appropriate student access to computers and computer software, the college provides classrooms, labs, course work, and library access where students can learn about and use these tools.

Students should contact their instructors, the college library, the Office of Student Affairs, the Associated Students of Clark College (ASCC), the Pathways Center, or the Advising and Counseling offices to find out what computer resources are available and when they can be accessed. Advisors, counselors, and faculty can help students choose appropriate courses to help them achieve computer proficiency.

Counseling and Health Center
360-992-2614
chc@clark.edu

Located in the Health Sciences Building, the Counseling and Health Center supports student success by providing a range of professional counseling and medical services that are both affordable and conveniently available on campus. Counselors provide free, short-term, goal-focused counseling. They support students in self-development, goal-setting, and problem-solving to enhance student success. A Nurse Practitioner is also available to provide low-cost health services during limited hours. Services, pricing, and office hours are available at the website listed above. Over the counter medications, menstrual supplies, and safer-sex items are available free of charge.

Dental Hygiene Clinic
360-992-2158
High-quality dental care is provided at a reduced fee by students under the direct supervision of licensed dental hygienists and dentists. Adults or children, five (5) years of age or older, are selected for care based on the educational needs of the students. Services provided may include exams, x-rays, scaling and polishing, sealants, fillings, tooth whitening, diet analysis, and personalized preventive education. Free screenings are available by appointment.

Disability Support Services (DSS)
360-992-2314 – Voice 360-991-0901 – Video Phone
www.clark.edu/DSS

Clark College and the Disability Support Services (DSS) Office staff assist those with disabilities in pursuing their educational goals. The DSS staff is committed to assuring Clark College’s services, programs, and activities are accessible to individuals with disabilities. The institution takes seriously its responsibility to follow both the spirit and letter of all pertinent federal and state mandates.

Clark College recognizes that traditional methods, programs, and services may need to be altered to assure full accessibility to qualified persons with disabilities. The DSS Office is the primary focus of efforts by Clark College to assure nondiscrimination on the basis of disability. Through the DSS Office, qualified persons with disabilities can address their concerns regarding attitudinal or procedural barriers encountered, as well as any need for accommodation to assure equal access. The DSS Office will provide information, approve accommodations, and partner with faculty on the provision of accommodations. DSS serves as a resource to the campus community in striving to make Clark College both an accessible and hospitable place for persons with disabilities to enjoy full and equal participation.

Emergency Procedures
www.clark.edu/emergency

The College’s emergency procedures are displayed on posters in all classrooms and offices, as well as on the clark.edu website.

Depending on the type of incident, mass notification may be delivered via office and classroom phones, active computer screens, active Smart Classroom screens and interior loudspeakers. Additional notifications are also available to students and employees through text messages and email with a free subscription to RAVE. Emergency Building Coordinators are posted in every building to assist with emergency protocols.

Exercises (drills) will be conducted several times each year to ensure general preparedness. All members of the college community are expected to participate. When possible, advance notification of planned exercises will be circulated.

Fitness Center
360-992-2808

The Thompson Fitness Center, located in the O’Connell Sports Complex (OSC), is free to students currently enrolled in an HPE, fitness trainer or PE class. The following individuals are eligible to use the fitness center during open times for a term or annual usage fee, which is payable at the Cashier’s Office:

• Current full- and part-time Clark students;
• Clark employees, their spouses and children sixteen (16) years old and older;
• Penguin Athletic Club members, sixteen (16) years old and older;
• Alumni Association members, sixteen (16) years old and older.

Completion of fitness center basics, circuit fitness and/or weight training class is recommended before using the fitness center.

Food Service

The McClaskey Culinary Institute in Gaiser Hall (GHL) at Clark College Main Campus offers a variety of dining options:

• Retail Bakery offering coffee and specialty beverages as well as a large variety of baked goods prepared by students in the Professional Baking and Pastry Arts Program.
• The Restaurant opens for lunch during the term is run by second year students in the Cuisine Program.
• Multiple Kiosks where students in the Cuisine Program produce a variety of lunch options during the term.
• The Grill opens during the term and breaks, serving breakfast, burgers, sandwiches and more.
• Salad Bar, Soup, and Gran & Go and Beverages available year-round

At the McClaskey Culinary Institute, we strive to provide options for all diets and tastes in a welcoming environment conducive to studying or meeting with friends.

Health Insurance

Information about how to obtain health coverage through the Washington Health Benefits Exchange and the Affordable Care Act can be found at the link above.

Health insurance is required for all international students, who are advised to discuss their health insurance options with the Office of International Programs.

Housing
Campus housing is not available. While the college does provide a housing referral bulletin board, located in central Gaiser Hall, it does not assume the responsibility for screening rentals.

Note: International Programs does work with international applicants to secure housing for them and to place them in one of the following options:

• An apartment building shared with domestic and international students from the International Air Academy (two- or four-bed apartments);
• An apartment with single or double rooms close to campus; or
• A host family arrangement.

Please contact International Programs for details.

Legal Consultation
360-992-2404

Student Legal Services is a contracted program funded by ASCC that provides free, one-time legal consultation to students. A local general-practice attorney provides multilingual legal counsel on family, criminal, and contract issues for students, as needed.

Thirty-minute consultation appointments are offered once a week through fall, winter and spring terms, and can be arranged through the Student Life office, located in PUB 160. Please call 360-992-2404 to schedule an appointment.

Library
360-992-2151
http://library.clark.edu/

Clark College Libraries provide resources to support the educational mission of Clark College. Located on the main campus, Cannell Library provides students, faculty, and staff with books, movies, and CDs. Cannell Library also has group study rooms and computer labs. Students attending classes at Columbia Tech Center can visit the Information Commons located on the second floor of the building in Room 219. Students are encouraged to ask librarians at either location for assistance using the wide range of in-print and online resources. Library faculty offer a variety of instruction sessions, research assistance, and workshops.

Through Summit, a partnership that combines the holdings of academic libraries in Washington, Oregon, and Idaho, students also have access to books, DVDs, videotapes, government documents, and more. Direct online borrowing and an efficient courier service allow students to obtain books quickly and easily.

From the Libraries’ website (library.clark.edu (http://library.clark.edu)), Clark College students, faculty, and staff have 24/7 online access to thousands of resources, including electronic books, full-text journals, and 78 electronic databases. Consult the Library website or call 360-992-2151 for hours of service and other library information.

MESA Program
360-992-2225
http://www.clark.edu/academics/programs/dept/mesa/ (http://www.clark.edu/academics/programs/dept/mesa/)

Mathematics, Engineering, science Achievement (MESA) offers academic and professional support services to qualifying students who intend to transfer to four (4) year universities in pursuit of science, technology, engineering and mathematics (STEM) majors. Our overriding aim is to diversify the STEM workforce by addressing the challenges undeserved students face in their educational and career development.

Resources available for students include: online orientation, career advising, transfer assistance, professional development & academic excellence workshops, and a study center (SBG 206/208).

You may be eligible for the MESA program if you meet any of the following:

• Are a historically underrepresented student of color in STEM
• Are of the first generation in your family to attend college
• Are eligible for financial aid as determined by the FAFSA or WAFSA, work study, or are at least at or below the federal poverty level
Office of Diversity and Equity
360-992-2292

The function of the Office of Diversity and Equity is to support the goals of Clark's Social Equity Plan. We assist in the accomplishment of these goals through serving as a resource on related issues, providing training and educational programs, inviting speakers and performers, and providing opportunities for individuals to feel connect with those who have felt disconnected in the past and with their community. The Office of Diversity and Equity is committed to serving systemically non-dominant communities as they navigate Clark College. We support Clark College's goal of recruiting and retaining a diverse student body and workforce.

The Diversity Center is a welcoming and safe place for the entire Clark community (students, faculty, staff, and community members) to learn about and engage in conversations regarding diversity, inclusion, power, privilege, inequity, and social justice.

Parking and Traffic Rules
360-992-2133
http://www.clark.edu/about/governance/public-disclosure-and-records/adminProcedures/500/530/index.php

Traffic and parking regulations at the College are authorized by the Board of Trustees and codified under the Washington Administrative Code (132N-156 WAC). The enforcement of parking and traffic regulations is the responsibility of the Security/Safety Department.

Student parking on the Clark College campus is limited to open parking spaces. Open parking spaces are identified as lined spaces without any special labels. No permit is required to park in open parking. Restricted parking areas include faculty/staff (F/S) parking, visitor or metered parking, and disabled person parking. No one may park in these areas without the proper permit or other authorization.

Drivers of vehicles on campus shall obey all regulatory signs, including stop signs and directional arrows, and shall comply with directions of campus security officers in the control of traffic and parking.

Any violations of college parking and traffic rules and regulations may result in issuance of a monetary citation by the Security/Safety Department. Vehicle impounding, immobilization, or transcript hold may result if vehicles are parked improperly or if fines are not paid.

The Security/Safety Department works continually toward safe and effective parking lot use. Concerns, suggestions, and ideas for meeting the challenges of managing campus parking are always welcome. Students should contact the Security/Safety Department in Gaiser Hall for a complete copy of the Clark College Parking and Traffic Rules and Regulations, or for a copy of the Parking Survival Guide.

Public Transportation

Clark College is served by C-Tran, the Clark County Community Transit System (https://www.c-tran.com/), at the main campus, Clark College at WSU Vancouver, and Clark College at Columbia Tech Center. The Clark College main campus is currently served by three (3) bus lines which link the college to all parts of the city of Vancouver, Clark County, and to Portland, Oregon.

To encourage and enable transit ridership, the college funds and supports the BackPASS program. Through the BackPASS program, all registered Clark College students can purchase a BackPASS endorsement for their student identification cards. The BackPASS will afford the student unlimited access to C-Tran service in Clark County. Students may receive only one subsidized BackPASS per term. To facilitate use of the BackPASS, bus schedules, maps, and other transit information can be found in several locations. C-Tran regularly participates in student orientations and hosts information booths on the main campus.

Van service is now available at a reduced rate to students with disabilities. Check with C-Tran for more details by calling 360-695-8918 (voice) or 360-695-2760 (TTY).

Additional information about the BackPASS program can be obtained from the Security/Safety Department in Gaiser Hall.

Security/Safety Department
360-992-2133

The Clark College Security/Safety Department works to provide a safe and secure environment in which members of the college community can pursue their educational and professional goals. The Department is comprised of 25 full and part-time non-sworn officers and support staff. An officer can be reached on main campus 24 hours a day/7 days a week/365 days a year. The department is charged with protecting life and property, providing service and assisting students, staff, and community members. The Security/Safety Department strives to offer proactive protection services to the college community by stressing prevention above response, planning above reaction, education above enforcement, and service above all.

The Security/Safety Department can provide informational and directional assistance; aid to stranded motorists including jump starts and lockout service; security escorts across campus; crime prevention advice; and other general assistance to students, staff, faculty and guests of the college. The Security/Safety Department works cooperatively with the emergency response agencies (police, fire & EMS) in emergency, dangerous or volatile situations, and/or in criminal investigations.

The Department provides all information required by the Clery Act, which is published in an annual security report by October 1st of each year. For more information about the Annual Crime and Security Report please visit: http://www.clark.edu/campus-life/student-support/security/report.php

Student Ambassadors and the Campus Visit Program
360-992-2078

Student Ambassadors are current Clark College students who assist with the admissions and orientation process of starting at Clark. Student Ambassadors are also available to take you on a campus tour so you can begin to become familiar with campus. Taking a campus tour with a current student is a great way to hear the student perspective of being at Clark.

Student Discounts

A list of merchants that offer discounts can be found at the Security/Safety Department in Gaiser Hall.
Student ID Cards

Annual Clark College student photo ID cards can be purchased in the Clark College Bookstore, Gaiser Hall, for a minimal fee. Current registration and valid photo ID are required to obtain a Clark College student ID (being on wait list is not considered registered). ID cards are not required by the College but do provide free or discounted admission to College events and may qualify for student discounts offered by many local businesses.

Tutoring Services


Tutoring is designed to provide individualized attention that supports student learning and academic success. Our friendly, supportive, and encouraging tutors assist with most English, math, science, and general education classes offered at Clark College. Tutors will also help students develop skills and confidence to become stronger, more independent learners. Students who come in for tutoring may also access computers, software, handouts, reference materials, and other resources.

Tutoring services are FREE to all registered Clark College students.

Transitional Studies Tutoring Center
360-992-2750

Located in the T Building, room 228. The Transitional Studies Tutoring Center supports CAP and ESL students with tutoring and computer-based learning. One-on-one and small-group tutoring are available for adults learning English as a second language, as well as for native English speakers who want to improve basic reading, writing, and math skills.

Language & Writing Center
360-992-2253

Located in Hawkins Hall, room 102. Writing tutors are available to help students with all types of writing—essay assignments, journals, research papers, resumes, scholarship essays, and more. Assistance is available at all stages of the writing process, from generating ideas to reviewing completed drafts. Although tutors do not edit or proofread, they will help students determine what their tendencies are concerning grammar errors, explain general concepts, and offer strategies that can lead to more effective writing.

Language students can meet with a tutor for conversation practice and help with written and oral assignments in English and world languages offered at Clark. All services are available on a drop-in or appointment basis.

Science, Technology, Engineering, & Math Center
360-992-2694

Located in Bauer Hall, room 101/102. Tutors provide assistance with most levels of math, chemistry, engineering, physics, biology, and other STEM subjects. Help is available on a drop-in or appointment basis.

Accounting & Business Center

Located in Applied Arts 4 (AA4), room 106. Tutoring assistance is available for all levels of accounting and for most business and economics courses. Help is available on a drop-in basis.

Online Tutoring


Online assistance is available for currently enrolled Clark students. Using the Online Writing Lab, students can upload a draft of their paper and receive written feedback, usually within 24-72 hours. Tutors are also available to assist via e-Chat (synchronous) or e-Questions (asynchronous) in various subjects, including physics, chemistry, biology, math, calculus, statistics, Spanish, accounting, and more.

For eTutoring access and login directions, go to the eTutoring webpage (http://www.clark.edu/campus-life/student-support/tutoring/etutoring.php). Canvas course shells may also include an eTutoring link in the navigation panel on the left of the screen.

Veterans Resource Center
360-992-2073
vetresources@clark.edu

Located in Penguin Union Building, room 015, the Veterans Resource Center is available to help veterans and their dependents connect with the resources and networks of support available to them at Clark College and in the local community. We provide a welcoming staff, mentoring from student veterans, and tools to succeed academically and personally. The VRC also provides a math tutor, computer stations, printers, TV, and a comfortable environment to relax. Veterans are encouraged to visit the center to receive information and assistance regarding:

- Benefit Applications and Procedures
- GI Bill Certification
- Veterans Advocacy
- Community Support
- Transition Services
- Campus & Community Resources
- Specialized Programs and Workshops
- Veterans Club

Clark College does not and will not provide any commission, bonus, or other incentive payment based directly or indirectly on success in securing enrollment or financial aid to any persons or entities engaged in any student recruiting or admissions activities, or in making decisions regarding the award of student financial assistance.

Selected programs of study at Clark College are approved by the Workforce Training and Education Coordinating Board’s State Approving Agency (WTECB/SAA) for enrollment of those eligible to receive benefits under Title 38 and Title 10, USC.
CREDENTIAL EVALUATIONS OFFICE

The Credential Evaluations Department provides assistance for students seeking an evaluation of their progress towards completion. Evaluators will review and evaluate official transcripts sent to Clark College, process applications for program completion, and respond to Academic Credit for Prior Learning inquiries. For more detailed information about what Credential Evaluations is responsible for, please visit http://www.clark.edu/enroll/advising-services/credential-evaluation/index.php or call 360-992-2802.

Credential Evaluation Policies

Academic Standards Petition

Students who believe an error has been made, or who would like to request an exception to the established degree requirements should contact the Credential Evaluations Office to inquire about an Academic Standards Petition.

Catalog Lifespan

Students may complete their degree(s) or certificate(s) under the requirements set forth in any catalog issued during their attendance at Clark College. However, no catalog will be valid for more than four (4) years. Any student not in attendance at Clark College for two (2) or more calendar years is required to complete the program requirements of the catalog in effect at the time of their re-entry to the college.

Diplomas

Diplomas will be mailed 6-8 weeks following the completion of a student’s degree or certificate requirements. Diplomas that are lost or misplaced may not be available for reprint. Contact the Credential Evaluations Office for more information.

Graduation Application Deadlines

Students must submit a graduation application in order to be awarded a degree or certificate upon the fulfillment of the completion requirements. Students are encouraged to submit the graduation application one term before they plan to complete all of their requirements.

The priority processing deadline for graduation applications is the tenth (10th) day of the term in which the student plans to finish degree or certificate requirements; applications will be processed in the order received and the degree or certificate will be awarded in the term of completion.

Graduation applications received after the priority deadline and through the last day of the term will be accepted; applications received during this non-priority period will be processed in the order that they were received. Applications received after the last day of the term may be moved to the next term.

Academic Credit for Prior Learning

Have you dreamed of completing a degree you started long ago? Is it overwhelming to consider beginning or returning to school after being out of the educational system for several years? The process may not be as difficult as you may think!

Academic Credit for Prior Learning, as defined by the Washington State Legislature, is the ‘knowledge and skills gained through work and life experience; through military training and experience; and through formal and informal education and training from in-state and out-of-state institutions including foreign institutions.’ (RCW 28B.77.230).

Legislation passed by the state of Washington requires Clark College to collaborate with the State Board of Community and Technical Colleges in supporting the state goals for credit for prior learning. Clark College is committed to fostering an educated and skilled workforce, which is essential for economic prosperity and meaningful work for the citizens in Clark’s service area. Further, Clark College is dedicated to awarding credit for applicable learning experiences that can help more students complete their training and degree programs sooner by evaluating an individuals existing knowledge and competencies for college credit.

Students may be assessed through various processes that will determine the degree to which you have met the learning outcomes of the content in question. This could be a test, written assessment, oral interview, project, performance, or another appropriate method by which the faculty member determines your understanding of the subject matter. No more than forty-five (45) credits of Academic Credit for Prior Learning can be applied to the Associate of Arts, Associate in Science Tracks 1 & 2, and Bachelor of Applied Science Degrees.

Clark College, in accordance with the State Board for Community and Technical College guidelines, recognize four categories of Academic Credit for Prior Learning:

Credit by Testing

Standardized exams provide credit opportunities to students who have already acquired specific knowledge and skills that they would otherwise be acquiring in a college course. This category will be noted on transcripts as awarded for prior learning and includes Advanced Placement (AP), International Baccalaureate (IB), College Level Examination Program (CLEP), and Cambridge "A" Level Exam.

College Level Examination Program (CLEP)

Clark College awards credit for successful CLEP examinations. An up-to-date list of subjects and required scores can be found on www.clark.edu/enroll/credential-evaluation/clep.php. To be considered for credit, a student must pass the examination with the equivalent of a ‘C’ or better grade. The transcript will reflect the credit granted by listing the equivalent course number, title, and credits. Not all institutions accept CLEP credits. Students intending to transfer to another institution should contact the transfer institution for information on their CLEP policy.

Procedure for Requesting CLEP Credits

Students should have an official copy of their CLEP scores sent to:

Clark College
Attn: Enrollment Services/GHL128
1933 Fort Vancouver Way
Vancouver, WA 98663

Once scores are received and reviewed, an email will be sent to the student at the Clark College student email address regarding the credits to be awarded. CLEP credits are posted to the transcript at the end of the term in which the scores were submitted as long as the student is enrolled in that term.

Where to Get CLEP Scores

CLEP Transcript Service
Course Challenges

Students who believe that previous experience has provided them with the competencies essential for passing a course may request to challenge that course. Faculty or departments will create these assessments. The assessments can be written, oral, practical demonstration, or some combination thereof. A course challenge process may be used when:

1. There is a specific Clark College course for which the student believes that the learning outcomes can be met, and
2. The course can be challenged (some courses may not be challengeable).

Students wishing to challenge a course may not be currently enrolled in the course they wish to challenge, nor may students challenge courses if they have completed a course with a higher degree of difficulty. Courses that have been successfully challenged will be appear on the student's transcript with an 'S' grade. There will be no transcript entry for an unsuccessful challenge. The successful challenge will appear on the student's transcript within the term earned and does not count toward the Clark College residency requirement. Students should check with the Credentials and Evaluation Office for the current application process and course challenge fees.

Extra-institutional Learning

This category assesses the knowledge and skills acquired outside the institution, and is objectively verified through third-party certifications, industry-recognized testing/training, and crosswalks. Credit may be awarded for documented experiential learning outside the college upon the recommendation of appropriately qualified teaching faculty. This category also includes Joint Services Transcripts and American Council on Education (ACE).

Military Experience

360-992-2711

Students can receive academic credits for experience and knowledge gained through military participation. Credits will be conferred based on ACE credit recommendations, in consultation with academic departments. Academic credit for military experience will be limited to twenty-five (25) percent of total credits required for degree/certificate completion. Students should consult the Veterans Affairs Department to discuss applying military credits to their degree plan. The Credential Evaluations Department will evaluate all incoming military credits upon receipt.

Clark College meets the requirements of RCW 28B.10.057 by awarding academic credit for military training. The academic credit awarded for prior military training is granted only for training that is applicable to the student's degree or certificate requirements. The individual must be enrolled in Clark College and have successfully completed any military training course or program as part of the military service that is:

- Documented military training or experience that is substantially equivalent to any course or program offered by the institution of higher education.

Clark College enrolled students who are veterans of any branch of the United States armed services who wish to receive transfer credit must provide an official Joint Services Transcript (JST) through the armed services in which he/she served, from the Community College of the Air Force or any other college/university attended. Upon receipt of the official transcript the following actions will occur:

- Within ten (10) business days of transcript receipt, the Credentials Evaluations Office will evaluate the transcript for reading, English, and mathematics placement and any academic (general education) credits earned, posting to the student record as applicable.
- Technical classes that require more review to determine a direct equivalency will be forwarded to appropriate program faculty along with the course description and the accompanying ACE (American Council on Education) course recommendation.
- Military credit recommendations that are direct equivalents to Clark course offerings may be articulated to that specific course. If direct course equivalents do not exist, elective credit (non-direct equivalent) will be awarded when possible. Both direct and non-direct equivalents must be applicable toward the veteran's program of study.
- The Credentials Evaluations Office will post the credit to the student record and then notify the student of credits accepted with directions on how to access their Degree Audit so they may view credit applicability to their program of study.
- In the case of a change of program, the veteran must notify the Credential Evaluations Office so the transfer credit may be re-evaluated and applied to the student record as applicable.
- Per the Veteran's Administration, all veteran student transfer credit must be evaluated within two (2) terms of program start. After the third term, if the student does not submit all transcripts, he/she may be decertified for the use of VA education benefits.
- Veteran students using education benefits are not permitted to opt out of transfer credit evaluation.

Military credit will not be granted for:

- Non-credit courses and workshops;
- Remedial or college preparatory courses;
- Sectarian religious studies.

Prior Experiential Learning

This includes the skills, knowledge, and attitudes gained through non-formal (mainly work-based) and informal (life-experience) means. Prior experiential learning is assessed through portfolio development and review. Academic credits awarded for this category must not exceed twenty-five (25) percent of the credits needed for a degree.

For more detailed information on Academic Credit for Prior Learning please contact 360-992-2805.

Graduation Ceremony

Participation in Commencement Ceremonies

The June Commencement ceremony is for those students who have completed or plan to complete their degree or certificate during the current academic year. Participation is not required. Candidates must file their graduation application and cap and gown order by the appropriate deadline to be eligible. Ceremony participation does not guarantee degree
Completion. Students completing their degree in the 2019 summer term may participate in Commencement of the previous academic year.

Caps & Gowns
Only students who submit a Cap and Gown Order Form and Graduation Application will be allowed to participate in the Commencement ceremony. The Cap and Gown Order Form is available in the Advising Department and is given to students once they have submitted the graduation (program completion) application. The Cap and Gown Order Form deadline for submission will be published on the website. There is a fee for caps and gowns; please refer to the order form for current pricing. If you have received honors, honors regalia will be available in the bookstore at the time you pick up your cap and gown packet. Students who have submitted the Cap and Gown Order Form will receive detailed information in May regarding the process for ceremony participation and cap and gown disbursement.

Transfer Credit
Transfer Institution Accreditation Requirements
Clark College accepts credits from regionally accredited institutions of higher education. Recognized accrediting bodies are as follows:

- Middle States Association of Colleges and Schools (MSA);
- New England Association of Schools and Colleges, Inc./Commission on Institutions of Higher Education (NEASC-CIHE);
- North Central Association of Colleges and Schools (NCA-HLC);
- Northwest Commission on Colleges and Universities (NWCCU);
- Southern Association of Colleges and Schools/Commission on Colleges (SACS-CC);
- Western Association of Schools and Colleges/Accrediting Commission for Community and Junior Colleges (WASC-ACCJC);
- Western Association of Schools and Colleges/Accrediting Commission for Senior Colleges and Universities (WASC-ACSCU).

Domestic Institution Transfer Policy
Students who have attended other regionally accredited institutions of higher education may choose to transfer credit to Clark College to meet course prerequisites and degree requirements. All coursework, including courses earned as part of prior degrees, will be evaluated on a course-by-course basis for transferability to Clark College. The Credential Evaluations Office will review the content of each course transferred and determine the appropriate course equivalency.

Official copies of transcripts are required for evaluation. Transcripts are considered official if issued directly from the prior institution or delivered in the original sealed envelope. Course descriptions and/or syllabi may be required to complete evaluations in some instances. It is the student’s responsibility to request course and catalog information from an outside institution and provide them to Clark College. Once transcripts from other institutions are received, they become part of a student’s permanent educational record and cannot be released by Clark College.

Although there is no limit on the number of credits that can transfer into the college, students must meet the Academic Residency requirements for their program. Dental Hygiene and Nursing students MUST provide all transfer institution transcripts during the application process.

International Institution Transfer Policy
Students with credits from international institutions of education may submit their academic records for credit consideration. The amount of credit awarded will vary, based on the individual record of the student. Clark College does not recognize English coursework completed in countries outside of the United States, with the exception of Australia, Canada (except Quebec province), Ireland, New Zealand, and the United Kingdom.

Clark College requires translation and evaluation of the student’s academic record from an agency that is a member of the National Association of Credential Evaluation Services. A current list of members is available online at www.naces.org (http://www.naces.org). The costs of agency services are the responsibility of the student.

Distribution Reciprocity
The Washington State Community and Technical College Inter-College Reciprocity Policy (Distribution Reciprocity) provides guidelines for transfer credit treatment among the Washington state community colleges. If a student transfers an individual course that meets a Communication Skills, Quantitative Skills, or Distribution Requirement at the sending college for a specific transfer degree, that course is considered to have met that requirement at the receiving college for a similar transfer degree, even if this course does not have an exact equivalent. The receiving institution will accept a specific course’s distribution area for a transfer degree if that student:

1. Has met the sending institution’s residency credit and meets the receiving institution’s policy on continuous enrollment (enrollment pattern needed to complete under the catalog at entrance).
2. Has met the entire Communication Skills, Quantitative Skills, or Distribution Requirement of a transfer degree, according to the sending institution’s degree criteria.
3. Has maintained a cumulative college-level grade-point average (GPA) of 2.0 or better at the sending institution.

Students who believe they may qualify for the Distribution Reciprocity agreement should contact the Credential Evaluations Office.
ENROLLMENT SERVICES

360-992-2107

Our Welcome Center is your first step whether you are a new, transfer, or returning student. We provide information on how to become a student at Clark College. Our services include assistance with admissions procedures, residency information, campus tours, student orientation, and referral to other services and programs.

All students intending to enroll at Clark College are required to submit an application for admission and pay a non-refundable application fee. Application for admission is available on the Clark College website at www.clark.edu/quickstep (http://www.clark.edu/enroll/admissions/apply.php).

Clark College admits anyone who is eighteen (18) years of age or a graduate of an accredited high school or the equivalent. Students who are (16) years of age or older may enroll in summer term. Applicants who are under the age of eighteen (18) and without a high school diploma or equivalent may be considered for admission. Refer to the Exception to Admission (Underage Policy) section for further details. Admission to the college does not guarantee admission to a specific area of study. Some programs require additional applications and are limited or competitive-entry programs. See additional information under Health Occupations Programs.

Residency classifications for the purpose of tuition rates are determined by the length of time a student has been permanently living in the state of Washington. Please refer to the Residency Classifications section for detailed information.

New Student Admission

Students with no previous college experience must complete an admissions application and pay a non-refundable application fee. New students are also required to meet with an advisor before they may register for classes. Prior to meeting with an advisor, please have your placement documentation submitted or with you at the time of your appointment. For more information please visit website at www.clark.edu/enroll/advising-services/index.php (http://www.clark.edu/enroll/advising-services/)

Transfer Student Admission

Students transferring from other colleges are required to submit an admissions application and pay a non-refundable application fee. Transfer students are required to meet with an advisor before they may register for classes.

If a student intends to use previously earned credits toward a program at Clark College, an official transcript of their college records must be sent to Enrollment Services at the time of application for admission. Students may use previous coursework or course placement to meet the prerequisite for English and or Mathematics. Please visit www.clark.edu/assessment (http://www.clark.edu/enroll/admissions/assessment/) for additional information. All admission materials become the property of the college and will not be returned to the student or forwarded to another institution.

Transfer credits are usually accepted by Clark College if such credits were earned at an institution accredited by a regional association recognized by the Council on Post-secondary Accreditation. Students should refer to Section B of this catalog for information about non-traditional credits and the process for transcript evaluation.

Returning Student Admission

Students who are returning to Clark College after an absence of four (4) or more terms must provide an updated application for admission prior to registration. Returning students are required to meet with an advisor before they may register for classes.

If a student has attended another college since their last enrollment at Clark College and wants to apply those credits to a Clark College program, an official transcript must be sent to Enrollment Services. All admission materials become the property of the college and will not be returned to the student or forwarded to another institution.

Running Start Admission

360-992-2366

The Running Start program has its own set of admission policies and procedures. Please refer to www.clark.edu/runningstart (http://www.clark.edu/enroll/admissions/running_start/) for more information.

International Student Admission

360-992-2390

Clark College accepts qualified international students from around the world who wish to study in the U.S. using an F-1 student visa.

To be eligible for admission, applicants must submit the international student application form, application fee, and supplemental documents. International student admission information can be found on the International Programs web page: www.clark.edu/international (http://www.clark.edu/international/).

Applicants must submit financial documentation with their application to prove that sufficient funds are available for their first year of study. Resources must cover cost of tuition, fees, books, medical insurance, living expenses, and transportation. Medical insurance while in the U.S. is mandatory and will be added to the student’s bill each term.

Exception to Admission (Underage Policy)

Clark College admits anyone who is at least 18 years of age, who is a graduate of an accredited high school or the equivalent, is a participant in Running Start, or participant in other approved programs designed for age-specific groups. Exceptions to this policy may be granted by the college for special consideration of underage individuals not participating in one of the above-mentioned programs. The college reserves the ultimate right to determine admission to the college and/or to enroll in certain classes.

Residency Classifications

www.clark.edu/enroll/admissions/admission_forms.php (http://www.clark.edu/enroll/admissions/admission_forms.php)

To qualify for any of the residency classifications listed below, students must be U.S. citizens, resident aliens, refugees, or non-immigrant aliens with visa classifications of A, E, G, H, I, K, or L.

Residency Classification Definitions

• Washington In-State Resident: A person who meets the qualifications of citizenship, has been living in the state of Washington for a
Applying for Residency Reclassification

Students are granted residency classification based on the information provided on the initial admissions application. The student is responsible for submitting the appropriate application and supporting documentation to have residency reviewed for a reclassification to a new category. Applicants who are not U.S. citizens are required to submit a copy of their permanent resident card or I-94 for reclassification consideration. All residency reclassification requests and documentation are accepted until the 30th calendar day of the term. The college has ten (10) business days to review a completed application before making a decision on the reclassification request. If the application is approved, adjustments to the tuition will be applied to the term for which the reclassification was submitted. If the application materials are incomplete or received after the 30th calendar date of the term, the request will be reviewed for the following term. Residency changes are not retroactive.

Supporting documentation is defined in two categories: proof of physical presence and proof of intent to remain in the state of Washington. Students applying for reclassification will be asked to provide these documents as part of their application materials. Acceptable types of documents are listed below.

- Proof of Physical Presence (one document required, showing at least 12 months)
  - Copy of mortgage closing statement for the home in which the student resides;
  - Copy of a rental/lease agreement for the home in which the student resides; or
  - Copy of rental receipts or mortgage payment receipts for the home in which the student resides.
- Proof of Intent to Remain (three documents required, each showing at least 12 months)
  - Valid Washington driver’s license;
  - Valid Washington voter registration;
  - Valid Washington vehicle registration (not title);
  - Proof of permanent full-time employment; or
  - Verification of checking, savings or safe deposit box accounts located at a bank in Washington.

* Note that the Oregon Border Opportunity Waiver also requires proof of Oregon border county residency in addition to the documents listed above. The Washington Non-Resident Waiver requires one piece of documentation from the list above, while the Oregon Border Waiver requires one piece of documentation from the list above from Oregon rather than from Washington. For additional details, refer to the directions on the application forms.

The forms are available online at http://www.clark.edu/enroll/admissions/admission_forms.php or visit Enrollment Services in Gaiser Hall room 128.

- Washington Residency Reclassification Form: Used to apply for in-state status by those who did not reside in Washington state for at least 12 months prior to enrolling at Clark College.
- Border County Opportunity Application HB1474: Used to apply for in-state status by those who qualify under the Oregon Border Opportunity Waiver guidelines.
- Washington Non-Resident Waiver: Used to apply for the waiver by those who originally applied for admissions with a non-Washington state address and who have since moved to Washington and established a residency.
- Oregon Border Waiver: Used to apply for the waiver by those who are residing in a qualifying Oregon border county.

Washington residency is governed by RCW.28B-15, RCW 46.16.028, RCW 46.20.021, WAC 250-18, and WAC 208-104-006. Contact Enrollment Services at 360-992-2107 with any questions regarding your residency status or how to apply for a reclassification. You can also visit Enrollment Services in Gaiser Hall room 128.

**HB 1079 (Undocumented Person) Waiver**

Effective July 1, 2003, Washington state law (HB1079) was changed to qualify certain students who are not permanent residents or citizens of the United States as eligible to pay resident tuition rates. To qualify, students must complete an affidavit declaring they have:

- Resided in Washington state for the three (3) years immediately prior to receiving a high school diploma, and completed their full senior year at a Washington high school, OR completed the equivalent of a high school diploma and resided in Washington state for the three (3) years immediately before receiving the equivalent of the diploma, AND
- Continuously resided in the state since earning the high school diploma or its equivalent, AND
- Certify that they will file an application to become a permanent resident of the United States as soon as they are eligible to apply.
Active Duty Military
Active duty military stationed in the state of Washington, as well as their spouses and dependents, qualify as residents for tuition purposes. At the time spouses or dependent family members apply for admission, documentation such as a copy of the military ID card or other appropriate documents must be presented.

Washington National Guard
Washington National Guard members, as well as their spouses and dependents, qualify for resident tuition as long as they are domiciled in Washington.

Veterans Tuition Exemption
Contact the Veterans Affairs Office at 360-992-2112 for information regarding eligibility criteria for the Veterans Tuition Waiver. You must provide the original or certified copy of form DD214.

Tuition Waivers
Most tuition waiver guidelines and charges are set by the Washington state legislature and may change on an annual basis. Those eligible for waiver are listed below, under the departments that serve them.

- Enrollment Services
  - Clark College employee
  - Classified state employee or Washington Public Higher Education employee
  - Senior Citizen Gold Card
  - Children of deceased law enforcement officer or firefighter
  - Children and spouse of totally disabled, or POW/MIA, or deceased eligible veterans, or National Guard members
  - Native American Waiver
  - Washington Non-Resident Waiver
  - Oregon Border County Waiver
  - Non-Resident Refugee Waiver
  - Apprentice
  - Vocational 18+ credits
  - Dislocated forest products workers or their unemployed spouses
  - Wrongfully convicted individual, their children and stepchildren
  - Running Start
- High School Completion Office
  - High school completion
- Veterans Affairs Office
  - Military personnel
- Running Start Office
  - Running Start

Course Placement
360-992-2588

Course placement is an important step toward student success. Prior to accessing placement services, students must complete an application for admission and pay the non-refundable admission application fee. Many courses at Clark College have placement prerequisites for English and Mathematics ability. The course that students place into determines how they progress through their program of study and how long their degree will take. We have a variety of ways to assess skills, and one method may not work for all. Visit www.clark.edu/assessment (http://www.clark.edu/assessment/) for more information on available placement and retesting options.

Distance Learning Proctoring
The Assessment Center provides proctoring services for students taking distance learning or correspondence courses. There is a fee for this service. Contact the Assessment Center at 360-992-2588 to discuss available proctoring options or visit http://www.clark.edu/enroll/admissions/assessment/proctoring.php to download a proctor request form.

High School 21+
360-992-2741

Begun in 2015, High School 21+ is a program that helps students 21 years or older earn their high school diplomas in a more timely and convenient way than was previously available. The High School 21+ curriculum combines basic skills coursework with more rigorous academic education and training so that students can upgrade their skills while working toward a high school credential. The coursework is listed in the schedule as College and Academic Preparation (CAP). CAP is designed both to help students earn their high school diploma and/or prepare for the GED exam. In addition, the coursework can help students who have already completed high school or the GED but who need to improve their academic skills before entering into their program of study at Clark College.

Adults interested in participating in the High School 21+ program will need to apply for admission and pay the non-refundable application fee, submit their official high school transcripts, take the CASAS test, and meet with the High School Completion Advisor prior to beginning their classes. While adults aged 19 and older are welcome to enroll in the program, diplomas will be issued only to adults aged 21 and over.

General Educational Development (GED) Testing
Clark College is an official General Educational Development (GED) testing site. The GED® tests provide a high school credential to adults who have not graduated from a traditional high school. Participants in GED testing may go on to further their education at Clark College following the examination process or can participate in traditional college classes while completing the GED tests.

The GED test is designed for adults who are 19 years old or older and who have not received a traditional high school diploma. Examinees who are 16 to 18 years old and wish to take the GED test must provide a high school release form from the school district in which they live.

The GED examinations are given in the following four (4) subject areas:

- Social Studies
- Science
- Mathematics
- Language Arts

Successful completion of each of these examinations leads to the issuance of a GED certificate.

The GED test is now offered in a computer-based format. In order to begin the process of obtaining a GED, participants may register online at www.GED.com (https://catalog.clark.edu/enrollment-aid-college-life/)
The GED test must still be taken in person at an official GED testing center. Examinees under the age of 19 must provide a high school release form to the Assessment Center, located in Gaiser Hall, room 128, to enable the online scheduling feature.

GED preparation classes are available through Clark College. Contact 360-992-2588 for further information.
What is eLearning?

E-Learning at Clark College provides alternative options to students that give them the opportunity to attend classes beyond the traditional on-campus experience.

Clark College has dedicated a number of resources to ensuring exceptional Universal Design for Learning practices and proactively attending to accessibility concerns.

What Types of Classes are Offered?

E-Learning classes are offered in the following formats: online, hybrid, and weekend hybrid. To learn more about eLearning class formats, please go to What is eLearning page (http://www.clark.edu/academics/eLearning/whatis.php). General class descriptions are as follows:

- Online – A course that uses web-based tools and where 100% of the instruction and interaction between instructor and student is done online.
- Hybrid – A course that displaces some, but not all face-to-face class time with web-based tools.
- Web Enhanced – A face-to-face course that does not replace any face-to-face seat time, and access to web-based tools is required.

For more information regarding these programs, please contact the Advising department.

Students registering for web-enhanced, hybrid, or online courses can get help preparing by visiting the following pages:

- eLearning Programs (http://www.clark.edu/academics/eLearning/programs/)
- Canvas Orientations (http://www.clark.edu/academics/eLearning/student_orientation.php)

The Smarter Measure test is recommended for help with assessing technology skills and learning styles. Here is a link: Welcome to Clark SmarterMeasure! (http://www.clark.edu/Library/Tech/smartermeasure_info.php)

What Types of Programs are Offered?

Through the eLearning class formats, students have several options to complete a degree through Clark College eLearning:

1. Associate in Arts General Transfer degree (AADTA): In a combination of formats including online, hybrid, and weekend hybrid.
2. Business Administration DTA/MRP: In a combination of formats including online, hybrid, and weekend hybrid.

How Do I Start an eLearning Class?

E-Learning classes follow the same college policies and procedures as face-to-face classes; therefore, they have the same start and end dates, unless otherwise noted. This means students are expected to log into the Learning Management System (LMS) the first day of the term for class instruction.

Please visit the eLearning Getting Started page (http://www.clark.edu/academics/eLearning/begin.php) for information about starting an eLearning class.

Technical Requirements and Support

To see if you have appropriate technology for eLearning courses go to the Technical Requirements page (http://www.clark.edu/academics/eLearning/tech_reqs.php).

Technical support is available through the TechHub for:

- LMS login and troubleshooting;
- Computer lab and student wireless login and troubleshooting;
- Mobile device connectivity;
- Course-specific software and e-books;
- eTutoring login;
- Online student services;
- Computer usage and troubleshooting;
- Student Gmail.

For further information about TechHub, please visit their website (http://www.clark.edu/campus-life/student-support/computing_resources/techhub/).

FINANCIAL AID

360-992-2153

http://www.clark.edu/enroll/paying-for-college/financial-aid/index.php

The Financial Aid Office helps improve college affordability for students by expanding access to and information about financial resources.

Financial Aid Eligibility

In general, students must meet the following criteria to qualify for financial aid:

- Demonstrate financial need as determined by the Department of Education through completing the FAFSA
- Be a U.S. citizen or an eligible noncitizen.
- Have a valid Social Security number (with the exception of students from the Republic of the Marshall Islands, Federated States of Micronesia, or the Republic of Palau).
- Male applicants between the ages of 18 and 25 must be registered Selective.
- Be admitted to Clark College as a regular student in an eligible degree or certificate program.
- Not be in default on a federal loan or owe an overpayment on a federal grant.
- For state aid, not owe a repayment of a state grant or loan.
- Have a high school diploma or GED.
- Students without a high school diploma or GED may qualify through Ability to Benefit.
- Meet satisfactory academic progress.
- Agree to use federal student aid only for educational purposes.

Types of Financial Aid Available

Financial aid includes grants, tuition waivers, work study, and student loans. Funds are awarded according to the Clark College Financial Aid Packaging Policy. The financial aid programs available to students at Clark College include:

- Federal Pell Grant: Awarded based on financial need. Students may receive the Pell Grant for a maximum of four (4) full-time (12 credits or more) terms per academic year. The grant is prorated for less than full-time enrollment. Eligibility is limited to a lifetime maximum of 12 full-time terms.
- Federal Supplemental Educational Opportunity Grant: Awarded based on financial need. The grant is available to students enrolled in six (6) credits or more per term.
- Washington State Need Grant: Awarded to eligible Washington State residents up to the cost of tuition. The grant is prorated for less than full-time enrollment. Students may also receive funding to cover a small portion of child care expenses. Information is available online at www.wsac.wa.gov (http://www.wsac.wa.gov/).
- College Bound Scholarship: Awarded in combination with other state financial aid to cover the average cost of tuition, fees, and a partial book allowance. The scholarship is available to students who sign up in the seventh or eighth grade and meet specific eligibility requirements. Information is available online at www.wsac.wa.gov (http://www.wsac.wa.gov/).
- Clark College Grants and Waivers: Clark College reserves a percentage of tuition revenue and offers these funds to Washington State resident students in the form of institutional grants and tuition waivers. Clark College offers the following institutional grants and waivers:
  - Clark College Grants and Need-Based Tuition Waiver: May only be awarded to reduce the cost of tuition, and cannot be applied toward fees or disbursed directly to the student. Students receiving an Athletic Tuition Waiver are not eligible to receive this additional waiver.
  - Clark College Non-Need Based Tuition Waiver: May only be awarded to reduce the cost of tuition, and cannot be applied toward fees or disbursed directly to the student.
- Federal Direct Loans: Federal Direct loans are borrowed funds that students must repay with interest. A federal student loan allows students to borrow money to help pay for college through loan programs supported by the federal government. They have low interest rates and offer flexible repayment terms, benefits, and options. All students must first complete the Free Application for Federal Student Aid (FAFSA). Students who are eligible for a loan, will have an offer included in their award letter.
  - There are two types of federal student loans: subsidized and unsubsidized. Students who are eligible for a subsidized loan are not charged interest while they remain in school. Interest starts accruing on subsidized loans after a student leaves school. With an unsubsidized loan, interest starts accruing at the time loan funds are disbursed. Students can choose to make interest payments while in school or delay interest payments until after they leave school.
- Federal and State Work Study: Awarded to Washington State residents based on financial need. Funds are earned through employment on and off campus. Students must be enrolled in six (6) or more credits per term.
- Federal Direct Loans: Federal Direct loans are borrowed funds that students must repay with interest. A federal student loan allows students to borrow money to help pay for college through loan programs supported by the federal government. They have low interest rates and offer flexible repayment terms, benefits, and options. All students must first complete the Free Application for Federal Student Aid (FAFSA). Students who are eligible for a loan, will have an offer included in their award letter.
  - New students borrowing a loan for the first time receive their first loan disbursement on the 31st day of the term. If the disbursement date falls on a weekend or holiday, the disbursement will be available on the following business day.
  - All students borrowing a loan for a single quarter will receive their disbursements in two installments. The first disbursement will be on the 1st day of the term and the second at the midpoint of the term. If the disbursement dates fall on a weekend or holiday, the disbursement will be available on the following business day.

Application Process

The annual application process begins by completing the Free Application for Federal Student Aid (FAFSA) online at www.fafsa.gov (https://fafsa.ed.gov/). The FAFSA is available starting October 1. Completing the FAFSA is the first step of the application process. Additional documents may be requested by the Financial Aid Office. If additional information is needed, students will be contacted by student email. A student’s financial aid file is considered complete and ready for processing when all requested documents are received by the Financial Aid Office.
Washington Application for State Financial Aid (WASFA)

Eligibility for Washington State financial aid has been expanded to include students who are ineligible for federal financial aid due to immigration status. DREAMers should complete the WASFA online at www.readysetgrad.org/WASFA (http://www.readysetgrad.org/WASFA/). Students who qualify may be eligible for state grant aid and work study.

Financial Aid Awards and Refunds

The Clark College Financial Aid Office processes the student's financial aid file and determines eligibility for grants, work study, and loans. Students are notified of their eligibility with an award letter sent to their student email account. All grants and tuition waivers included on the award letter are based on full-time (12 credits or more) enrollment. Grants and tuition waivers are prorated down prior to the start of the term for less than full-time enrollment. Loans and work study included on the award letter are offers and require additional application steps.

All financial aid awards are automatically applied toward tuition and fees. If the financial aid award is not sufficient to pay tuition and fees in full, the student is responsible for the remaining balance. If the financial aid award exceeds the cost of tuition and fees, the student will receive a refund. With the exception of summer term, financial aid refunds are generally issued one (1) to two (2) business days before the start of the term. To avoid delays in financial aid refunds, students should finalize their academic schedule at least one week before the start of the term.

BankMobile Refund Selection Kit

Through a partnership with BankMobile, Refund Selection Kits are issued to all Clark College students who apply for financial aid. The kits are mailed by BankMobile to students after they complete their financial aid file. Students should visit their refund website (https://www.refundselection.com/refundselection/#/welcome/continue) after receiving their kit to choose how they wish to receive their refund each term. Students can choose to have their refunds deposited into an existing bank account, directly deposited into a BankMobile Vibe account offered by BankMobile, or mailed as a paper check. Additional information about the BankMobile Refund Selection Kit is available online at www.clark.edu/cc/finaid (http://www.clark.edu/enroll/paying-for-college/).

Census Date

Enrollment level is the range of credits that a student is registered for and correlates with the level of funding.

A student's enrollment level for the term is established at the time the funds are sent to Customers Bank for disbursement. On the census date, fifth day of the term, the student’s enrollment level is confirmed and compared to the original enrollment level. No funding adjustments can be made after the census date.

Increasing Enrollment Level (Adding Credits)
If a student adds classes during the first week of the term the Financial Aid Office will recalculate the student's financial aid awards. If there are additional funds to disburse, they will be released through the student's Customer's Bank option.

Decreasing Enrollment Level (Dropping Credits)
If a student drops to a lower enrollment level after their refund disbursement is released to Customers Bank, the student will be billed based on their change in enrollment. Money owed is identified as a Pell Grant overpayment.

Census Date Adjustments

The Financial Aid Census Date may be adjusted due to College closures resulting from inclement weather or other unforeseeable circumstances that cause the campus to be closed during the first five business days of the term. In the event of unexpected closures, Financial Aid, Enrollment Services, and Accounting Services will coordinate efforts to extend refund periods, and payment deadlines as needed.

Late Start or Module Classes
A student may enroll in class(es) that begin after the official term start date, or end before the official term end date. Financial aid will include module classes in the enrollment level at the time funds are sent to Customers Bank. If a student does not commence attendance or drops a module class prior to the class start date, they will be billed based on their change in enrollment. Money owed is identified as a Pell Grant overpayment.

Pell Grant Overpayments

Students who owe a Pell Grant overpayment will have 45 days to repay their debt in full or make payment arrangements with Clark College Accounting Services. If a student has not repaid the debt in full, or made payment arrangements, the debt will be referred to ED Debt Resolution Services (https://myeddebt.ed.gov/) if a student has not repaid the debt in full or made payment arrangements. Students whose debt has been referred are no longer eligible for financial aid, including grants, loans, and work study. The full Clark College Census Date policy is available at our website (http://www.clark.edu/enroll/paying-for-college/documents/Census_Date_Disbursement_Policy.pdf).

Financial Aid Satisfactory Academic Progress

Students must meet Financial Aid Satisfactory Academic Progress (SAP) Policy requirements to remain eligible for federal, state, and institutional financial aid. SAP is reviewed both annually and at the end of each payment period. All terms of attendance, including those in which financial aid was not received, are used in determining SAP status.

There are three standards of Satisfactory Academic Progress Policy that are evaluated at the end of each term:

1. Grade Point Average (GPA) if the cumulative GPA falls below 2.0 at the end of the term the student will not have met the GPA requirement to remain in good standing. In addition, a student must have and maintain a minimum 2.0 cumulative GPA at the end of their sixth term and beyond to avoid an automatic suspension.

2. Maximum Timeframe is measured to ensure students are taking required courses to complete their certificate or degree. Financial aid will be suspended and program progression must be reviewed at 125%. Students will be ineligible for further funding if it is mathematically impossible to complete the program of study within 150% of the length of the program.
3. **Pace of Progression Students** must complete all financial aid eligible credits funded each term within their enrollment level* and 67% of their attempted cumulative credits. Pace of progress that is 66.6% or higher will be rounded to 67%. All program credits, including transfer and remedial credits, will be taken into consideration whether or not aid was received. Grades F (Failed), I (Incomplete), U (Unsatisfactory), W (Withdrawal), Y (In Progress), N (audit), and R (repeat) will count as attempted credits.

<table>
<thead>
<tr>
<th>Credits/Units registered at the time of disbursement</th>
<th>You will remain in good standing if you successfully complete</th>
<th>Suspension will occur if you complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Time (12-19 credits/units)</td>
<td>12 credits/units per term</td>
<td>5 credits/units or less</td>
</tr>
<tr>
<td>3/4 Time (9-11 credits/units)</td>
<td>9 credits/units per term</td>
<td>5 credits/units or less</td>
</tr>
<tr>
<td>1/2 Time (6-8 credits/units)</td>
<td>6 credits/units per term</td>
<td>5 credits/units or less</td>
</tr>
<tr>
<td>Less Than 1/2 Time (1-5 credits/units)</td>
<td>All attempted credits/units per term</td>
<td>Less than all attempted credits/units</td>
</tr>
</tbody>
</table>

**Financial Aid Warning Status**

Students will be placed on Financial Aid Warning for one term if:

- Cumulative GPA falls below 2.0 at the end of a term and/or
- Pace of progression is less than 67% and/or
- Not all attempted credits are completed (as noted on the chart)

**Satisfactory Academic Progress Appeal**

Failure to maintain good academic standing may be the result of circumstances beyond the student's control. In cases of student's illness, injury, a death in the family or unusual circumstance, students may appeal to regain financial aid eligibility. **Students are limited to two (2) appeals at Clark College** (Maximum Timeframe appeals are excluded from this limit).

The appeal must include:

1. Satisfactory Academic Progress Appeal Form ([http://www.clark.edu/enroll/paying-for-college/documents/SAP_Appeal.pdf](http://www.clark.edu/enroll/paying-for-college/documents/SAP_Appeal.pdf))
2. Typed and signed statement explaining the circumstances AND what has changed AND the steps taken to ensure academic success in the future
3. Supporting documentation confirming the extenuating circumstances presented in the statement
4. A current degree worksheet completed and signed by the student and program advisor

Appeals are reviewed by the Financial Aid Advisory Committee and students are notified of their decision through student email. The Committee's decision is final. If the appeal is approved, the Committee has the authority to restrict students to specific academic conditions. The student may be required to follow an Academic Plan until satisfactory academic progress is achieved.

If approved, aid is reactivated based on available funding at the time the appeal is approved and may not reflect the original award. An approved appeal does not negate any repayment owed to the financial aid programs or Clark College.

**Request for Reinstatement**

If a student chooses not to appeal or has exhausted the two (2) appeal limit they may submit a Request for Reinstatement ([http://www.clark.edu/enroll/paying-for-college/documents/Reinstatement.pdf](http://www.clark.edu/enroll/paying-for-college/documents/Reinstatement.pdf)) when they have satisfied the following conditions:

1. Enrolled in and completed a minimum of 5 program required credits (CAP courses are ineligible) with a cumulative GPA of 2.0 or higher, and
2. Pace of progression is 67% or higher

All credits attempted in reinstatement term must be completed.

Receiving grades of F (Failed), I (Incomplete), U (Unsatisfactory), W (Withdrawal), Y (In Progress), N (audit), and R (repeat) will hinder...
eligibility for financial aid reinstatement and may increase the number of credits required to reinstate.

If the reinstatement is approved, aid is reactivated based on available funding at the time the reinstatement is approved and may not reflect the original award. Students may be restricted to specific academic conditions and must remain in good academic standing to receive continued funding. An approved reinstatement does not negate any repayment owed to the financial aid programs or Clark College.

Financial Aid Probation
If the Financial Aid Advisory Committee approves a student’s appeal, financial aid will be reactivated on a probationary status. Financial aid suspension will occur if the student does not meet all satisfactory academic progress requirements at the end of the next term of attendance (see warning section for details).

Other Requirements and Limitations
I. Maximum Timeframe
Eligibility for federal aid expires once a student attempts 150% of the published credits required for a program. Maximum credit warning notifications will be issued when a student reached 110% of the credits required for a degree or 100% for a certificate. Once a student has attempted 125% of program credits, financial aid will be suspended until an internal review of program progression has been completed. All credits, regardless of whether they were taken while on financial aid, or credits removed with an approved set-aside petition are used in calculating maximum timeframe. Transitional support coursework that is attempted and results in an asterisk (*) grade such as ABE, GED, ESL, ENL, and some CAP coursework are excluded. Transfer credits accepted for use towards the current certificate or degree are included. Remedial coursework needed to reach program required classes is counted towards maximum timeframe. Funding of remedial courses is limited to 45 attempted credits. Repeated credits (R grades) are counted as attempted towards maximum timeframe. Once a class has been attempted and credit has been earned, financial aid can only pay for a second attempt.

II. Program Changes
If a student was approved in a previous appeal with specific academic conditions, those conditions must be met before changing their program. If the student wants to change their program prior to completing the appeal’s academic conditions, a student must submit a Request for Financial Aid Extension to the Financial Aid Office. If the program change is approved, new conditions will be applied.

Financial Aid Funds Repayment Policy
Students who officially or unofficially withdraw from all classes, or complete zero credits at the end of the term, may owe a repayment of financial aid funds received. The Financial Aid Office is required to determine the percentage of funds earned by the student and is based on the withdrawal date.

Official Withdrawal: The date the student withdrew, according to Clark College Enrollment Services (http://www.clark.edu/enroll/registration/manage-enrollment/registration-information.php) withdrawal procedures.

Unofficial Withdrawal: If the student did not officially withdraw, the date of withdrawal is determined as outlined below. The Financial Aid Office will use the latest date.

- The last date of participation in an academically related activity or the midpoint of the term. The last date of participation is reported by the instructor to Enrollment Services.
- The midpoint of the term in which funds were received.

Repayment of Title IV Funds
Title IV funds include Pell Grant, Supplemental Educational Opportunity Grant (SEOG), Subsidized Loans, and Unsubsidized Loans. Title IV funds are subject to the Department of Education Return of Title IV policy requirements. The amount of Title IV funds a student earns, is equal to the percentage of the term completed.

For example, students who complete 40% of the term are considered to have earned 40% of Title IV funds received, the other 60% is considered unearned aid.

Once 60% or more of the term has been completed, 100% of Title IV funds have been earned, and the student will not owe a repayment.

The formula for calculating the amount of Title IV funds that must be returned is determined as follows:

1. Determine the percentage of Title IV funds earned based on the date of official or unofficial withdrawal.
2. Multiply the percentage of unearned Title IV funds by the amount of Title IV funds received.

Once the repayment amount has been calculated, the Financial Aid Office will determine the College’s and student’s responsibility in repayment of funds.

Clark College’s responsibility in repayment is either the percentage of unearned Title IV funds multiplied by tuition and fee charges or the total repayment amount. The calculation which determines the lowest amount, will be utilized. The amount of unearned Title IV funds which the College is responsible for will be returned 45 days from the date the College determined the student withdrew. The funds will be returned in the following order:

1. Unsubsidized Direct Loans
2. Subsidized Direct Loans
3. Direct PLUS Loans
4. Pell Grants
5. Supplemental Education Opportunity Grants
6. Other Federal, State, Private, or Institutional financial assistance

Any refunds (http://www.clark.edu/enroll/registration/refund_policies.php) issued as a result of the withdrawal will be applied by the College to the student’s repayment amount. Students will be billed by Clark College Accounting Services for the remaining balance of the return.

The student’s responsibility in repayment is determined by subtracting the College’s repayment from the total repayment amount. Any amount of unearned Pell Grant or SEOG funds that a student must return is considered an overpayment. The student repayment amount is half of the grant funds received.

Students who owe an overpayment will have 45 days to pay their debt in full or make arrangements to pay their debt. If, within 45 days, the student fails to pay in full or make arrangements to pay, the debt will be referred to Department of Education Debt Resolution Services (www.myeddebt.ed.gov (http://www.myeddebt.ed.gov)). Students who
fail to comply with the terms of their agreement to repay will immediately become ineligible for Title IV funds.

**Repayment of State Financial Aid**

State financial aid funds include Washington State Need Grant and College Bound Scholarship. State financial aid funds are subject to the Washington State Student Achievement Council (WSAC) Repayment policy. This policy goes into effect only if a student withdraws or completes zero credits at the end of the term.

Under this policy, students earn the percentage of State funds received that is equal to the percentage of the term completed. Students who complete 50% or more of the term prior to withdrawing are considered to have earned 100% of Title IV funds received, and will not owe a repayment.

The date of withdrawal and repayment amount are determined according to the same methodology outlined above. Refunds issued as a result of the withdrawal will be applied to reduce the student repayment amount. Students who owe a repayment of State financial aid will receive a bill from Clark College Accounting Services, and will not be eligible to receive additional State financial aid until the repayment has been paid in full. Any unpaid repayments will be referred to the WSAC for collection by June 30, 2018.

**Other Educational Resources Available**

**Scholarships**

360-992-2582

http://www.clark.edu/enroll/paying-for-college/scholarships/index.php

Funding for scholarships is made possible through the generous support of individuals and organizations. The Clark College Foundation is one of the largest community college foundations in the country and offers many scholarships to Clark College students each year.

Individual scholarships may have their own eligibility criteria where a student must maintain a certain grade point average (GPA) or enrollment level to qualify for funds awarded. Students should refer to their scholarship award letter for the conditions of their award. The scholarship application is separate from the application for financial aid.

The majority of scholarship applications are available January through April, and funds are awarded for the following academic year.

**Workforce Education Services**

360-992-2729

Clark College Workforce Education Services administers a variety of programs designed to support students who are pursuing vocational or technical non-transfer degree programs and certificate programs. Resources available include:

**Opportunity Grant**

360-992-2039

The Opportunity Grant program serves low-income students who are pursuing professional/technical programs that lead to high-wage, high-demand jobs. Eligible students must be Washington State residents, meet income guidelines, and be enrolled in an approved program. Financial assistance with tuition, books, and mandatory fees may be available for those who qualify.

**Worker Retraining**

360-992-2274

The Worker Retraining program serves students who have experienced unemployment, who are displaced homemakers, or have been discharged from the military, and are pursuing professional/technical programs that provide them with the ability to re-enter the workforce. Eligible students must live in Washington State and be enrolled in an approved program. Financial assistance with tuition, books, and mandatory fees may be available for those who qualify.

**WorkFirst Financial Aid and Work Study**

360-992-2915

The WorkFirst program serves students who are receiving Temporary Assistance for Needy Families (TANF) and are pursuing professional/technical programs. Eligible students must live in Washington State and be enrolled in an approved program. Financial assistance with tuition, books, and mandatory fees may be available for those who qualify.

On-campus WorkFirst Work Study job opportunities may also be available for those who qualify.

**Basic Food Employment and Training (BFET)**

360-992-2038

The BFET program serves students who are receiving federal basic food benefits and are pursuing professional/technical programs. Eligible students must live in Washington State and be enrolled in an approved program. Students may be eligible to receive subsidized child care assistance through Working Connections/Department of Social and Health Services (DSHS). Financial assistance with tuition, books, and mandatory fees may be available for those who qualify.

**Sponsored Programs**

360-992-2307

The Sponsored Programs office serves as a liaison between students and various governmental and community agencies that have authorized funding to pay for tuition, books, and supplies. An administrative processing fee applies to agencies who fund these student expenses.

**Veteran Education Resources**

360-992-2711 or 360-992-2112

Certifying officials located in the Veterans Resource Center (VRC) serve as a liaison between Clark College and the U.S. Department of Veterans Affairs. Clark College is approved for VA Education Benefits under Chapters 30, 31, 32, 33, 35, 1606, 1607, and Military Tuition Assistance (TA).

Eligible veterans and dependents must request certification each term for approved degree and certificate programs. Only courses required within the program will be funded. Audited courses are not eligible. Students are required to make satisfactory academic progress and should contact the Veterans Affairs Office prior to making any schedule changes. Visit our website for a complete checklist of requirements http://www.clark.edu/campus-life/student-support/vrc/forms.php

GI Bill® and Vocational Rehabilitation and Employment students who have submitted or are in the process of submitting their certificate of eligibility to Clark’s School Certifying Officials will not have a penalty imposed, including late fees, or be denied access to school facilities, or
be required to borrow additional funds, because of delayed payments from the VA.

The Code of Federal Regulations (38 CFR 21.4201) states VA shall not approve the enrollment of any VA-eligible person, not already enrolled, in any course for any period during which more than 85 percent of the students enrolled in the course are having all or part of their tuition, fees, or other charges paid to or for them by an Education Institution or VA. The VA will only pay the monthly stipend/BAH for the period students are enrolled in and attending class(es).

Clark College joins with the Department of Defense (DOD) Voluntary Education Partnership Memorandum of Understanding (MOU) and conforms to Executive Order 13607 of April 27, 2012, establishing Principles of Excellence for Educational Institutions Serving Service Members, Veteran Spouses, and other family members. Credit for military experience may be granted toward general elective and specific vocational program coursework. Veterans are required to submit military and all other school transcripts, to be applied toward their intended program of study, no later than the start of their second term of enrollment. Military training and experience granted for credit recommendations are based on the American Council of Education (ACE) guidelines for military training. Military experience is a non-traditional credit program. Students should refer to the Non-Traditional Credit Policy section of this catalog and contact the Veterans Affairs Office for additional information.

Clark College attempts to limit student enrollment to 85% veteran enrollment per cohort. In the event that a veteran wishes to enroll in a course that has already reached the 85% cap, he or she may do that but will not be eligible for VA funding. Chapter 35 and 31 students may enroll even if the 85% has been realized.

The College's School Certifying Officials can be reached utilizing the contact information below:

Mike Gibson  
(P) 360-992-2711  
(E) mgibson@clark.edu

Cary Bare  
(P) 360-992-2736  
(E) cbare@clark.edu
REGISTRATION

For more detailed information regarding registration for new, continuing or transfer students please see the registration website at http://www.clark.edu/enroll/registration/index.php.

Continuing student registration access dates/times are based on cumulative credits earned.

Priority registration access is given to eligible veterans under HB 1109. Qualifying students will receive access to registration services prior to the continuing student population. Students approved for registration accommodation due to disability will also register during this time period.

Specific information on dates, deadlines, and hours of service can be found on the Clark College website at www.clark.edu/current.

Online Registration Services

The following services are available online for current Clark College students:

- Enrollment verification
- Change of address
- Registration access date/time
- Online Registration
- Student global PIN change
- Student schedule
- Unofficial transcript
- Waitlist inquiry
- Degree audit (online degree audit)

Students may conveniently enroll online each term by taking advantage of online registration. Students will need a SID (student identification number) and global PIN. Printing student class schedule and changing student address, phone, or e-mail are other convenient options available online at http://www.clark.edu/current/index.php.

Registration Policies

Credit Maximum

Students may register online or in person for 0-20 credits. Students who wish to add excess credits (i.e., 21 or more) must make an appointment and obtain written permission from an advisor to register over the credit maximum.

Late Registration Policy

Beginning the third (3rd) day of the term, instructor permission is required to enroll into any regular starting class. Beginning the tenth (10th) day of the term (eighth day in summer), students are also required to submit a late registration petition with the instructor’s signature to enroll. The Late Registration Petition form is available at the Registration Office. Exception: Late starting classes, section changes, and level changes.

Students who register after the tenth (10th) day of the term (eighth day in summer) will be charged a $50 per-class Late Registration Fee. A student whose enrollment change falls under the following circumstances will not be charged:

- Students who need to make a level change. Example: Moving from MATH 096 to MATH 092.
- Students who need to make a section change. Example: Moving from an online course to a face-to-face course.
- Students who wish to enroll in classes that are set up as continuous enrollment as opposed to sequential.
- Students who are enrolling in late-starting classes that start after the tenth (10th) day of the term.
- Students enrolled in Transition Studies courses.
- Students utilizing the Clark College employee tuition waiver.
- Students who enroll in zero (0) credit courses.
- Students who feel their situation warrants an exception to this fee may request to have this fee waived by completing an Exception to the Late Registration Fee request form. The final decision on any exceptions will be made at the discretion of the Registrar.

First Week Attendance Policy

It is essential that students attend the first class meeting of their courses. If a student is unable to attend due to an emergency or conflict of a serious nature, students should contact the instructor. If the instructor is not designated in the class schedule, the student should contact either the Division Office or the Office of Instruction, which will direct the student appropriately. Students who fail to attend one (1) or more sessions during the first five (5) days of the term may be dropped from the class. Students who miss any classes during the first five (5) days are responsible for verifying their enrollment status.

Students registered in online courses must log into their course by the first day of the term and complete all first-week course requirements by their due dates. This is accomplished by accessing the Canvas course shell (unless alternate instructions have been provided by the instructor). For more information about logging into Canvas, visit eLearning Getting Started (http://www.clark.edu/academics/eLearning/begin.php). If a student has not completed first-week course requirements set by the instructor during the first five (5) days of the term, the student may be dropped from the course.

Note: Students who drop or are dropped by the college during the first five (5) days of the term will receive a full refund of tuition and fees, if due. Students are responsible for verifying all transactions regarding course registration and withdrawal has occurred.

Dropping a Class and Withdrawal from the College

Students who find it necessary to withdraw from classes must do so formally. The withdrawal process can be completed online at www.clark.edu/current or in person using a Change of Registration form at the Enrollment Services Office. The dates for dropping and/or withdrawing from classes are available at www.clark.edu/enroll/registration/academic-calendar.php.

- A class officially dropped before the tenth (10th) day (eighth day in summer) of the term will not be entered on the student’s transcript.
• After the tenth (10th) day and through the eighth (8th) week of the term, regular starting classes formally dropped online or at the Enrollment Services Office will be posted to the student’s transcript with a withdrawal grade of “W” assigned to the class. Withdrawals will not be accepted after the last day of the eighth (8th) week of the term.

• For courses with unusual start and end dates, withdrawals will not be accepted after 80% of the class meetings have occurred.

• If the student decides not to attend, it is their responsibility to withdraw from all classes. Withdrawals will not be accepted for a class that has ended.

Administrative Withdrawal
Students unable to withdraw by the end of the term due to extenuating circumstances should contact the Enrollment Services Office for information on requesting an Administrative Withdrawal.

Auditing a Class
Any student may enroll in a course on an audit basis with instructor’s written consent and upon payment of the regular tuition and fees. Audit students will be exempt from examinations and will not receive college credit; however, the instructor may require reasonable attendance and class participation. To change from credit to audit or audit to credit, the student must complete a Change of Registration form at the Enrollment Services Office. Such changes may be made only with the written consent of the instructor and must be processed by the end of the tenth (10th) day of the term (eighth day in summer).

Student Attendance Status
Clark College considers students enrolled in twelve (12) or more credits to be full-time students. The definition of “full-time student,” however, may vary for certain agencies, such as Veterans Services, Financial Aid, Social Security, and insurance companies. Student attendance status for Financial Aid and MGIB GI Bill Chapters 30, 31, 35, 1606, 1607, is as follows:

Financial Aid

<table>
<thead>
<tr>
<th>Attendance Status</th>
<th>Credit/Unit Hours Per Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time student</td>
<td>12 credit hours</td>
</tr>
<tr>
<td>Three-quarter-time student</td>
<td>9-11 credit hours</td>
</tr>
<tr>
<td>Half-time student</td>
<td>6-8 credit hours</td>
</tr>
<tr>
<td>Less than half-time student</td>
<td>1-5 credit hours</td>
</tr>
</tbody>
</table>

GI Bill Attendance Status for Fall, Winter and Spring Terms

<table>
<thead>
<tr>
<th>Attendance Status</th>
<th>Credit/Unit Hours Per Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time student</td>
<td>12 credit hours</td>
</tr>
<tr>
<td>Three-quarter-time student</td>
<td>9-11 credit hours</td>
</tr>
<tr>
<td>Half-time student</td>
<td>6-8 credit hours</td>
</tr>
</tbody>
</table>

GI Bill Attendance Status for Summer Term

<table>
<thead>
<tr>
<th>Attendance Status</th>
<th>Credit/Unit Hours Per Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time student</td>
<td>8 credit hours</td>
</tr>
<tr>
<td>Three-quarter-time student</td>
<td>6-7 credit hours</td>
</tr>
<tr>
<td>Half-time student</td>
<td>4-5 credit hours</td>
</tr>
<tr>
<td>Less than half-time</td>
<td>3 credits or less</td>
</tr>
</tbody>
</table>

Post 9/11 GI Bill Student Attendance Status
Post 9/11 GI Bill calculated at Rate of Pursuit. Students must be enrolled at more than half-time to receive their expected BAH.

• 12 credits or more is considered full-time training for Post 9/11 GI Bill for Fall, Winter, and Spring terms. (7 or more credits is required for BAH payment)

• 8 credits or more is considered full-time training for Post 9/11 GI Bill during Summer term only. (5 or more credits is required for BAH payment)

Absence
Students are expected to attend classes in which they are enrolled.

Absence may be a factor in grading for a course. When unavoidable absence occurs, it is the obligation of the student to notify the instructor and arrange for the make-up work deemed necessary by the instructor. Reference the course syllabus for absence management details.

A member of the Washington National Guard or any other military reserve component who misses any form of participation/attendance in a class due to being ordered to service for 30 days or less, or requiring medical treatment for that service, is entitled to make up academic assignments without prejudice to the final course grade or evaluation. Documentation must be submitted prior to absence. Contact the Veterans Affairs Office for information.

Change of Contact Information
To ensure receipt of important information, students must notify the college of any change of address, telephone, and preferred name.

Offices that should be informed include Admissions, Financial Aid, and Registration. Student Update forms are available at the Enrollment Services Office and online at https://www.clark.edu/current_students/.

Tuition and Fees
The first tuition due date is three weeks before the quarter begins. Due dates are on a weekly cycle:

• Students can verify the amount of tuition and the due date by viewing their schedule at https://www.clark.edu/current_students/.

• Students who register Saturday through Friday must pay tuition and fees no later than the following Monday by 5:00 p.m.

• If Monday happens to be a holiday, payment is due on Tuesday by 5:00 p.m.

• Students who register after the 10th day of the quarter (8th day of summer quarter) must pay tuition by the end of the same business day on which they register (5:00 p.m.).

Students receiving financial aid, scholarship, agency, or veterans benefits are responsible for paying outstanding tuition and fees by the tuition due date when aid is insufficient to cover the total cost.

Students who do not pay tuition and fees will be dropped from their classes unless:

• A tuition deadline exception has been activated on the student account.

• The outstanding balance is $100 or less.

• A signed agreement to participate in the STEPP deferred payment plan has been submitted and payments are up to date.

• Registration for classes occurs after the tenth (10th) day of the term.

It is the responsibility of the student to officially withdraw from classes if they are unable to pay tuition and fees. A 100% refund will be
issued through the fifth (5th) business day of each term permitting in compliance with Washington State Regulations.

Students with any outstanding debt owed to the college will:

- Be blocked from future registration.
- Be denied the request for official transcripts.
- Be sent to Collections and a collection fee will be added to any tuition and/or fees outstanding at the end of the term.

Matriculation and Facilities/On-Campus Parking Fee ¹
Students are charged per credit hour to a maximum of twenty (20) hours for matriculation and facilities/on-campus parking.

1 These fees are refundable on the same basis as tuition.

Technology Fee ¹
Students are charged per credit hour to a maximum of twenty (20) hours for technology such as computer software, computer replacement, and technical lab assistance to maintain open computer labs. Other examples of technology available to students are online registration and student kiosks, and online services featured on the Clark College website.

1 These fees are refundable on the same basis as tuition.

Additional Fees
Some courses may require payment of lab or course fees in addition to or instead of tuition. These fees help the college defray expenses not funded by the state. Fees are used for specific course expenses such as breakage, hazardous waste management, consumable supplies, special materials, minor repairs, and materials that become the property of the student.

Textbooks and Supplies
The Clark College Bookstore stocks required textbooks (including the associated ISBN) and supplies as requested by classroom instructors. Also available are many supportive suggested materials to assist the student's class preparation and participation. The store staff understands the financial impact of class materials, and thus provides the lowest prices for new textbooks of any college in this region and diligently pursues and stocks as many used textbooks as possible, partly supplied from a student book buyback program. In addition, the store offers a number of other affordability services for Clark students, such as textbook and calculator rentals, hold services, peer-to-peer exchange and much more. To obtain current book and supply lists and receive assistance in cost estimating, please visit the Clark College Bookstore on the main Clark College campus or visit its website [www.clarkbookstore.com](http://www.clarkbookstore.com/).

Financial Obligations of the Student
Students are expected to meet their financial obligations to the college. Clark College staff will act in accordance with adopted procedures and, if necessary, initiate legal action to ensure that collection matters are brought to a timely and satisfactory conclusion. Collection fees will be added to debts owed the college.

Admission to or registration with Clark College, or issuance of academic transcripts, and other college services, will be withheld for failure to meet financial obligations.

Refund Policy
A student who officially withdraws through the Enrollment Services Office may receive a refund of tuition and certain fees. The complete Refund Policy is printed in the college information section of this catalog and is available online at [http://www.clark.edu/enroll/registration/refund_policies.php](http://www.clark.edu/enroll/registration/refund_policies.php).

Students who believe extenuating circumstances justify an exception to the policy may make a formal request at the Enrollment Services Office. Exceptions may be granted for extreme, extenuating, urgent, and unavoidable circumstances that prevent a student from withdrawing within the established guidelines. Students receiving financial aid should contact the Financial Aid office as soon as possible to discuss the impact of requesting an exception due to federal financial aid guidelines.

Grades and Records

Grade Legend
Clark College uses the grading symbols listed below. The grades A, B, C, and D may include pluses (+) and minuses (-).

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Grade Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
</tr>
<tr>
<td>C-</td>
<td>1.7</td>
</tr>
<tr>
<td>D+</td>
<td>1.3</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
</tr>
<tr>
<td>D-</td>
<td>0.7</td>
</tr>
<tr>
<td>F</td>
<td>0.0</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
</tr>
<tr>
<td>N</td>
<td>Audit</td>
</tr>
<tr>
<td>S</td>
<td>Satisfactory (credit only, no grade points)</td>
</tr>
<tr>
<td>U</td>
<td>Unsatisfactory (no credit, no grade points)</td>
</tr>
<tr>
<td>W</td>
<td>Official withdrawal</td>
</tr>
<tr>
<td>Y</td>
<td>In process/re-register</td>
</tr>
</tbody>
</table>

Transfer of Grades
The grades assigned in transferable courses by the sending institution shall not be altered by the receiving institution. Courses completed with a grade of ‘D’ or above shall normally be accepted in transfer (except at The Evergreen State College, where a minimum of 2.0 or ’C’ is required for transfer). Nontraditional grading practices require special handling, depending on the nature and circumstances of the program from which and to which a student is transferring, but receiving institutions shall take steps to assure all students equitable treatment.

Grade Information
Students enrolled in credit classes may obtain grade information approximately eight (8) days after the end of each term. Students may access grades at a college student information kiosk or through the Clark College website: [www.clark.edu](http://www.clark.edu/).
Grade Point Average (GPA)

Grade points are calculated by multiplying the number of credit hours for each course by the decimal grade appropriate for the grade earned. The term GPA is computed by adding the total number of grade points for the term and dividing by the total number of credits attempted in courses that received a letter grade.

<table>
<thead>
<tr>
<th>Credit/Unit Hrs Attempted</th>
<th>Grade</th>
<th>Grade Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>B+ = 3.3</td>
<td>16.5</td>
</tr>
<tr>
<td>3</td>
<td>C = 2.0</td>
<td>6.0</td>
</tr>
</tbody>
</table>

8 Total Credits/Units 22.5 Total Grade Points

Dividing 22.5 by 8 computes to a grade point average of 2.81.

The student’s cumulative grade point average may be obtained by adding the total number of grade points for all terms and dividing by the total number of credits attempted in the courses that received a letter grade.

Incomplete Grades

An incomplete grade may be given if the instructor is satisfied that unavoidable circumstances have prevented the student from completing the course work and the student has requested this option. Faculty must submit the Memorandum of Incomplete Work to Enrollment Services by the grading deadline.

When assigning an incomplete grade, the instructor must provide a date for which the work must be completed, and the grade that will be entered on the student’s transcript if the work is not finished on time. The incomplete grade remains on the student’s transcript until the specified date, or until the student completes the required work and the instructor submits an amended grade to the Enrollment Services office.

An ‘I’ grade is given at the instructor’s discretion and requires a contract to finish remaining course work. The student and instructor must fill out a contract form that identifies specific requirements to be completed. One copy of the contract is retained by the instructor and one given to the student. Unless otherwise specified, ‘I’ grade will revert to ‘F’ if not completed within ninety (90) days.

Incomplete grades can impact Financial Aid funding, please refer to the Satisfactory Progress Policy at http://www.clark.edu/enroll/paying-for-college/get-keep/index.php (http://www.clark.edu/enroll/paying-for-college/financial-aid/maintain-aid/)

In Process/Re-register

Students enrolled in variable credit or continuous enrollment courses may be given a “Y” grade if their effort is not sufficient to grant one (1) credit. Students must re-register and pay tuition to continue the course. A “Y” grade may also be used for courses which last more than one (1) term.

Pass/No Pass

Students may request to enroll in certain courses on a Pass/No Pass (PNP) basis. Students must contact the Enrollment Services Office for information about courses approved for this option. No more than sixty (60) credits from 100 or 200 level courses taken for pass/no pass will be allowed toward the Associate in Arts degree, Associate in Science degree, the Associate in Applied Science degree, the Associate in Applied Technology degree, or Bachelors of Applied Science. Students must earn a grade of “C” or better (2.00 GPA) to be given a “Satisfactory” grade in a pass/no pass course. An “Unsatisfactory” grade will be posted for students earning less than a “C” grade. Students planning to transfer to a university should contact that institution to determine their policy for acceptance of pass/no pass courses.

Repeating a Course

Students may repeat a course taken at Clark College in order to improve their skills or the course grade. All course repeats must comply with the Procedures for Repeating a Course.

• The course repeat policy only applies to courses that are taken at Clark College.
• A course may be repeated only twice (taken a total of three times) unless otherwise specified in the college catalog.
• Credit for any course is earned only once (except for courses designed to be taken multiple times, as noted in the course catalog).
• Only the highest grade awarded will be used in computing the Clark College GPA.
• Each grade received will remain on the students transcript; the Registrar will place an “R” next to the other grade(s) received for that course.
• Courses must be repeated for a letter grade unless the course is offered only as pass/fail.
• The course repeat process DOES NOT apply to grade symbols: N, Y or S.
• The Clark College repeat policy may or may not be recognized by other institutions, at their sole discretion.
• To repeat a course, students must re-register and pay all necessary tuition and fees.

Setting Aside Past Record

Qualified students may set aside a previous substandard academic record that does not reflect their true ability at Clark College. Setting aside does not expunge the previous record, but places a “set aside” notation on the student’s transcript, marking the term from which the college will calculate a new GPA for determining probation, eligibility, or honors at graduation. Students may not count credits set aside to fulfill credit requirements for graduation. Students should understand that the record to be set aside includes all courses taken before the date selected by the student, and those courses may not be used to satisfy future course prerequisites.

Students may set aside a previous record if:

• They have earned fifteen (15) credits at Clark College beyond the term to be set aside.
• They have a 2.50 GPA at Clark College for these credits.
• The work to be set aside is at least one (1) year old.

Petition forms are available at the Enrollment Services Office in Gaiser Hall.

Caution: Although Clark College makes provisions for setting aside past records, students should not assume that other colleges to which they transfer will compute their GPA in the same manner. Only the Clark College record can be set aside; the college cannot set aside records from other colleges. Financial aid students will still be subject to federal regulations that require all attempted credits be counted toward completion of an initial degree.

Grade Change/Error

Students who believe an error has been made in recording their grades should contact the Enrollment Services Office and their instructor. If a recording error has been made, it will be corrected. Grade changes are made at the discretion of the instructor. A “Change of Grade Form” must be signed and submitted to the Enrollment Services Office by
the instructor. Grade changes and corrections made for veterans and financial aid recipients must also be reported to the Office of Veterans Affairs and/or the Financial Aid Office.

Grade changes must be made no later than the end of the second term following the term the student attended the class.

**Grade Change/Academic Appeal Policy**

An academic appeal refers to a claim by a student that a specific grade assigned to the student by an instructor is the result of an arbitrary or capricious application of otherwise valid standards of academic evaluation, or to a student’s claim that the instructor has made an arbitrary or capricious decision or taken an arbitrary or capricious action which adversely affects the student’s academic standing.

The college may release student directory information without student consent. Directory information includes student name, student address, student e-mail, date of birth, major field of study, terms of attendance, degrees and awards received, participation in activities and sports, and weight and height of members of athletic teams. In compliance with state law (SB5509), Clark College no longer uses the student’s Social Security number for the purpose of student identification. This law is intended to add additional protection to the student’s identity.

The college will assign all students a Student Identification number (SID). Students are required to use their assigned SID to access their records, register for classes, pay tuition, etc. For a copy of SB5509 or for additional information regarding this process, students may contact the Enrollment Services Office.

**Transcripts**

A transcript of each student’s educational record is maintained in the Enrollment Services Office. An official transcript is signed by the Registrar, has the college seal attached and is provided in a sealed envelope. To obtain an official transcript, students should go online to www.studentclearinghouse.org to place an order. Transcripts will be mailed to any college, university or other agency upon receipt of the request within seven (7) business days. There is also a rush transcript option available. There is a fee for all official transcripts. For current fee information please go to our website or call 360-992-2287. Transcripts will not be faxed.

Students may obtain an unofficial transcript through the Clark College website, www.clark.edu; at student information kiosks; or by visiting the Enrollment Services Office in Gaiser Hall.

**Vice President’s List**

A Vice President’s List will be compiled at the end of each academic term to recognize outstanding student achievement at Clark College. To qualify for the list, a student must earn at least twelve (12) credits of graded course work and a GPA of 3.75 or higher. The credits from courses in which a student receives an “I,” “S,” or “Y” will not count toward the twelve (12) credit minimum. Students who qualify for the list will receive a congratulatory letter from the Vice President of Instruction and a notation will be made on the student’s transcript.

**Confidentiality of Records**

Clark College has adopted procedures in compliance with the Family Educational Rights and Privacy Act (FERPA) as amended, and maintains confidentiality of student records. College employees are trained to comply with information release guidelines.

With few exceptions, parties outside of school officials will not have access to student records without the written consent of the student. Clark College will not release a student’s record to a parent/guardian without the student’s written request. This policy is in effect regardless of the student’s age or financial dependency upon the parent or guardian. The college may release student directory information without student consent. Directory information includes student name, student address, student e-mail, date of birth, major field of study, terms of attendance, degrees and awards received, participation in activities and sports, and weight and height of members of athletic teams. In compliance with state law (SB5509), Clark College no longer uses the student’s Social Security
SPECIAL INSTRUCTIONAL PROGRAMS AND LOCATIONS

Transitional Studies
Career and Academic Preparation (CAP)
360-992-2741

These classes are available for persons sixteen (16) years or older (16-to 18-year-olds must have a high school release). Students can earn credit toward their HS21 diploma, prepare to take the GED test and improve their reading, writing and math skills to transition to college-level coursework. There is a term tuition charge. Classes are held on campus and at other sites in the community.

English as a Second Language
360-992-2741

Classes are for non-native speakers who want to communicate more effectively in English. Classes are held at various times during the day and evening. There is a tuition charge to students each term. Most classes are held on campus, but some are held at community sites.

Transitional Studies Tutoring Center
360-992-2750

The Transitional Studies Tutoring Center, at TBG 228, supports CAP and ESL students with tutoring and computer-based learning. One-on-one and small-group tutoring are available for adults learning English as a second language, as well as for native English speakers who want to improve basic reading, writing, and math skills.

Economic & Community Development
360-992-2939

Clark College Economic & Community Development is the region’s premier provider of continuing education, offering customized training for local employers and community education programs for individual residents of Southwest Washington. This department is dedicated to building community through education, mature learning, and professional development, as well as forging partnerships in support of regional economic development.

Customized Learning and Development
360-992-2466

Customized Learning and Development delivers high-quality workforce training, leadership development, and technical and business analysis tools to manufacturing, healthcare, business, nonprofit, and government organizations. An expert team assesses business needs, analyzes human and technical resources available, and builds a customized plan to deliver the training and leadership needed to meet organizations’ current objectives and future needs. Customized Learning and Development provides organizations with highly relevant training that directly affects the economy, employment opportunities, and workforce development in Southwest Washington.

Professional Development
360-992-2939

Professional Development offers regularly scheduled classes, workshops, and certification programs for individuals to develop knowledge, skills, and increase their productivity and value to employers. A wide range of topics, such as accounting, health care, programming, web design, graphic arts, Microsoft Office, and small business are available to everyone wanting to take that next step. One-day “fast track” learning sessions and flexible online classes are also available.

Community Education
360-992-2939

Community Education offers a wide variety of personal enrichment and lifelong learning opportunities to enhance quality of life and encourage the exploration of new interests. Non-credit courses, taught by talented instructors who are experts in their field, are offered for persons of all ages. New classes are offered each term, including topics such as world language, recreation and wellness, healthy living, and home and gardening. The cooking school in the kitchen classroom at Columbia Tech Center campus offers demonstration and hands-on courses that educate about nutrition and world culture while building student skills.

All Community Education courses reflect a commitment to building community and sustainability.

Mature Learning
360-992-2939

Mature Learning is an educational and cultural enrichment program for adults. The program provides an opportunity to learn in a relaxed atmosphere with no tests, grades, or homework. A wide variety of courses is offered including art, writing, computers, science, history, creative writing, health, humanities, and more. Most classes meet two hours a week, either on the main Clark College campus, at Columbia Tech Center, downtown Vancouver, or at other locations in the community.

Mature Learning also provides travel and excursions to places of cultural, scientific, and natural interest.
STUDENT ORIENTATION

All new, transfer and returning students are required to complete a Student Orientation session (online or in person) or meet with an advisor before they are granted access to registration services. Students will gain valuable information about support resources, critical dates and policies, online tools and academic advising. For specific orientation requirements visit http://www.clark.edu/enroll/admissions/orientation/index.php (http://www.clark.edu/enroll/admissions/orientation/).
The goal of Student Success Programs is to support the retention and success of all Clark College students, from the point of college entry to program completion. We provide targeted outreach and support for students facing challenges with academic progress, first-term students, and students moving from Transitional Studies to college-level coursework. We use proactive, reactive, and data-informed strategies to provide intensive, targeted outreach and intervention designed to meet students at their points of need. Student Success Programs staff and peer mentors assist students with accessing and navigating the various spaces, resources, and strategies available at Clark and the surrounding community that are key for students to establish and achieve their academic goals.

Key services:

- Assistance to students with developing key critical thinking and problem-solving skills that will allow them to appropriately evaluate and respond to difficult academic, career, and life situations
- Targeted outreach and support related to Penguin Alert for Student Success (PASS) and Academic Standards Policy (ASP)
- Assistance to struggling students with locating appropriate academic resources and making informed enrollment decisions
- Peer mentoring to help students navigate and access appropriate support resources and strategies that meet their unique needs
- Reinstatement advising and support for students returning to the college
- Goal setting, course selections, and degree/certificate program planning
- Training and support for students, staff, and faculty on the Academic Standards Policy (ASP)

**Penguin Alert for Student Success (PASS)**

PASS is a resource that enables instructors to communicate with their students early in the term about any behaviors that are interfering with their success in class. The warning is intended to provide students with sufficient time to:

1. identify and correct problematic behaviors that are hindering success in class,
2. access appropriate campus resources, and
3. if necessary, withdraw from classes if circumstances prohibit successful completion of coursework.

Students who receive an Penguin Alert for Student Success are encouraged to contact their instructors, trained PASS staff and peer mentors, and financial sources for strategies to improve course grades and guidance on course withdrawals.
DEGREE & CERTIFICATE REQUIREMENTS

• General Information (p. 309)
• Transfer Degree Distribution List (p. 311)
• Transfer Degree Overview (p. 315)
• Career and Technical Degrees and Certificates Distribution List (p. 321)
• Bachelor of Applied Sciences (p. 325)
• Procedure for Requesting AP Credits (p. 327)
• Non-Traditional Credit (p. 328)
• Credit Hours and Credit Load (p. 329)
GENERAL INFORMATION

Degrees & Certificates
Clark College awards six (6) degrees: the Associate in Arts degree, for completion of a program of study for transfer to a senior institution; the Associate in Science degree, for completion of a program of study in the sciences in preparation for transfer to a senior institution; the Associate in Fine Arts degree, for completion of a program in fine arts in preparation for transfer to a senior institution; the Associate in Applied Science degree, for completion of a program of study in an occupational program; the Associate in Applied Technology degree, for completion of a program of study in an occupational program; and the Bachelor of Applied Science (BAS), to increase the educational pathways for professional and technical associate graduates. BAS degrees require a minimum of one hundred eighty (180) credits and a minimum Grade Point Average (GPA) of 2.0.; each associate degree requires a minimum of ninety (90) credits and a minimum Grade Point Average (GPA) of 2.0. Certificates of Proficiency are awarded upon completion of a minimum of forty-five (45) credits of specialized occupational training, including general education requirements, and require a minimum GPA of 2.0. Certificates of Achievement are granted upon completion of a program of specialized occupational training of less than forty-five (45) credits and require a minimum GPA of 2.0. Individual departments offer Certificates of Completion with varying credit requirements.

The grades assigned in transferable courses by the sending institution shall not be altered by the receiving institution. Courses completed with a grade of ‘D’ or above shall normally be accepted in transfer (except at The Evergreen State College, where a minimum of 2.0 or ‘C’ is required for transfer). Nontraditional grading practices require special handling, depending on the nature and circumstances of the program from which and to which a student is transferring, but receiving institutions shall take steps to assure all students receive equitable treatment.

A student may earn more than one career-technical degree and/or certificate at Clark College, and a student may earn a combination of academic and career-technical degrees and/or certificates. A student can also earn a Direct Transfer Agreement degree and an additional MRP degree (for instance, a student can earn a degree in both Business Administration – MRP and an Associate in Arts – Transfer).

Academic Residency Requirements
In an effort to accommodate our mobile student population, Clark College has adopted a residency policy that recognizes the value of coursework completed from other institutions of higher learning. To obtain a degree or certificate from Clark College, students are required to earn a minimum number of credits in residence at our institution. Clark College does allow students to transfer credits toward meeting degree or certificate program requirements. There is no restriction on the number of transfer credits allowed; however, students must meet the minimum in-residence credit at Clark College for their specific program.

Refer to the following information for specific requirements and restrictions for each type of program:

Bachelor Degree
A minimum of thirty (30) credits, pre-college or college level, must be completed at Clark College at any time to meet Academic Residency.

Associate Degree
A minimum of thirty (30) credits, pre-college or college level, must be completed at Clark College at any time to meet Academic Residency.

Certificate of Proficiency
A minimum of fifteen (15) credits, pre-college or college level, must be completed at Clark College at any time to meet Academic Residency.

Certificate of Achievement
A minimum of ten (10) credits, pre-college or college level, must be completed at Clark College at any time to meet Academic Residency.

Non-traditional credit and credit earned through academic credit for prior learning may not be included within the minimum number of credits required.

Online Learning Degrees
For information about Clark College eLearning programs and degrees, see Online Learning Degree Programs (http://www.clark.edu/academics/eLearning/programs/)

Academic Residency Requirements for Veterans
Clark College, in compliance with the Department of Defense (DOD) Voluntary Education Partnership Memorandum of Understanding (MOU) and Executive Order 13607 of April 27, 2012, limits academic residency requirements for active-duty service members to no more than 25 percent of the degree program (22.5 credits); recognizes all credit course work offered by the institution as applicable in satisfying academic residency requirements; and allows service members to satisfy academic residency requirements with courses taken from Clark College at any time during their program of study.

Academic Honors
To be eligible for academic honors, students must have a minimum GPA of 3.4. Honors for the Associate in Arts degree and the Associate in Science – Transfer degree are based on the cumulative college-level GPA, while the Associate in Applied Science, Associate of Applied Technology and Certificate of Proficiency are based on the cumulative GPA. Honors for the Bachelor of Applied Sciences are based on program GPA. Students in the Bachelor of Applied Science and associate degree programs will earn the designation of “with honors” for a GPA of 3.4 to 3.89, and the designation of “with highest honors” for a GPA of 3.9 or higher. Certificates of Proficiency will be granted the designation of “with merit” for a GPA of 3.4 or higher (Certificates of Achievement are not eligible for honors designations). Those students participating in June ceremonies will receive recognition at the celebration based on their appropriate GPA on record at the end of winter term. If honor status changes once final grades are processed, adjustments will be made to the student record.

Distribution Coding
The following codes may be included in some course descriptions and indicate the applicability of the course toward the general education requirements of Clark College degrees and certificates. Be sure to verify which courses have been approved to meet general education requirements for your particular degree or certificate program as Distribution Coding is not universally applied.
### General Information

<table>
<thead>
<tr>
<th>Code</th>
<th>General Education Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA</td>
<td>Written Communication Skills (AAS and CP only)</td>
</tr>
<tr>
<td>CP</td>
<td>Computational Skills</td>
</tr>
<tr>
<td>CT</td>
<td>Written Communication Skills (AAT only)</td>
</tr>
<tr>
<td>GE</td>
<td>General Elective</td>
</tr>
<tr>
<td>HA</td>
<td>Humanities Academic (A list)</td>
</tr>
<tr>
<td>HB</td>
<td>Humanities Performance (B list)</td>
</tr>
<tr>
<td>HE</td>
<td>Health</td>
</tr>
<tr>
<td>HPE</td>
<td>Health &amp; Physical Education</td>
</tr>
<tr>
<td>HR</td>
<td>Human Relations</td>
</tr>
<tr>
<td>NS</td>
<td>Natural Sciences</td>
</tr>
<tr>
<td>OC</td>
<td>Oral Communications</td>
</tr>
<tr>
<td>PE</td>
<td>Physical Education Activity</td>
</tr>
<tr>
<td>PPI</td>
<td>Power, Privilege and Inequity</td>
</tr>
<tr>
<td>Q</td>
<td>Quantitative/Symbolic Reasoning</td>
</tr>
<tr>
<td>SE</td>
<td>Specified Elective</td>
</tr>
<tr>
<td>SS</td>
<td>Social Sciences</td>
</tr>
<tr>
<td>WC</td>
<td>Written Communication Skills (Transfer only)</td>
</tr>
</tbody>
</table>

### Title IV Student Complaint Process

The Higher Education Act (HEA) prohibits an institution of higher education from engaging in a "substantial misrepresentation of the nature of its educational program, its financial charges, or the employability of its graduates." 20 U.S.C. §1094(c)(3)(A). Further, each State must have "a process to review and appropriately act on complaints concerning the institution including enforcing applicable State laws." 34 C.F.R. § 600.9. The Washington State Board for Community and Technical Colleges (SBCTC) maintains a process to investigate complaints of this nature brought by community and technical college students in the State of Washington. For more information, contact the SBCTC Student Services Office at 360-704-4315.
Transfer Degree Distribution List

Communication [C, WC, OC]

10 credits

Please refer to specific degree for details regarding specified communication requirements.

Quantitative Skills/Symbolic Reasoning [Q]

5 credits

Please refer to specific degree for details regarding specified quantitative skills requirements. If none are listed, please select from the following list:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 102</td>
<td>COLLEGE TRIG WITH SUPPLEMENTAL INSTRUCTION</td>
<td>5</td>
</tr>
<tr>
<td>MATH 103</td>
<td>COLLEGE TRIGONOMETRY</td>
<td>5</td>
</tr>
<tr>
<td>MATH 104</td>
<td>FINITE MATH WITH SUPPLEMENTAL INSTRUCTION</td>
<td>5</td>
</tr>
<tr>
<td>MATH 105</td>
<td>FINITE MATHEMATICS</td>
<td>5</td>
</tr>
<tr>
<td>MATH 110</td>
<td>COLLEGE ALGEBRA WITH SUPPLEMENTAL INSTRUCTION</td>
<td>5</td>
</tr>
<tr>
<td>MATH 111</td>
<td>COLLEGE ALGEBRA</td>
<td>5</td>
</tr>
<tr>
<td>MATH 122</td>
<td>MATH FOR ELEMENTARY TEACHERS</td>
<td>5</td>
</tr>
<tr>
<td>MATH 123</td>
<td>MATH FOR ELEMENTARY TEACHERS</td>
<td>5</td>
</tr>
<tr>
<td>MATH 124</td>
<td>MATH FOR ELEMENTARY TEACHERS</td>
<td>5</td>
</tr>
<tr>
<td>MATH 140</td>
<td>CALCULUS FOR LIFE SCIENCES</td>
<td>6</td>
</tr>
<tr>
<td>MATH 147</td>
<td>STATISTICS II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 199</td>
<td>COOPERATIVE WORK EXPERIENCE</td>
<td>5</td>
</tr>
<tr>
<td>MATH 215</td>
<td>LINEAR ALGEBRA</td>
<td>5</td>
</tr>
<tr>
<td>MATH 221</td>
<td>DIFFERENTIAL EQUATIONS</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;107</td>
<td>MATH IN SOCIETY</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;146</td>
<td>INTRODUCTION TO STATISTICS</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;148</td>
<td>BUSINESS CALCULUS</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;151</td>
<td>CALCULUS I</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;152</td>
<td>CALCULUS II</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;153</td>
<td>CALCULUS III</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp;254</td>
<td>CALCULUS IV</td>
<td>5</td>
</tr>
<tr>
<td>PHIL&amp;117</td>
<td>TRADITIONAL LOGIC</td>
<td>5</td>
</tr>
<tr>
<td>PHIL&amp;120</td>
<td>SYMBOLIC LOGIC</td>
<td>5</td>
</tr>
</tbody>
</table>

Humanities [HA, HB]

15 credits

Select courses from at least two (2) subject areas for a minimum of fifteen (15) credits. You may include no more than ten (10) credits from any one subject area. A maximum of five (5) credits of “B” list coursework may be applied. A maximum of five (5) credits of 100-level world language can be applied.

<table>
<thead>
<tr>
<th>Department</th>
<th>HA</th>
<th>HB</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Sign Language</td>
<td>ASL &amp; 121, ASL &amp; 122, ASL &amp; 123, ASL &amp; 221, ASL &amp; 222, ASL &amp; 223</td>
<td>ASL 125</td>
</tr>
<tr>
<td>Art</td>
<td>ART 118, ART 131, ART 151, ART 172, ART 220, ART 221, ART 222, ART 223, ART 225, ART 250, ART 272</td>
<td>ART 101, ART 103, ART 104, ART 105, ART 110, ART 117, ART 123, ART 124, ART 125, ART 173, ART 174, ART 180, ART 181, ART 182, ART 189, ART 190, ART 191, ART 203, ART 204, ART 208, ART 257, ART 258, ART 259, ART 260, ART 261, ART 262, ART 270, ART 271, ART 273, ART 274, ART 279</td>
</tr>
<tr>
<td>Communication Studies</td>
<td>CMST&amp;102, CMST&amp;210, CMST&amp;220, CMST&amp;230</td>
<td>CMST 216</td>
</tr>
<tr>
<td>Drama</td>
<td>DRMA &amp;101, DRMA 140, DRMA 141, DRMA 150, DRMA 152, DRMA 250</td>
<td>DRMA 154</td>
</tr>
</tbody>
</table>

Health & Physical Education [PE/HPE]

3 credits

**Option One**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 100</td>
<td>FOOD AND YOUR HEALTH</td>
<td>2</td>
</tr>
</tbody>
</table>

2 (2) credits/units of Health from the list below AND one (1) credit/unit of any college-level PE activity course.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 101</td>
<td>HEALTH FOR ADULT LIVING</td>
<td></td>
</tr>
<tr>
<td>HLTH 103</td>
<td>ENVIRONMENTAL HEALTH</td>
<td></td>
</tr>
<tr>
<td>HLTH 104</td>
<td>WEIGHT AND YOUR HEALTH</td>
<td></td>
</tr>
<tr>
<td>HLTH 108</td>
<td>HAPPINESS AND YOUR HEALTH</td>
<td></td>
</tr>
<tr>
<td>HLTH 206</td>
<td>HUMAN SEXUALITY</td>
<td></td>
</tr>
<tr>
<td>HLTH 207</td>
<td>WOMEN'S HEALTH</td>
<td></td>
</tr>
<tr>
<td>HLTH 208</td>
<td>MEN'S HEALTH</td>
<td></td>
</tr>
<tr>
<td>HLTH 210</td>
<td>MULTICULTURAL HEALTH</td>
<td></td>
</tr>
<tr>
<td>HLTH 212</td>
<td>CANNABIS AND YOUR HEALTH</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPE 258</td>
<td>FITNESS-WELLNESS</td>
<td>3</td>
</tr>
<tr>
<td>or HPE 266</td>
<td>MIND BODY HEALTH</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits/Units 3
### Social Sciences [SS]

15 credits

Select courses from at least three (3) subject areas for a minimum of fifteen (15) credits. You may include no more than ten (10) credits from any one subject area.

<table>
<thead>
<tr>
<th>Department</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addiction Counseling</td>
<td>ACED 101</td>
</tr>
<tr>
<td>Anthropology</td>
<td>ANTH&amp;204, ANTH&amp;206, ANTH&amp;215</td>
</tr>
<tr>
<td>Communication Studies</td>
<td>CMST&amp;230</td>
</tr>
<tr>
<td>Economics</td>
<td>ECON&amp;201, ECON&amp;202</td>
</tr>
<tr>
<td>English</td>
<td>ENGL 175</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>ENVS 231</td>
</tr>
<tr>
<td>Geography</td>
<td>GEOG&amp;100, GEOG&amp;102, GEOG&amp;200, GEOG&amp;207</td>
</tr>
<tr>
<td>History</td>
<td>HIST&amp;126, HIST&amp;127, HIST&amp;128, HIST&amp;146, HIST&amp;147, HIST&amp;148, HIST&amp;215, HIST&amp;219</td>
</tr>
<tr>
<td>Political Science</td>
<td>POLS&amp;203</td>
</tr>
<tr>
<td>Psychology</td>
<td>PSYC&amp;100, PSYC&amp;200</td>
</tr>
<tr>
<td>Sociology</td>
<td>SOC&amp; 101, SOC&amp; 201</td>
</tr>
<tr>
<td>Women's Studies</td>
<td>WS 101, WS 201, WS 201, WS 210</td>
</tr>
</tbody>
</table>

### Natural Sciences [NS]

15 credits

Select courses from at least two (2) subject areas for a minimum of fifteen (15) credits. You may include no more than ten (10) credits from one subject area. You must include at least one lab science.

<table>
<thead>
<tr>
<th>Department</th>
<th>Lab Course</th>
<th>Non-Lab Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropology</td>
<td>ANTH&amp;215</td>
<td>ANTH&amp;245</td>
</tr>
<tr>
<td>Astronomy</td>
<td>ASTR&amp;101</td>
<td></td>
</tr>
</tbody>
</table>
Elective Requirements

Complete a total of twenty-seven (27) credits from courses numbered 100 and above. The two areas of electives are listed below.

**Specified Electives**

All courses numbered 100 and above (except 199 and 290) in the departments listed below may be used to meet the Specified Elective portion of the degree (some departments have chosen specifically listed courses only or have excluded specific courses).

Specified Electives [SE] – Approved courses that apply: [C, HA, HB, HE, HPE, NS, OC, PPI, Q, SE, SS, WC] – 12 credits.

A maximum of two (2) credits in PE activity can apply toward this area.

<table>
<thead>
<tr>
<th>Department</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>ACCT&amp;201, ACCT&amp;202, ACCT&amp;203 only</td>
</tr>
<tr>
<td>Addiction Counseling</td>
<td>ACED 101 only</td>
</tr>
<tr>
<td>American Sign Language</td>
<td></td>
</tr>
<tr>
<td>Anthropology</td>
<td></td>
</tr>
<tr>
<td>Art</td>
<td></td>
</tr>
</tbody>
</table>

**General Electives**

Any additional courses of 100 level or higher may apply. Physical Education activity credits are limited to a maximum of three (3) credits regardless of distribution area in the DTA degree.

Coursework in FLPC cannot apply to the AA degree program.

No more than 15 credits can be taken from the General Elective area.

**Application of Credit**

Credits earned through Advanced Placement (AP), International Baccalaureate (IB), Tech Prep/Direct Credit, CLEP, cooperative work
experience, military experience, special projects, and course challenge
must fall within the following guidelines when awarded:

1. Credits may be awarded only if the learning experiences fall within the
outcomes of the regular curriculum of the college.
2. Academic transcripts will indicate other credits awarded.
3. Credits cannot duplicate credits already awarded.
4. Students should read the degree requirements section of this catalog
for information about applying other credit options toward a degree.

The following lists the number of credits that can be applied through
other credit options in each degree or certificate program at Clark College:

Bachelor of Applied Science (BAS), Associate in Arts (AA), Associate in
Fine Arts (AFA), and Associate in Science – Transfer (AST) degrees:

- A maximum of forty-five (45) credits earned through Academic Credit
  for Prior Learning will apply.
- A maximum of 25% of the degree or certificate may have credits from
  prior experiential learning and military experience.
- Students can apply 15 credits in CLEP Tech Prep/Direct Credit, cooperative
  work experience, and Special Projects toward a BAS, AA, AFA, and AST degree.
- CLEP, cooperative work experience, and Tech Prep/Direct credits will
  only apply toward general electives. AP IB, course challenge, and
  potentially military experience credits would be allowed in distribution
  areas.

Articulation Programs

Certain degree programs are offered at Clark College that have been set
up in cooperation with four-year institutions. Program tracks that have
been approved by Clark’s Instructional Planning Team are eligible for
Clark’s Associate in Arts – Option B degree, even if they do not meet the
core requirements. Intensive research, planning, and cooperation on the
part of multiple institutions have gone into the development of these
programs.

Associate in Applied Science – Transfer Degree (AAS-T)

The Associate in Applied Science – Transfer degree (AAS-T) is designed
to build upon the technical courses required for job preparation but
also includes a college-level General Education component, common
in structure for all such degrees. In general, technical degree programs
are not designed for transfer to other colleges or universities. However,
several four-year colleges and universities have specific bachelor’s degree
programs that accept AAS-T degrees. Clark College currently has one
AAS-T degree in Early Childhood Education (see the Early Childhood
Education program description in this catalog for specific program
requirements).

Students seeking to transfer into degree programs other than those
specifically designed for the AAS-T are urged to consider the DTA or AS-
T in preparation for transfer. Majors outside the specifically designed
degrees listed above likely will accept very few of the credits in the AAS-
T degree (English composition, college-level math, and other general
education courses should transfer).

“Washington 45” – List of One Year Transfer Courses

The list of courses in Washington 45 does not replace the Direct Transfer
Agreement, Associate of Science Tracks I and II, or any Major Related
Program agreement, nor will it guarantee admission to a four-year
institution.

A student who completes courses selected from within the general
education categories listed below at a public community, technical, four-
year college or university in Washington State will be able to transfer
and apply a maximum of 45 term credits toward general education
requirement(s) at any other public and most private higher education
institutions in the state.

For transfer purposes, a student must have a minimum grade of C or
better (2.0 or above) in each course completed from this list.

Students who transfer Washington 45 courses must still meet a receiving
institution’s admission requirements and eventually satisfy all their
general education requirements and their degree requirements in major,
minor, and professional programs.

“First Year Transfer List” of general education courses:

- Communications (5 credits) – ENGL&101, ENGL&102
- Quantitative and Symbolic Reasoning (5 credits) – MATH&107, MATH&148 or MATH&151
- Humanities (10 credits in two different subject areas or disciplines) – PHIL&101, MUSC&104, DRMA&101, or ENGL 240
- Social Science (10 credits in two different subject areas or disciplines) – PSYC&100, SOC& 101, POLS 231, POLS 111
- Natural Sciences (10 credits in two different subject areas or disciplines) – BIOL&100, BIOL&160 with lab, ASTR&101, ASTR&101
  with lab, CHEM 106, CHEM&110 with lab, CHEM&121 with
  lab ENVS&101, ENVS&101 PHYS&100 with lab, GEOL&101 with lab.
- Additional 5 credits in a different discipline can be taken from any
category listed above.

Note: Although these courses are listed under categories, the actual
course may satisfy a different general education category at a receiving
institution.

1 Many private non-profit colleges and universities have distinct
general education requirements. Students should check with
institution(s) they plan to attend regarding application of transfer
credits that will meet general education requirements.

2 Disciplines are sometimes called “subjects” or “subject matter areas”
and designated by a prefix (i.e., PHIL for Philosophy and POLS for
Political Science).
TRANSFER DEGREE OVERVIEW

Associate in Arts (AA)
Associate in Arts – Major Related Program (MRP)
Associate in Fine Arts (AFA)
Associate in Science - Track 1 (AST1)
Associate in Science - Track 2 (AST2)
Associate in Applied Science - Transfer Degree (AAS-T)

‘Washington 45’ - List of One Year Transfer Courses

General Transfer Degree Requirements
In addition to completing all of the major or distribution area requirements, students must also:

- Complete a minimum of ninety (90) college-level credits.
- Maintain a minimum cumulative college-level grade point average (GPA) of 2.00 or higher.
- Thirty (30) credits minimum must be completed at Clark College to meet Academic Residency.

General Transfer Degree Credit Restrictions

- Cooperative Work Experience: No more than fifteen (15) credits may be applied to an associate degree.
- Course Challenge: Students may use credits earned from successful course challenges toward their degree or certificate, but the credits will not meet the academic residency requirements.
- Standardized Tests: Advanced Placement (AP), College Level Examination Program (CLEP), International Baccalaureate (IB), and/or Cambridge International (CI): A maximum of forty-five (45) credits from Academic Credit for Prior Learning can be applied to a degree.
- Pass/Fail Grading Option: Sixty (60) credits maximum in courses with Pass/Fail grading option can apply toward the degree.
- Tech Prep/Direct Credit: Tech Prep/Direct Credit courses that are part of a professional program and fall into the restricted area in the DTA degree are limited to 15 credits. If Tech Prep/Direct Credit courses apply to a professional technical degree or certificate there is no limit to the number of credits that can be applied.
- Special Projects: No more than fifteen (15) credits in Special Projects will be allowed to apply towards degree or certificate requirements unless specifically outlined by a program.

General Information on the Transfer of Grades

The grades assigned in transferable courses by the sending institution shall not be altered by the receiving institution. They also are not used in calculating students’ Clark grade point average (GPA). Courses completed with a grade of ‘D’ or above shall normally be accepted in transfer (except at the Evergreen State College, where a minimum of 2.0 or ‘C’ is required for transfer). A grade of ‘D’ may not apply toward a completion of a transfer degree or Bachelor of Applied Science at Clark College. Nontraditional grading practices require special handling, depending on the nature and circumstances of the program from which and to which a students is transferring, but receiving institutions shall take steps to assure all students equitable treatment.

Associate in Arts (AA)-Direct Transfer Agreement (DTA)

The Associate in Arts (AA) degree is designed for students planning to transfer to a four-year institution to pursue a bachelor’s degree program. The degree, in most cases, meets the first two (2) years of general education requirements at the senior institution. There are exceptions; please check with the transfer institution for additional information. Most students transferring with the AA degree will be granted junior standing upon entry to the senior institution.

The standard Associate in Arts degree is also known as a Direct Transfer Agreement (DTA) Associate degree. The AA-DTA is a statewide agreement between the Washington State community and technical colleges and Washington State public universities, as well as some private colleges and universities. The agreement outlines transferability of coursework and standing; in most cases students who have completed an AA-DTA will also have satisfied general education requirements at the baccalaureate institution and will have junior standing. Students should review their baccalaureate institution to see if they are part of the DTA in Washington State.

AA-DTA General Education Requirements

Communication Skills [C, OC, WC]
10 credits
To fulfill the Communications Skills requirement for the AA-DTA transfer degree, students must complete ENGL& 101 for five (5) credits and another five (5) credit English composition course or take another three (3) credit English composition course and take a qualifying five (5) credit Oral Communication (OC) studies course.

Quantitative Skills/Symbolic Reasoning Skills [Q]
5 credits
To fulfill the quantitative skills requirement for the AA general transfer degree, students must complete five (5) credits of college level mathematics (Q) or symbolic reasoning (Q) coursework.

Health & Physical Education [HE, HPE, PE]
3 credits
To fulfill the Health and Physical Education requirements for the AA general transfer degree, students must complete two (two) qualifying credits for Health [HE] and one (1) credit of any college-level Physical Education [PE] activity course, or HPE 258 or HPE 266.

Humanities [HA, HB]
15 credits
To fulfill the Humanities requirement for the AA general transfer degree students must complete 15 credits of humanities coursework from at least two (2) subject areas. Students may include no more than ten (10) credits from any one subject area. A maximum of five (5) credits of the ‘B’ list coursework may be applied. A maximum of five (5) credits of 100-level world language can be applied.

Social Sciences [SS]
15 credits
To fulfill the Social Science requirements for the AA general transfer degree students must complete fifteen (15) credits of social science
coursework from at least three (3) subject areas. Students may include no more than ten (10) credits from any one subject area.

**Natural Sciences [NS]**
15 credits
To fulfill the natural Sciences requirement for the AA general transfer degree students must complete fifteen (15) credits of natural science coursework from at least two subject areas. Students may include no more than ten (10) credits from one subject area. Students must include at least one (1) lab science.

**Specified Elective Requirements [SE]**
12 credits
To fulfill the Specified Elective requirements fo the AA general transfer degree students must complete twelve (12) credits of Specified Electives. A maximum of two (2) credits in Physical Education (PE) activity can apply.

**General Electives [GE]**
15 credits
Additional credits may be taken at college level to reach the minimum ninety (90) credit total for the AA general transfer degree. Note: Coursework in CAP, ESL, or FLPC cannot apply to the AA transfer degree.

**Oral Communication [OC]**
Clark students must complete either CMST&210, CMST&220, or CMST&230 to fulfill the Oral Communication requirement. Students may apply this course within the Humanities, Social Sciences (CMST&230 only), or Communication Skills distribution area or count the course as a Specified or General Elective.

**College Preparation (COLL)**
Clark students must complete College 101 (COLL 101). Students may apply this course in General Electives for the AA general transfer degree.

**AA-DTA General Education Credit Restrictions**
- Physical Education Activity: Three (3) credits maximum in PE activity can apply toward the degree.
- A course can apply toward the only one (1) distribution requirement (i.e. Communication Skills, Quantitative Skills/Symbolic Reasoning Skills, Humanities, Social Sciences, and Natural Sciences). The exception is for the Oral communication and College 101 requirements, which are local degree requirements. When meeting these requirements, the same course can be applied to the degree requirement and to the distribution area.
- Excess credits earned in distribution areas (i.e. Communication Skills, Quantitative Skills/Symbolic Reasoning Skills, Humanities, Social Sciences, and Natural Sciences) can be used to fulfill Specified or General Elective Requirements.

**Associate in Arts - Major Related Programs (AA - DTA/MRP)**
To help transfer students better prepare for their junior year, two-year and four-year institutions are working together to create transfer associate degrees outlining the appropriate courses in order for students to be well prepared to enter their chosen major upon transfer. The MRP degrees follow the Direct Transfer Agreement (DTA) format of the Associate in Arts degree. The DTA/MRP pathway is applicable to students planning to prepare for the following majors at various universities in Washington. Clark College offers the following Associate in Arts – DTA/MRP in:

- Biology
- Business
- Math Education
- Pre-Nursing
- Nursing

1 For specific program requirements please see the programs section of the catalog.

**AA- DTA/MRP General Education Requirements**
The MRP degrees listed above have slightly different graduation requirements than other Clark transfer degrees because the curriculum was created via an articulation agreement between Washington two-year and four-year schools. Most notably, DTA/MRP degrees differ from the Associate in Arts degree in the following ways:

- Health and Physical Education [HE,PE,HPE] is not required;
- College Preparation (COLL 101) is not required;
- Oral Communication [OC] is not required;
- Social Sciences [SS] may be completed with two (2) subject areas;
- Specific coursework is identified and required for program completion.

Clark students are encouraged to take Health and Physical Education [HPE], College 101 [COLL] and Oral Communication [OC] courses, where appropriate, in case their degree choice changes.

**Associate in Fine Arts (AFA)**
This transfer preparation degree is designed for students planning to transfer to a senior institution to pursue a bachelor's degree program (BA or BFA) in Fine Arts. The degree programs focus on coursework specific to the intended major area of study at the senior institution. While coursework in general education, social sciences, and natural sciences is included, additional coursework in these areas will be required at the senior institution. It is important for students to meet with program-specific advisors to determine an appropriate educational plan. The AFA does NOT adhere to the direct-transfer agreement, so students need to be aware of requirements of the receiving senior institution. Currently, Clark College offers two (2) Associate in Fine Arts degrees: Graphic Design and Studio Art. Please contact the Art Department for advising information.

**AFA General Education Requirements**

**Written Communication Skills [WC]**
5 credits
To fulfill the communication skills requirement for the AFA degree students must complete ENGL&101 for five (5) credits. Students who complete ENGL&101 or its equivalent at least five (5) credits may complete the communications requirement by completing any of the courses (or their appropriate transfer equivalents) in Written Communications [WC] or Oral Communications [OC] as defined within the Associate of Arts distribution requirements.
Quantitative Skills/Symbolic Reasoning Skills [Q]
5 credits
To fulfill the quantitative skills requirement for the AFA degree, students must complete five (5) credits of college level mathematics.

Health & Physical Education [HE, HPE, PE]
3 credits
To fulfill the Health and Physical Education requirement for the AFA degree, students must complete two (2) qualifying credits of Health and one (1) credit of any college-level Physical Education [PE] activity course, or HPE 258 or HPE 266.

Humanities [HA]
5 credits
To fulfill the Humanities requirement for the AFA degree students must complete five (5) credits of coursework from the Humanities [HA] Associate of Arts distribution list. Courses must be List A courses. The course completed cannot be part of the AFA major requirements.

Social Sciences [SS]
5 credits
To fulfill the Social Science requirement for the AFA degree students must complete five (5) credits of coursework from the Social Sciences [SS] Associate of Arts distribution list. The course completed cannot be part of the AFA major requirements.

Natural Sciences [NS]
5 credits
To fulfill the Natural Science requirement for the AFA degree students must complete five (5) credits of coursework from the Natural Sciences Associate of Arts distribution list. The course completed must include a lab. The course completed cannot be part of the AFA major requirements.

Major Area Requirements
The balance of the program shall be defined by the major department and should be a minimum of 90 credits.

Associate in Science – Transfer (AST)
The transfer preparation degrees are designed for students planning to transfer to a senior institution to pursue a bachelor’s degree program in science and/or engineering. The degree programs focus on coursework specific to the intended major area of study at the senior institution. While coursework in general education, humanities, and Social Sciences is included, additional coursework in these areas will be required at the senior institution. It is important for students to meet with program-specific advisors to determine an appropriate educational plan.

Associate in Science – Track 1 (AST1)
The AST1 degree track is for students intending to transfer into programs in:

- Biological Sciences
- Chemistry
- Earth Science
- Environmental/Resources Sciences
- Geology

AST1 General Education Requirements

Communication Skills [WC]
5 credits
To fulfill the communication skills requirement for the AST1 degree students must complete ENGL&101 for five (5) credits. Students who complete ENGL&101 or its equivalent at less than five (5) credits may complete the communications requirement by completing any of the courses (or their appropriate transfer equivalents) in Written Communication [WC] or Oral Communications [OC] as defined within the Associate of Arts distribution requirements.

Quantitative Skills/Symbolic Reasoning Skills
10 credits
To fulfill the Quantitative Skills requirement for the AST1 degree students must complete MATH&151 and MATH&152, or Math courses that have MATH&152 as a prerequisite.

Health & Physical Education [HE, HPE, PE]
3 credits
To fulfill the Health and Physical Education requirement for the AST1 degree, students must complete two (2) qualifying credits of Health [HE] and one (1) credit of any college-level Physical Education [PE] activity course, or HPE 258 or HPE 266.

Humanities & Social Sciences [HA,HB, SS]
15 credits
To fulfill the Quantitative Skills requirement for the AST1 degree students must complete five (5) credits of coursework from Humanities [HA,HB], five (5) credits of coursework from Social Sciences [SS], and an additional five (5) credits of coursework from either area for a minimum of fifteen (15) credits. Humanities and Social Sciences courses must be selected from the Associate of Arts distribution list. A maximum of five (5) credits of the “B” list coursework may be applied.

Pre-Major Sequence
45 to 50 credits
All students planning to earn the AST1 degree are required to complete the following course sequences. The sequences taken are dependent on the major of the student. Sequences should be started and finished at the same institution to ensure proper transfer. Students MUST consult with intended transfer school to select sequences.

Chemistry Sequence
15 credits
To fulfill the chemistry sequence requirement students may take either:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM&amp;141</td>
<td>GENERAL CHEMISTRY I</td>
<td>5</td>
</tr>
<tr>
<td>&amp; CHEM&amp;151</td>
<td>and GENERAL CHEMISTRY LABORATORY I</td>
<td></td>
</tr>
</tbody>
</table>
Transfer Degree Overview

CHEM&142 & CHEM&152  
GENERAL CHEMISTRY II  
and GENERAL CHEMISTRY LABORATORY II  
5 credits

CHEM&143 & CHEM&153  
GENERAL CHEMISTRY III  
and GENERAL CHEMISTRY LABORATORY III  
6 credits

Option Two

CHEM&241 & CHEM&251  
ORGANIC CHEMISTRY I  
and ORGANIC CHEMISTRY LABORATORY I  
5 credits

CHEM&242 & CHEM&252  
ORGANIC CHEMISTRY II  
and ORGANIC CHEMISTRY LABORATORY II  
5 credits

CHEM&243 & CHEM&253  
ORGANIC CHEMISTRY III  
and ORGANIC CHEMISTRY LABORATORY III  
6 credits

Biology or Physics Sequence  
5 credits

To fulfill the biology or physics sequence requirement students may take either:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
</table>
| Option One
BIOL&222 | MAJORS CELL/MOLECULAR     | 5 credits     |
| BIOL&221 | MAJORS ECOLOGY/EVOLUTION  | 5 credits     |
| BIOL&223 | MAJORS ORGANISMAL PHYS    | 5 credits     |
| Option Two 1
PHYS&124 & PHYS&134 & PHYS 091  
GENERAL PHYSICS LAB I  
and GENERAL PHYSICS I  
and PHYSICS CALCULATIONS  
6 credits

PHYS&125 & PHYS&135 & PHYS 092  
GENERAL PHYSICS LAB II  
and GENERAL PHYSICS II  
and PHYSICS CALCULATIONS  
6 credits

PHYS&126 & PHYS&136 & PHYS 093  
GENERAL PHYSICS LAB III  
and GENERAL PHYSICS III  
and PHYSICS CALCULATIONS  
6 credits

1 Please note that PHYS 091, PHYS 092, and PHYS 093 do not count toward the credit total for transfer degrees (AST1, AST2, DTAMRP or AADTA) degrees.

Additional Mathematics Courses  
5 credits

To fulfill the additional mathematics requirement students may take either:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH&amp;146</td>
<td>INTRODUCTION TO STATISTICS</td>
<td>5 credits</td>
</tr>
</tbody>
</table>

or MATH&153  
CALCULUS III

Students should consult with intended transfer school to select correct path.

Science Electives  
10 to 15 credits

Complete an additional ten (10) to fifteen (15) credits (preferably in a two or three-term sequence) in physics, geology, organic chemistry, biology or mathematics consisting of courses normally taken for science majors to better prepare for major.

Electives

Students should complete sufficient additional college-level credits so that total credits earned is at least 90 term credits. These remaining courses may include prerequisites for major courses, additional major coursework, or specific general education or other university requirements, as approved by the advisor.

Associate in Science – Track 2 (AST2)

Associate in Science – Track 2 is for students intending to transfer into programs in:

AST2 - Concentration Options

• Atmospheric Science
• Computer Science
• Engineering
• Physics

AST2 – MRP

• Bioengineering and Chemical Engineering
• Computer and Electrical Engineering
• Mechanical/Civil/Aeronautical/Industrial/Materials Science Engineering

General Education Requirements

Communication Skills [WC]  
5 credits

To fulfill the communication skills requirement for the AST1 degree students must complete ENGL&101 for five (5) credits. Students who complete ENGL&101 or its equivalent at less than five (5) credits may complete the communications requirement by completing any of the courses (or their appropriate transfer equivalents) in Written Communication [WC] or Oral Communications [OC] as defined within the Associate of Arts distribution requirements.

Quantitative Skills/Symbolic Reasoning Skills  
10 credits

To fulfill the Quantitative Skills requirement for the AST2 degree students must complete MATH&151 and MATH&152, or Math courses that have MATH&152 as a prerequisite.

Health & Physical Education [HE, HPE, PE]  
3 credits

To fulfill the Health and Physical Education requirement for the AST2 degree, students must complete two (2) qualifying credits of Health [HE] and one (1) credit of any college-level PE [PE] activity course, or HPE 258 or HPE 266.

Humanities & Social Sciences [HA, HB, SS]  
15 credits

To fulfill the Quantitative Skills requirement for the AST2 degree students must complete five (5) credits of coursework from Humanities [HA,HB], five (5) credits of coursework from Social Sciences [SS], and an additional five (5) credits of coursework from either area for a minimum of fifteen
(15) credits. Humanities and Social Sciences courses must be selected from the Associate of Arts distribution list. A maximum of five (5) credits of “B” list coursework may be applied.

Pre-Major Sequence
25 credits

All students planning to earn the Associate in Science – Track 2 degree are required to complete the following course sequences. Please note that there are different sequences for Engineering and Non-engineering majors. The sequences taken are dependent on the major of the student. Sequences should be started and finished at the same institution to ensure proper transfer. Students MUST consult with faculty or advising staff to pick the correct sequences.

Physics Sequence
15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS&amp;124</td>
<td>GENERAL PHYSICS LAB I and GENERAL PHYSICS I and PHYSICS CALCULATIONS</td>
<td>6</td>
</tr>
<tr>
<td>PHYS&amp;134</td>
<td>and GENERAL PHYSICS II and PHYSICS CALCULATIONS</td>
<td></td>
</tr>
<tr>
<td>PHYS&amp;091</td>
<td>and PHYSICS CALCULATIONS</td>
<td></td>
</tr>
<tr>
<td>PHYS&amp;125</td>
<td>GENERAL PHYSICS LAB II</td>
<td>6</td>
</tr>
<tr>
<td>PHYS&amp;135</td>
<td>and GENERAL PHYSICS II</td>
<td></td>
</tr>
<tr>
<td>PHYS&amp;092</td>
<td>and PHYSICS CALCULATIONS</td>
<td></td>
</tr>
<tr>
<td>PHYS&amp;126</td>
<td>GENERAL PHYSICS LAB III</td>
<td>6</td>
</tr>
<tr>
<td>PHYS&amp;136</td>
<td>and GENERAL PHYSICS III</td>
<td></td>
</tr>
<tr>
<td>PHYS&amp;093</td>
<td>and PHYSICS CALCULATIONS</td>
<td></td>
</tr>
<tr>
<td>PHYS&amp;231</td>
<td>ENGINEERING PHYSICS LAB I</td>
<td>6</td>
</tr>
<tr>
<td>PHYS&amp;241</td>
<td>and ENGINEERING PHYSICS I</td>
<td></td>
</tr>
<tr>
<td>PHYS&amp;094</td>
<td>and PHYSICS CALCULATIONS</td>
<td></td>
</tr>
<tr>
<td>PHYS&amp;232</td>
<td>ENGINEERING PHYSICS LAB II</td>
<td>6</td>
</tr>
<tr>
<td>PHYS&amp;242</td>
<td>and ENGINEERING PHYSICS II</td>
<td></td>
</tr>
<tr>
<td>PHYS&amp;095</td>
<td>and PHYSICS CALCULATIONS</td>
<td></td>
</tr>
<tr>
<td>PHYS&amp;233</td>
<td>ENGINEERING PHYSICS LAB III</td>
<td>6</td>
</tr>
<tr>
<td>PHYS&amp;243</td>
<td>and ENGINEERING PHYSICS III</td>
<td></td>
</tr>
<tr>
<td>PHYS&amp;096</td>
<td>and PHYSICS CALCULATIONS</td>
<td></td>
</tr>
</tbody>
</table>

Option One

Option Two

1 Please note that PHYS 091, PHYS 092, PHYS 093, PHYS 094, PHYS 095, AND PHYS 096 do not count toward the credit total for transfer degrees (AST1, AST2, DTAMRP or AADTA) degrees.

2 Calculus based required for engineering majors.

Chemistry with Lab
5 credits

CHEM&141, CHEM&151 (required for engineering majors); other majors should select 5 credits of science based on specific faculty or program advising.

Additional Mathematics Coursework
5 credits

Elective Requirements
35 credits

Students are again advised to consult with an advisor to ensure that the courses selected are the best fit for their major and transfer intent. Sequences should be started and finished at the same institution.

Engineering Majors should choose from the courses listed below, in consultation with an advisor, based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend:

<table>
<thead>
<tr>
<th>Department</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science &amp; Engineering</td>
<td>CSE 101, CSE 120, CSE 121, CSE 215, CSE 222, CSE 223, CSE 224, CSE 290</td>
</tr>
<tr>
<td>Engineering</td>
<td>ENGR&amp;104, ENGR&amp;215, ENGR&amp;204, ENGR&amp;214, ENGR&amp;224, ENGR&amp;225</td>
</tr>
<tr>
<td>Engineering</td>
<td>ENGR 101, ENGR 107, ENGR 109, ENGR 113, ENGR 115, ENGR 120, ENGR 121, ENGR 150, ENGR 221, ENGR 239, ENGR 240, ENGR 250, ENGR 252, ENGR 253, ENGR 270, ENGR 280</td>
</tr>
<tr>
<td>Math</td>
<td>MATH&amp;254</td>
</tr>
<tr>
<td>Math</td>
<td>MATH 215, MATH 221</td>
</tr>
</tbody>
</table>

Non-engineering Majors should choose from the courses listed below, in consultation with an advisor, based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend:

<table>
<thead>
<tr>
<th>Department</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>BIOL&amp;100, BIOL&amp;221, BIOL&amp;222, BIOL&amp;223, BIOL&amp;251, BIOL&amp;252, BIOL&amp;253, BIOL&amp;260</td>
</tr>
<tr>
<td>Biology</td>
<td>BIOL 101, BIOL 164, BIOL 165, BIOL 167, BIOL 168, BIOL 208, BIOL 224</td>
</tr>
<tr>
<td>Computer Science &amp; Engineering</td>
<td>CSE 120, CSE 121, CSE 215, CSE 222, CSE 223, CSE 224, CSE 290</td>
</tr>
</tbody>
</table>
Engineering
ENGR&104, ENGR&215, ENGR&204, ENGR&214, ENGR&224, ENGR&225
ENGR 101, ENGR 107, ENGR 109
ENGR 113, ENGR 115, ENGR 120,
ENGR 121, ENGR 150, ENGR 221,
ENGR 239, ENGR 240, ENGR 250,
ENGR 252, ENGR 253, ENGR 270,
ENGR 280

Environmental Science
ENVS&101
ENVS 109, ENVS 218, ENVS 221

Math
MATH&153, MATH&254
MATH 203, MATH 204, MATH 215,
MATH 221

Physics
PHYS&231, PHYS&232, PHYS&233,
PHYS&241, PHYS&242, PHYS&243

The pre-calculus courses (MATH 102, MATH 103, MATH 110, and/or MATH 111) might also be used as electives if these courses had to be taken in preparation for the calculus sequence.

Associate in Applied Science – Transfer Degree (AAS-T)

The Associate in Applied Science – Transfer degree (AAS-T) is designed to build upon the technical courses required for job preparation but also includes a college-level General Education component, common in structure for all such degrees. In general, technical degree programs are not designed for transfer to other colleges or universities. However, several four-year colleges and universities have specific bachelor’s degree programs that accept AAS-T degrees. Clark College currently has one AAS-T degree in Early Childhood Education (see the Early Childhood Education program description in this catalog for specific program requirements). Students seeking to transfer into degree programs other than those specifically designed for the AAS-T are urged to consider the DTA or AS-T in preparation for transfer. Majors outside the specifically designed degrees listed above likely will accept very few of the credits in the AAS-T degree (English composition, college-level math, and other general education courses should transfer).

“Washington 45” – List of One Year Transfer Courses

The list of courses in Washington 45 does not replace the Direct Transfer Agreement, Associate of Science Tracks I and II or any Major Related Program agreement, nor will it guarantee admission to a four-year institution. A student who completes courses selected from within the general education categories listed below at a public community, technical, four-year college or university in Washington State will be able to transfer and apply a maximum of 45 term credits toward general education requirement(s) at any other public and most private higher education institutions in the state.¹ For transfer purposes, a student must have a minimum grade of C or better (2.0 or above) in each course completed from this list. Students who transfer Washington 45 courses must still meet a receiving institution’s admission requirements and eventually satisfy all their general education requirements and their degree requirements in major, minor, and professional programs. “First

Year Transfer List” of general education courses (not all offered at Clark College):

- Communications (5 credits) – ENGL&101, ENGL&102
- Quantitative and Symbolic Reasoning (5 credits) – MATH&107, MATH&148 or MATH&151
- Humanities (10 credits in two different subject areas or disciplines) – PHIL&101, MUSC&104, DRMA&101, CMST&210 or ENGL 254
- For colleges that use History as a Humanities HIST&126, HIST&127, HIST&128, HIST&146, HIST&147, HIST&148
- Social Science (10 credits in two different subject areas or disciplines) – PSYC&100, SOC&101, POLS&203, POLS 111
- For colleges that use History as a Social Science: HIST&126, HIST&127, HIST&128, HIST&146, HIST&147, HIST&148
- Natural Sciences (10 credits in two different subject areas or disciplines) – BIOL&100, BIOL&160 with lab ASTR&101 with lab, CHEM 106, CHEM&110 with lab, CHEM&121 with lab, CHEM&139, ENVS 109, ENVS&101, PHYS&100 with lab, GEOL&101 with lab.
- Additional 5 credits in a different discipline can be taken from any category listed above.
CAREER AND TECHNICAL DEGREES AND CERTIFICATES DISTRIBUTION LIST

Professional and Technical Degrees and Certificates Distribution Lists

Associate in Applied Science (AAS)
Associate in Applied Technology (AAT)
Certificate of Proficiency (CP)
Certificate of Achievement (CA)
Certificate of Completion (CC)

Degree & Certificate Intent
The career and technical education degrees and certificates are designed for students interested in gaining specific technical career skills. Students focus on completing program-specific coursework, balanced by minimal general education courses. Although the Associate in Applied Science and the Associate in Applied Technology degree programs are not designed to guarantee transfer to a senior institution, some institutions may accept technical coursework for students in certain areas of study. Students should contact an advisor and/or the senior institution for additional information.

General Requirements
Complete a minimum number of credits in specified curriculum:

- Associate Degree: Ninety (90) credits minimum
- Associate in Applied Sciences (AAS): Students must complete the courses listed in their career plan, plus electives as needed to meet the ninety (90) credit requirement. Most occupational programs require more than fifty-nine (59) credits of specific requirements.
- Associate in Applied Technology (AAT): Students must complete the courses listed in their career plan, plus electives as needed to meet the ninety (90) credit requirement. All Associate in Applied Technology degree programs require at least seventy-five (75) credits of major-related requirements.
- Certificate of Proficiency: Forty-five (45) credits minimum
- Certificate of Achievement: Twenty-one (21) credits minimum
- Maintain a minimum cumulative grade point average (GPA) of 2.0 or higher

Meet academic residency requirements as follows:

- Associate Degree: Thirty (30) credits minimum must be completed at Clark College.
- Certificate of Proficiency: Fifteen (15) credits minimum must be completed at Clark College.
- Certificate of Achievement: Ten (10) credits minimum must be completed at Clark College.
- Earn a grade of 'C' (2.0) or higher in each major area requirement and specifically listed courses unless otherwise noted in the department requirements for all courses taken at Clark College.

General Credit Restrictions
- Physical Education Activity: Three (3) credits maximum in PE activity can apply toward an associates degree.
- Academic Credit for Prior Learning: A maximum of sixty (60) credits from AP, IB, CI, course challenges, or industry certification credits can be applied to a degree. Credit by Challenge coursework will meet academic residency requirements.
- College Level Examination Program (CLEP): Students may request up to fifteen (15) CLEP credits to be applied to a degree. Credits will be used to fulfill general elective requirements only.
- Tech Prep/Direct Credit: Tech Prep/Direct Credit courses that are part of a professional program and fall into the restricted area in the DTA degree are limited to 15 credits. If Tech Prep/Direct Credit courses apply to a professional technical degree or certificate, there is no limit to the number of credits that can be applied.
- Cooperative Work Experience: No more than fifteen (15) credits may be applied to an associate degree.
- Special Projects: No more than fifteen (15) credits in Special Projects will be allowed to meet degree or certificate requirements unless specifically outlined by the program.
- Military Experience: Credits may be earned by previous military experience, but cannot exceed twenty five percent (25%) of the degree or certificate. Please contact the Credentials Evaluations Office at Clark College for further information.
- Pass/Fail Grading Option: Sixty (60) credits maximum in courses with Pass/Fail grading option for an associate degree.

General Information
For Associate in Applied Science degrees, General Education courses are restricted to two (2) distribution areas in the general education area of the degree.

General Education Requirements
Note: Some specific requirements of a program may also meet the General Education requirements.

Communication Skills [CA, CT]

<table>
<thead>
<tr>
<th>Department</th>
<th>AAS - 6 credits/ units minimum (CA)</th>
<th>AAT - 5 credits/ units minimum (CT)</th>
<th>CP - 3 credits/ units minimum (CA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>BUS 211</td>
<td>BUS 211</td>
<td>BUS 211</td>
</tr>
<tr>
<td>Business Technology</td>
<td>BTEC 107</td>
<td>BTEC 107</td>
<td>BTEC 106, BTEC 107</td>
</tr>
<tr>
<td>Communication Studies</td>
<td>CMST&amp;210¹, CMST&amp;220¹, CMST&amp;230¹</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>ENGL 098, ENGL 108, ENGL 110</td>
<td>ENGL&amp;101, ENGL&amp;235</td>
<td>ENGL 097, ENGL 098, ENGL 108, ENGL 110</td>
</tr>
<tr>
<td>Management</td>
<td>MGMT 107</td>
<td></td>
<td>MGMT 107</td>
</tr>
<tr>
<td>Professional</td>
<td>PTWR 135</td>
<td>PTWR 135</td>
<td>PTWR 135</td>
</tr>
<tr>
<td>Technical Writing</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ Credit by Challenge coursework will meet academic residency requirements.
Communication Studies courses cannot be counted toward the first three (3) credits of Communication Skills [CA, CT].

Note: Pharmacy Technician students may meet the Communication Skills requirement by achieving the following:

Completion of ENGL 098 or equivalent with a grade of “C” or better (2.0) or placement into ENGL 101.

Health & Physical Education [HE, HPE, PE, PEDNC, PEMAR] - 3 credits

Select three credits/units from either Option One or Option Two:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Option One</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select two credits/units from the following:</td>
<td>2</td>
</tr>
<tr>
<td>HLTH 100</td>
<td>FOOD AND YOUR HEALTH</td>
<td></td>
</tr>
<tr>
<td>HLTH 101</td>
<td>HEALTH FOR ADULT LIVING</td>
<td></td>
</tr>
<tr>
<td>HLTH 103</td>
<td>ENVIRONMENTAL HEALTH</td>
<td></td>
</tr>
<tr>
<td>HLTH 104</td>
<td>WEIGHT AND YOUR HEALTH</td>
<td></td>
</tr>
<tr>
<td>HLTH 108</td>
<td>HAPPINESS AND YOUR HEALTH</td>
<td></td>
</tr>
<tr>
<td>HLTH 206</td>
<td>HUMAN SEXUALITY</td>
<td></td>
</tr>
<tr>
<td>HLTH 207</td>
<td>WOMEN'S HEALTH</td>
<td></td>
</tr>
<tr>
<td>HLTH 208</td>
<td>MEN'S HEALTH</td>
<td></td>
</tr>
<tr>
<td>HLTH 210</td>
<td>MULTICULTURAL HEALTH</td>
<td></td>
</tr>
<tr>
<td>HLTH 212</td>
<td>CANNABIS AND YOUR HEALTH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one from the following:</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>College-level Physical Activity course</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Option Two</strong></td>
<td>3</td>
</tr>
<tr>
<td>HPE 220</td>
<td>OCCUPATIONAL WELLNESS</td>
<td></td>
</tr>
<tr>
<td>HPE 258</td>
<td>FITNESS-WELLNESS</td>
<td></td>
</tr>
<tr>
<td>HPE 266</td>
<td>MIND BODY HEALTH</td>
<td></td>
</tr>
</tbody>
</table>

Computational Skills [CP]

<table>
<thead>
<tr>
<th>Department</th>
<th>AAS - 3 credits/units minimum</th>
<th>AAT - 5 credits/units minimum</th>
<th>CP - 3 credits/units minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allied Health</td>
<td>AH 261</td>
<td>AH 261</td>
<td>AH 261</td>
</tr>
<tr>
<td>Business</td>
<td>BUS 102</td>
<td>BUS 102</td>
<td>BUS 102</td>
</tr>
<tr>
<td>Business Technology</td>
<td>BMED 103, BMED 105</td>
<td>BMED 103, BMED 105</td>
<td>BMED 103</td>
</tr>
<tr>
<td>Technology Medical Office</td>
<td>CHEM 095</td>
<td>CTEC 121</td>
<td>CTEC 121</td>
</tr>
<tr>
<td>Computer</td>
<td>CSE 121, CSE 222, CSE 223, CSE 224</td>
<td>CSE 121, CSE 222, CSE 223, CSE 224</td>
<td>CSE 121</td>
</tr>
<tr>
<td>Science &amp; Engineering</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mathematics

<table>
<thead>
<tr>
<th>Mathematics</th>
<th>All MATH/ MATH&amp; courses numbered 030 or higher EXCEPT MATH 199 or MATH 290</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MATH 102, MATH 103, MATH 104, MATH 105, MATH 110, MATH 111, MATH&amp;107, MATH&amp;146</td>
</tr>
<tr>
<td></td>
<td>All MATH/ MATH&amp; courses numbered 030 or higher EXCEPT MATH 199 or MATH 290</td>
</tr>
<tr>
<td></td>
<td>Or any MATH/ MATH&amp; course for which these courses are a prerequisite</td>
</tr>
</tbody>
</table>

Human Relations [HR]

<table>
<thead>
<tr>
<th>Department</th>
<th>AAS - 3 credits/units minimum</th>
<th>AAT - 5 credits/units minimum</th>
<th>CP - 3 credits/units minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addiction</td>
<td>ACED 101, ACED 201</td>
<td>ACED 101, ACED 201</td>
<td>ACED 101, ACED 201</td>
</tr>
<tr>
<td>Counseling</td>
<td>BTEC 148</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Technology</td>
<td>BTEC 148</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Medical</td>
<td>BMED 166, BMED 225, BMED 226</td>
<td>BMED 166, BMED 225, BMED 226</td>
<td>BMED 226</td>
</tr>
<tr>
<td>Business</td>
<td>BUS &amp; 101</td>
<td>BUS &amp; 101</td>
<td>BUS &amp; 101</td>
</tr>
<tr>
<td>Communication</td>
<td>CMST &amp; 210, CMST &amp; 230</td>
<td>CMST &amp; 210, CMST &amp; 230</td>
<td>CMST &amp; 210, CMST &amp; 230</td>
</tr>
<tr>
<td>College</td>
<td>COLL 101</td>
<td>COLL 101</td>
<td>COLL 101</td>
</tr>
<tr>
<td>Computer Technology</td>
<td>CTEC 104, CTEC 165</td>
<td>CTEC 104, CTEC 165</td>
<td>CTEC 104, CTEC 165</td>
</tr>
<tr>
<td>Human Development</td>
<td>HDEV 103, HDEV 105, HDEV 107, HDEV 109, HDEV 111, HDEV 113, HDEV 115, HDEV 117, HDEV 119, HDEV 121, HDEV 123, HDEV 125, HDEV 127, HDEV 129, HDEV 131, HDEV 133, HDEV 135, HDEV 137, HDEV 139, HDEV 141</td>
<td>HDEV 103, HDEV 105, HDEV 107, HDEV 109, HDEV 111, HDEV 113, HDEV 115, HDEV 117, HDEV 119, HDEV 121, HDEV 123, HDEV 125, HDEV 127, HDEV 129, HDEV 131, HDEV 133, HDEV 135, HDEV 137, HDEV 139, HDEV 141</td>
<td>HDEV 103, HDEV 105, HDEV 107, HDEV 109, HDEV 111, HDEV 113, HDEV 115, HDEV 117, HDEV 119, HDEV 121, HDEV 123, HDEV 125, HDEV 127, HDEV 129, HDEV 131, HDEV 133, HDEV 135, HDEV 137, HDEV 139, HDEV 141</td>
</tr>
<tr>
<td>Management</td>
<td>MGMT 101, MGMT 103, MGMT 105, MGMT 107, MGMT 109, MGMT 111, MGMT 113, MGMT 115, MGMT 117, MGMT 119, MGMT 121, MGMT 123, MGMT 125, MGMT 127, MGMT 129, MGMT 131, MGMT 133, MGMT 135, MGMT 137, MGMT 139, MGMT 141</td>
<td>MGMT 101, MGMT 103, MGMT 105, MGMT 107, MGMT 109, MGMT 111, MGMT 113, MGMT 115, MGMT 117, MGMT 119, MGMT 121, MGMT 123, MGMT 125, MGMT 127, MGMT 129, MGMT 131, MGMT 133, MGMT 135, MGMT 137, MGMT 139, MGMT 141</td>
<td>MGMT 101, MGMT 103, MGMT 105, MGMT 107, MGMT 109, MGMT 111, MGMT 113, MGMT 115, MGMT 117, MGMT 119, MGMT 121, MGMT 123, MGMT 125, MGMT 127, MGMT 129, MGMT 131, MGMT 133, MGMT 135, MGMT 137, MGMT 139, MGMT 141</td>
</tr>
<tr>
<td>Psychology</td>
<td>PSYC &amp; 100, PSYC &amp; 200, PSYC 203</td>
<td>PSYC &amp; 100, PSYC &amp; 200, PSYC 203</td>
<td>PSYC &amp; 100, PSYC &amp; 200, PSYC 203</td>
</tr>
</tbody>
</table>
### Humanities [HA, HB] - 3 credits for AAS only

<table>
<thead>
<tr>
<th>Department</th>
<th>HA</th>
<th>HB</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Sign Language</td>
<td>ASL&amp; 121, ASL&amp; 122, ASL&amp; 123, ASL&amp; 221, ASL&amp; 222, ASL&amp; 223, ASL 125</td>
<td></td>
</tr>
<tr>
<td>Art</td>
<td>ART 131, ART 151, ART 172, ART 220, ART 221, ART 222, ART 223, ART 250, ART 272, ART 274, ART 290</td>
<td>ART 101, ART 103, ART 104, ART 105, ART 110, ART 117, ART 118, ART 123, ART 124, ART 125, ART 134, ART 180, ART 181, ART 182, ART 189, ART 190, ART 191, ART 203, ART 204, ART 208, ART 257, ART 258, ART 259, ART 260, ART 261, ART 262, ART 270, ART 271, ART 273, ART 274, ART 290</td>
</tr>
<tr>
<td>Communication Studies</td>
<td>CMST&amp;102, CMST&amp;210, CMST&amp;220, CMST&amp;230, CMST 216</td>
<td></td>
</tr>
<tr>
<td>Drama</td>
<td>DRMA&amp;101, DRMA 154</td>
<td>DRMA 140, DRMA 141, DRMA 150, DRMA 152, DRMA 250</td>
</tr>
<tr>
<td>English</td>
<td>ENGL&amp;226, ENGL&amp;227, ENGL&amp;228, ENGL&amp;244, ENGL&amp;245, ENGL&amp;246, ENGL&amp;254, ENGL&amp;255, ENGL&amp;256, ENGL 133, ENGL 136, ENGL 143, ENGL 145, ENGL 150, ENGL 156, ENGL 173, ENGL 175, ENGL 176, ENGL 240, ENGL 243, ENGL 260, ENGL 261, ENGL 267, ENGL 272</td>
<td>ENGL 121, ENGL 125, ENGL 126, ENGL 127, ENGL 275, ENGL 276, ENGL 277</td>
</tr>
<tr>
<td>Japanese</td>
<td>JAPN&amp;121, JAPN&amp;122, JAPN&amp;123, JAPN&amp;221, JAPN&amp;222, JAPN&amp;223</td>
<td></td>
</tr>
<tr>
<td>Journalism</td>
<td>JOUR 101, JOUR 111</td>
<td></td>
</tr>
</tbody>
</table>

### Social Sciences [SS] - 3 credits for AAS only

<table>
<thead>
<tr>
<th>Department</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addiction Counseling</td>
<td>ACED 101</td>
</tr>
<tr>
<td>Anthropology</td>
<td>ANTH&amp;204, ANTH&amp;206, ANTH&amp;215</td>
</tr>
<tr>
<td>Communication Studies</td>
<td>CMST&amp;230</td>
</tr>
<tr>
<td>Economics</td>
<td>ECON&amp;201, ECON&amp;202</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>ENVS 231</td>
</tr>
<tr>
<td>English</td>
<td>ENGL 175</td>
</tr>
<tr>
<td>Geography</td>
<td>GEOG&amp;100, GEOG&amp;102, GEOG&amp;200, GEOG&amp;207, GEOG 205</td>
</tr>
</tbody>
</table>
History
HIST&126, HIST&127, HIST&128, HIST&146, HIST&147, HIST&148, HIST&215
HIST 231, HIST 251, HIST 252

Political Science
POL&203
POLS 111, POLS 131, POLS 231

Psychology
PSYC&100, PSYC&200
PSYC 203

Sociology
SOC& 101, SOC& 201
SOC 121, SOC 131, SOC 220

Women’s Studies
WS 101, WS 201, WS 210, WS 220, WS 225

Certificate of Achievement (CA)
The Certificate of Achievement is designed for students who wish to receive specialized occupational training for a specialized career objective requiring less than forty-five (45) credits, but more than twenty (20) credits. Students must maintain a cumulative grade point average (GPA) of 2.00 or better. Students are required to complete a minimum of ten (10) credits at Clark College to meet the Academic Residency requirement.

Certificate of Completion (CC)
The Certificate of Completion is designed for students who wish to gain entry-level skills or for those who wish to upgrade their skills in a short period of time. Certificates of Completion typically consist of three to four courses, requiring twenty (20) or less credits. They are awarded by the department with the approval of the program advisory committee and the Office of Instruction. The courses can be taken simultaneously or individually as your schedule allows. These certificates are not awarded a standard Clark College diploma.

Natural Sciences [NS] - 3 credits for AAS only

<table>
<thead>
<tr>
<th>Department</th>
<th>Lab Course</th>
<th>Non-Lab Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropology</td>
<td>ANTH&amp;215</td>
<td>ANTH&amp;245</td>
</tr>
<tr>
<td>Astronomy</td>
<td>ASTR&amp;101</td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td>BIOL&amp;100, BIOL&amp;160, BIOL&amp;221, BIOL&amp;222, BIOL&amp;223, BIOL&amp;241, BIOL&amp;242, BIOL&amp;251, BIOL&amp;252, BIOL&amp;253, BIOL&amp;260, BIOL 101, BIOL 105, BIOL 150, BIOL 165, BIOL 208, BIOL 224</td>
<td>BIOL 139, BIOL 140, BIOL 141, BIOL 142, BIOL 143, BIOL 145, BIOL 164, BIOL 167, BIOL 180</td>
</tr>
<tr>
<td>Engineering</td>
<td>ENGR&amp;104</td>
<td></td>
</tr>
<tr>
<td>Environmental Science</td>
<td>ENVS&amp;101</td>
<td>ENVS 109, ENVS 218</td>
</tr>
<tr>
<td>Geology</td>
<td>GEOL&amp;101, GEOL&amp;103</td>
<td>GEOL 102, GEOL 218</td>
</tr>
<tr>
<td>Meteorology</td>
<td>METR 101</td>
<td></td>
</tr>
<tr>
<td>Nutrition</td>
<td>NUTR&amp;101</td>
<td></td>
</tr>
<tr>
<td>Physical Science</td>
<td>PHSC 101, PHSC 102, PHSC 104, PHSC 110</td>
<td>PHSC 106</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PHYS 090</td>
</tr>
</tbody>
</table>
BACHELOR OF APPLIED SCIENCES

General Degree Requirements
Except for the BAS in Dental Hygiene, in addition to completing a two year degree (AA, AFA, AAS, AAT, AAS-T, AST1, AST2) students must also:

Complete all of the major or distribution area requirements:
• Complete a minimum of one hundred and eighty (180) college-level credits
• Minimum of sixty (60) upper division (300 or 400 level) credits
• Maintain a minimum cumulative college-level grade point average (GPA) of 2.00 or higher
• Thirty (30) credits minimum must be completed at Clark College to meet Academic Residency.

General Degree Credit Restrictions
• Academic Credit for Prior Learning: No more than forty-five (45) credits can be applied to the Associate of Arts, Associate in Science Tracks 1 & 2, and Bachelor of Applied Science Degrees. This includes any combination of credits earned through Advanced Placement (AP), International Baccalaureate (IB), Cambridge International (CI), course challenges, or industry certifications.
• Course Challenge: Students may use credits earned from successful course challenges toward their degree or certificate, and the credits will apply towards academic residency requirements.
• Pass/Fail Grading Option: Sixty (60) credits maximum in courses with Pass/Fail grading option can apply toward the degree.
• Tech Prep/Direct Credit: Tech Prep/Direct Credit courses that are part of a professional program and fall into the restricted area in the DTA degree are limited to 15 credits. If Tech Prep/Direct Credit courses apply to a professional technical degree or certificate there is no limit to the number of credits that can be applied.
• Special Projects: No more than fifteen (15) credits in Special Projects will be allowed toward the Bachelor of Applied Science (BAS) degree.

General Information on the Transfer of Grades
The grades assigned in transferable courses by the sending institution shall not be altered by the receiving institution. They also are not used in calculating students’ Clark grade point average (GPA). Courses completed with a grade of ‘D’ or above may be accepted in transfer. A grade of ‘D’ may not apply toward a completion of a Bachelor of Applied Science at Clark College. Nontraditional grading practices require special handling, depending on the nature and circumstances of the program from which and to which a student is transferring, but receiving institutions shall take steps to assure all students equitable treatment.

General BAS Degree Requirements
1. Students must earn a cumulative grade point average (GPA) of at least 2.0, as calculated by the degree awarding institution. Please refer to specific program for additional GPA requirements.

2. The general education courses will include courses earned at either/both the associate degree and/or applied bachelor’s degree level, based on the total required 180 term hours of credit.

Basic Requirements
Communication Skills
(10 credits)
Must include at least two communication courses to include a minimum of one English composition course; e.g. ENGL&101. Remaining credits may be an additional composition course or designated writing-intensive courses or courses in basic speaking skills (e.g. speech, rhetoric, or debate).

Quantitative/Symbolic Reasoning Skills
(5 credits)
• Five (5) credits of college level mathematics (a course with a Mathematics prefix numbered 100 or above) that furnishes the quantitative skills required in the commonly recognized educational transfer pathways toward a baccalaureate degree. Accepted courses in these pathways are: Pre-calculus or higher, Mathematics for Elementary Education, Business Pre-calculus/Finite Mathematics, Statistics, and Math in Society.

• or -

• Five (5) credits of a symbolic logic course that focuses on (a) sentence logic with proofs and (b) predicate logic with quantifiers and proofs and/or Aristotelian logic with Venn Diagrams.

Distribution Requirements
Humanities
(10 credits)
A maximum of five (5) credits of List B (performance) Humanities coursework can be applied. A maximum of five (5) credits of 100-level world language can be applied.

Social Science
(10 credits)

Natural Sciences
(10 credits)
At least five (5) credits in physical, biological and/or earth sciences. Shall include at least one laboratory course.

Additional General Education Courses
(15 credits)
Remaining general education courses needed to achieve the required 60 credits shall be selected from the Basic and Distribution Requirements listed above.

300 and 400 Level General Education Courses
In addition to 100/200 level courses, colleges may elect to develop 300/400 level general education courses that best suit the curriculum needed of the baccalaureate degree. These courses must be selected from the Basic and Distribution Requirements listed above. Students who are enrolled in a combination of upper and lower division courses will be charged for all upper and lower credits based on the upper division tuition schedule.
Refer to the specific degree requirements for further information.
PROCEDURE FOR REQUESTING AP CREDITS
NON-TRADITIONAL CREDIT

International Baccalaureate (IB)
360-992-2805

Clark College recognized the International Baccalaureate (IB) program as a coherent, challenging course of study and responds individually to each participant's petition for granting of college credit. Students may be awarded credit for completing individual areas of study within the program. Credit is posted with an "S" grade at the end of the quarter for which the score report was received, once a transcript record has been established. No credits will be awarded for an examination if the student has already earned credit in a duplicate course; a maximum of forty-five (45) credits in IB coursework can apply towards BAS, AA, or AST degree requirements.

Once scores are received and reviewed, an email will be sent to the student at the Clark College student email address regarding the credits to be awarded. IB credits are posted to the transcript at the end of the term in which the scores were submitted as long as the student is enrolled in that term.

Students should have an official copy of their IB scores sent to:

Clark College
Attn: Enrollment Services/GHL 128
1933 Fort Vancouver Way
Vancouver, WA 98663

For a current list of available courses and available credit, please visit the Credential Evaluations website at: http://www.clark.edu/enroll/advising-services/credential-evaluation/placement.php

Advanced Placement (AP)
360-992-2805

Clark College grants credit for completion of the College Board's Advanced Placement (AP) examinations. AP is a cooperative educational endeavor between secondary schools and colleges and universities. The program provides motivated high school students with the opportunity to take college-level courses in a high school setting. AP courses are taught by high school teachers, following course guidelines developed and published by the College Board. Students who participate in the program gain college-level skills and also earn college credit. Credit is posted with an "S" grade at the end of the quarter for which the score report was received, once a transcript record has been established. No credits will be awarded for an examination if the student has already earned credit in a duplicate course; a maximum of forty-five (45) credits in AP coursework can apply towards BAS, AA, or AST degree requirements.

Once scores are received and reviewed, an email will be sent to the student at the Clark College student email address regarding the credits to be awarded. AP credits are posted to the transcript at the end of the term in which the scores were submitted as long as the student is enrolled in that term.

Students should send an official copy of their AP scores to:

Clark College
Attn: Enrollment Services/GHL 128
1933 Fort Vancouver Way
Vancouver, WA 98663

For a current list of available courses and available credit, please visit the Credential Evaluations website at: http://www.clark.edu/enroll/advising-services/credential-evaluation/placement.php

Where to Get AP Scores
The College Board: Advanced Placement Program
PO Box 6671
Princeton, NJ 08541-6671
Phone: 609-771-7300
TTY: 609-882-4118
www.collegeboard.org (https://www.collegeboard.org/)

Cambridge International (CI)
360-992-2805

Clark College will grant a minimum elective credit for each Cambridge International Examination for A-level exam with a passing grade for approved examinations. Credit will be awarded on the basis of official Cambridge International Examination results, not transcript notation. Duplicate credit for the same subject taken on different exams will not be granted. Credit is posted with an "S" grade at the end of the quarter for which the score report was received, once a transcript record has been established. No credits will be awarded for an examination if the student has already earned credit in a duplicate course; a maximum of forty-five (45) credits in CI coursework can apply towards BAS, AA, or AST degree requirements.

Once scores are received and reviewed, an email will be sent to the student at the Clark College student email address regarding the credits to be awarded. CI credits are posted to the transcript at the end of the term in which the scores were submitted as long as the student is enrolled in that term.

Students should send an official copy of their CI scores to:

Clark College
Attn: Enrollment Services/GHL 128
1933 Fort Vancouver Way
Vancouver, WA 98663

For a current list of available courses and available credit, please visit the Credential Evaluations website at: http://www.clark.edu/enroll/advising-services/credential-evaluation/placement.php
CREDIT HOURS AND CREDIT LOAD

320.001 Credit Hours and Credit Load

The State Board for Community and Technical Colleges has established rules for how community and technical colleges determine course credit hours. These rules are based on the type of instructor contact hours and the ratio of those hours to the number of weeks in a quarter. "Credit hours" are defined as the unit by which an institution measures its course work. The number of credit hours assigned to a course is defined by the number of hours per week in class and the number of hours per week in out of class preparation. Clark College uses these rules to establish credit hours assigned to each course offered by the College. Credit loads are determined based on the credit hours for which a student enrolls.

Faculty members are charged with assessing student learning outcomes associated with course credit.

A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than:

1. One hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester or trimester hour of credit, or ten to twelve weeks for one quarter of credit, or the equivalent amount of work over a different time; or
2. At least an equivalent amount of work as required in the above paragraph for other academic activities as established by the institution, including laboratory work, internships, practical's, studio work, and other academic work leading to the award of credit hours.

The following definitions have been established to guide instructional practice, with each definition equating to a minimum of three weekly hours of student's effort per credit.

Credit hours for three categories of instruction are:

- **Theory**: Students are engaged with faculty and class members in learning theoretical material and/or engaging in activities to apply the theory leading to mastery of course outcomes. Modes of instructional delivery could include but are not limited to: lecture, small group discussion, guided conversation, demonstration, case studies, role-playing, problem based inquiry, and collaborative activities. Instruction may be a mix of presentation, facilitation, and guided activities evidenced by frequent ongoing communication between instructor and students. Such activities could take place in a variety of instructional modalities. One credit is generated by one weekly contact hour of instruction or the equivalent amount of work over a different amount of time. Generally requires out-of-class student effort, typically two hours per class hour.

- **Guided Practice**: Students are actively engaged in practicing and mastering skills under the supervision of the instructor. This category of instruction could include but are not limited to labs, studios, shops, clinical experiences, computer-mediated learning, hands-on projects, or other skill building activities. Instruction may be individualized or group-focused and include skills assessment. Such activities could take place in a variety of instructional modalities. One credit is generated by two weekly contact hours of instruction or the equivalent amount of work over a different amount of time. May also include out-of-class student effort, typically one hour per two class hours.

- **Field-Based Experience**: Students are engaged in autonomous study or related work activity under the intermittent supervision of the instructor. This mode includes working with or under the direction of professional practitioners and may include preceptorships, co-ops, internships, or service learning activities. Verification of learning outcomes is documented by college faculty in collaboration with professional practitioners. One credit is generated by a minimum of three weekly contact hours of supervised learning experience. Programs may determine that additional hours are needed for the student learning needs. However, only one credit will be generated for enrollment counting purposes.

All instructional modalities use the credit hour determination provided above. Credit hours for all instructional modalities are determined based on the equivalence of credit hours to the Clark College's traditional face-to-face courses. Listed below are all instructional modalities Clark College provides, including modalities Clark aims to provide:

- **Traditional (face-to-face) classes**
  Students and instructors meet together for a certain number of hours, in a classroom and on a regular weekly schedule.

- **Online classes**
  Online classes consist entirely of online elements with no face-to-face component. Some online classes require students to interact with each other, the faculty, and content at specific times, while others are entirely self-paced. The number of credits offered in an online course is based on equivalency of learning outcomes of face-to-face modality.

- **Hybrid classes**
  Hybrid classes combine face-to-face classroom time with online instruction. Students in a hybrid class come to campus at scheduled times and meet face-to-face with instructors and students. Many class activities are conducted online, including class work assignments, discussions and group projects. The number of credits offered within a hybrid course is based on equivalency of learning outcomes of face-to-face modality.

- **Flipped classes**
  The flipped classroom reverses the traditional educational arrangement by delivering instructional content outside of the classroom, often online. Students spend classroom time actively engaging in concepts to clarify and apply the knowledge, under the guidance of the instructor. Credits are awarded based on learning outcomes earned equal to those offered within face-to-face modality.

- **Competency-based education**
  Competency-based education (CBE) allows students to earn credit based on their proven mastery of a subject rather than classroom time. The number of credits offered within a CBE course is based on equivalency of learning outcomes of face-to-face modality. CBE courses are offered within the quarter system. A week of instruction within the CBE courses are any seven-day period in which the institution makes available to the students enrolled in the CBE program the instructional materials and faculty support to enable the student to engage in an educational activity. CBE courses are faculty led with weekly consultations with
faculty members to discuss academic course content in addition to assessments of learning.

Exceptions are noted in the quarterly schedule (some classes are not scheduled in the usual College class periods.)

This policy will be reviewed by Executive Cabinet according to the program review policy schedule.
COLLEGE INFORMATION

- History (p. 332)
- Accreditation (p. 333)
- College Assessment (p. 334)
- Student Rights and Responsibilities (p. 335)
- Nondiscrimination and Equity (p. 336)
- Behavioral Intervention and Threat Assessment (BITA) (p. 337)
- Notification of Students' Rights Under the Family Educational Rights and Privacy Act (p. 338)
- Limitation of Liability (p. 339)
- Graduation Rates (p. 340)
- Equity in Athletics (p. 341)
- Consumer Information (p. 342)
- Locations and Campuses (p. 343)
In the midst of the Great Depression, a group of educators boldly embraced a dream of higher education for Southwest Washington. That dream became reality when Clark College was founded as a private junior college in 1933.

The college was originally located in Vancouver’s historic Hidden House, where it remained through 1937. During the next two decades, the college was housed at four different locations. In 1951, the college launched an evening program in the Applied Arts Center, the first building on the current 101-acre campus in Vancouver’s Central Park.

Initial accreditation was granted during the 1936-37 academic year following a visit by professors from the University of Washington. In 1948, the college first received accreditation from the organization known as the Northwest Association of Secondary and Higher Schools. Today, that organization is known as the Northwest Commission on Colleges and Universities (NWCCU). Since its first accreditation in 1937, through periodic reviews, Clark College has remained accredited throughout its history.

Clark College first received state financial support in 1941. Five years later, the college was placed under the general supervision of the State Board of Education, with the Vancouver School Board serving as its policy-making body.

In 1967, the Washington State Legislature created a state system of community college districts. Clark College, in District No. 14, is one of 34 Washington community and technical colleges, and serves residents of Clark, Skamania and west Klickitat counties. The college is governed by a five-member board of trustees appointed by the Governor.
ACCREDITATION

Clark College is accredited by the Northwest Commission on Colleges and Universities \(^1\) (8060 165th Avenue NE, Suite 100, Redmond, WA 98052), a regional institutional accrediting agency recognized by the Secretary of the U.S. Department of Education.

Several of the college’s programs are also accredited by program-specific accrediting bodies:

- The associate degree Nursing program is accredited by the Accreditation Commission for Education in Nursing, Inc. \(^1\) (formerly known as the National League for Nursing Accrediting Commission).
- The Dental Hygiene program is accredited by the American Dental Association, Commission on Dental Accreditation. \(^1\)
- The Medical Assistant certificate program is accredited by the Commission on Accreditation of Allied Health Education Programs.
- The Addiction Counselor program is accredited by the National Addiction Studies Accreditation Commission.
- The Automotive T-TEN program is accredited by the National Automotive Technicians Education Foundation and is a certified Toyota Technician Training Education Network (T-TEN) program.

\(^1\) Agency recognized by the U.S. Department of Education as one of the accrediting agencies.
Clark College is committed to guiding individuals to achieve their educational and professional goals. To carry out that commitment, the college continuously assesses student learning by gathering information about the effectiveness of its programs and services, and the achievements and perspectives of its alumni. This information is used to monitor the effectiveness of educational programs as well as student and academic services.

Each Clark College student is expected to participate in the college’s assessment efforts. Programs and services use various means to gather assessment information including portfolios, performances, achievement tests, comprehensive examinations, surveys, interviews, focus groups, evaluation forms, and other methods. Occasionally, Clark College faculty and staff may present information about their assessment projects at professional conferences or in publications, for the purpose of contributing to professional knowledge in the field of education. Aggregate assessment data may be used in these presentations, such as aggregate results from quizzes, surveys, etc. Students’ consent must be obtained prior to presenting individual-level data.
STUDENT RIGHTS AND RESPONSIBILITIES

Clark College provides its community and students with education and services of the highest quality. Admission to Clark College carries with it the presumption that students will conduct themselves as responsible members of the college community. Clark College expects all students to conduct themselves in a manner consistent with its high standards of scholarship and conduct.

Student rights, responsibilities, and the Code of Student Conduct can be found at: http://www.clark.edu/clark-and-community/about/policies-procedures/student_code.php. A printed copy can be requested in the Office of the Vice President for Student Affairs, Gaiser Hall 204 (GHL 204). These standards of conduct for students promote Clark College's educational purposes and provide students a full understanding of their rights and responsibilities.
Clark College recognizes, understands, confronts and challenges the institutional systems of privilege, power, and inequity so that all members of the Clark College community can support student learning. Clark College endeavors to facilitate student learning by providing the conditions that improve educational outcomes and eliminates systemic disparities among all groups.

Clark College is committed to freedom from discrimination for all members of the College community. The College expressly prohibits discrimination on the basis of race, color, national origin, age, perceived or actual physical or mental disability, pregnancy, genetic information, sex, sexual orientation, gender identity, marital status, creed, religion, honorably discharged veteran or military status, or use of a trained guide dog or service animal. In addition, the College is committed to freedom from all forms of harassment including sexual harassment, domestic violence and harassment in the workplace. All claims of discrimination and harassment will be investigated by the designee of the President.

Discrimination is prohibited by Title VI of the Civil Rights Act of 1964, Title VII of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Sections 504 and 508 of the Rehabilitation Act of 1973, the Americans with Disabilities Act and ADA Amendments Act, the Age Discrimination Act of 1975, the Violence Against Women Reauthorization Act, and Washington State’s Law Against Discrimination, Chapter 49.60 RCW and its implementing regulations. For more information regarding the discrimination and harassment policy, please refer to http://www.clark.edu/clark-and-community/about/policies-procedures/grievance_procedure.php

Any person who believes she or he has been discriminated against or harassed by Clark College or its employee(s) or agent(s) on the basis of any status listed above, may request informal assistance and/or lodge a formal grievance. The College encourages the timely reporting of any incidents of discrimination or harassment. For complainants who wish to submit a complaint, a formal complaint form is available online at http://www.clark.edu/campus-life/student-support/student_complaint/index.php. Hard copies of the complaint form are available at the following locations on campus:

The Diversity Center
Gaiser Hall 214 (GHL 214)

The Office of the Vice President of Student Affairs
Gaiser Hall 204 (GHL 204)

The Office of Human Resources
Baird Administration Building 144 (BRD 144)
Clark College strives to maintain a healthy and safe environment for all students, faculty and staff. Life can be challenging, and people may need support and referrals for assistance.

Clark College’s BITA team is composed of administrators, faculty counselors, and a case manager that collaboratively work to maintain a safe college environment. BITA works directly with students, faculty and staff to identify and respond to student behaviors that cause others concern and/or fear that the student poses a danger to self, others or the college community.

To learn more about BITA or submit a referral of concern at http://www.clark.edu/campus-life/student-support/bita/index.php (http://www.clark.edu/campus-life/student-support/bita/).
Clark College conforms to the Family Educational Rights and Privacy Act (FERPA), as amended, which affords students certain rights as to their education records.

1. Students have the right to inspect and review their education records within 45 days of the day the college receives a written request for access. Students should submit, to the Registrar, written requests that identify the record(s) they wish to inspect. The Registrar will make arrangements for access and notify the student of the time and place where the record(s) may be inspected. If the records requested are not maintained in Enrollment Services, the student will be advised of the correct official to whom the request should be addressed.

2. Students have the right to request the amendment of the education records that they believe are inaccurate or misleading. Students must write the college official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the college decides not to amend the record as requested by the student, the college will notify the student of the decision and advise the student of the process by which the student may appeal the decision.

3. A student has the right to consent to disclosures of personally identifiable information contained in the student’s education records, except to the extent that FERPA authorizes disclosure without consent. With few exceptions (stated below), no one will have access to student records without the written consent of the student. Clark College will not release a student’s record to a parent/guardian without the student’s written permission. Such a policy is in effect regardless of the student’s age or financial dependency upon the parent/guardian.

The college may release student directory information without student consent which includes student name, student address, student e-mail, date of birth, major field of study, terms of attendance, degrees and awards received, participation in activities and sports, and weight and height of members of athletic teams. With regard to former students, such information also includes addresses for use by the Clark College Foundation.

Exceptions include school officials with a legitimate educational interest in a student’s educational record. A school official is a person employed by the college in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the college has contracted (such as an attorney, auditor, collection agent, or the National Student Clearinghouse, an agency which acts as a clearinghouse for student loan deferment reporting); a person elected to the board of trustees; or a student serving on an official committee, such as a disciplinary or grievance committee. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. Exceptions also include accrediting agencies; student financial aid agencies; and those who require student information in an emergency situation in which someone’s health or safety is at risk.

Clark College also discloses educational records without consent to officials of baccalaureate institutions in which a student seeks to, or intends to, enroll.

In compliance with the Higher Education Amendments of 1998, the college is authorized to disclose information to a parent or guardian about any school disciplinary violation involving alcohol or a controlled substance which has been found to have been committed by a student who is under the age of 21.

Pursuant to the Solomon Amendment, Clark College is authorized to disclose the following directory information to the military for recruitment purposes: student’s name, address, telephone listing, date of birth, academic major, and degrees received from Clark College.

Students who do not wish to have directory information released by the college must file a student directory restriction request with Enrollment Services.

4. A student has the right to file a complaint with the U.S. Department of Education concerning alleged failures by Clark College to comply with the requirements of FERPA by writing to:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Ave. S.W.
Washington, DC 20202-8520

In some instances, records may be withheld by the college. Academic transcripts are routinely withheld if a student has a financial obligation to the college. The Security/Safety Office may request a hold on records if there is concern that such records may compromise a criminal investigation.

Copies of the complete FERPA policy may be obtained at Enrollment Services.
LIMITATION OF LIABILITY

The college's total liability for claims arising from a contractual relationship with the student in any way related to classes or programs shall be limited to the tuition and expenses paid by the student to the college for those classes or programs. In no event shall the college be liable for any special, indirect, incidental, or consequential damages, including but not limited to, loss of earnings or profits.
GRADUATION RATES

Below is the federal graduation rate survey (GRS) (3 year) information for student cohorts from 2008, 2009, 2010, and 2011 along with the GRS 200% (4 year) information for student cohorts from 2007, 2008, 2009, and 2010. The federal graduation rate survey definitions pertain to a specific cohort of Clark College students: new students attending full time, who plan to earn a degree or certificate, and without prior college experience.

- Combined (3 year) transfer out/completion/graduation rate, 4-year average: 43%
- GRS (3 year) completion or graduation rate, 4-year average: 26%
- GRS (3 year) transfer out rate, 4-year average: 18%
- GRS 200% (4 year) completion or graduation rate, 4-year average: 31%

Clark College provides this information pursuant to the federal Student Right to Know Act so that prospective students can make informed decisions about the college they might wish to attend. For help in interpreting these data, contact the Office of Planning & Effectiveness, 360-992-2506.

View the most recent cohort graduation rates at the National Center for Education Statistics website: https://nces.ed.gov/collegenavigator/
The Equity in Athletics Disclosure Act (EADA) is designed to make prospective students aware of a school's commitment to providing equitable athletic opportunities for its male and female students. Any co-educational institution of higher education that participates in a federal student aid program must prepare an EADA report each October. For a copy of the report, please contact the Athletic Department, O'Connell Sports Center, 360-992-2691, or visit the EADA website at http://ope.ed.gov/athletics/.
CONSUMER INFORMATION

All consumer information, also known as Student Right to Know Information, is available on the Clark College website at http://www.clark.edu/clark-and-community/about/policies-procedures/consumer_information/index.php.

Information is available in paper format through the Office of the Dean of Student Enrollment and Completion located in Gaiser Hall.
LOCATIONS AND CAMPUSES

Clark College has one main campus and three satellite locations located throughout Clark County. Each of the locations includes a variety of programs to serve the community and help students complete a program at Clark College.

Main Campus

Clark College’s beautiful main campus is located on 101 acres in Vancouver’s Central Park, just east of Interstate 5 and north of the Columbia River and Fort Vancouver Historic Reserve. This full-service campus includes a gym, music and theatre hall, library, student center, and a new dining space. Hours of Operation: 7am-10pm

Columbia Tech Center

The Columbia Tech Center (CTC), located on the east side of Vancouver, opened in 2009. CTC provide access to education eastern portion of the college’s service district, which includes Clark County communities like Camas and Washougal as well as parts of Skamania and Klickitat counties. The campus features state-of-the-art labs serving popular programs like network technology, biology, and mechatronics. Hours of Operation: 7am-5pm

Clark College at WSU Vancouver

Clark College at Washington State University Vancouver, established in 2006, is the result of a longstanding partnership between Clark College and WSU Vancouver. Before WSU Vancouver moved to its current site in 1996, it was housed in Bauer Hall on Clark’s main campus. The 63,334 square foot, three-story building provides additional classrooms, science laboratories, computer labs, and support space to accommodate growing enrollment and the desire to provide access to lower division courses for WSU Vancouver students. The beautiful facility is home to Clark’s nationally-recognized nursing program as well as general education classes. Hours of Operation: 7am-9pm

Clark College at Boschma Farms

Clark College at Boschma Farms is expected to be a boon for the region and represent a long-term visionary chapter for the college. Design of the first building is expected to start in 2017 on the 70-acre campus located just east of I-5 in Ridgefield, Washington. Construction is scheduled to start in 2019.

Clark College Economic and Community Development

Clark College Economic & Community Development (ECD) is Southwest Washington’s premier provider of workforce training and non-credit learning, serving more than 10,000 people annually. ECD offers classes at its main location in the Columbia Bank Building (http://ecd.clark.edu/about/campus-locations.php), the Columbia Tech Center, and Clark’s main campus.
FACULTY AND ADMINISTRATION

- Board of Trustees (p. 345)
- Executive Cabinet (p. 346)
- Administration (p. 347)
- Faculty (p. 351)
- Foundation (p. 359)
BOARD OF TRUSTEES

Clark College Board of Trustees

Jane Jacobsen 2016-2019
B.A. in Communications, University of Arkansas
Certificate of Excellence, Switzerland Cultural Art Center - Zurich, Switzerland
Master’s work in Business Administration, University of Vermont
Currently working with Gramor Development and the City of Vancouver on development of the Columbia Waterfront Park.
Community activities include:
• Founding Executive Director and member of Board of Directors of Confluence
• Board President, Friends of Fort Vancouver
• Member of the Advisory Council with Columbia Land Trust
• Former member of the Columbia River Gorge Commission
• Former member of the Washington State Historical Society

Jada Rupley 2015 – 2020
B.A. in Psychology/Education, Central Washington University
M.Ed. in School Administration, Seattle Pacific University
Superintendent Certicate, Washington State University
Certified Superintendent, School Principal, School Psychologist
As a Governor appointee, Ms. Rupley served as co-chair for the Early Learning Advisory Council building the early learning system. The Southwest Washington Child Care Consortium was a milestone for families with young children, providing over 2,000 quality child care slots in 28 centers in Clark County. In 2012-2014, she was chosen by then-Governor Kitzhaber to serve as Oregon's first Early Learning System Director, implementing legislation for early learning and child care investments for children from birth to 6 years.
Currently, Ms. Rupley is the Superintendent of Clackamas Education District. The ESD serves 10 districts and about 70,000 students in Clackamas County, Oregon.
Community activities include:
• H-RoC Board Member
• Clark College Foundation Board Liaison
• Clark County Skills Center
• Clark County Aging Task Force
• Clark County Planning Commission
• Clark County Aging Task Force
• Chair/Board Member Leadership Clark County

Paul Speer 2018-2023
Mr. Speer has extensive experience and skills in strategic planning, nonprofit fundraising and capacity building. A resident of Clark County for the past 37 years. Speer has long demonstrated a commitment to his community. For more than 25 years, Mr. Speer worked at Hewlett-Packard Company, where he retired as Vice President of Development Strategy in the Office of Strategy and Technology.
Currently, Mr. Speer is an executive advisor and coach, who also appears as a guest lecturer and panelist on topics including leadership, new business creation, business planning, venture philanthropy, sustainable energy, and encore careers.
Community activities include:
• The Historical Trust - Board Member
• Oregon Public Broadcasting - Board Member
• Social Venture Partners International - Past Board Member
• Leadership Clark County - Past Board Member
• iUrban Teen - Advisory Member
• Cascadia Tech Academy - Advisory Member
• Superintendent’s Management Task Force for Vancouver Public Schools - Advisory Member
• University of Portland’s Engineering Dean’s Advisory Council - Past Council Chair
• University of Portland’s Franz Center for Leadership, Entrepreneurship, and Innovation Board - Past Board Chair
• Pearson Field Education Center - Committee Chair

Rekah Strong 2012 – 2017
B.S. Criminal Justice, Portland State University
M.A. Social Work/Administration, Portland State University
Ph.D. Social Work Research, Portland State University in progress
Ms. Strong is currently the Executive Director for Educational Opportunities for Children & Families. She has more than 16 years of experience working in public agencies and developing strategies to improve organizational cultural humility.
Community activities include:
• Board member, We Reign Youth Foundation
• Board member, Partners in Diversity
EXECUTIVE CABINET

William Belden (2010)
Vice President of Student Affairs
B.A. Eastern Washington University
M.Ed. Western Washington University

Stefani Converson (2018)
Vice President Human Resources and Compliance
B.A., M.A., Washington State University

Shanda L. Diehl (2008)
Associate Vice President of Planning and Effectiveness
B.A. Eastern Washington University
M.P.H. University of Washington

Lisa Gibert, CPA,CFRE (2003)
President/CEO, Clark College Foundation
B.S. University of Oregon
M.B.A. University of California, Irvine

Sachi Horback (2018)
Vice President of Instruction
A.A. Delaware County Community College
B.A. Millersville University
M.A. Immaculata College
PsyD Chesnut Hill College

Leigh A. Kent (2007)
Executive Assistant to the President
A.A., A.S. Holyoke Community College

President
B.S. United States Military Academy
E.M.B.A. Golden Gate University

Valerie Moreno (2017)
Chief Information Officer
B.S. DeVry University

Robert D. Williamson (2009)
Vice President of Administrative Services
A.A. Ft. Steilacoom Community College
B.A., M.A. Western Washington University

Kevin Witte (2011)
Vice President of Economic and Community Development
B.S. University of Washington
M.B.A. University of Michigan
ADMINISTRATION

A

Jorge Argueta (2018)
Educational Planner
B.A., M.A. California State Polytechnic University Pomona

B

Andrew T. Barsotti (2014)
Director of Data Services
B.S. University of Wisconsin
M.S. Washington State University, Pullman

Chitpasong 'Chippi' Bello (2016)
Associate Dean of Financial Aid
B.S. Brigham Young University - Hawaii
M.S. Portland State University

Edie N. Blakley (2008)
Director of Career Services
A.A.S. Linn Benton Community College
B.S., Ed.M. Oregon State University

Adrienne Bocci (2018)
Admissions Recruiter
B.A. University of Oregon
M.S. Portland State University

Michael Brown (2019)
Dean of Libraries and Academic Success Services
B.A., M. Ed., Ph.D Texas Tech University

Margit Brumbaugh (2017)
Educational Planner
B.A. University of Washington
M.Ed. Concordia University

Armetta Burney (2012)
Director of Workforce Education Services
B.S. Southern University
M.B.A. Cardinal Stritch University

Cathleen 'Cath' Busha (2016)
Dean of Student Engagement
B.S. Millersville University
M.S.W. Arizona State University

Heather 'Colleen' Butcher (2016)
Information Technology Services Project Manager
B.A. Western University
M.B.A. York University
D.Th. George Fox University

C

Christy Campbell (2014)
Assistant Director of Business Services
B.S. Washington State University

Selena Castro (2012)
Dean of Student Enrollment
B.A., M.A., Ph.D. Washington State University

April Cannon (2017)
Educational Planner
B.S. Oregon State University
M.A. Eastern Michigan University

Tina Cruz (2015)
Corporate Education Client Support Specialist

D

Kevin Damore (2018)
Assistant Director of Marketing
B.S. Northern Arizona University

Guisela Eberle (2017)
Assistant Director of Human Resources
B.A. National Pedagogic University

E

Wende Fisher (2015)
Educational Planner - Professional/Technical
A.A.S. Clark College
B.A. Washington State University
M.Ed., M.S. Oregon State University

Angela Ford (2017)
Information Technology Services Project Manager
A.A. Fresno City College
B.A. San Francisco State University
M.B.A. Ellis College of New York Institute of Technology

Karen Foster (2018)
Instructional Operations Project Manager
B.A. Oakwood University
M.S.I.M.S. Roosevelt University

G

Joshua Giha (2015)
Application Developer
A.A. Florida Southwestern State College

Marcy Gilchrist (2017)
Educational Planner
B.A. Central Washington University

Kael Godwin (2007)
Decision Support Specialist: Data Science and Analytics
B.A., M.A. University of Nevada, Las Vegas

Michelle L. Golder (2007)
Special Projects and Activities Manager
B.S. University of Portland

Sarah K. Gruhler (2010)
Director of Student Life
B.A. Western Washington University
M.Ed. Seattle University

H

Trisha Haakonstad (2019)
Career Advisor
Administration

B.A. University of San Diego
M.S. Portland State University

Ellen Harju (2018)
Director of MESA Program
B.S. University of Washington
M.S., Ph.C., Ph.D. University of California, Los Angeles

Douglas Helmer (2016)
Education Program Director at Larch Corrections
B.S., M.S. Warner Pacific College

Judith Hernandez Chapar (2017)
Director of the Teaching and Learning Center
B.A. Washington State University
M.S.W. Eastern Washington University
Ph.D. Oregon State University

Adam Hinkley (2017)
Educational Planner
B.A. University of Oregon
M.A. George Fox University
M.Ed. Kent State University

Nicole Hopkins (2015)
Transitional Studies Coach
A.A. Clark College
B.A. Washington State University

Genevieve Howard (2010)
Dean of Workforce, Professional, and Technical Education
B.A., M.A. California State University, Bakersfield

I

J

Miles V. Jackson (1998)
Dean of Social Sciences and Fine Arts
B.S. Portland State University
M.S. University of Washington

Kate Jacky (2015)
Associate Director of Financial Aid
B.A. Washington State University

Katherine Keane (2014)
Associate Director of Career Services
B.A. Saint Martin’s College
M.P.A. Washington State University

Tanya Kerr (2017)
Control Officer

B.A. University of Washington

Monica L. Knowles (1998)
Bookstore Manager
A.A. Brooks College

Laura LeMasters (2016)
Assistant Athletic Director
B.A. Washington State University
M.A. California State University - Long Beach

John Maduta (2010)
Director of Advising
B.A. Western Washington University

Useni Makano (2019)
Educational Planner
B.A. Portland State University

Korene E. Marquez (2013)
Associate Director of Student Tutoring Services
B.A. University of Oregon
M.A. Portland State University

Susan Maxwell (2001)
CtcLink Manager
B.A., M.S. University of Wisconsin-Milwaukee

Lance McIntire (2017)
Environmental Health and Safety Manager
B.S. Missouri State University
M.P.H. Des Moines University

Amy McIntosh (2017)
Educational Planner
B.S. Minnesota State University
M.S. Portland State University

Sherri Meadors (2016)
Payroll Manager
A.A. Clark College

Vanessa Neal (2018)
Employee Development Manager
B.A. University of New Mexico
M.S. University of Denver

Jennifer Obbard (2017)
Associate Dean of Health Science
B.S.N., M.S.N. Oregon Health Sciences University

Cindi M. Olson (1999)
Executive Assistant to the Vice President of Student Development

Ryan O’Meara (2018)
Grounds Manager

Shelley R. Ostermiller (2010)
Eriko Otsuka (2012)
Software Application Integrator and Developer
B.S., M.S. Washington State University, Vancouver

Timothy D. Petta (2013)
Director of Facilities Services
Avis Contractor’s License School

Rosanne Ponzetti (2019)
ECD Program Manager
B.S. Oregon State University
M.A. University of New Mexico
M.A. St. Joseph’s College

Julie L. Robertson (2013)
Decision Support Specialist: Continuous Improvement and Analytics
B.S. Lewis & Clark College
M.S., M.S.W. Portland State University

Carmen Roman (2017)
Educational Planner
A.A. Clark College
B.S. Linfield College

Mirranda Saari (2013)
Interim Director of Enrollment Services & Registrar
B.S. Central Washington University
M.Ed. Concordia University

Andrea Sanchez Turner (2018)
Executive Assistant to Human Resources

Sabra Sand (2014)
Director of Business Services
B.A. Washington State University

Renee Schiffhauer (2018)
Associate Director of Advising Services
B.S. Saint Vincent College
M.A. Indiana University of Pennsylvania

Ashley Schumacher (2014)
Advanced Registered Nurse Practitioner
B.S.N. Oregon Health Sciences University
M.S.N. University of California

Michael See (2017)
Director of Safety & Security
B.S. College of Professional Studies
M.S. Kaplan University

Natalie M. Shank (2014)
Interim Director of Student Care

B.A. Seattle Pacific University
M.S. Radford University
Ed.D. George Fox University

Jody Shulnak (2007)
International Student Recruitment & Outreach Manager
B.S. Northern Arizona University
M.S. Portland State University

Heidi Summers (2018)
Director of Transitional Studies
M.Ed. Virginia Tech

Julie F. Taylor (2005)
Administrative Secretary

Tasaday Turner (2015)
Associate Director of Advising - College Preparation and Transfer
A.A.S. Clark College
B.A. Washington State University
M.S. Portland State University

Laurel E. Tygart (2013)
Executive Assistant to the Vice President of Instruction
B.A. Western Oregon University

Sara Uhacz (2018)
Executive Assistant to the Vice President of Administrative Services

Katlyn Viers (2019)
Associate Director of Employee Equity, Outreach and Engagement
B.S. University of Oregon

Jacquelynn Vigeon (2015)
Clinical Placement Manager
B.A., M.A. The University of New Mexico

Michele Volk (2015)
Director of Services for Children and Families
A.A.S. Portland Community College
B.S. Warner Pacific

Alyssa Voyles (2019)
Associate Director of Employee Equity, Outreach and Engagement
B.S. University of Oregon
M.Ed. Oregon State University

Brenda Walstead (2015)
Dean of Business and Health Sciences
A.A. Clark College
B.S. Concordia University
M.S. Portland State University
Ed.D. Walden University

Construction Project Manager
B.A. New College
Vanessa Watkins (2015)  
Associate Director of Entry Services  
B.S. Oregon State University  
M.S. Portland State University

Francois Wevers (2016)  
Director of Economic Partnerships and Customized Learning  
B.S. Pacific Lutheran University

Brenda Wierschin (2016)  
Disability Support Services Accommodation Specialist  
B.S. University of California  
M.S.W. Portland State University

Jim Wilkins-Luton (2015)  
Dean of Basic Education, English, Communication and Humanities  
B.A Whitworth University  
M.A. Gonzaga University

Rashida Willard (2015)  
Operations Manager, Administrative Services  
A.A., B.A Warner Pacific College  
M.B.A. Concordia University

Melissa Williams (2015)  
Director of Student Equity and Inclusion  
A.A. Clark College  
B.A. University of Washington  
M.A. Washington State University

Peter G. Williams (2011)  
Dean of Science, Technology, Engineering and Mathematics  
B.A. University of Vermont  
M.S. Washington State University  
Ph.D. Oregon State University

Carley Willis (2018)  
Educational Planner  
B.S.W. George Fox University  
M.S.E. Capella University

Patrick Willis (2014)  
Career Advisor  
B.A., M.Div. George Fox University

X

Y

Z
FACULTY

A

Lisa Aepfelbacher (2011)
Nursing B.S.N. Boston University
M.S. Case Western Reserve University

Jacqueline F. Allen-Bond (2000)
English as a Second Language
B.A. University of Victoria, Canada
M.A. School for International Training, Brattleboro

Glenna Afflerbaugh (2015)
Dental Hygiene
A.A.S. Clark College
B.S. Eastern Washington University
M.Ed. Concordia University

Roberto P. Anitori (2013)
Biology
B.S., Ph.D. University of New South Wales

Michael D. Arnold (1989)
Exercise Science, Physical Education
A.S. North Country Community College
B.S.E. Northwest Missouri State University
M.S. Northeast Missouri State University
Certified Strength and Conditioning Specialist

Patricia Atkinson (2015)
Economics
B.A. Marist
M.S. Portland State University

Julie A. Austad (2013)
Librarian
B.A. Linfield College
M.L.S. Emporia State University

B

Karl L. Bailey (2006)
Chemistry
B.S. California Polytechnic State University
Ph.D. University of California, Davis

Radmila Ballada (2008)
Technical Services and Systems Librarian
B.A. University of Vermont
M.A., M.L.S. Southern Connecticut State University

Kristine T. Barker (1993)
Mathematics
B.A. Willamette University
M.A. University of Oregon

Kayoko Y. Barnhill (1994)
Mathematics
B.A.S. University of California, Davis
M.A. California State University, Sacramento

Research

B.S., M.S. Washington State University

Rheannin Becke (2016)TT
Transitional Studies
M.S. Marquette University
M.A University of Alaska Southeast

Carol L. Beima (1999)
Adult Basic Education
B.A. Wittenberg University
M.Ed University of Washington

Linda Benak (2019)TT
Nursing
A.A.N. Community College of Denver
M.S.N. Gonzaga University

Gene Biby (2011)
B.S., M.S. Murray State University
Ph.D. Southern Illinois University

Aaron S. Bingham (1994)
Mathematics
B.A. University of California, Los Angeles
M.A. California State University, Sacramento

Mark E. Bolke (2000)
Biology
B.S., M.S. Portland State University

Christopher Boucher (2017) TT
Welding
WAC/RCW Certification

Amy Bratton (2017) TT
Communication Studies
B.A. University of Memphis
M.S. Portland State University

Veronica P. Brock (1995)
Health and Physical Education
B.S. Eastern Washington University
M.S. East Stroudsburg University

Laurie H. Brown (2002)
Nursing
A.S. Golden West College
A.S. Cypress College
B.S.N. California State University, Fullerton
M.P.A. Portland State University
M.S.N. Washington State University

Paul A. Casillas (1990)
Mathematics B.A. Augustana College, Illinois
M.A. University of Iowa
M.S. University of Oregon

Amy Castellano (2016)
Phlebotomy
B.S. University of Arizona
N.D. National College of Natural Medicine

Faculty

Sociology
B.A., M.A., M.C.R.P., Ph.D. University of Oregon

Joseph Cavalli (2018)
History
B.A. Portland State University
M.A. University of Portland

Michael V. Ceriello (2007)
Political Science
B.A. University of California, Santa Barbara
M.A. Western Washington University

Anthony J. Chennault (2008)
Biology
B.A. University of Puget Sound
M.S. Portland State University

Lindsay Christopher (2014)
English
B.A. Mercyhurst University
M.A. University of Buffalo
Ph.D. University of Denver

Steven Clark (2011)
Biology
B.A. Linfield College
M.A. Lewis and Clark College
M.S. Portland State University

Valerie S. Cline (2011)
Nursing
A.D.N. Clark College
B.S.N. Washington State University, Vancouver
M.S.N. Walden University

Cara Cocchiarella (2016)
Health and Physical Education
B.A., M.S., Ed.D. University of Montana

Adam Coleman (2011)
Computer Technology
A.A.S. Clark College
B.S. Eastern Washington University

Shayna Collins (2012)
Counseling/Human Development
B.A., M.S. Minnesota State University, Mankato

Art
B.F.A. University of Michigan
M.F.A. Louisiana State University

Kathryn ‘Kate’ Cook (2014)
Mathematics
B.A. Principia College
M.S. California State University

Amanda Crochet (2011)
Chemistry
B.S. Tulane University
Ph.D. University of California, Berkeley

Catherine Crosby (2016)

Biology
B.S. Western Washington University
M.S., Ph.D. Washington State University

William T. Cushwa (1995)
Biology
B.S. Virginia Polytechnic Institute and State University
M.S., Ph.D. University of California, Davis

D

English
B.A. Oregon State University
M.A. Portland State University

Kushlani de Soyza (2013)
Women’s Studies
B.S. Northwestern University
M.Ed. University of Cincinnati
M.A. Portland State University
M.F.A. Oregon State University

Marylynne Diggs (1998)
English
B.A. University of Alabama
M.A., Ph.D. University of Oregon

Roxanne L. Dimyan (1997)
Librarian
B.A., M.L.S. University of Washington

Alison Dolder (2017)
Baking
A.A. Clark College

Elizabeth Donley (2011)
English
B.A. DePaul University
M.A., M.F.A. Chapman University

E

Allen ‘Mark’ Eddinger (2018)
Mathematics
B.S. DeVry Institute of Technology
M.S. Western Washington University

Mark L. Elliott (1994)
Mathematics
B.S., M.S. Portland State University

Rebecca Engel (2017)
American Sign Language
B.S. Oregon State University
M.Ed. Western Oregon University

Mary E. Evens (2000)
Business Technology
B.A. Central Washington University
M.A. Pepperdine University

Amy Ewing-Johnson (2018)
Dental Hygiene
A.S., B.S., M.S.E. Indiana University
Melissa Favara (2018) TT
English
B.A. Western Michigan University
M.A. The Pennsylvania State University

Nadine L. Fattaleh-Diggs (2002)
Chemistry-General
B.A. Scripps College
M.S. Carnegie Mellon University

Caron Ford (2015)
Adult Basic Education
A.S. Bakersfield College
B.A. San Francisco State University
M.A California State University

Nicholas C. Forrest (1996)
Political Science
B.A. St. Joseph's College
M.A., Ph.D. Northwestern University

Van A. Forsyth (1995)
History
B.A. University of California, Berkeley
M.A. San Francisco State University

Tyler Frank (2019) TT
Transitional Studies

Robert 'Earl' Frederick (2017) TT
Culinary
A.S. Johnson & Wales University
B.S. Warner Pacific College

Jacob Funk (2016)
Music
B.S. John Brown University
M.S. University of British Columbia
D.M.A. University of Missouri - Kansas City

Sara L. Gallow (1999)
English as a Second Language
B.A. Michigan State University
M.A. Ball State University

Randall S. Givens (1988)
Nursing
B.S. Walla Walla College
M.S. University of Portland
M.S.N. University of Portland

Michael A. Godson (1995)
Automotive Technology
A.A.S. Clark College
A.S.E. Master Automotive Technician

Deena M. Godwin (2008)
Communication Studies
B.A. Dana College
M.S. South Dakota State University

Donald M. Gonser (1994)
Diesel
A.S. Oregon Institute of Technology
A.S.E. Master Medium/Heavy Truck Technician

John P. Govemale (1993)
Psychology
A.A. Skagit Valley College
B.A. Western Washington University
M.S. Portland State University

Aaron Guerra (2017) TT
Culinary
A.O.S. Le Cordon Bleu Culinary College

Zachary M. Grant (2006)
Librarian
B.A. Oregon State University
M.L.S. Emporia State University

Garrett C. Gregor (2002)
Mathematics
B.S. University of Utah
M.S. Humboldt State University

Physics
B.S. (Physics) University of Utah
B.S. (Chemistry) University of Utah
B.S. (Mathematics) University of Utah
M.S. California Institute of Technology
Ph.D. University of Wisconsin, Madison

Marilyn Hale (2010)
Business Technology
B.S. University of Montana-Western
M.Ed. Montana State University

Kathrena L. Halsinger (2001)
Art/Graphic Design
B.A. Western Washington University

Adnan A. Hamideh (2002)
Business Administration
B.A., B.S., Ed.D. Portland State University
M.B.A. California State University

Tonia L. Haney (2010)
Automotive
B.S. Southern Illinois University

Douglas Harris (2018) TT
Music
B.A. University of Florida
M.M., D.A. University of Northern Colorado

Melanie Hendry (2019) TT
Baking

Rebecca Herman (2015)
Dental Hygiene
A.S. Clark College
Grant N. Hottle (2013)
Art
B.F.A. University of Oklahoma
M.F.A. University of Oregon

Christina Howard (2018) TT
Biology/Anatomy & Physiology
B.S., M.S. Portland State University

Garrett L. Hoyt (2013)
Health and Physical Education
B.S., PhD. Brigham Young University
M.S. Colorado State University

Dwight W. Hughes (2003)
Network Technology
B.S. Northern Arizona University
M.A. University of Phoenix
Certifications in A+, Network+, MCP, CCAI, CCNA

Robert L. Hughes (1998)
Computer Technology
A.S. Clark College
B.A. The Evergreen State College

Carol C. Hsu (2010)
Engineering
B.S., M.S. The University of Texas, Austin

Hannah Jackson (2016)
Mathematics
B.S. Willamette University
M.S. Syracuse University

Debra R. Jenkins (2000)
Early Childhood Education/Psychology
A.A.S Clark College
B.A., M.A. Pacific Oaks College
M.S. University of Phoenix

Andrew B. Johnson (2013)
Business and Technology
B.A. George Fox University
M.A. University of Phoenix

Catherine E. Johnston (2007)
English as a Second Language
B.A. DePaul University
M.A. University of San Francisco

Yusufu Kamara (2015)
Economics
B.S. University of Sierra Leone
M.A., Ph.D. University of Kansas

Sally J. Keely (1996)
Mathematics

B.S., M.S. Portland State University

Darcy Kennedy (2019) TT
Chemistry
M.S. University of Washington

Izad Khormaei (2003)
Engineering
B.S., M.S. Iowa State University
M.B.A. University of Oregon

Travis T. Kibota (1994)
Biology
B.S. University of California, Los Angeles
M.S., Ph.D. University of Oregon

Raymond T. Korpi (2000)
English
B.S., M.A. University of Nebraska
Ph.D. Washington State University

David L. Kosloski (1998)
Communication Studies
Speech B.A. Georgia State University, Atlanta
M.A. Central Michigan University

Sarah Kuzera (2017) TT
Business Technology
A.S., B.S., Everest College
M.B.A., Bryan University
Ed.D. Capella University

Christopher R. Lewis (1999)
Electronics
A.A.S., B.A.S. ITT Technical Institute
M.B.A. City University of Seattle

Xiunu 'Sophie' Lin (2016)
Physics
B.S. Xiamen University
Ph.D. University of Washington

Kenneth S. Luchini (2013)
Mechatronics
A.S. Diablo Valley College
B.S. California State University, Chico

Diane Lucia (2019) TT
Nursing
B.S.N. University of Portland
M.S.N. Western Governors University

Donald Ludwig (2015)
Sociology
A.A Spokane Community College
B.A. Whitworth College
M.S. Princeton Theological Seminary
M.S. Rutgers University
Ph.D. International University of Graduate Studies

Michael Ludwig (2014)
Dental Hygiene
A.A.S. Clark College
Nicholas Luisi (2019)
Nursing
A.A.S. Raritan Valley Community College
M.S.N. Capella University

Luanne M. Lundberg (1997)
Adult Basic Education
B.A. Western Washington University
B.A., M.Ed. Western Washington University

Sarah M. Luther (2013)
Mathematics
B.A., M.A. Lewis and Clark College
M.S. Texas A&M University

Meredith Lynch (2016)
Transitional Studies
B.A., M.A. University of Washington

Olga Lyubar (2019)
Health Information Management
B.S. University of Washington

Nicholas Macias (2017)
Computer Science and Engineering
B.S., M.S. George Washington University
M.A. Duke University
Ph.D. Virginia Polytechnic University

Michelle D. Mallory (2008)
Family Life/Early Childhood Education
B.S. Western Oregon State College
M.S. Portland State University

Angie Marks (2009)
Nursing
B.S.N., M.N. Washington State University

Helen Martin (2007)
Business Technology
Doctorandus, Leiden University
M.B.A. Georgia State University

Rebecca L. Martin (2000)
Biology
B.A. Vassar College
M.A. Antioch University
M.S. Washington State University

Mika Maruyama (2013)
Psychology
B.A. Utah State University
M.S., Ph.D. Portland State University

Kanchan Mathur (2005)
Mathematics
B.A. Delhi University
M.S., Ph.D. Indian Institute of Technology

Samuel May-Varas (2016)

Transitionals Studies
B.A. University of South Florida
M.A.T. City University of Seattle
Ed.D. Lewis & Clark College

Heather J. McAfee (2013)
Geography
B.A. University of Colorado, Colorado Springs
M.A. University of Oregon

Brian McVay (2014)
Welding
Journeyman Ironworker Certification

Natalie R. Miles (2013)
Adult Basic Education
B.S., M.S. Valley City University

Christopher E. Milner (2007)
Mathematics
B.S. University of Puget Sound
M.S. Oregon State University

Mathematics
B.Sc., M.Sc. University College Dublin

April E. Mixon (2005)
Chemistry
B.S. Shippensburg University
M.S. Oregon State University

Mathematics
B.S. University of Santa Clara
B.S. California State University, Chico
M.S. Portland State University

Laura Nagel (2015)
Reference and Instruction Librarian
B.A. Pacific Lutheran University
M.A. University of Wisconsin

Erika L. Nava (2008)
Spanish
B.A. Oregon State University
M.A. University of Oregon

Tracy J. Nehnevaj (1992)
Mathematics
B.A., M.S. Eastern Washington University

Alexis Nelson (2014)
English
B.A. University of California
M.A. Portland State University

German
B.A., M.A San Francisco State University
Ph.D. University of California, Davis

English as a Second Language
B.A. Dartmouth College
Ed.M. Oregon State University
TESL Seattle University School of TESL

Michiyo Okuhara (2010)
Japanese
A.A. Seisen Women’s Junior College
A.A. Clackamas Community College
B.S., M.E. Portland State University

Kathleen M. Perillo (1999)
Biology
B.A. University of Delaware
M.S. University of New Haven

Tobias Peterson (2014)
English
B.A. Texas State University
M.A. George Mason University

Mary Ellen Pierce (2014)
Nursing
B.S.N. University of Alaska
M.S.N. University of Phoenix

Valentina Pischchanskaya-Cayan (2019)
Counseling/Human Development
B.A., M.S. University of Nevada Las Vegas

English
B.A. Utah State University
M.A. New Mexico State University
M.S. Washington State University

Kristl Plinz (1999)
Computer Graphics Technology
B.S. California Polytechnic State University
M.S. Rochester Institute of Technology

Donivee Randall-Jones (2017)
Nursing
BSN York College of Pennsylvania
MSN Walden University

Heidi M. Rich (1997)
English
B.A. Lewis and Clark College
M.A. University of Iowa
Ph.D. University of Washington

Leslie J. Rivera (1997)
English as a Second Language
B.A. University of Portland
M.A. San Francisco State University

Gail R. Robinson (1993)
English
B.A. Miami University, Ohio

Marcia R. Roi (2000)
Chemical Dependency
B.S., M.S. Oklahoma State University
Ph.D. Oregon State University

Michele Roth (2016)
English as a Second Language
B.A. Reed College
M.A.T. University of Washington

Beyvn Rowland (2011)
Counseling/Human Development
B.A. University of Portland
M.A., PsyD. Pacific University

S. Layne Russell (2006)
Paralegal
B.A. University of Memphis
J.D. College of William and Mary, Marshall Wythe School of Law

Katherine D. Sadler (2005)
History
B.A. Portland State University
M.A., Ph.D. University of California, Los Angeles

Mitzi Schrag (1997)
English
A.A. Clark College
B.A. Reed College
M.A., Ph.D. University of Washington

Patricia A. Serrano (1981)
Business
B.A. Portland State University
M.B.A. University of Portland

Patricio Sevier (2010)
Machining

Richa Sharma (2019)
Communications
M.B.A. Lal Bahadur Shastri Institute of Management
M.S. Portland State University

Nicoleta Sharp (2008)
Physics
B.S., M.S. Universitatea Alexandru Ioan Cuza

Kristin Sherwood (2018)
College 101
B.A. Lewis & Clark College
M.P.A. Portland State University

Dawn M.U. Shults (2009)
Pharmacy
C.Ph.T. Clark College

Beth Slovic (2018)
Journalism
B.A. Amherst College
M.S. Columbia University
Christina Smith (2018)T-T
English
B.A. McDaniel College
M.A. University of Utah

Gerard M. Smith (1991)
English
B.S. Bowling Green State University
M.A. University of Toledo
Ph.D. Bowling Green State University

Suzanne Southerland (2011)
Communication Studies
B.S. University of Portland
M.S. Portland State University

Erin Staples (2011)
Health & Physical Education
B.S. University of North Texas
M.P.H. Portland State University

Senseeny L. Stokes (2007)
Art/Photography
B.F.A. Rhode Island School of Design
M.F.A. University of New Mexico

Michelle Stoklosa (2016)
Geology
B.A. Franklin & Marshall College
M.S., Ph.D. University of Wisconsin - Madison

Kimberly A. Sullivan (1992)
English
B.A. Belhaven College
M.A. Mississippi State University

Scott Swenson (2018)T-T
Business
B.B.A. Southern Methodist University
M.B.A. The University of Texas

Kristina Taylor (2010)
Dental Hygiene
A.A.S. Clark College
B.S. Eastern Washington University
M.S. Portland State University

Sarah J. Theberge (2000)
Early Childhood Education/Family Studies
A.A.S. Clark College
B.A., M.A. Pacific Oaks College

Nancy J. Thompson (2007)
English
B.A. Portland State University
M.A. University at Albany
M.F.A. Goddard College

Sally A. Tomlinson (2007)
Art History
B.A. University of California, Berkeley
M.A. University of Victoria, Canada

Ph.D. University of North Carolina

Elizabeth R. Torgerson (2010)
Nursing
A.A. Clackamas Community College
B.S.N. OHSU School of Nursing
M.S.N. Washington State University, Vancouver

Ruth Trejo (2011)
Chemistry
B.S., M.S. University of California, San Diego

Elizabeth C. Ubiergo (2008)
Spanish
B.A., M.A. University of Oregon

Dian R. Ulner (2001)
Women's Studies
B.A. Northern Illinois University
M.S. Minnesota State University

Michelle Waltz (2018)T-T
Mathematics
B.S. George Fox University
M.S., Ph.D. Texas Tech University

Robert Weston (2015)
Mathematics
B.S. Oregon State University
M.S. The City College of New York

Lora Whitfield (2014)
Early Childhood Education
A.A.S. Clark College
B.A., M.A. Pacific Oaks College

Alan Wiest (2012)
Health & Physical Education
A.S. Lane Community College
B.S., M.S. University of Oregon

Christine J. Wilkins (2002)
Business Technology
B.A. Oregon State University
M.S. Troy State University

Tess Yevka (2015)
Psychology
B.S. Marylhurst University
M.S. Portland State University
Tenure Track is indicated by $T^T$.
FOUNDATION

A

Hal Abrams, J.D., LL.M (2017)
Vice President of Development
LL.M. Golden State University
J.D. University of San Francisco
B.S. University of California, Los Angeles

B

Taylor Bowen (2017)
Associate Director of Annual Fund & Sponsorships
B.S. University of Oregon

C

Kathy Chennault (2017)
Development Director, Corporate and Foundation Relations
A.A. Riverside Community College
B. A. California State University, San Bernadino

D

E

F

G

Lisa Gibert, CPA, CFRE (1998)
CEO
B.S. University of Oregon
M.B.A. University of California, Irvine

Dion Gutkind (2017)
Gift Entry and Records Manager
A.A., Bryant & Stratton College

H

Karen Hagen, bCRE-Pro (1994)
Accounting and IT Manager
CP Clark College

Miranda Harrington (2015)
Associate Director of Partner Management & Research
B.A. University of Arkansas

Kelsey Hukill (2014)
Director of Alumni Relations
B.S. The Ohio State University

I

J

K

L

Terri Lunde (2010)
Executive Assistant to the President/Board
A.A. Clark College

M

Vivian Cheadle Manning, CFRE (2010)
Director of Development
B.A. Southern Methodist University
C.F.M. IUPUI/School of Philanthropy

Rhonda Morin, M.L.S., EMT (2012)
Executive Director of Communications & Marketing
B.S. University of Maine
M.L.S. Eastern Michigan University
EMT Maine Community College

Joel B. Munson (2016)
Chief Advancement Officer
M.A. Barry University
B.A. Brigham Young University, Provo

N

O

P

Dan Palow (2018)
Director of Data Management & Analytics

Chris Plamondon (2000)
Controller
B.A. Washington State University

Sam Pollach (2011)
Senior Director for Advancement Services
B.A. Lewis & Clark College

Q

R

Daniel Rogers, CPA (2010)
Chief Financial Officer
B.A. Washington State University
A.A. Brigham Young University, Idaho

S

Shirley Schwartz (1999)
Director of Scholarships
A.A., B.A. West Coast Christian College
M.A. Multnomah University

Erica Schwenneker, MA(2017)
Director of Special Events & Donor Relations
B.A., Concordia College
M.A., University of Oklahoma

Abigail Soto (2016)
Gift Entry & Records Manager
B.A. Portland State University
M.A. Portland State University
Amanda Witt (2018)
Development & Special Events Assistant
Cert., Trend College
DIRECTORIES AND ACADEMIC CALENDAR

- Phone Directory (p. 362)
- Academic Calendar (p. 363)
PHONE DIRECTORY

Alphabetical Quick Dial Phone List: http://www.clark.edu/directories/quick-dial/index.php

Employee Directory Phone List: https://www.clark.edu/employee-directory/phone-list/

ASCC Officers Phone List: http://www.clark.edu/directories/quick-dial/ascc.php

Clark College at Columbia Tech Center (CTC) Phone List: http://www.clark.edu/directories/quick-dial/ctc.php

Fax Numbers Phone List: http://www.clark.edu/directories/quick-dial/fax.php

Clark College at Washington State University Vancouver (WSUV) Phone List: http://www.clark.edu/directories/quick-dial/wsuv.php
## ACADEMIC CALENDAR

### 2019 Summer Term

<table>
<thead>
<tr>
<th>Event</th>
<th>Date (Day of the Week)</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 4th Holiday</td>
<td>July 4 (Th)</td>
</tr>
<tr>
<td>Classes Begin</td>
<td>July 8 (M)</td>
</tr>
<tr>
<td>End of 1st 4-week session</td>
<td>August 2 (F)</td>
</tr>
<tr>
<td>2nd 4-week session begins</td>
<td>August 5 (M)</td>
</tr>
<tr>
<td>Last day of 2nd 4-week session</td>
<td>August 30 (F)</td>
</tr>
<tr>
<td>Last day of 8-week session</td>
<td>August 30 (F)</td>
</tr>
</tbody>
</table>

### 2019 Fall Term

<table>
<thead>
<tr>
<th>Event</th>
<th>Date (Day of the Week)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor Day Holiday</td>
<td>September 2 (M)</td>
</tr>
<tr>
<td>Classes Begin</td>
<td>September 23 (M)</td>
</tr>
<tr>
<td>Faculty Workday (no classes)</td>
<td>October 11 (F)</td>
</tr>
<tr>
<td>Veteran's Holiday</td>
<td>November 11 (M)</td>
</tr>
<tr>
<td>Faculty Workday (no classes)</td>
<td>November 27 (W)</td>
</tr>
<tr>
<td>Thanksgiving Holiday</td>
<td>November 28 (Th)</td>
</tr>
<tr>
<td>Native American Heritage Day</td>
<td>November 29 (F)</td>
</tr>
<tr>
<td>Last Day of Classes</td>
<td>December 6 (F)</td>
</tr>
<tr>
<td>Final Exams</td>
<td>December 9-12 (M-T-W-Th)</td>
</tr>
<tr>
<td>Faculty Workday</td>
<td>December 13 (F) and December 16 (M)</td>
</tr>
<tr>
<td>Christmas Holiday</td>
<td>December 25 (W)</td>
</tr>
</tbody>
</table>

### 2020 Winter Term

<table>
<thead>
<tr>
<th>Event</th>
<th>Date (Day of the Week)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Year's Day</td>
<td>January 1 (W)</td>
</tr>
<tr>
<td>Classes Begin</td>
<td>January 6 (M)</td>
</tr>
<tr>
<td>Martin Luther King Holiday</td>
<td>January 20 (M)</td>
</tr>
<tr>
<td>Presidents' Day Holiday</td>
<td>February 17 (M)</td>
</tr>
<tr>
<td>Last Day of Classes</td>
<td>March 13 (F)</td>
</tr>
<tr>
<td>Final Exams</td>
<td>March 16-19 (M-T-W-Th)</td>
</tr>
<tr>
<td>Faculty Workdays</td>
<td>March 20 (F) and March 23 (M)</td>
</tr>
</tbody>
</table>

### 2020 Spring Term

<table>
<thead>
<tr>
<th>Event</th>
<th>Date (Day of the Week)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes Begin</td>
<td>April 6 (M)</td>
</tr>
<tr>
<td>Memorial Day Holiday</td>
<td>May 25 (M)</td>
</tr>
<tr>
<td>Last Day of Classes</td>
<td>June 12 (F)</td>
</tr>
<tr>
<td>Final Exams</td>
<td>June 15-18 (M-T-W-Th)</td>
</tr>
<tr>
<td>Graduation</td>
<td>June 18 (Th)</td>
</tr>
<tr>
<td>Faculty Workday</td>
<td>June 19 (F) and June 22 (M)</td>
</tr>
</tbody>
</table>
CORRECTIONS

- Catalog Corrections (p. 365)
- Course Corrections (p. 366)
- Degrees and Certificate Corrections (p. 367)
CATALOG CORRECTIONS
COURSE CORRECTIONS

Course Substitutions
BTEC 100 can be replaced with BTEC 101
CTEC 132 has replaced NTEC 132
DEGREES AND CERTIFICATE
CORRECTIONS

Computer Support AAT
https://catalog.clark.edu/academic-plans/computer-technology/computer-support-specialist-aat/

• CTEC 132 has replaced NTEC 132
CATALOG ARCHIVES

- 2017 - 2018 Catalog (http://www.clark.edu/academics/catalog/2017/)
- 2016 – 2017 Catalog (http://www.clark.edu/academics/catalog/2016/)
  - 2016 – 2017 Corrections (http://www.clark.edu/academics/catalog/2016/catalog-corrections/)
- 2015 – 2016 Catalog (http://www.clark.edu/academics/catalog/2015/)
- 2014 – 2015 Catalog (http://www.clark.edu/academics/catalog/2014/)
- 2013 – 2014 Catalog (http://www.clark.edu/academics/catalog/2013/)
- 2012 – 2013 Catalog (http://www.clark.edu/academics/catalog/2012/)
- 2011 - 2012 Catalog (http://www.clark.edu/academics/catalog/2011/)
### INDEX

#### A
- Academic Calendar ........................................... 363
- Academic Plans ............................................. 7
- Academic Standards Policy ................................ 276
- Accounting ...................................................... 8
- Accounting (AAS) ............................................. 8
- Accounting (ACCT) ........................................... 122
- Accounting Clerk (CP) ....................................... 8
- Accreditation ................................................. 333
- Addiction Counselor Education ......................... 10
- Addiction Counselor Education (AA) .................. 11
- Addiction Counselor Education (AAS) ................. 11
- Addiction Counselor Education (ACED) ............... 123
- Addiction Counselor Education (CP) .................. 10
- Administration ............................................... 347
- Advising ......................................................... 278
- American Sign Language (AO) ............................ 119
- American Sign Language (ASL) .......................... 125
- Anthropology (ANTH) ....................................... 126
- Art ................................................................. 13
- Art (ART) ......................................................... 127
- Associate in Arts - Direct Transfer (AA) .............. 19
- Associate in Arts (AA) - General Transfer ............ 19
- Associate in Music DTA/MRP (AA) ....................... 94
- Associate in Science - General (AST2) ................. 24
- Associate in Science - Track 1 (AST1) .................. 22
- Associate in Science - Track 2 (AST2) .................. 24
- Associate in Science Transfer - General (AST1) .... 22
- Astronomy (ASTR) .......................................... 132
- Automotive Technology .................................... 27
- Automotive Technology (AUTO) ......................... 133

#### B
- Bachelor of Applied Science in Applied Management (BAS) .......... 40
- Bachelor of Applied Science in Human Services (BAS) .............. 76
- Bachelor of Applied Sciences ................................ 325
- Baking and Pastry Arts Fundamentals (CA) .................. 51
- BAS Applied Management (BASAM) .......................... 137
- BAS Human Services (BASHS) ................................ 139
- Behavioral Intervention and Threat Assessment (BITA) ............ 337
- Bioengineering and Chemical Engineering .................. 30
- Bioengineering and Chemical Engineering (AST2) ............... 30
- Biological Sciences ......................................... 32
- Biological Sciences (AST1) ................................. 32
- Biology (BIOL) ............................................... 140
- Biology DTA/MRP (AA) ....................................... 33
- Board of Trustees ............................................. 345
- Business Administration .................................... 36
- Business Administration (AAS) ............................. 36
- Business Administration (BUS) ............................. 143
- Business DTA/MRP (AA) ..................................... 37
- Business Technology (BTEC) ................................ 145
- Business Technology Medical Office (BMED) .................. 148
- Business/Applied Management ............................. 40
- Business/Supervisory Management ......................... 42

#### C
- Career and Technical Degrees and Certificates Distribution List ...... 321
- Career Services ............................................... 279
- Catalog Archives ............................................ 368
- Catalog Corrections .......................................... 365
- Chemistry ....................................................... 44
- Chemistry (AST1) ............................................. 44
- Chemistry (CHEM) .......................................... 152
- Cisco Technician (CA) ....................................... 96
- Cisco Technologies (AAT) .................................. 96
- College and Academic Preparation (CAP) ..................... 155
- College Assessment ........................................... 334
- College Information .......................................... 331
- College Life ..................................................... 280
- College Preparation (COLL) ................................. 159
- Communication Studies (CMST) ............................. 160
- Computer Aided Design and Drafting Technology (CADD) ....... 161
- Computer Science ............................................ 46
- Computer Science & Engineering (CSE) ..................... 164
- Computer Science (AST2) .................................... 46
- Computer Support (AAT) .................................... 49
- Computer Technology ........................................ 48
- Computer Technology (CTEC) ................................ 165
- Consumer Information ....................................... 342
- Corrections ....................................................... 364
- Course Corrections ........................................... 366
- Course Descriptions .......................................... 120
- Credential Evaluations Office ............................... 286
Credit Hours and Credit Load .................................................. 329
Cuisine (CUIS) ................................................................. 169
Cuisine Fundamentals (CA) ................................................ 52
Cuisine Management (AAT) .................................................. 52
Culinary Arts ........................................................................... 51

D
Degree & Certificate Requirements ............................................ 308
Degrees and Certificate Corrections .......................................... 367
Dental Hygiene ......................................................................... 54
Dental Hygiene (BAS) .............................................................. 54
Dental Hygiene (DH) ............................................................... 171
Diesel Technician (CP) ........................................................... 56
Diesel Technologies (AAS) ...................................................... 56
Diesel Technologies (AAT) ...................................................... 57
Diesel Technology .................................................................... 56
Diesel Technology (DIES) ....................................................... 174
Digital Media Arts .................................................................... 59
Digital Media Arts (AAT) ........................................................ 59
Digital Media Arts (DMA) ........................................................ 176
Directories and Academic Calendar .......................................... 361
Drama (DRMA) ......................................................................... 177

E
Early Childhood Education ...................................................... 60
Early Childhood Education (AAS) ............................................ 62
Early Childhood Education (AAS-T) ........................................ 63
Early Childhood Education (ECE) ............................................ 178
Early Childhood Education (ECED) ......................................... 180
Economics (ECON) ................................................................... 181
Education ................................................................................. 65
Education (EDUC) ..................................................................... 182
eLearning .................................................................................. 293
Electrical and Computer Engineering ....................................... 67
Electrical and Computer Engineering (AST2) .......................... 67
Elementary Education - Transfer to WSU Vancouver (AA) ....... 65
Emergency Medical Services .................................................. 69
Emergency Medical Technician (Accelerated) (CC) ................. 69
Emergency Medical Technician (EMT) ..................................... 183
Engineering .............................................................................. 70
Engineering (AST2) ................................................................... 70
Engineering (ENGR) ............................................................... 184
English as a Second Language (ESL) ...................................... 192
English (ENGL) ........................................................................ 187
Enrollment, Aid and College Life .............................................. 275
Enrollment Services ............................................................... 289
Environmental Science .......................................................... 72
Environmental Science (AST1) ............................................... 72
Environmental Science (ENVS) .............................................. 194
Equity in Athletics ................................................................... 341
Executive Cabinet .................................................................... 346

F
Faculty ....................................................................................... 351
Faculty and Administration ..................................................... 344
Financial Aid ............................................................................. 294
Flux Core Arc Welding (CA) .................................................. 113
Foundation .............................................................................. 359

G
Gas Metal Arc Welding (CA) ................................................... 113
Gas Tungsten Arc Welding (CA) .............................................. 114
General - Mathematics (Suggested) (AA) ............................... 83
General Information ............................................................... 309
Geography (GEOG) ............................................................... 195
Geology .................................................................................... 74
Geology (AST1) ......................................................................... 74
Geology (GEOL) ........................................................................ 197
Graduation Rates ..................................................................... 340
Graphic Design (AFA) ............................................................. 13
Graphic Design Concentration AA ........................................... 14

H
Health & Physical Education (HPE) ......................................... 198
Health (HLTH) .......................................................................... 199
Health Informatics (HI) ........................................................... 201
Health Occupations (HEOC) ................................................... 202
History ...................................................................................... 332
History (HIST) ........................................................................... 203
HITECC Automotive Technology (AAT) ............................... 29
HITECC Automotive Technology (CP) .................................. 28
Home ......................................................................................... 5
Honors Concentration (AC) .................................................... 75
Honors (HONS) ......................................................................... 205
Honors Program ......................................................................... 75
Human Development (HDEV) ............................................... 206
Human Services ....................................................................... 76
Human Services Substance Abuse (HSSA) ............................. 208
Network Technology ................................................. 96
Network Technology (NTEC) ..................................... 237
News Media Studies (AC) ........................................ 78
Non-Traditional Credit ............................................. 328
Nondiscrimination and Equity ................................... 336
Notification of Students’ Rights Under the Family Educational Rights and
Privacy Act .......................................................... 338
Nursing ..................................................................... 99
Nursing (AA) ............................................................ 101
Nursing (NURS) ......................................................... 241
Nutrition (NUTR) ....................................................... 244
Pharmacy Technician .................................................. 103
Pharmacy Technician (CP) .......................................... 103
Pharmacy Technician Leadership (AAT) ...................... 104
Pharmacy Technician (PHAR) ..................................... 245
Philosophy (PHIL) ..................................................... 247
Phlebotomy ............................................................... 106
Phlebotomy (CA) ....................................................... 106
Phlebotomy (PHLE) ................................................... 248
Phone Directory ....................................................... 362
Physical Education Dance (PEDNC) ......................... 254
Physical Education Exercise Science (PEEKS) .......... 256
Physical Education Martial Arts (PEMAR) ............... 257
Physical Education (PE) ............................................. 249
Physical Science (PHSC) ........................................... 258
Physics ..................................................................... 107
Physics (AST2) ......................................................... 107
Physics (PHYS) ......................................................... 259
Political Science (POLS) ............................................ 261
Power, Privilege, and Inequality ................................. 108
Power, Privilege, and Inequality (AC) ....................... 108
Pre-Nursing - DTA/MRP (AA) .................................. 99
Procedure for Requesting AP Credits ......................... 327
Professional Baking & Pastry Arts Management (AAT) ... 51
Professional Baking (PBAK) ....................................... 262
Professional Technical Computational Skills (PTCS) ...... 264
Professional Technical Writing (PTWR) ..................... 265
Psychology (PSYC) .................................................. 266
Registration ................................................................ 300
S
Shielded Metal Arc Welding (CA) ................................................. 114
Short State Certificate of Specialization-Administration (statewide) (CC) ........................................................................ 61
Short State Certificate of Specialization-Family Child Care (Statewide) (CC) .............................................................. 61
Short State Certificate of Specialization-Infants and Toddlers (Statewide) (CC) ................................................................. 61
Short State Certificate of Specialization-School Age Care (Statewide) (CC) ................................................................. 61
Short State Early Childhood Education Certificate of Specialization-General (Statewide) (CC) .................................................. 60
Small Business Management ...................................................... 109
Small Business Management (CP) ............................................ 109
Sociology (SOC) ...................................................................... 267
Spanish (SPAN) ...................................................................... 268
Special Instructional Programs and Locations .................................. 305
State Early Childhood Education Certificate (Statewide) (CP) ........ 62
State Initial Early Childhood Education Certificate (Statewide) (CC) ...... 60
Student Orientation ................................................................ 306
Student Rights and Responsibilities ........................................ 335
Student Success Programs ........................................................ 307
Studio Art (AFA) ...................................................................... 15
Studio Arts Concentration ....................................................... 17
Supervisory Management (AAS) .............................................. 42
Supervisory Management (CP) ................................................ 42
Survey & Geomatics Technician - Boundary (CP) ...................... 110
Survey & Geomatics Technician - GIS (CP) ............................ 110
Surveying & Geomatics .......................................................... 110
Surveying & Geomatics (SURV) ........................................... 269
Surveying/Geomatics (AAS) .................................................. 111

T
T-TEN Automotive (AAT) ....................................................... 27
T-TEN Automotive (CP) ....................................................... 27
Transfer Degree Distribution List ............................................. 311
Transfer Degree Overview ..................................................... 315
Tutoring (TUTR) ..................................................................... 271

W
Web Development (AAT) ..................................................... 50
Web Development (CP) ....................................................... 48
Welded Sculpture/Fabrication (CC) ........................................ 113
Welding Technician (CP) ..................................................... 114
Welding Technologies (AAT) ................................................ 116
Welding Technology ............................................................ 113
Welding (WELD) ..................................................................... 272
Women's Studies ................................................................ 118
Women's Studies (AC) ........................................................ 118
Women's Studies (WS) ........................................................ 274
World Languages ................................................................ 119