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2026-2027 CATALOG

Mission

To cultivate an inclusive, equitable, and vibrant community, Clark College educates, empowers, and elevates individuals to achieve their personal and professional goals.

Vision

Rooted in social justice, Clark College is a beacon of hope, opportunities, and transformation providing excellent and equitable education to create economic, cultural, and community growth.

Values

- Social Justice
- Partnerships
- Innovation
- Shared Governance
- Continuous Improvement
- Sustainability

Tenets

Equitable Student Experience: Clark College supports student success and retention through equitable access to quality education; pathways leading to transfer, completion, and living wage careers; and positive contributions to our community.

Employee Engagement, Empowerment, and Excellence: Clark College employees are valued, celebrated, and respected and are offered opportunities for equitable professional growth.

Community Partners Engagement: Clark College is a leader in inclusive excellence that strengthens the Southwest Washington community through interdependent partnerships, which are integral to our community's cultural, economic, and educational vitality.

Institutional Effectiveness and Equity: Clark College maintains an equitable, high-performing organizational structure and positive college climate.

Disability Access Center

Clark College and the Disability Access Center (DAC) assist students with disabilities in pursuing their educational goals. Clark College is committed to ensure its programs and services are accessible and inclusive for students with disabilities. Through DAC, students with disabilities can request accommodations to ensure equal access and discuss their concerns regarding barriers encountered. DAC will primarily focus on approving and providing, in partnership with faculty, student disability accommodations for classes. Early contact with DAC is beneficial for students with disabilities. We recommend starting our Steps as soon as you register for classes. Check out the DAC Steps for Requesting Accommodations (https://nam11.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.clark.edu%2Fdac%2Faccess_procedure.php&data=05%7C02%7CSSeyller%40clark.edu%7C642e3312e700486f126808de70085ede%7Cf00c04131d6c437c869f4b4d01ab65ed%7C0%7C0%7C639071378431250293%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWU5IlYiOiJlLjAuMDAwMCIsIlAiOiJXaW4zMtIsIkF0LjoiTWFPbCIsIldUljoyfQ)

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360-992-2314
360-991-0901 VP
www.clark.edu/dac/ (<https://www.clark.edu/dac/>)

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.
Vancouver, WA 98686

Boschma Farms

7000 Pioneer Street
Ridgefield, WA 98642

Disclaimer

The information in this catalog is effective as of summer term 2026. 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 (p. 7)
- Addiction Counselor Education (p. 9)
- Advanced Manufacturing (p. 12)
- Applied Management (BAS) (p. 14)
- Art (p. 16)
- Associate in Arts (AADTA) and Concentrations (p. 19)
- Associate in Science – Track 1 (AST1) (p. 25)
- Associate in Science – Track 2 (AST2) (p. 30)
- Automotive Technology (p. 33)
- Bioengineering and Chemical Engineering (p. 35)
- Biological Sciences (p. 37)
- Business Administration (p. 39)
- Computer Science (p. 43)
- Computer Technology (p. 46)
- Culinary Arts (p. 48)
- Cybersecurity (BAS) (p. 51)
- Dental Hygiene (BAS) (p. 52)
- Diesel Technology (p. 54)
- Digital Media Arts (p. 56)
- Early Childhood Education (p. 57)
- Electrical and Computer Engineering (p. 61)
- Emergency Medical Services (p. 64)
- Health Information Management / Medical Billing and Coding (p. 66)
- Human Services (BAS) (p. 68)
- Marketing (p. 70)
- Materials Science (p. 72)
- Math Education (p. 74)
- Mechanical, Civil & Aeronautical Engineering (p. 75)
- Mechatronics (p. 79)
- Medical Assistant (p. 81)
- Music (p. 84)
- Network Technology (p. 85)
- Nursing (p. 87)
- Pharmacy Technician (p. 90)
- Phlebotomy (p. 93)
- Surgical Technology (p. 95)
- Surveying & Geomatics (p. 97)
- Teacher Education (BAS) (p. 100)
- Web Development (p. 102)
- Welding Technology (p. 104)

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)(Plan Code: ATBACC45) (p. 7)
- Accounting (AAS)(Plan Code: ATBACAPT) (p. 7)

Accounting Clerk (CP)(Plan Code: ATBACC45)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills (minimum 3 credits/units required)</i>		
ENGL& 101	English Composition I	5
<i>Computational Skills (minimum 3 credits/units required)</i>		
BUS 102	Business Math Applications	5
<i>Human Relations (minimum 3 credits/units required)</i>		
BUS 148	Business Professional Self Development	3
Business Core Courses		
ACCT 129	Basic Accounting Procedures	5
BUS& 101	Introduction to Business	5
BUS 150	Computer Business Applications	5
ECON 101	Introduction to Economics	3
Major Area Requirements		
ACCT 136	Accounting Applications	3
BUS 130	Computerized Accounting	3
BUS 169	Introduction to Excel	3
COLL 101	College Essentials: Introduction to Clark	2
Additional electives from ACCT/BUS/ECON/MGMT to meet min. credit requirement		3
Total Credits/Units		45

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:

- Perform all steps of the accounting cycle, using both general and specialized journals.
- Accurately prepare financial statements for sole proprietorships, partnerships, and corporations.
- Accurately prepare and maintain payroll records required under federal and state laws.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Accounting (AAS)(Plan Code: ATBACAPT)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Health & Physical Education</i>		
Course Options (p. 270)		3
<i>Humanities</i>		
CMST& 220	Public Speaking	5
or CMST& 230 Small Group Communication		
<i>Natural Sciences</i>		
Course Options (p. 272)		5
<i>Computational Skills</i>		
BUS 102	Business Math Applications	5
<i>Human Relations</i>		
BUS 148	Business Professional Self Development	3
<i>Social Sciences</i>		
ECON 101	Introduction to Economics	3
Business Core		
ACCT 129	Basic Accounting Procedures	5
BUS& 101	Introduction to Business	5
BUS 150	Computer Business Applications	5
Major Area Requirements		
ACCT 136	Accounting Applications	3
ACCT& 201	Principles of Accounting I	5
ACCT& 202	Principles of Accounting II	5
ACCT& 203	Principles of Accounting III	5
BUS 130	Computerized Accounting	3
BUS 169	Introduction to Excel	3
BUS 170	Excel for Business	3
BUS 199	Cooperative Work Experience ¹	1-5
BUS& 201	Business Law	5
MATH& 146	Introduction to Stats	5
COLL 101	College Essentials: Introduction to Clark	2
Additional electives from BUS/ACCT/ECON/MGMT to meet min. credit requirement		3
Total Credits/Units		91

¹ A minimum of 5 credit/units of BUS 199 are required for the AAS.

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:

- Perform all steps of the accounting cycle, using both general and specialized journals.
- Accurately prepare, interpret, and analyze financial statements and data for sole proprietorships, partnerships, and corporations.
- Accurately prepare and maintain payroll records required under federal and state laws.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

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)(Plan Code: SAAACC45) (p. 9)
- Addiction Counselor Education (AAS)(Plan Code: SAAACAPT) (p. 9)
- Addiction Counselor Education (AA)(Plan Code: LASACAA) (p. 10)

Addiction Counselor Education (CP) (Plan Code: SAAACC45)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Human Relations</i>		
PSYC& 100	General Psychology	5
<i>Computational Skills</i>		
Course Options (p. 270)		3
Major Area Requirements		
ACED 101	Survey of Addictionology	3
ACED 125	Group Counseling In Addictions	3

ACED 132	Introduction to Counseling Family Members	3
ACED 136	Law and Ethics In Addictions Counseling	3
ACED 137	Addictions and Mental Illness	3
ACED 138	Prevention and Education In The Community	3
ACED 160	Pharmacology of Drugs of Abuse	3
ACED 164	Adolescent Addiction Assessment & Treatment	3
ACED 170	Air- and Blood-Borne Pathogens	3
ACED 201	Theories of Counseling	3
ACED 202	Multi-Cultural Addictions Counseling	3
ACED 203	Case Management In Addiction Medicine	3
ACED 204	Introduction to Addiction Counseling Skills	3
ACED 205	Advanced Techniques for Addiction Counsel	3
PSYC& 200	Lifespan Psychology	5
Total Credits/Units		60

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:

- 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Addiction Counselor Education (AAS) (Plan Code: SAAACAPT)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
ENGL& 102	English Composition II	5
<i>Health & Physical Education</i>		

Course Options (p. 270)	3
<i>Computational Skills</i>	
MATH 92 Applied Elementary Algebra (or any higher level Math course) ¹	5
<i>Human Relations</i>	
PSYC& 100 General Psychology ²	5
<i>Humanities</i>	
Course Options (p. 271)	3
<i>Social Sciences</i>	
PSYC& 200 Lifespan Psychology	5
<i>Natural Sciences</i>	
Course Options (p. 272)	3
Major Area Requirements	
ACED 101 Survey of Addictionology	3
ACED 125 Group Counseling In Addictions	3
ACED 132 Introduction to Counseling Family Members	3
ACED 136 Law and Ethics In Addictions Counseling	3
ACED 137 Addictions and Mental Illness	3
ACED 138 Prevention and Education In The Community	3
ACED 160 Pharmacology of Drugs of Abuse	3
ACED 164 Adolescent Addiction Assessment & Treatment	3
ACED 170 Air- and Blood-Borne Pathogens	3
ACED 201 Theories of Counseling	3
ACED 202 Multi-Cultural Addictions Counseling	3
ACED 203 Case Management In Addiction Medicine	3
ACED 204 Introduction to Addiction Counseling Skills	3
ACED 205 Advanced Techniques for Addiction Counsel	3
ACED 210 Field Placement I & ACED 211 and Field Placement II ³	12
General Electives	
Complete as many courses as necessary to reach 90 credits/units	0-2
Total Credits/Units	90

¹ For those students interested in transferring, MATH& 146 is recommended. Please consult your advisor for guidance.

² May count for both Human Relations and Social Science distribution.

³ Can take these courses as two consecutive quarters of 6 (six) credits/units courses or four consecutive quarters of 3 (three) credit 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:

- 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Addiction Counselor Education (AA) (Plan Code: LASACAA)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
ENGL& 102	English Composition II	5
<i>Oral Communication</i>		
CMST& 210	Interpersonal Communication	5
or CMST& 220	Public Speaking	
or CMST& 230	Small Group Communication	
<i>Quantitative Skills</i>		
Course Options (p. 265)		5
<i>Health & Physical Education</i>		
Course Options (p. 265)		3
<i>Humanities</i>		
Course Options (p. 265) ¹		15
<i>Social Sciences</i>		
PSYC& 100	General Psychology	5
Select 10 additional credits/units from two other departments (p. 266)		10
<i>Natural Sciences</i>		
Course Options (p. 267) ²		15
Major Area Requirements		
ACED 101	Survey of Addictionology	3
ACED 136	Law and Ethics In Addictions Counseling	3
ACED 160	Pharmacology of Drugs of Abuse	3
ACED 201	Theories of Counseling	3
ACED 204	Introduction to Addiction Counseling Skills	3
PSYC& 200	Lifespan Psychology	5
<i>Additional Specified Electives</i>		
Course Options (p. 268)		0-2
Total Credits/Units		90

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.

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:

- 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

ADVANCED MANUFACTURING

Combine hands-on training, modern equipment, and practical projects, giving a real feel for the job while in school that emphasizes current concepts and technology by providing practical, hands-on experience with the latest industry standard equipment.

- Intro to Manufacturing (CA)(Plan Code: MATIMC20) (p. 12)
- Manufacturing Operator (CP)(Plan Code: MATMOC45) (p. 12)
- Integrated Technician (AAT)(Plan Code: MATITAPT) (p. 13)

Intro to Manufacturing (CA)(Plan Code: MATIMC20)

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.

Code	Title	Credits/ Units
<i>Major Area Requirements</i>		
PTWR 135 or ENGL& 101	Introduction to Applied Technical Writing English Composition I	5
AM 101	Advanced Manufacturing Career Exploration	5
AM 102	OSHA 10 Safety	1
AM 105	Welding, Cutting & Fabrication Processes	6
AM 108	Blueprint and Schematic Reading	5
AM 110	Manual Manufacturing I	3
AM 130	Intro to SolidWorks	5
HLTH 120	Adult CPR and First Aid	1
Total Credits/Units		31

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:

- Function effectively as a member of a professional team in an advanced manufacturing environment.
- Apply Standard Operating Procedures (SOP) to safely operate manufacturing tools and equipment.
- Apply Computer Aided Drafting (CAD), Computer Aided Machining (CAM), Geometric Dimensioning Tolerance (GDT), mathematic principles, precision measurement, and Quality Assurance (QA) methods when producing manufacturing assemblies.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Manufacturing Operator (CP)(Plan Code: MATMOC45)

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.

Code	Title	Credits/ Units
<i>Distribution Requirements</i>		
<i>Communication Skills</i>		
PTWR 135	Introduction to Applied Technical Writing	5
<i>Computational Skills</i>		
MATH 110 & MATH 10 or MATH 111	College Algebra With Support and Support for College Algebra (or higher) College Algebra	5-8
<i>Human Relations</i>		
AM 101	Advanced Manufacturing Career Exploration	5
<i>Major Area Requirements</i>		
AM 102	OSHA 10 Safety	1
AM 105	Welding, Cutting & Fabrication Processes	6
AM 108	Blueprint and Schematic Reading	5
AM 110	Manual Manufacturing I	3
AM 120	Manual Manufacturing II	3
AM 130	Intro to SolidWorks	5
AM 150	Intro to Programming & Problem Solving	5
HLTH 120	Adult CPR and First Aid	1
Complete enough credits to reach 45 credits/units required for certificate		0-1
Total Credits/Units		45-47

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:

- Function effectively as a member of a professional team in an advanced manufacturing environment.
- Apply Standard Operating Procedures (SOP) to safely operate manufacturing tools and equipment.
- Create blueprints and schematic diagrams, by applying Geometric Dimensioning Tolerance (GDT) symbols, mathematic principles, measurement devices and Computer Aided Design (CAD) software.
- Apply fundamental computer programming concepts and problem-solving techniques.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Integrated Technician (AAT)(Plan Code: MATITAPT)

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.

Code	Title	Credits/ Units
Communication Skills		
PTWR 135 or ENGL& 101	Introduction to Applied Technical Writing English Composition I	5
<i>Computational Skills</i>		
MATH 110 & MATH 10 or MATH 111	College Algebra With Support and Support for College Algebra (or higher) College Algebra	5-8
MATH 103	College Trigonometry (or higher)	5
<i>Human Relations</i>		
AM 101	Advanced Manufacturing Career Exploration	5
Major Area Requirements		
HLTH 120	Adult CPR and First Aid	1
AM 102	OSHA 10 Safety	1
AM 105	Welding, Cutting & Fabrication Processes	6
AM 108	Blueprint and Schematic Reading	5
AM 110	Manual Manufacturing I	3
AM 120	Manual Manufacturing II	3
AM 130	Intro to SolidWorks	5
AM 150	Intro to Programming & Problem Solving	5
AM 200	Applied Material Science	5
AM 208	Applied Metrology	3
AM 210	Additive Manufacturing	5
AM 215	Robotics I	4
AM 216	Robotics II	4
AM 217	Robotics III	4
AM 220	Subtractive Manufacturing I	6
AM 230	Subtractive Manufacturing II	6
AM 235	Computer Aided Machining (CAM)	3
AM 250	Systems Integration	3
AM 260	Capstone Lab	6
Total Credits/Units		98-101

principles, precision measurement, and Quality Assurance (QA) methods when producing manufacturing assemblies.

- Apply material identification and material properties to advanced manufacturing processes.
- Use specific software programs for Robotics, Additive Manufacturing (AM) and Subtractive Manufacturing (SM) processes.

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:

- Function effectively as a member of a professional team in an advanced manufacturing environment.
- Apply Standard Operating Procedures (SOP) to safely operate manufacturing tools and equipment.
- Apply Computer Aided Drafting (CAD), Computer Aided Machining (CAM), Geometric Dimensioning Tolerance (GDT), mathematic

APPLIED MANAGEMENT (BAS)

The Bachelor of Applied Science (BAS) in Applied Management is a two-year, 90-credit/unit 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, AA, AST) degree (90 credits/units or higher) or higher from an accredited institution and/or international equivalent
- Cumulative GPA of 2.0
- Complete the following preliminary courses with a grade of 'C' or better:
 1. Communication skills
 - a. English Composition (ENGL& 101 or equivalent)
 - b. Oral Communications (CMST& 210, CMST& 220, CMST& 230 or equivalent)
 2. College-level Math (5 credits/units required)
- 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/units 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 (<https://www.clark.edu/academics/programs/business-and-entrepreneurship/basam/>).

- Applied Management (BAS)(Plan Code: BAMAMBAS) (p. 14)

Applied Management (BAS)(Plan Code: BAMSMBAS)

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.

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

Code	Title	Credits/ Units
General Education Requirements		60
<i>Communication Skills</i>		
CMST 310	Organizational Communication	5
<i>Human Relations</i>		
SOC 315	Organizational Behavior	5
<i>Social Sciences</i>		
ECON 405	Managerial and Global Economics	5
<i>Humanities</i>		
PHIL 420	Ethics In Management	5
<i>Natural Science</i>		
ENVS 430	Sustainability & Environmental Practices	5
Major Area Requirements		
BASAM 301	Foundations of Management	5
BASAM 305	Social Media In Business	5
BASAM 320	Business Research Applications	5
BASAM 325	Business Principles	5
BASAM 330	Accounting Principles for Managers	5
BASAM 335	Legal Issues In Management	5
BASAM 340	Marketing for Managers	5
BASAM 400	Human Resource Management	5
BASAM 410	Principles of Project Management	5
BASAM 415	Financial Management	5
BASAM 425	Operations and Logistics	5
BASAM 440	Capstone: Strategic Management & Policy	5
BASAM 450	Applied Management Internship	5
Additional Requisite Requirements		
Please note that in addition to the 90 credits/units required in upper division courses a student must complete 90 (ninety) additional credits/units from an associate degree for a total of 180 credits/units.		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Quantitative Skills</i>		
MATH& 146	Introduction to Stats (recommended)	5
or		
Any College level Math course (5 credits/units) (p.)		
<i>Social Sciences</i>		
Course Options (p. 266)		5
<i>Humanities</i>		
CMST& 210	Interpersonal Communication	5
or CMST& 220 Public Speaking		

or CMST& 230 Small Group Communication

Natural Sciences

Course Options (p. 267)

Additional General Education Requirements

Select ten (10) additional credits/units from the general education categories above (WC, Q, SS, HA, HB, NS) 10

Total Credits/Units 180

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:

- Define the economies that affect successful trading in domestic and global markets, utilizing information, data, and technologies to support effective decision making.
- Apply managerial and marketing strategies that provide continuous improvement, innovation and quality results
- Analyze and interpret financial trends and outcomes that provide insight into market tendencies.
- Use hypothetical and practical strategies with legal practices to evaluate risk management and responsible oversight issues to maintain a quality and motivated workforce.

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To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

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)(Plan Code: LASFGAA) (p. 16)
- Studio Arts (AFA)(Plan Code: LASFSAA) (p. 17)

Graphic Design (AFA)(Plan Code: LASFGAA)

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.

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 Digital Media Arts department’s career and technical AAT degree in Digital Media Arts or Web Development department’s career and technical AAT degree and Certificate of Proficiency in Web Development.

Code	Title	Credits/ Units
General Education Requirements		
College 101		
COLL 101	College Essentials: Introduction to Clark	2
Communication Skills		
ENGL& 101	English Composition I	5
Quantitative Skills		
Select one from the following:		
MATH& 107	Math In Society (recommended)	
OR		
Select five credits/units from any college level Math class (p. 265)		
Health & Physical Education		
Select one from the following:		
HPE 258	Fitness-Wellness	
or HPE 266	Mind Body Health	

or HPE 220 Occupational Wellness		
OR		
Select two credits/units of Health and one credit/unit of Physical Education (p. 265)		
Humanities		5
Choose one of the recommended courses:		
CMST& 102	Intro to Mass Media	
DRMA 154	Introduction to Cinema	
ENGL 176	Nature and the Humanities	
Social Sciences		5
CMST& 230	Small Group Communication (recommended)	
Natural Sciences		5
Select five credits/units from a lab science (p. 267)		
Major Area Requirements		
Fine Arts Foundations		
ART 101	2D Art and Design	5
ART 103	Drawing I	5
Digital Media Arts		
DMA 101	Photoshop Raster Graphics	4
DMA 102	Illustrator Vector Graphics	4
Graphic Design		
ART 172	Graphic Design Exploration	5
ART 173	Graphic Design Studio I	5
ART 174	Typography I	5
ART 215	Portfolio Development	3
ART 170	Publication Production I	3
ART 271	Typography II	5
ART 272	Graphic Design History	5
ART 273	Graphic Design Studio II	5
ART 274	Graphic Design Studio III	5
Choose 2 (two) electives from the list below		7-10
ART 104	Observational Drawing	
ART 105	Drawing for Comics	
ART 117	Three-Dimensional Design	
ART 118	Time-Based Art and Design	
ART 120	Printmaking I	
ART 121	Printmaking II	
ART 123	Photography I	
ART 124	Photography II	
ART 203	The Human Figure I	
ART 204	The Human Figure II	
ART 208	Digital Painting & Illustration	
ART 257	Painting I	
ART 258	Painting II	
ART 260	Watercolor I	
ART 261	Watercolor II	
ART 270	Publication Production	
DMA 104	Motion Graphics and Animation I	
DMA 201	Video and Sound Production I	
DMA 202	Video and Sound Production II	
DMA 204	Motion Graphics and Animation II	
ENGL 128	Introduction to Writing Comics	

ENGL 277	Literary Publication
Total Credits/Units	96-99

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:

- Recognize and apply foundational art theory.
- Place design projects and issues in context of society and culture.
- Generate original ideas and utilize processes toward solving visual communication problems.
- Implement tools and technology to realize visual ideas.
- Effectively interact, collaborate and implement projects with peers, clients or others in various work environments.
- Use written, verbal and visual means to effectively present and communicate graphic design projects.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Studio Arts (AFA)(Plan Code: LASFSAA)

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 ART 215 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 additions 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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Quantitative Skills</i>		
Course Options (p. 265)		5
<i>Social Sciences</i>		
Course Options (p. 266)		5
<i>Humanities</i>		
Select five credits/units from the AA distribution list of Humanities A-list classes (p. 265) ¹		5
<i>Natural Sciences</i>		
Course Options (p. 267) ²		5
<i>Health and Physical Education</i>		
Course Options (p. 265)		3
<i>College 101</i>		
COLL 101	College Essentials: Introduction to Clark	2
Fine Art Foundations		
ART 101	2D Art and Design	5
ART 103	Drawing I	5
ART 117	Three-Dimensional Design	5
ART 118	Time-Based Art and Design	5
ART 104	Observational Drawing	5
or ART 203	The Human Figure I	
or ART 105	Drawing for Comics	
ART 215	Portfolio Development	3
ART Elective - Choose any 5 credit Art Prefix Course		5
<i>Art History - Choose 1 (one) from List A and 1 (one) more from either list A or B:</i>		10
List A:		
ART 220	Art History: Ancient to Late Antique	
ART 221	Art History: Medieval-Renaissance	
ART 222	Art History: Baroque-Modern	
ART 223	Art History: 20th Century	
List B:		
ART 225	Art History: Asian Art	
ART 250	Women Artists Through History	
ART 272	Graphic Design History	
<i>Studio Concentration</i>		
Select a minimum of 15 credits/units from one of the following studio concentration areas: ³		15
<i>Metal Arts</i>		
ART 189	Metal Arts I	
ART 190	Metal Arts II	
ART 191	Metal Arts III	
<i>Photography</i>		
ART 123	Photography I	
ART 124	Photography II	
ART 125	Photography III	
<i>Ceramics</i>		
ART 180	Ceramics I	
ART 181	Ceramics II	

ART 182	Ceramics III
<i>Drawing/Painting</i>	
ART 104	Observational Drawing
ART 105	Drawing for Comics
ART 120	Printmaking I
ART 121	Printmaking II
ART 122	Printmaking III
ART 203	The Human Figure I
ART 204	The Human Figure II
ART 257	Painting I
ART 258	Painting II
ART 259	Painting III
ART 260	Watercolor I
ART 261	Watercolor II
ART 262	Watercolor III
<i>Illustration</i>	
ART 104	Observational Drawing
ART 105	Drawing for Comics
ART 203	The Human Figure I
ART 208	Digital Painting & Illustration
ART 257	Painting I
ART 260	Watercolor I
DMA 102	Illustrator Vector Graphics
<i>Electives</i>	2
Select an additional 2 (two) credits/units from the AA distribution list of General Electives	
Total Credits/Units	90

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

¹ Cannot be an Art class.

² Must include a lab course.

³ Must not include those listed in the Foundations 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:

- 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

ASSOCIATE IN ARTS (AADTA) AND CONCENTRATIONS

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 with at least 90 quarter or 60 semester credits upon entry, 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/units, with a minimum of sixty (60) quarter hours of general education.
- Maintain a minimum cumulative college-level GPA of 2.00 or higher.
- Thirty (30) credits/units minimum must be completed at Clark College to meet Academic Residency.
- Submit a graduation application by the appropriate deadline.

General Credit/Unit Restrictions

- Credit/Unit by Department: Ten (10) credits/units maximum from any single department can be used to fulfill Humanities, Social Sciences and Natural Sciences distribution requirements.
- World Language: Five (5) credits/units 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/units maximum in PE activity can apply toward the degree.

Other Applicable Credit/Unit Options

- Advanced Placement (AP) and/or International Baccalaureate (IB): A maximum of forty-five (45) credits/units 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/units to be applied to a degree. Credits/Units will be used to fulfill general elective requirements only.
- Course Challenge: Students may use credits/units earned from successful course challenges toward 25% of the degree or certificate. Credit/Unit by course challenge will meet academic residency requirements.
- Tech Prep/Direct Credit/Unit: Tech Prep/Direct Credit/Unit courses that are part of a professional program and fall into the restricted area in the DTA degree are limited to 15 credits/units. If Tech Prep/Direct Credit/Unit courses apply to a professional technical degree or certificate, there is no limit to the number of credits/units that can be applied.
- Cooperative Work Experience: No more than fifteen (15) credits/units may be applied to the associate degree.
- Special Projects: No more than fifteen (15) credits/units in Special Projects will be allowed toward the Associate in Arts degree.
- Military Experience: Credits/Units may be earned by previous military experience. Please contact the Veterans Center of Excellence for further information. Credit/Unit awarded for military experience may be granted for up to 25% of the degree and/or certificate.
- Pass/Fail Grading Option: Forty-Five (45) credits/units 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/units 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/Unit by Challenge coursework will meet academic residency requirements.
- Associate in Arts (AADTA)(Plan Code: LASDTAA) (p. 20)
 - Concentration in Agroecology (AADTA)(Plan Code: LASDTAA, Subplan Code: AGROECOLGY) (p. 20)
 - Concentration in Graphic Design (Plan Code: LASDTAA, Subplan Code: GRAPHICDSN) (p. 21)
 - Concentration in Power, Privilege, and Inequity (Plan Code: LASDTAA, Subplan Code: PWRPRVINEQ) (p. 22)
 - Concentration in Studio Arts (Plan Code: LASDTAA, Subplan Code: STUDIOART) (p. 22)
 - Concentration in Women's Studies (Plan Code: LASDTAA, Subplan Code: WOMENSSTDY) (p. 23)

- Concentration in World Languages (AADTA)(Plan Code: LASDTAA, Subplan Code: WORLDLANG) (p. 23)

Associate in Arts (AADTA)(Plan Code: LASDTAA)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Select one of the following Options</i>		5
<i>Option 1</i>		
ENGL& 102	English Composition II or ENGL& 23 Technical Writing	
<i>Option 2</i>		
BUS 211	Business Communications	
and		
CMST& 220	Public Speaking or CMST& 21 Interpersonal Communication or CMST& 23 Small Group Communication	
<i>Quantitative Skills/Symbolic Reasoning Skills</i> ¹		
Select one option (p.)		5
Distribution Requirements		
<i>Humanities</i>		
Course Options (p. 265) ²		15
<i>Social Sciences</i>		
Course Options (p. 266) ³		15
<i>Natural Sciences</i>		
Course Options (p. 267) ⁴		15
Additional Requirements		
<i>College 101</i>		
COLL 101	College Essentials: Introduction to Clark	2
<i>Health and Physical Education</i>		
Select one option (p. 265)		3
<i>Oral Communication</i> ⁵		
CMST& 210	Interpersonal Communication or CMST& 220 Public Speaking or CMST& 230 Small Group Communication	5
<i>Power, Privilege, and Inequity</i> ⁶		
Select one option (p.)		3
Elective Requirements ⁷		
<i>Specified Electives</i>		
Course Options (p. 268) ⁸		12
<i>General Electives</i> ⁹		
Course Options (p. 268) ¹⁰		15
Total Credits/Units		90

¹ 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.

² 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.

³ 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.

⁴ 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.

⁵ Oral Communications courses fulfill the Oral Communication requirement within an existing distribution area. Check course description for further distribution information.

⁶ Power, Privilege and Inequity required course fulfill the PPI requirement within an existing distribution area. Check course description for further distribution information.

⁷ 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.

⁸ Approved courses that apply: WC, Q, HA, HB, SS, NS, SE, HE, HPE, PE, PPI, OC.

A maximum of two (2) credits/units in PE activity can apply toward this area.

⁹ COLL 101 fulfills 2 (two) credits/units of General Electives.

¹⁰ These courses may be vocational in nature from Career and Technical education courses. The transferability of the Career-Technical courses and any CAP, ESL OR IELP 100-level courses is determined by the receiving baccalaureate institution.

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

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Concentration in Agroecology (AADTA)(Plan Code: LASDTAA, Subplan Code: AGROECOLGY)

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.

Must concurrently complete the AADTA.

Code	Title	Credits/ Units
Core Courses		
ENVS& 101	Introduction to Environmental Science	5
ENVS 200	Global Climate Change	5
ENVS 201	Introduction to Soils: A Living System	5
MATH& 146	Introduction to Stats	5
BIOL 224	Flowering Plants of The Pacific Northwest	5
ENVS 202	Native Plant Propagation: Principles & Practice	3
ENVS 208	Field Studies In Environmental Science (minimum of 3 credits/units required)	1-8
or BIOL 208	Field Studies In Biology	
or BIOL 139	Introduction to Wildlife	
ENVS 290	Special Projects (minimum 1 credit/unit required) ¹	1-3
Total Credits/Units Required for Concentration		32-39
Recommended courses to be completed as part of the AADTA degree		
ENGL 176	Nature and the Humanities	5
ENVS 231	Environmental Politics	5
GEOG 205	Physical Geography	5
HLTH 103		2
SOC& 101	Introduction to Sociology	5
SPAN& 121	Spanish I	5
SPAN& 122	Spanish II	5
WGES 101	Women, Gender, and Power	5
Total Credits/Units Required for AADTA Degree		90

¹ ENVS 290 up to 3 credits will be accepted for the concentration.

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 an understanding of the connections between the natural and managed landscape.
- Demonstrate how agriculture, ecology, and equity intersect and interact, and how changes to any one impacts the others, using foundation principles of systems.
- Draft and implement an agroecology system plan and demonstrate an understanding of the outcomes and evaluate to determine future actions (next steps) that need to be taken.
- Communicate effectively, accurately and professionally, using verbal, non-verbal, and written language with diverse populations of potential customers, employees, colleagues, the public, and other organizations and agencies about agroecology concepts, strategies and applications.
- Recognize the diversity of opportunities within agroecology and identify their own niche where their interests and skills converge. (the special project will be used as assessment).

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Concentration in Graphic Design (AADTA)(Plan Code: LASDTAA, Subplan Code: GRAPHICDSN)

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.

Must concurrently complete the AADTA.

Code	Title	Credits/ Units
Core Courses		
ART 101	2D Art and Design	5
ART 103	Drawing I	5
ART 173	Graphic Design Studio I	5
ART 174	Typography I	5
ART 272	Graphic Design History	5
DMA 102	Illustrator Vector Graphics	4
Electives		
<i>Where courses align with the requirements still remaining in the AADTA, choose courses from the list below to reach a minimum of 90 credits/units:</i>		
ART 104	Observational Drawing	5
ART 105	Drawing for Comics	5
ART 118	Time-Based Art and Design	5
ART 120	Printmaking I	5
ART 121	Printmaking II	5
ART 123	Photography I	5
ART 124	Photography II	5
ART 170	Publication Production I	3
ART 172	Graphic Design Exploration	5
ART 203	The Human Figure I	5
ART 204	The Human Figure II	5
ART 208	Digital Painting & Illustration	5
ART 215	Portfolio Development	3
ART 257	Painting I	5
ART 258	Painting II	5
ART 260	Watercolor I	5
ART 261	Watercolor II	5
ART 271	Typography II	5
ART 273	Graphic Design Studio II	5
ART 274	Graphic Design Studio III	5
DMA 101	Photoshop Raster Graphics	4
DMA 104	Motion Graphics and Animation I	4
DMA 201	Video and Sound Production I	4

DMA 202	Video and Sound Production II	4
DMA 204	Motion Graphics and Animation II	4
Total Credits/Units Required for Concentration		33-38
Total Credits/Units Required for AADTA		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:

- Recognize and apply the elements and principles of design in works of visual art and communications.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Concentration in Power, Privilege, and Inequity (AADTA)(Plan Code: LASDTAA, Subplan Code: PWRPRVINEQ)

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.

Must concurrently complete the AADTA.

Code	Title	Credits/ Units
Core Courses		
EDUC& 240	Diversity in Education	5
ENGL 175	Introduction to LGBTQ Studies	5
ENGL 240	Literature By Women	5
SOC 131	Race and Ethnicity In The U.S.	5
WGES 101	Women, Gender, and Power	5
WGES 220	Race, Class, Gender, and Sexuality	5
WGES 225	Racism & White Privilege In The U.S.	3
Elective Courses		
Select one from the following:		3-5
ASL 125	American Deaf Culture	
	or ENGL 176 Nature and the Humanities	
	or ENGL 243 Queer Literature	
	or ENGL 267 Black/African American Literature	
	or HIST& 215 Women In US History	
	or HIST& 219 Native American History	
	or HIST 275 African-American History	
	or SOC 230 Domestic Violence	

Total Credits/Units Required for Concentration	36-38
Total Credits/Units Required for AADTA	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:

- 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Concentration in Studio Arts (AADTA) (Plan Code: LASDTAA, Subplan Code: STUDIOART)

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 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.

Must concurrently complete the AADTA.

Code	Title	Credits/ Units
Core Courses		
ART 103	Drawing I	5
<i>Choose one of the following:</i>		
ART 104	Observational Drawing	5
or ART 105	Drawing for Comics	
or ART 203	The Human Figure I	
<i>Choose one of the following:</i>		
ART 220	Art History: Ancient to Late Antique	5
or ART 221	Art History: Medieval-Renaissance	
or ART 222	Art History: Baroque-Modern	
<i>And choose 2D Focus or 3D Focus from the lists below:</i>		
Core Courses: 2D Focus		

Choose at least five credits/units of the following: 5

ART 101	2D Art and Design
ART 257	Painting I
ART 258	Painting II

Core Courses: 3D Focus

Choose at least five credits/units of the following: 5

ART 117	Three-Dimensional Design
ART 180	Ceramics I
ART 181	Ceramics II
ART 189	Metal Arts I

Art Electives

Choose any two additional ART-prefix courses 10

Total Credits/Units for Concentration 30

Total Credits/Units Required for AADTA 90

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To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Concentration in Women's Studies (AADTA)(Plan Code: LASDTAA, Subplan Code: WOMENSSTDY)

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.

Must concurrently complete the AADTA.

Code	Title	Credits/Units
Core Courses ¹		
WGES 101	Women, Gender, and Power	5
WGES 201	Women Across Cultures	5
WGES 220	Race, Class, Gender, and Sexuality	5
Electives ²		9-11
ART 250	Women Artists Through History	
ENGL 175	Introduction to LGBTQ Studies	
ENGL 240	Literature By Women	
ENGL 243	Queer Literature	
HIST& 215	Women In US History	
HIST 251	Women In World History I	
HIST 252	Women In World History II	
HLTH 207	Women's Health	
SOC 230	Domestic Violence	
WGES 210	Women, Arts, and Culture	
WGES 225	Racism & White Privilege In The U.S.	
WGES 280	Selected Topics	
WGES 290	Special Projects	

Total Credits/Units Required for Concentration 24-26

Total Credits/Units for AADTA 90

¹ Core courses must be completed with a grade of "C" or better.

² At least three elective credits/units must be WGES prefix courses

Program Outcomes

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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Concentration in World Languages (AADTA)(Plan Code: LASDTAA, Subplan Code: WORLDLANG)

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.

Must concurrently complete the AADTA.

Code	Title	Credits/Units
Choose from one of the following three Pathways		
<i>American Sign Language</i>		25
ASL 125	American Deaf Culture	
ASL& 221	Am Sign Language IV	
ASL& 222	Am Sign Language V	
ASL& 223	Am Sign Language VI	
CMST& 220	Public Speaking	
<i>Japanese</i>		25
JAPN 171	Japanese Culture and Society	
JAPN& 221	Japanese IV	
JAPN& 222	Japanese V	
JAPN& 223	Japanese VI	

CMST& 220	Public Speaking	
<i>Spanish</i>		25
HIST 285	History of Latin America	
SPAN& 221	Spanish IV	
SPAN& 222	Spanish V	
SPAN& 223	Spanish VI	
CMST& 220	Public Speaking	
Total Credits/Units Required for Concentration		25
Total Credits/Units Required for AADTA		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:

- Participate in most formal and informal conversations on general topics in ASL, Spanish or Japanese.
- Demonstrate an appreciation for the linguistic and cultural diversity of ASL, Spanish or Japanese.
- Manage common interactions using enhanced vocabulary and grammar with fellow classmate using ASL, Spanish or Japanese.
- Identify certain rules of behavior, values, beliefs, and etiquette in Deaf, Latino/Hispanic or Japanese culture.
- With the multicultural identity in mind, identify how the heritage language user manages their own multiple identities within the context of power, privilege and inequity.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

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
- Environmental Science
- Geology
- Biological, Environ/Resource, Chemistry, Geology and Earth Sciences (AST1)(Plan Code: LRST1AS) (p. 25)
- Concentration in Biological Sciences (AST1)(Plan Code: LRST1AS, Subplan Code: BIOSCIENCE) (p. 26)
- Concentration in Chemistry (AST1)(Plan code: LRST1AS, Subplan Code: CHEMISTRY) (p. 27)
- Concentration in Environmental Science (AST1) (Plan Code: LRST1AS, Subplan Code: ENVIROSCI) (p. 27)
- Concentration in Geology (AST1)(Plan Code: LRST1AS, SubPlan Code: GEOLOGY) (p. 28)

Biological, Environ/Resource, Chemistry, Geology and Earth Sciences (AST1)(Plan Code: LRST1AS)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Quantitatives Skills</i>		
MATH& 151	Calculus I ¹	5
MATH& 152	Calculus II ²	5
<i>Health & Physical Education</i>		
Select one option (p. 265)		3
<i>Humanities (HA) (HB) and Social Sciences (SS) course(s)</i>		
Humanities (HA) Course (p. 265)		5
Social Sciences (SS) Course (p. 266)		5
Select an additional five credits/units from Humanities (HA) or (HB) or Social Science (SS) courses (p. 265)		5
Pre-major Program Requirements ³		
<i>General Chemistry Sequence</i>		
CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	5

CHEM& 142 & CHEM& 152	General Chemistry II and General Chemistry Laboratory II	5
CHEM& 143 & CHEM& 153	General Chemistry III and General Chemistry Laboratory III	6
<i>Additional Sequence</i>		
Select one sequence from the following:		15
Biology Sequence (BIOL& 221 / BIOL& 222 / BIOL& 223)		
Physics Sequence (100 level)(non-calculus based)		
Physics Sequence (200 level)(calculus based)		
<i>Additional mathematics course(s)</i> ⁴		
MATH& 153	Calculus III	5
or MATH& 146 Introduction to Stats		
<i>Additional requirements for intended major</i> ⁵		
Select 2-3 courses from the following list, 10-15 units total are required:		10-15
BIOL 101	Environ Biol Conf/Lab	
BIOL 105	Small World Antibiotics Research 1	
BIOL 139	Introduction to Wildlife	
BIOL 140	Mammals of The Northwest	
BIOL 141	Birds of The Pacific Northwest	
BIOL 142	Freshwater Fishes of The Pacific Northwest	
BIOL 145	Reptiles & Amphibians of The Pacific NW	
BIOL 167	Human Genetics	
BIOL 208	Field Studies In Biology	
BIOL& 221	Majors Ecology/Evolution	
BIOL& 222	Majors Cell/Molecular	
BIOL& 223	Majors Organismal Phys	
BIOL 224	Flowering Plants of The Pacific Northwest	
BIOL& 241	Human Anatomy and Physiology I	
BIOL& 242	Human Anatomy and Physiology II	
BIOL& 251	Human A & P I	
BIOL& 252	Human A & P II	
BIOL& 253	Human A & P III	
BIOL& 260	Microbiology	
CHEM& 241 & CHEM& 251	Organic Chemistry I and Organic Chemistry Laboratory I	
CHEM& 242 & CHEM& 252	Organic Chemistry II and Organic Chemistry Laboratory II	
CHEM& 243 & CHEM& 253	Organic Chemistry III and Organic Chemistry Laboratory III	
ENVS 218	Introduction to Ecological Restoration	
GEOL 102	Intro to Geology II Lab	
GEOL 218	Field Studies In Geology	
GEOL& 101	Introduction to Physical Geology	
MATH 215	Linear Algebra	
MATH 221	Differential Equations	
MATH& 254	Calculus IV	
PHYS& 134 & PHYS& 124	General Physics I and General Physics Lab I	
PHYS& 135 & PHYS& 125	General Physics II and General Physics Lab II	
PHYS& 136 & PHYS& 126	General Physics III and General Physics Lab III	

PHYS& 241	Engineering Physics I
& PHYS& 231	and Engineering Phys Lab I
PHYS& 242	Engineering Physics II
& PHYS& 232	and Engineering Phys Lab II
PHYS& 243	Engineering Physics III
& PHYS& 233	and Engineering Phys Lab III

Remaining Credits/Units:

Sufficient additional college-level credits/units so that the total credits/units earned are at least 90 term credits/units⁶

Total Credits/Units **90**

¹ Calculus I (MATH& 151) requires the successful completion of both Trigonometry (MATH 103) and College Algebra (MATH 110/MATH 111), 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 math courses that have MATH& 152 as a prerequisite.

³ Must consult with faculty or advising to pick the correct sequences.

⁴ Check with chosen 4-year school.

⁵ Preferably a 3-term sequence; check with chosen 4-year school regarding course selection to better prepare for major. It is recommended that students complete the sequenced science courses before transferring.

⁶ These remaining credits/units may include prerequisites for major courses, additional major coursework, or specific general education or other university requirements as approved by the advisor. A maximum of five (5) General Elective (GE) credits/units will apply.

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.

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Concentration in Biological Sciences (AST1)(Plan Code: LRST1AS, Subplan Code: BIOSCIENCE)

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.

Code	Title	Credits/Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Quantitative Skills</i>		
MATH& 151	Calculus I ¹	5
MATH& 152	Calculus II	5
<i>Health & Physical Education</i>		
Course Options (p. 265)		3
<i>Humanities (HA)(HB) & Social Sciences (SS) Courses (minimum 15 credits)</i>		
Humanities (HA) Course Options (p. 265)		5
Social Sciences (SS) Course Options (p. 266)		5
Select an additional five credits/units from Humanities (HA) or (HB) or Social Science (SS) courses (p. 265)		5
Pre-Major Requirements		
CHEM& 141	General Chemistry I	16
& CHEM& 151	and General Chemistry Laboratory I	
& CHEM& 142	and General Chemistry II	
& CHEM& 152	and General Chemistry Laboratory II	
& CHEM& 143	and General Chemistry III	
& CHEM& 153	and General Chemistry Laboratory III	
Select one from the following:		15
PHYS& 134	General Physics I	
& PHYS& 124	and General Physics Lab I	
& PHYS& 135	and General Physics II	
& PHYS& 125	and General Physics Lab II	
& PHYS& 136	and General Physics III	
& PHYS& 126	and General Physics Lab III	
BIOL& 221	Majors Ecology/Evolution	
& BIOL& 222	and Majors Cell/Molecular	
& BIOL& 223	and Majors Organismal Phys	
PHYS& 241	Engineering Physics I	
& PHYS& 231	and Engineering Phys Lab I	
& PHYS& 242	and Engineering Physics II	
& PHYS& 232	and Engineering Phys Lab II	
& PHYS& 243	and Engineering Physics III	
& PHYS& 233	and Engineering Phys Lab III	
Select from one of the following options:		
MATH& 146	Introduction to Stats	5
or MATH& 153	Calculus III	
Science Electives		
BIOL 101	Environ Biol Conf/Lab	5
BIOL 208	Field Studies In Biology	1-10
or BIOL 224	Flowering Plants of The Pacific Northwest	
BIOL 139	Introduction to Wildlife	3
Select one from the following:		3
BIOL 140	Mammals of The Northwest	
BIOL 141	Birds of The Pacific Northwest	
BIOL 142	Freshwater Fishes of The Pacific Northwest	
BIOL 145	Reptiles & Amphibians of The Pacific NW	

Additional credits to meet AST1 90 (ninty) credit minimum. See advisor to identify what courses required for completion	5
Total Credits/Units	90

¹ Calculus I (MATH& 151) requires the successful completion of both Trigonometry (MATH 103) and College Algebra (MATH 110/MATH 111) or recommending score on an approved placement test prior to registration.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/units may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Concentration in Chemistry (AST1) (Plan Code: LRST1AS, Subplan Code: CHEMISTRY)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Quantitative Skills</i>		
MATH& 151	Calculus I ¹	5
MATH& 152	Calculus II	5
<i>Health & Physical Education</i>		
Course Options (p. 265)		
<i>Humanities (HA)(HB) & Social Sciences (SS) Courses</i> ²		
Humanities (HA) Courses (p. 265)		5
Social Sciences (SS) Course (p.)		5
Select an additional five credits/units from Humanities (HA) or (HB) or Social Science (SS) course (p. 265)		5
Pre-Major Program Requirements		
CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	5
CHEM& 142 & CHEM& 152	General Chemistry II and General Chemistry Laboratory II	5
CHEM& 143 & CHEM& 153	General Chemistry III and General Chemistry Laboratory III	6
CHEM& 241 & CHEM& 251	Organic Chemistry I and Organic Chemistry Laboratory I	6
CHEM& 242 & CHEM& 252	Organic Chemistry II and Organic Chemistry Laboratory II	6
CHEM& 243 & CHEM& 253	Organic Chemistry III and Organic Chemistry Laboratory III	6
Science Electives		

PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	5
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	5
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	5
Additional Math Course		
MATH& 153	Calculus III or MATH& 146 Introduction to Stats	5
Other Electives		
Additional electives to meet min. credit requirements		3
Foreign Language ³		
Total Credits/Units		90

¹ Calculus I (MATH& 151) requires the successful completion of both Trigonometry (MATH 103) and College Algebra (MATH 110/MATH 111), or recommending score on an approved placement test prior to registration.

² CMST& 230 would count as a social science; otherwise, the third course needs to be a social science.

³ Please check with the transfer institution regarding world language 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:

- 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Concentration in Environmental Science (AST1)(Plan Code: LRST1AS, Subplan Code: ENVIROSCI)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
ENGL& 102	English Composition II	5
<i>Quantitative Skills</i>		
MATH& 151	Calculus I	5
MATH& 152	Calculus II	5
<i>Health & Physical Education</i>		
Course Options (p. 265)		3
<i>Humanities & Social Sciences</i>		
ENVS 231	Environmental Politics	5
or POLS 231	Environmental Politics	
Humanities List A (p. 265)		5
Humanities or Social Sciences (p. 266)		5
<i>Natural Science</i>		
ENVS& 101	Introduction to Environmental Science	5
MATH& 146	Introduction to Stats	5
Pre-Major Program Requirements		
BIOL& 221	Majors Ecology/Evolution	5
BIOL& 222	Majors Cell/Molecular	5
BIOL& 223	Majors Organismal Phys	5
CHEM& 141	General Chemistry I	4
CHEM& 142	General Chemistry II	4
CHEM& 143	General Chemistry III	4
CHEM& 151	General Chemistry Laboratory I	1
CHEM& 152	General Chemistry Laboratory II	1
CHEM& 153	General Chemistry Laboratory III	2
Select one from the following:		5
GEOL 102	Intro to Geology II Lab	
PHYS& 241	Engineering Physics I	
& PHYS& 231	and Engineering Phys Lab I	
Additional credits to meet AST1 90 (ninety) credit minimum. See advisor to identify what courses required for completion		6
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:

- 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry

method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Concentration in Geology (AST1) (Plan Code: LRST1AS, Subplan Code: GEOLOGY)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Quantitative Skills</i>		
MATH& 151	Calculus I ¹	5
MATH& 152	Calculus II	5
<i>Health & Physical Education</i>		
Course Options (p. 265)		3
<i>Humanities & Social Sciences</i>		
CMST& 220	Public Speaking	5
Social Sciences (SS) Course Options (p. 266)		5
Select an additional five credits/units from Humanities (HA) or (HB) or Social Science (SS) courses (p. 265)		5
Chemistry Sequence		
CHEM& 141	General Chemistry I	5
& CHEM& 151	and General Chemistry Laboratory I	
CHEM& 142	General Chemistry II	5
& CHEM& 152	and General Chemistry Laboratory II	
CHEM& 143	General Chemistry III	6
& CHEM& 153	and General Chemistry Laboratory III	
Additional Science Sequence Requirements		
PHYS& 241	Engineering Physics I	5
& PHYS& 231	and Engineering Phys Lab I	
PHYS& 242	Engineering Physics II	5
& PHYS& 232	and Engineering Phys Lab II	
PHYS& 243	Engineering Physics III	5
& PHYS& 233	and Engineering Phys Lab III	
Pre-Major Program Requirements		
GEOL& 101	Introduction to Physical Geology	5
GEOL 102	Intro to Geology II Lab	5
GEOL& 103	Historical Geology: The Earth Through Time	5
MATH& 153	Calculus III	5
ENGL& 102	English Composition II	5
Additional credits to meet AST1 90 (ninety) credit minimum. See advisor to identify what courses required for completion.		1
Total Credits/Units		90

¹ Calculus I (MATH& 151) requires the successful completion of both Trigonometry (MATH 103) and College Algebra (MATH 110/MATH 111),

or recommending score on an approved placement test prior to registration.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

ASSOCIATE IN SCIENCE – TRACK 2 (AST2)

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

AST - Concentration Options:

- Clean/Renewable Energy
- Computer Engineering
- Engineering
- Physics
- Engineering, Physics, and Atmospheric Sciences (AST2)(Plan Code: PHST2AS) (p. 30)
- Concentration in Clean/Renewable Energy (AST2/MRP)(Plan Code: PHST2AS, Subplan Code: CLEANENRGY) (p. 31)
- Concentration in Physics (AST2)(Plan Code: PHST2AS, Subplan Code: PHYSICS) (p. 31)

Engineering, Physics, and Atmospheric Sciences (AST2)(Plan Code: PHST2AS)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Quantitative Skills/Symbolic Reasoning Skills</i>		
MATH& 151	Calculus I ¹	5
MATH& 152	Calculus II	5
<i>Humanities and Social Sciences</i>		
Humanities (HA) Course Options (p. 265)		5
Social Sciences (SS) Course Options (p. 266)		5
Select an additional five credits/units from Humanities (HA) or (HB) or Social Science (SS) courses (p. 265)		5
Pre-Major Program Requirements		
Complete Chemistry or Science with Lab, Math option and a Physics Sequence ²		25
CHEM& 141	General Chemistry I	
& CHEM& 151	and General Chemistry Laboratory I	
Choose one of the following Math Options:		
MATH& 153	Calculus III	
	or MATH& 146 Introduction to Stats	
Choose one of the following Physics Options:		

PHYS& 134 General Physics I
& PHYS& 124 and General Physics Lab I
& PHYS& 135 and General Physics II
& PHYS& 125 and General Physics Lab II
& PHYS& 136 and General Physics III

PHYS& 241 Engineering Physics I
& PHYS& 231 and Engineering Phys Lab I
& PHYS& 242 and Engineering Physics II
& PHYS& 232 and Engineering Phys Lab II
& PHYS& 243 and Engineering Physics III
& PHYS& 233 and Engineering Phys Lab III

Remaining Credits/Units

35

The remaining units should be planned with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend

Courses from the following subject area may be used to satisfy this requirement

BIOL/BIOL&

CHEM& (restricted to CHEM& 141 or higher)

CSE

ENGL&

ENGR/ENGR&

GEOL/GEOL&

MATH/MATH& (restricted to above MATH& 152)

Total Credits/Units

90

¹ Calculus I (MATH& 151) requires the successful completion of both Trigonometry (MATH 103) and College Algebra (MATH 110/MATH 111), or recommending score on an approved placement test prior to registration.

² Engineering Students must complete CHEM& 141 and CHEM& 151

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.
- 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Concentration in Clean/Renewable Energy (AST2/MRP)(Plan Code: PHST2AS, Subplan Code: CLEANENRGY)

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.

In order for a student to be junior ready in Renewable/Clean Energy Engineering at specific transfer institutions, there are additional credits/units beyond the AST2 credit/unit requirements for this degree that a student need to consider. Please consult your faculty adviser to learn more and to develop your education plan (www.engrcs.com/schedule). The minimum required credits/units are distributed as follows:

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Mathematics</i>		
MATH& 151	Calculus I ¹	5
MATH& 152	Calculus II	5
<i>Humanities</i> ²		10
Course Options (p. 265)		
<i>Social Sciences</i> ³		5
Course Options (p. 266)		
Pre-Major Program (Minimum 25 credits/units)		25
CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	
MATH& 153	Calculus III	
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I ⁴	
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II ⁴	
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III ⁴	
Remaining Credits (Minimum 35 credits/units)		35
CSE 101	Engineering and Computer Science Orientation	
CSE 120	Introduction to Electrical/Computing	
CSE 121	Introduction to C	
CSE 222	Introduction to Data Structures	
CSE 250	Digital Logic Design	
ENGR& 204	Electrical Circuits	
ENGR 252	Electrical Circuits and Signals	
ENGR 253	Signals and Systems	
ENGR 270	Digital Systems and Microprocessors	
MATH 215	Linear Algebra	
MATH 221	Differential Equations	
CHEM& 142	General Chemistry II	
CHEM& 152	General Chemistry Laboratory II	
ENGL& 235	Technical Writing	

ENGR& 214	Statics
GEOL& 101	Introduction to Physical Geology
Total Credits/Units	90

¹ Calculus I (MATH& 151) requires the successful completion of both Trigonometry (MATH 103) and College Algebra (MATH 110/MATH 111), or recommending score on an approved placement test prior to registration.

² Any list A Humanities - CMST& 220 and CMST& 230 are recommended

³ Any Social Science - ECON& 202 is recommended

⁴ Requires concurrent enrollment in PHYS 94/PHYS 95/PHYS 96

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.
- 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Concentration in Physics (AST2) (Plan Code: PHST2AS, Subplan Code: PHYSICS)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Quantitative Skills</i>		
MATH& 151	Calculus I ¹	5
MATH& 152	Calculus II	5
<i>Humanities & Social Sciences</i>		
Select one from the following:		5
CMST& 210	Interpersonal Communication	

or CMST& 222 Public Speaking	
or CMST& 239 Small Group Communication	
Select 10 credits/units from the following:	10
Humanities Course Options (p. 265)	
Social Science Course Options (p. 266)	
Pre-Major Program Requirements	
MATH& 153 Calculus III	5
or MATH& 146 Introduction to Stats	
MATH 221 Differential Equations	5
MATH& 254 Calculus IV	5
Science Sequence Requirements	
CHEM& 141 General Chemistry I	5
& CHEM& 151 and General Chemistry Laboratory I	
CHEM& 142 General Chemistry II	5
& CHEM& 152 and General Chemistry Laboratory II	
CHEM& 143 General Chemistry III	6
& CHEM& 153 and General Chemistry Laboratory III	
PHYS& 241 Engineering Physics I	5
& PHYS& 231 and Engineering Phys Lab I	
PHYS& 242 Engineering Physics II	5
& PHYS& 232 and Engineering Phys Lab II	
PHYS& 243 Engineering Physics III	5
& PHYS& 233 and Engineering Phys Lab III	
Electives ²	
Complete enough courses to reach 90 credits	14
ENGL& 102 English Composition II (recommended)	
MATH 111 College Algebra (recommended)	
or MATH 110 College Algebra With Support	
Total Credits/Units	90

method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

¹ Calculus I (MATH& 151) requires the successful completion of both Trigonometry (MATH 103) and College Algebra (MATH 110/MATH 111), or recommending score on an approved placement test prior to registration.

² Complete minimum number of credits/units necessary to reach 90 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:

- 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry

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. As part of the Automotive program, students must successfully complete a minimum of 3 ASE technician certifications to graduate from the program and complete their degree. This is part of our third-party national accreditation standards. These standards were recommended and approved by our Automotive Advisory Committees.

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

- HiTECC Automotive Technology (AAT)(Plan Code: AUMHAAPT) (p. 33)
- T-TEN Automotive Technology (AAT)(Plan Code: AUMTAAPT) (p. 33)

HiTECC Automotive Technology (AAT) (Plan Code: AUMHAAPT)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
PTWR 135	Introduction to Applied Technical Writing (recommended)	5

or ENGL& 101 English Composition I

<i>Computational Skills</i>		
PTCS 110	Professional Technical Computational Skills (recommended)	5
<i>Human Relations</i>		
AUTO 180	Professionalism in Automotive (recommended)	5
Major Area Requirements		
AUTO 140	Automotive Bridge Program Readiness	2
AUTO 160	Introduction to Dealership Operations	7
AUTO 161	Electrical I	7
AUTO 162	Electrical II	7
AUTO 163	Brakes	7
AUTO 164	Internship I	8
AUTO 165	Steering and Suspension	7
AUTO 166	Engine Performance I	7
AUTO 167	Engine Performance II	7
AUTO 260	Climate Control	7
AUTO 261	Internship II	4
AUTO 262	Engine Mechanical	7
AUTO 263	Manual Transmission	7
AUTO 264	Automatic Transmissions	7
AUTO 266	Advanced Applied Electrical	7
Total Credits/Units		113

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 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

T-TEN Automotive Technology (AAT) (Plan Code: AUMTAAPT)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
PTWR 135	Introduction to Applied Technical Writing (recommended)	5
or ENGL& 101	English Composition I	
<i>Computational Skills</i>		
PTCS 110	Professional Technical Computational Skills (recommended)	5
<i>Human Relations</i>		
AUTO 180	Professionalism in Automotive (recommended)	5
Major Area Requirements		
AUTO 140	Automotive Bridge Program Readiness	2
AUTO 150	Introduction to Toyota	7
AUTO 151	Toyota Electrical I	7
AUTO 152	Toyota Electrical II	7
AUTO 153	Toyota Brakes	7
AUTO 154	Toyota Internship I	8
AUTO 155	Toyota Steering and Suspension	7
AUTO 156	Toyota Engine Performance I	7
AUTO 157	Toyota Engine Performance II	7
AUTO 250	Toyota Climate Control	7
AUTO 251	Toyota Internship II	4
AUTO 252	Toyota Engine Mechanical	7
AUTO 253	Toyota Manual Transmission	7
AUTO 254	Toyota Automatic Transmissions	7
AUTO 256	Toyota Hybrid Systems and Advanced Technologies	7
Total Credits/Units		113

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 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

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/units of Health-Physical Education coursework.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree, 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/MRP)(Plan Code: CHEBCAS) (p. 35)

Bioengineering and Chemical Engineering (AST2/MRP)(Plan Code: CHEBCAS)

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.

Students must earn a 2.0 cumulative GPA in order to qualify for graduation from Clark College and are encouraged to connect with their potential transfer institution to confirm GPA and course requirements for acceptance. It is recommended that students complete the sequenced science courses before transferring.

Clark College Equivalents

Code	Title	Credits/ Units
Communication Skills		
ENGL& 101	English Composition I	5
Mathematics ¹		
MATH& 151	Calculus I ²	5

MATH& 152	Calculus II	5
MATH& 153	Calculus III	5
MATH 221	Differential Equations ³	5

Distribution Requirements

Coursework should be planned with the help of an advisor based on the specific discipline at the baccalaureate institution the students select to attend.

Humanities	5
Social Sciences	5
Additional 5 (five) credits/units of either Humanities or Social Sciences	5

Physics

Complete the following courses with the required concurrent enrollment:

PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I ⁴	5
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II ⁵	5
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III ⁶	5

Chemistry with Lab

CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	5
CHEM& 142 & CHEM& 152	General Chemistry II and General Chemistry Laboratory II	5
CHEM& 143 & CHEM& 153	General Chemistry III and General Chemistry Laboratory III	6

Organic Chemistry

CHEM& 241 & CHEM& 251	Organic Chemistry I and Organic Chemistry Laboratory I	6
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Select one of the following options: 5-6

CHEM& 242 & CHEM& 252	Organic Chemistry II and Organic Chemistry Laboratory II	
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or

BIOL& 222	Majors Cell/Molecular	
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Specialization Courses

Select 3 (three) courses (minimum 14 credits/units) in consultation with an advisor as appropriate for intended specialization in the major and the intended transfer institution: 14

BIOL& 221	Majors Ecology/Evolution	
BIOL& 223	Majors Organismal Phys	
CHEM& 243	Organic Chemistry III	
CHEM& 253	Organic Chemistry Laboratory III	
CSE 101	Engineering and Computer Science Orientation	
CSE 120	Introduction to Electrical/Computing	
CSE 121	Introduction to C	
CSE 250	Digital Logic Design	
ENGR& 104	Introduction to Design	
ENGR 109	Introduction to Engineering	
ENGR& 204	Electrical Circuits	
ENGR& 214	Statics	
ENGR 221	Materials Science	
ENGR& 224	Thermodynamics	
ENGR& 240	Engineering Computations	

MATH 215	Linear Algebra
MATH& 254	Calculus IV
ENGL& 235	Technical Writing
Total Credits/Units	96-97

¹ Required at Clark: MATH& 254 (Five credits/units) – Calculus IV. Other electives as advised dependent on transfer institution.

² MATH 103 and MATH 111 are required prerequisites for MATH& 151 that may be needed if calculus placement is not met via COMPASS.

³ Clark requires concurrent enrollment of completion in MATH& 254 when taking MATH 221.

⁴ Requires concurrent enrollment in PHYS 94.

⁵ Requires concurrent enrollment in PHYS 95.

⁶ Requires concurrent enrollment in PHYS 96.

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 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

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. The degree requires a 2.0 cumulative college-level GPA.

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. Application admission deadlines vary among institutions and students must meet the deadline for the institution to which they plan to apply for transfer admission and it is recommended that students meet with advising to assist with ensuring additional institution-specific requirements are met where possible prior to graduation.

- Biology (DTA/MRP)(Plan Code: GEBBIAS) (p. 37)

Biology (DTA/MRP)(Plan Code: GEBBIAS)

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.

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.
4. Completion of a minimum of 60 quarter hours of general education is required.

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.

Clark College Equivalents

It is recommended that students complete the sequenced science courses before transferring.

Code	Title	Credits/ Units
Basic Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
ENGL& 102	English Composition II	5
or ENGL& 235	Technical Writing	
<i>Quantitative/Symbolic Reasoning Requirement ¹</i>		
Select one from the following:		5-6
MATH& 148	Business Calculus	
MATH& 146	Introduction to Stats	
MATH& 151	Calculus I	
MATH 140	Calculus for Life Sciences	
Distribution Requirements		
<i>Humanities</i>		
Course Options (p. 265)		15
<i>Social Sciences</i>		
Course Options (p. 266)		15
<i>Natural Sciences</i>		
BIOL& 221	Majors Ecology/Evolution	5
BIOL& 222	Majors Cell/Molecular	5
BIOL& 223	Majors Organismal Phys	5
CHEM& 141	General Chemistry I	4
CHEM& 142	General Chemistry II	4
CHEM& 143	General Chemistry III	4
CHEM& 151	General Chemistry Laboratory I	1
CHEM& 152	General Chemistry Laboratory II	1
CHEM& 153	General Chemistry Laboratory III	2
Electives		

Select 14 additional term credits/units ²	14
Total Credits/Units	90

¹ Check with transfer institution to see if MATH 147 will also be necessary.

² Note: Clark's chemistry sequence has 16 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:

- Acquire scientific information from appropriate sources to analyze issues, claims or situations.
- Apply scientific methodologies to develop and answer questions about the natural world.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

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)(Plan Code: BAMBUAPT) (p. 39)
- Business (DTA/MRP)(Plan Code: BUCBUAA) (p. 39)
- Small Business Management (CP)(Plan Code: SBMSMC45) (p. 40)
- Supervisory Management (CP)(Plan Code: HRPSMC45) (p. 41)
- Supervisory Management (AAS)(Plan Code: HRPSMAPT) (p. 41)

Business Administration (AAS)(Plan Code: BAMBUAPT)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Health & Physical Education</i>		
Course Options (p. 270)		3
<i>Humanities</i>		
CMST& 220	Public Speaking	5
	or CMST& 230 Small Group Communication	
<i>Natural Sciences</i>		
Course Options (p. 272)		5
<i>Computational Skills</i>		
BUS 102	Business Math Applications	5
<i>Human Relations</i>		
BUS 148	Business Professional Self Development	3
<i>Social Sciences</i>		
ECON 101	Introduction to Economics	3
Business Core		
ACCT 129	Basic Accounting Procedures	5
BUS& 101	Introduction to Business	5
BUS 150	Computer Business Applications	5

MGMT 101	Principles of Management	3
Major Area Requirements		
ACCT 136	Accounting Applications	3
BUS 110	Customer Service	3
BUS 115	Small Business Management	5
BUS 199	Cooperative Work Experience ¹	5
BUS 211	Business Communications	3
BUS 260	Principles of Marketing	5
BUS& 201	Business Law	5
MGMT 103	Applied Management Skills	3
MGMT 126	Introduction to Project Management	4
<i>Electives</i>		
COLL 101	College Essentials: Introduction to Clark	2
<i>Additional electives from ACCT/BUS/ECON/ MGMT</i>		5
Total Credits/Units		90

¹ A minimum of 5 credit/units of BUS 199 are required for the AAS.

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 effective communication skills and terminology appropriate to a business \ environment. (Management)
- Apply appropriate interpersonal skills to interact effectively with customers through a variety of methods. (Customer Service)
- Perform all steps of the accounting cycle, using both general and specialized journals. (Accounting)
- Develop product, pricing, promotion, and distribution strategies to meet organizational needs. (Marketing)

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Business (DTA/MRP)(Plan Code: BUCBUAA)

Basic Requirements

Communication Skills

ENGL& 101 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/units 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)

Additional Requirements

- To receive this degree, students must have a 2.0 cumulative GPA.

Please note, completion of this degree does not guarantee admission to senior institution.

Code	Title	Credits/ Units
Basic Requirements		
Communications Skills		
ENGL& 101	English Composition I	5
ENGL& 102	English Composition II	5
	or ENGL& 235 Technical Writing	
Quantitative/Symbolic Reasoning Requirement		
Course 1:		5
Select one from the following:		
MATH& 148	Business Calculus	
	or MATH& 1!Calculus I	
	or MATH& 1!Calculus II	
	or MATH& 2!Calculus IV	
Course 2:		5
Select one from the following:		
MATH 103	College Trigonometry	
	or MATH 104Finite Math with Support	

or MATH 105Finite Mathematics		
MATH 110	College Algebra With Support	
	or MATH 111College Algebra	
MATH& 153	Calculus III	
MATH 215	Linear Algebra	
MATH 221	Differential Equations	
Distribution Requirements		
Humanities		
Course Options (p. 265) ¹		15
Social Sciences		
ECON& 201	Micro Economics	5
ECON& 202	Macro Economics	5
Select a Social Science from outside Economics (p. 266)		5
Natural Sciences		
MATH& 146	Introduction to Stats	5
10 (ten) additional credits of Natural Science (p. 267)		10
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. 268)		5
Total Credits/Units		90

¹ CMST& 220 is strongly recommended.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Small Business Management (CP)
(Plan Code: SBMSMC45)

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.

Code	Title	Credits/ Units
General Education Requirements		
Communication Skills (minimum 3 credits/units required)		
ENGL& 101	English Composition I	5
Computational Skills (minimum 3 credits/units required)		
BUS 102	Business Math Applications	5
Human Relations (minimum 3 credits/units required)		
BUS 148	Business Professional Self Development	3
Business Core Course		
ACCT 129	Basic Accounting Procedures	5

BUS 150	Computer Business Applications	5
BUS& 101	Introduction to Business	5
MGMT 101	Principles of Management	3
Major Area Requirements		
BUS 115	Small Business Management	5
BUS 260	Principles of Marketing	5
COLL 101	College Essentials: Introduction to Clark	2
ECON 101	Introduction to Economics	3
Total Credits/Units		46

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:

- Prepare a business plan.
- Perform all steps of the accounting cycle, using both general and specialized journals.
- Develop product, pricing, promotion, and distribution strategies to meet organizational needs.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Supervisory Management (CP)(Plan Code: HRPSMC45)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication (minimum 3 credits/units required)</i>		
ENGL& 101	English Composition I	5
<i>Computational Skills (minimum 3 credits/units required)</i>		
BUS 102	Business Math Applications	5
<i>Human Relations (minimum 3 credits/units required)</i>		
BUS 148	Business Professional Self Development	3
Business Core Courses		
ACCT 129	Basic Accounting Procedures	5
BUS& 101	Introduction to Business	5
BUS 150	Computer Business Applications	5
MGMT 101	Principles of Management	3
Major Area Requirements		
COLL 101	College Essentials: Introduction to Clark	2
ECON 101	Introduction to Economics	3
MGMT 103	Applied Management Skills	3

MGMT 110	Creative Problem Solving	3
MGMT 128	Human Resources Management	3
Total Credits/Units		45

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:

- Effectively manage people and resources to meet organizational goals.
- Apply managerial techniques for decision making, problem solving, and facilitating change.
- Identify applicable laws related to human resource issues and functions.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Supervisory Management (AAS)(Plan Code: HRPSMAPT)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills ¹</i>		
ENGL& 101	English Composition I	5
<i>Health and Physical Education</i>		
Course Options (p. 270)		3
<i>Humanities</i>		
CMST& 220	Public Speaking	5
or CMST& 230 Small Group Communication		
<i>Natural Sciences</i>		
Course Options (p. 272)		5
<i>Social Science</i>		
ECON 101	Introduction to Economics	3
<i>Computational Skills</i>		
BUS 102	Business Math Applications	5
<i>Human Relations</i>		
BUS 148	Business Professional Self Development	3
Business Core		
ACCT 129	Basic Accounting Procedures	5
BUS& 101	Introduction to Business	5
BUS 150	Computer Business Applications	5
MGMT 101	Principles of Management	3

Major Area Requirements

BUS 105	Introduction to International Business	3
BUS 110	Customer Service	3
BUS 199	Cooperative Work Experience ²	5
BUS& 201	Business Law	5
BUS 211	Business Communications	3
COLL 101	College Essentials: Introduction to Clark	2
MGMT 103	Applied Management Skills	3
MGMT 106	Motivation and Performance	3
MGMT 110	Creative Problem Solving	3
MGMT 112	Conflict Management	2
MGMT 126	Introduction to Project Management	4
MGMT 128	Human Resources Management	3
<i>Additional electives from ACCT/BUS/ECON/MGMT</i>		6
Total Credits/Units		92

¹ Six (6) credits/units maximum.

² A minimum of 5 credit/units of BUS 199 are required for the AAS.

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 human resource issues, ethical standards, and applicable laws.
- Use effective communication skills and terminology appropriate to a business environment.
- Analyze management problems/opportunities, make decisions, and prepare solutions in increasingly effective ways.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

COMPUTER SCIENCE

Associate of Applied Technology in Computer Science (AAT CS)

Computer Science involves the design, development and analysis of computer programs and applications. Computer scientists have expertise in programming and software development which applies to a wide variety of products and services. Put simply, any device with a processor (i.e., a smart device) requires a computer scientist to program it. They work in multi-disciplinary teams on computer systems, security, Artificial Intelligence, gaming, robotics, automation, banking, healthcare, and in many other areas.

Students successfully completing courses in this program are Associate of Applied Technology in Computer Science and become eligible to apply to Clark College's Bachelor of Science in Computer Science degree program or apply for a computer program technician position

Clark College's Computer Science faculty bring their extensive industry and teaching experience to the classroom. Faculty maintain close ties with students and employers to ensure Clark students are prepared to succeed in their career.

All students interested in Computer Science should contact a Computer Science faculty advisor in order to develop an education plan as soon as possible. Advising schedules are available at <https://www.engrcs.com/schedule>

Bachelor of Science in Computer Science (BSCS)

Computer Science involves the design, development and analysis of computer programs and applications. Computer scientists have expertise in programming, cloud computing, Artificial Intelligence, security, networking, algorithms, digital logic, and software engineering.

Computer scientists work with a wide variety of products and services. Put simply, any device with a processor (i.e., a smart device) requires a computer scientist to program it. They work in multi-disciplinary teams on computer systems, security, Artificial Intelligence, gaming, robotics, automation, banking, healthcare, and in many other areas.

Computer science students at Clark College have the opportunity to develop projects by applying their classroom knowledge to solve real-world problems. Projects involve developing concepts, creating algorithms, programming, and presenting the results. Upon completion of this program of study, students obtain a Bachelor of Science in Computer Science (BSCS) and would be qualified for a wide range of computer software development opportunities.

Students successfully completing year one and two courses are awarded an Associate of Applied Technology – Computer Science and become eligible to apply to the Bachelor of Science in Computer Science degree program. Students accepted to the BSCS program who successfully complete year three and four courses are awarded a Bachelor of Science in Computer Science.

Clark College's Computer Science faculty bring their extensive industry and teaching experience to the classroom. Faculty maintain close ties with students and employers to ensure Clark students are prepared to succeed in their career.

All students interested in Computer Science should contact a Computer Science faculty advisor in order to develop an education plan as soon as

possible. Advising schedules are available at <https://www.engrcs.com/schedule>.

Selection Process for the BSCS

Upon completion of the required courses for the first two years of the program, students may be accepted to the Bachelor of Science in Computer Science Degree program.

A three- to five-member committee of BSCS faculty will be responsible for the student selections process. The admission decision shall be made based on the following criteria:

1) Student Transcripts (40%)

Overall Grade Point Average (GPA) in required Computer Science courses for the first two year of the program.

2) Personal Essay (20%)

The personal essay allows students to share their reasons for pursuing the Bachelor of Science in Computer Science degree, their ability to contribute to the program, as well as the factors that led them to select Clark College for this degree program.

Example Prompt: "In an essay of no more than 500 words, please share with the selection committee your reasons for pursuing a Computer Science degree, your ability to contribute to this program, as well as any factors that led you to select Clark College specifically to pursue this degree."

3) Proficiency (40%)

Students are expected to write a computer program in response to a provided problem statement using only pencil and paper, under supervision of selection committee or an appointee. The program will be evaluated based on its algorithm, structure, and correctness of approach. Correctness of syntax is given minimal value in the evaluation.

- Computer Science (AAT)(Plan Code: COPCSAPT) (p. 43)
- Computer Science (BS)(Plan Code: CSACSBS) (p. 44)

Computer Science (AAT)(Plan Code: COPCSAPT)

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.

Code	Title	Credits/ Units
Communication Skills (5 credits required)		
ENGL& 101	English Composition I	5
Human Relations (5 credits Required)		
CMST& 230	Small Group Communication	5
Computational Skills (5 credits required) ¹		
MATH 111 or MATH 110	College Algebra College Algebra With Support	5
Major Core Requirements (76 credits required)		
CSE 101	Engineering and Computer Science Orientation	1
CSE 222	Introduction to Data Structures	5
CSE 223	Data Structures & Object-Oriented Programming	5
CSE 224	Programming Tools	5
CSE 250	Digital Logic Design	5
CSE 120	Introduction to Electrical/Computing	5
CSE 121	Introduction to C	5

CSE 215	Discrete Structures	5
ECON& 202	Macro Economics	5
MATH 103	College Trigonometry	5
MATH 215	Linear Algebra	5
MATH& 146	Introduction to Stats	5
MATH& 151	Calculus I	5
MATH& 152	Calculus II	5
Two 5 credit natural science course with lab ²		10
Total Credits/Units		91

¹ CSE Specialization Requirement Courses may be taken in place of any required Mathematics courses that a student has shown mastery of due to placement scores or prior experience.

² Any 5 credit natural science course with lab as long as they are from two distinct sciences. Recommendations: CHEM& 121 and BIOL& 100.

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:

- ANALYSIS: Analyze computing solutions utilizing computing principles.
- DESIGN: Develop solutions to computing problems.
- TEAMWORK: Function effectively as a member of a team.
- COMMUNICATION: Communicate computing solutions effectively.

Computer Science (BS)(Plan Code: CSACSBBS)

Updated 07.01.26 - please refer to degrees and certificate corrections page (<https://catalog.clark.edu/corrections/program-corrections/>) (<https://catalog.clark.edu/corrections/degrees-certificate-corrections/>) for updates

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills (10 credits required)</i>		
ENGL& 101	English Composition I	5
ENGL& 235	Technical Writing	5
<i>Quantitative Skills (30 credits required) ¹</i>		
MATH 103	College Trigonometry	5
MATH 111	College Algebra	5
or MATH 110	College Algebra With Support	
MATH& 146	Introduction to Stats	5
MATH& 151	Calculus I	5
MATH& 152	Calculus II	5
MATH 215	Linear Algebra	5

<i>Social Science & Humanities (15 credit required)</i>		
ECON& 202	Macro Economics	5
CMST& 230	Small Group Communication	5
PHIL 420	Ethics In Management	5
<i>Natural Science (10 credits required) ²</i>		
Course Options (p. 267)		10
Major Core Requirements (89 credits required)		
CSE 101	Engineering and Computer Science Orientation	1
CSE 120	Introduction to Electrical/Computing	5
CSE 121	Introduction to C	5
CSE 215	Discrete Structures	5
CSE 222	Introduction to Data Structures	5
CSE 223	Data Structures & Object-Oriented Programming	5
CSE 224	Programming Tools	5
CSE 250	Digital Logic Design	5
CSBS 310	Software Engineering	4
CSBS 315	Programming Language Design	4
CSBS 320	Design & Analysis of Algorithms	4
CSBS 325	Software Design & Development	4
CSBS 330	Computer Networks	4
CSBS 340	Introduction to Database Systems	4
CSBS 345	System Programming	4
CSBS 370	Computer Organization & Architecture	5
CSBS 410	Project & Program Management	4
CSBS 420	Human-Computer Interface	4
CSBS 490	Capstone Project I	4
CSBS 491	Capstone Project II	4
CSBS 492	Capstone Project III	4
Major Specialization Requirements (26 credits/units required)		
Student are required to complete minimum of 26 (twenty-six) credits/ 26 units that include two distinct three-course specialization course sequences:		
<i>Artificial Intelligence</i>		
CSBS 430	Introduction to Artificial Intelligence	
CSBS 431	Fundamentals of Artificial Intelligence	
CSBS 432	Application of Artificial Intelligence	
<i>Data Science</i>		
CSBS 435	Introduction to Data Science	
CSBS 436	Fundamentals of Data Science	
CSBS 437	Application of Data Science	
<i>Cloud Computing</i>		
CSBS 440	Introduction to Cloud Computing	
CSBS 441	Fundamentals of Cloud Computing	
CSBS 442	Application of Cloud Computing	
<i>Mobile Computing</i>		
CSBS 445	Introduction to Mobile Application	
CSBS 446	Fundamentals of Mobile Application	
CSBS 447	Developing Mobile Applications	
<i>Cybersecurity ³</i>		
CSBS 450	Survey of Cybersecurity	
CSBS 451	Fundamentals of Cybersecurity	
Total Credits/Units		180

¹ CSBS Specialization Requirement Courses may be taken in place of any required Mathematics courses that a student has shown mastery of due to placement scores or prior experience.

² Any 5 credit natural science course with lab as long as they are from two distinct sciences. Recommendations: CHEM& 121 and BIOL& 100.

³ Two-course sequences will not count toward the requirement of two three-course specialization sequences.

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:

- ANALYSIS : Analyze contemporary computing solutions utilizing computing principles.
- DESIGN: Develop solutions to real world computing problems.
- ETHICS: Apply ethical principles to computing practice.
- TEAMWORK: Function effectively as a member of a professional team in the development of computing solutions.
- COMMUNICATION: Communicate computing solutions effectively in a variety of professional contexts.

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 student'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)(Plan Code: MIAISC45) (p. 46)
- Computer Support Specialist (AAT)(Plan Code: MIACTAPT) (p. 46)

Information Technology Skills (CP) (Plan Code: MIAISC45)

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.

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

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills (3 credits required)</i>		
ENGL& 101	English Composition I	5
or PTWR 135	Introduction to Applied Technical Writing	
<i>Computational Skills (3 credits required)</i>		
PTCS 110	Professional Technical Computational Skills	5
Or completed MATH course with 'C' or better where prerequisites are MATH 92 or higher		5
<i>Human Relations</i>		

CTEC 104	IT Support	3
Major Area Requirements		
BUS 149	Computer Application Essentials	3
CTEC 106	Information Technology Fundamentals	5
CTEC 111	Powershell Fundamentals	3
CTEC 115	Internet Research and Living Online	3
CTEC 130	Microsoft Windows OS Fundamentals	3
CTEC 131	Microsoft Networking Fundamentals	3
CTEC 205	Introduction to Managed Information Systems	5
CTEC 213	CompTIA A+ Fundamentals	4
CTEC 214	CompTIA A+ Operating Systems & Networking	4
NTEC 103	IP Subnetting	3
Total Credits/Units		49

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 the ethical and legal issues surrounding access to and use of technology.
- Demonstrate foundational understanding of concepts, skills and issues relating to underlying technology and current industry standards involving computer technology.
- Install, configure, and maintain hardware and software to bring the system to an appropriate operational level for the end.
- Diagnose, troubleshoot and repair customer hardware, software, and networking issues.
- Identify, access, and evaluate resources, and respond appropriately and professionally with written and verbal communications to colleagues and customers.
- Maintain a professional and supportive role with colleagues and customers in regard to their computer technology needs.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Computer Support Specialist (AAT) (Plan Code: MIACTAPT)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
or PTWR 135	Introduction to Applied Technical Writing	

Computational Skills		
PTCS 110	Professional Technical Computational Skills	5
or completed MATH course with 'C' or better where prerequisite requirements are MATH 96 or higher		5
Human Relations		
CTEC 104	IT Support	3
COLL 101	College Essentials: Introduction to Clark	2
Major Area Requirements		
BUS 149	Computer Application Essentials	3
CTEC 106	Information Technology Fundamentals	5
CTEC 111	Powershell Fundamentals	3
CTEC 115	Internet Research and Living Online	3
CTEC 121	Intro to Programming & Problem Solving	5
CTEC 130	Microsoft Windows OS Fundamentals	3
CTEC 131	Microsoft Networking Fundamentals	3
CTEC 132	Microsoft Windows Server Fundamentals	4
CTEC 133	Microsoft Security Fundamentals	3
CTEC 134	Microsoft Database Admin	5
CTEC 145	Web Server Technology	5
CTEC 200	Help Desk Technician I	3
CTEC 201	Help Desk Technician II	3
or CTEC 199	Cooperative Work Experience	
CTEC 205	Introduction to Managed Information Systems	5
CTEC 213	CompTIA A+ Fundamentals	4
CTEC 214	CompTIA A+ Operating Systems & Networking	4
CTEC 233	CompTIA Security+	5
CTEC 235	CompTIA Cybersecurity	5
NTEC 103	IP Subnetting	3
NTEC 141	Microsoft Azure Cloud Fundamentals	3
Total Credits/Units		92

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

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:

- Install, configure, and maintain hardware and software to bring the system to an optimal operational level for the end user.
- Diagnose, troubleshoot and repair customer hardware, software, and networking issues in a variety of environments.
- Identify, access, and evaluate resources, and respond appropriately and professionally with written and verbal communications to colleagues and customers.
- Analyze the ethical and legal issues surrounding access to and use of technology.
- Demonstrate broad based understanding of concepts, skills and issues relating to underlying technology and current industry standards involving computer and information technology.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

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. Check out enrollment requirements here (<https://www.clark.edu/academics/programs/business-and-entrepreneurship/cuisine/apply.php>).

- Baking and Pastry Arts Fundamentals (CA)(Plan Code: BPABPC20) (p. 48)
- Professional Baking and Pastry Arts Management (AAT)(Plan Code: BPAPBAPT) (p. 48)
- Cuisine Fundamentals (CA)(Plan Code: CACCFC20) (p. 49)
- Cuisine Management (AAT)(Plan Code: CACCMAPT) (p. 49)

Baking and Pastry Arts Fundamentals (CA)(Plan Code: BPABPC20)

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 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.

This Certificate of Achievement is posted to students' official transcripts automatically upon completion of the specified requirements, students do not need to apply for graduation to be awarded.

Code	Title	Credits/ Units
Major Area Requirements		
PBAK 110	Artisan Breads	9
PBAK 111	Early Morning Product	5
PBAK 120	Viennoiserie	9
PBAK 121	Cookies, Brownies, Bars and Quick Breads	5

PBAK 130	Cakes, Desserts and Tortes	9
PBAK 131	Retail Operations and Barista	5
Total Credits/Units		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:

- 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

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Professional Baking and Pastry Arts Management (AAT)(Plan Code: BPAPBAPT)

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 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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
PTWR 135	Introduction to Applied Technical Writing ¹	5
or ENGL& 101	English Composition I	
<i>Computational Skills</i>		
PTCS 110	Professional Technical Computational Skills ¹	5
or MATH& 146	Introduction to Stats	
<i>Human Relations</i>		
COLL 101	College Essentials: Introduction to Clark	2

MGMT 101	Principles of Management	3
or BUS 148	Business Professional Self Development	

Major Area Requirements

PBAK 110	Artisan Breads	9
PBAK 111	Early Morning Product	5
PBAK 120	Viennoiserie	9
PBAK 121	Cookies, Brownies, Bars and Quick Breads	5
PBAK 130	Cakes, Desserts and Tortes	9
PBAK 131	Retail Operations and Barista	5
PBAK 200	Applied Professional Development	9
PBAK 210	Production Baking	9
PBAK 220	Pastry Chef/Restaurant Baking	9
PBAK 221	Retail/Merchandising, Inventory/Purchasing	5
PBAK 225	Cake Decorating	5
PBAK 230	Capstone Project	6
PBAK 231	Industry Internship	4

Total Credits/Units **104**

¹ These courses are recommended

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 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Cuisine Fundamentals (CA)(Plan Code: CACCF20)

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

Code	Title	Credits/ Units
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Major Area Requirements

CUIS 110	Culinary Fundamentals I	5
CUIS 111	Professional Cooking I	8
CUIS 120	Culinary Fundamentals II	5
CUIS 121	Professional Cooking II	8
CUIS 130	Culinary Fundamentals III	5
CUIS 131	Professional Cooking III	8

Specialized Short courses

Select a minimum of four credits/units from the following: **4**

CUIS 140	Classic and Modern Soups and Sauces
CUIS 141	Meat Cutting and Fabrication
CUIS 142	Wine, Beer, Spirits and Food Pairings
CUIS 143	Restaurant Baking
CUIS 144	Catering Operations
CUIS 145	Wine Appreciation
CUIS 147	Barbeque Basics
CUIS 148	Advanced Garde Manger

Total Credits/Units **43**

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 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Cuisine Management (AAT)(Plan Code: CACCMAPT)

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 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 healthy cooking options, special dietary needs, international cuisine, food cost management, industry trends and sustainable production.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
PTWR 135	Introduction to Applied Technical Writing ¹	5
or ENGL& 101	English Composition I	
<i>Computational Skills</i>		
PTCS 110	Professional Technical Computational Skills ¹	5
or MATH& 146	Introduction to Stats	
<i>Human Relations</i>		
COLL 101	College Essentials: Introduction to Clark	2
MGMT 101	Principles of Management	3
or BUS 148	Business Professional Self Development	
Major Area Requirements		
CUIS 110	Culinary Fundamentals I	5
CUIS 111	Professional Cooking I	8
CUIS 120	Culinary Fundamentals II	5
CUIS 121	Professional Cooking II	8
CUIS 130	Culinary Fundamentals III	5
CUIS 131	Professional Cooking III	8
CUIS 200	Career Explorations	9
CUIS 210	Advanced Culinary Fundamentals	5
CUIS 211	Advanced Culinary Practices	8
CUIS 220	Management and Banquet Theory	5
CUIS 221	Management Practices	8
CUIS 230	Cuisine Capstone	6
CUIS 231	Industry Internship	4
Specialized Short Courses		
Select a minimum of six credits/units from the following:		6
CUIS 140	Classic and Modern Soups and Sauces	
CUIS 141	Meat Cutting and Fabrication	
CUIS 142	Wine, Beer, Spirits and Food Pairings	
CUIS 143	Restaurant Baking	
CUIS 144	Catering Operations	
CUIS 145	Wine Appreciation	
CUIS 147	Barbeque Basics	
CUIS 148	Advanced Garde Manger	
Total Credits/Units		105

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 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

¹ Of the two courses, this one is recommended

CYBERSECURITY (BAS)

Cybersecurity BAS program entrance consideration is based on the following:

- Completion of the Clark College Application for Admission (if new to Clark College)
- Completion of the Cybersecurity BAS Program Intent Form (a non-refundable program application fee of \$50 is required at the time of application submission)
- Official transcripts from all other colleges sent to Clark College Enrollment Services
- Completion of an AA, AAS, AAT, or higher from a regionally accredited institution with a minimum cumulative GPA of 2.00 overall, and 2.50 or above in core program coursework
- Eligibility for the following courses: PHIL& 120 and ENGL& 235
- Completion of 5 math credits/units – any generally transferable math course with Intermediate Algebra as a prerequisite
- Completion of 5 English credits/units – any generally transferable English composition/writing course
- Attend a pre-program advising session with a trained professional or faculty advisor
- Attend a program orientation session

Questions about any step in this process? Contact the Advising Department at 360-992-2345 or cyber@clark.edu.

- Cybersecurity (BAS)(Plan Code: CISCYBAS) (p. 51)

Cybersecurity (BAS)(Plan Code: CISCYBAS)

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.

Code	Title	Credits/ Units
General Education Requirements (60 credits/units required)		
<i>Communication Skills (10 credits required)</i>		
ENGL& 101	English Composition I	5
CMST 310	Organizational Communication	5
<i>Quantitative/Symbolic Reasoning (5 credits required)</i>		
Any generally transferrable Symbolic Logic or MATH course with an intermediate algebra prerequisite.		5
Select one option (p.)		
<i>Humanities (10 credits required)</i>		
CMST& 210	Interpersonal Communication	5
or CMST& 220 Public Speaking		
or CMST& 230 Small Group Communication		
PHIL 420	Ethics In Management	5
<i>Social Science (10 credits required)</i>		
SOC 315	Organizational Behavior	5
Select one option (p.)		5
<i>Natural Science (10 credits required)</i>		

ENVS 430	Sustainability & Environmental Practices	5
Select one option (p.)		5
<i>Additional General Education Courses (15 credits required)</i>		
Courses with the following course attributes/designators can satisfy this requirement - HA, HB, NS, NS-Lab, OC, Q, SS, WC		
Course options (p. 265)		15
Major Area Requirements		
CBAS 321	Enterprise Networking Foundation	5
CBAS 361	Cybersecurity Programming & Scripting Foundation	5
CBAS 364	IoT Foundation: Connecting Things	5
CBAS 365	Big Data & Analytics Foundation	5
CBAS 371	Cybersecurity Foundation	5
CBAS 472	Cybersecurity Penetration Testing	5
CBAS 473	Cybersecurity Analyst	5
CBAS 475	Cybersecurity Operations	5
CBAS 499	Capstone Project	5
<i>Qualifying AA/AAS/AAT courses (75 credits required) ¹</i>		75
Total Credits/Units		180

¹ Please work with advisor to identify any outstanding needs based on associate degree credits already earned.

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:

- Plan, implement, administer, and support enterprise information technologies and systems.
- Analyze the security vulnerabilities of an organization's information technology resources.
- Plan and implement security measures and practices for an organization's information technology resources.
- Evaluate organization needs, and use those to plan the implementation of information technology systems.
- Cybersecurity (BAS)(Plan Code: CISCYBAS) (p. 51)

DENTAL HYGIENE (BAS)

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.

The Dental Hygiene Program Guide is posted on the Dental Hygiene website at: <http://www.clark.edu/academics/programs/health-care-and-biosciences/dental/index.php> (<http://www.clark.edu/academics/programs/health-care-and-biosciences/dental/>)

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 Access Center (DAC) office to support his/her accommodation requests. Documentation guidelines and procedures can be found at www.clark.edu/ (<https://www.clark.edu/dac/>)dac (<https://www.clark.edu/dac/>). Once the student is qualified by DAC 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)(Plan Code: DEHDHBAS) (p. 52)

Dental Hygiene (BAS)(Plan Code: DEHDHBAS)

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.

Code	Title	Credits/ Units
General Education Requirements		
Communication Skills		
ENGL& 101	English Composition I	5
ENGL& 102	English Composition II	5
Humanities		
CMST& 210	Interpersonal Communication	5
or CMST& 220	Public Speaking	
or CMST& 230	Small Group Communication	
or CMST& 240	Intercultural Communication	
In addition to the CMST& course, select 5 credits/units of Humanities (HA/HB) from the following:		5
Course Options (p. 265)		
Social Sciences		
PSYC& 100	General Psychology	5
SOC& 101	Introduction to Sociology	5
College-level Math		
MATH& 146	Introduction to Stats (recommended)	5
Course Options (p. 265)		
Natural Sciences ¹		
BIOL& 160	General Biology W/Lab	5
BIOL& 260	Microbiology	5
CHEM& 121	Intro to Chemistry: Pre-Health	5
CHEM& 131	Intro to Organic/Biochem	5
NUTR& 101	Nutrition	3
Select one of the following		10-15
BIOL& 251 & BIOL& 252 & BIOL& 253	Human A & P I and Human A & P II and Human A & P III	
or		
BIOL& 241 & BIOL& 242	Human Anatomy and Physiology I and Human Anatomy and Physiology II	
Physical Education		
Select one fitness/activity course (p. 265)		1
Junior Year		
Fall Term		
DH 282	Pharmacology I	1
DH 283	Clinical Dental Hygiene Techniques I	6
DH 284	Oral Medicine	2
DH 285	Periodontics I	3
DH 286	Dental Anatomy	3

DH 292	Introduction to Digital Management Systems	1
<i>Winter Term</i>		
DH 303	Head and Neck Anatomy	3
DH 313 & DH 393	Clinical Dental Hygiene Techniques II and Clinical Dental Hygiene Techniques II Lab	6
DH 323	Oral Radiology I	3
DH 353	Ethics and The Profession	1
DH 373	Cariology	2
DH 383	Pharmacology II	1
<i>Spring Term</i>		
DH 304	Educational Theory and Application	2
DH 314 & DH 394	Clinical Dental Hygiene Techniques III and Clinical Dental Hygiene Techniques III Lab	6
DH 324	Oral Radiology II	1
DH 344	General and Oral Pathology	3
DH 364	Local Anesthesia & Pain Control	4
DH 384	Pharmacology III	1
Senior Year		
<i>Summer Term</i>		
DH 301	Introduction to Dental Materials/Assisting	3
DH 321	Clinical Dental Hygiene Techniques IV	4
DH 331	Oral Radiology III	2
DH 431	Restorative Dentistry I	2
DH 451	Patient Care for Diverse Populations	1
DH 471	Nitrous Oxide Sedation	1
<i>Fall Term</i>		
DH 402	Dental Public Health - Research Methods I	2
DH 410	Behavior Modification	1
DH 412	Clinical Dental Hygiene Techniques V	8
DH 422	Clinical Dental Hygiene Techniques V Lab	1
DH 432	Restorative Dentistry II	5
DH 472	Periodontics II	2
<i>Winter Term</i>		
DH 403	Dental Public Health - Research Methods II	2
DH 413 & DH 423	Clinical Dental Hygiene Techniques VI and Clinical Dental Hygiene Techniques VI Lab	9
DH 433 & DH 443	Restorative Dentistry III and Restorative Dentistry III Lab	4
DH 463	Dental Hygiene Senior Clinic Seminar	1
DH 473	Periodontics III	2
<i>Spring Term</i>		
DH 404	Dental Public Health - Research Methods III	1
DH 414	Clinical Dental Hygiene Techniques VII	8
DH 424	Clinical Dental Hygiene Techniques VII Lab	1
DH 434 & DH 444	Restorative Dentistry IV and Restorative Dentistry IV Lab	3
DH 484	Capstone	3
Total Credits/Units		184-189

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 the roles of clinician, educator, and researcher to prevent oral diseases and promote health.
- Communicate and collaborate effectively and professionally, using verbal, non-verbal, and written language with diverse populations to include patients, colleagues, the public, 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, patient-centered dental hygiene care.
- Apply evidence-based decision-making through critical analysis of current research.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

¹ All science courses must be seven (7) years current upon program entry.

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 earth moving equipment.

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 program includes courses for Caterpillar, Cummins, and Detroit engines; electronic controls; and industrial hydraulics for technicians who wish to further their knowledge and skills.

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)(Plan Code: DMTDTC90) (p. 54)
- Diesel Technologies (AAS)(Plan Code: DMTDTAPT) (p. 54)

Diesel Technician (CP)(Plan Code: DMTDTC90)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills (minimum 3 credits/units required)</i>		
PTWR 135	Introduction to Applied Technical Writing (recommended)	5
<i>Computational Skills (minimum 3 credits/units required)</i>		
PTCS 110	Professional Technical Computational Skills (recommended)	5
<i>Human Relations (minimum 3 credits/units required)</i>		
Course Options (p. 270)		3
Major Area Requirements		
DIES 111	Diesel Fundamentals	5
DIES 112	Diesel Procedures	10
DIES 113	Diesel Engines/Fuel Systems	5
DIES 114	Diesel Procedures	10
DIES 115	Drive Trains	5
DIES 116	Diesel Procedures	10
DIES 120	Basic Electrical	3
DIES 121	Electronic Engine Management Systems	3
DIES 122	Electronic Vehicle Control Systems	3
DIES 221	Electrical/Electronic Systems	5
DIES 222	Diesel Procedures	6

DIES 223	Hydraulic Systems	5
DIES 224	Diesel Procedures	10
DIES 225	Brakes, Steering, and Suspension	5
DIES 226	Diesel Procedures	10
Total Credits/Units		104-108

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 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.

Update made 5/16/25. Please see correction page (<https://catalog.clark.edu/corrections/degrees-certificate-corrections/>) for details.

In an effort to properly evaluate our current offerings in the Diesel program we are not accepting new students into the program for the 2025-26 academic year. Depending on the review of the program, we may resume offering our regular two-year curriculum starting in the 2026-27 academic year.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Diesel Technologies (AAS)(Plan Code: DMTDTAPT)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
PTWR 135	Introduction to Applied Technical Writing	5
<i>Health & Physical Education</i>		
Course Options (p. 270)		3
<i>Computational Skills</i>		
PTCS 110	Professional Technical Computational Skills	5
<i>Human Relations</i>		
CMST& 230	Small Group Communication	5
or CMST& 210 Interpersonal Communication		

<i>Humanities</i>		
Course Options (p. 271)		3
<i>Social Sciences</i>		
Course Options (p. 272)		3
<i>Natural Sciences</i>		
Course Options (p. 272)		3
Major Area Requirements		
DIES 111	Diesel Fundamentals	5
DIES 112	Diesel Procedures	10
DIES 113	Diesel Engines/Fuel Systems	5
DIES 114	Diesel Procedures	10
DIES 115	Drive Trains	5
DIES 116	Diesel Procedures	10
DIES 120	Basic Electrical	3
DIES 121	Electronic Engine Management Systems	3
DIES 122	Electronic Vehicle Control Systems	3
DIES 221	Electrical/Electronic Systems	5
DIES 222	Diesel Procedures	6
DIES 223	Hydraulic Systems	5
DIES 224	Diesel Procedures	10
DIES 225	Brakes, Steering, and Suspension	5
DIES 226	Diesel Procedures	10
Total Credits/Units		122

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:

- 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.

Update made 5/16/25. Please see correction page (<https://catalog.clark.edu/corrections/degrees-certificate-corrections/>) for details.

In an effort to properly evaluate our current offerings in the Diesel program we are not accepting new students into the program for the 2025-26 academic year. Depending on the review of the program, we may resume offering our regular two-year curriculum starting in the 2026-27 academic year.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

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)(Plan Code: DMWDMAPT) (p. 56)

Digital Media Arts (AAT)(Plan Code: DMWDMAPT)

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 Digital Media Arts AAT degree prepares students for careers in creative media production, design, and storytelling across digital platforms. Through hands-on experience in video, audio, animation, motion graphics, social media, and AI-assisted creative tools, students develop industry-ready skills. Flexible pathways in web design, programming, and UX/UI allow students to tailor their studies to specific career goals.

Code	Title	Credits/ Units
General Education Requirements		
<i>College Preparation</i>		
COLL 101	College Essentials: Introduction to Clark	2
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
or PTWR 135	Introduction to Applied Technical Writing	
<i>Computational Skills</i>		
PTCS 110	Professional Technical Computational Skills	5
<i>Human Relations</i>		
Select one from the following:		5
CMST& 210	Interpersonal Communication	
or CMST& 1	Intro to Mass Media	
or BUS& 101	Introduction to Business	
Major Area Requirements		
<i>Fine Art Foundations</i>		
ART 101	2D Art and Design	5
<i>Social Media Foundation</i>		
CTEC 166	Web Content and Social Media	5
or BUS 270	Introduction to Digital Marketing	
<i>Digital Media Arts</i>		
DMA 101	Photoshop Raster Graphics	4

DMA 102	Illustrator Vector Graphics	4
DMA 103	Audio Storytelling & Podcasting	4
DMA 104	Motion Graphics and Animation I	4
DMA 200	AI for Creative Media	4
DMA 201	Video and Sound Production I	4
DMA 202	Video and Sound Production II	4
DMA 203	Video and Sound Production III	4
DMA 204	Motion Graphics and Animation II	4
DMA 205	Motion Graphics and Animation III	4
<i>Web Design</i>		
CTEC 117	User Experience Design	4
<i>Select two from the following courses:</i>		<i>8-10</i>
CTEC 121	Intro to Programming & Problem Solving	
CTEC 122	HTML Fundamentals	
CTEC 160	WordPress I	
CTEC 270	Web and Interface Design I	
CTEC 271	Web and Interface Design II	
<i>Professional Development</i>		
DMA 114	Professional Practices and Portfolio I	4
DMA 214	Professional Practices and Portfolio II	5
DMA 215	Professional Studio Experience	5
Total Credits/Units		93-95

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:

- Contextual Communication: Strategize and articulate the context, purpose, and meaning of digital media messaging.
- Design Thinking: Engage in design thinking through user-centered, iterative design and evaluation process.
- Media Technology: Integrate media technology through synthesis of content, interaction and functionality.
- Professional Practice: Demonstrate professional practices through industry preparation, performance and portfolio.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

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 (CA)(Plan Code: ECEEC01) (p. 57)
- State Short Early Childhood Education Certificate of Specialization-General(CA)(Plan Code: ECEGEC20) (p. 57)
- State Short Early Childhood Education Certificate of Specialization-Infants and Toddlers(CA)(Plan Code: ECEITC20) (p. 58)
- State Short Early Childhood Education Certificate of Specialization-School Age Care(CA)(Plan Code: ECESAC20) (p. 58)
- State Early Childhood Education Certificate (CP)(Plan Code: ECESEC45) (p. 58)
- Early Childhood Education (AAS)(Plan Code: ECEECAPT) (p. 59)

State Initial Early Childhood Education Certificate (CC)(Plan Code: ECEEC01)

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 Certificate of Completion is posted to students' official transcripts automatically upon completion of the specified requirements, students do not need to apply for graduation to be awarded.

Code	Title	Credits/Units
Major Area Requirements		
ECED& 105	Introduction to Early Childhood Education	5
ECED& 107	Health/Safety/Nutrition	5
ECED& 120	Practicum-Nurturing Rel	2
Total Credits/Units		12

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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

State Short Early Childhood Education Certificate of Specialization-General(CA)(Plan Code: ECEGEC20)

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 Certificate of Achievement is posted to students' official transcripts automatically upon completion of the specified requirements, students do not need to apply for graduation to be awarded.

Code	Title	Credits/Units
Major Area Requirements		
ECED& 105	Introduction to Early Childhood Education	5
ECED& 107	Health/Safety/Nutrition	5
ECED& 120	Practicum-Nurturing Rel	2
EDUC& 115	Child Development	5
EDUC& 130	Guiding Behavior	3
Total Credits/Units		20

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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

State Short Early Childhood Education Certificate of Specialization-Infants and Toddlers(CA)(Plan Code: ECEITC20)

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 Certificate of Achievement is posted to students' official transcripts automatically upon completion of the specified requirements, students do not need to apply for graduation to be awarded.

Code	Title	Credits/ Units
Major Area Requirements		
ECED& 105	Introduction to Early Childhood Education	5
ECED& 107	Health/Safety/Nutrition	5
ECED& 120	Practicum-Nurturing Rel	2
ECED& 132	Infants/Toddler Care	3
EDUC& 115	Child Development	5
Total Credits/Units		20

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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

State Short Early Childhood Education Certificate of Specialization-School Age Care(CA)(Plan Code: ECESAC20)

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 Certificate of Achievement is posted to students' official transcripts automatically upon completion of the specified requirements, students do not need to apply for graduation to be awarded.

Code	Title	Credits/ Units
Major Area Requirements		
ECED& 105	Introduction to Early Childhood Education	5
ECED& 107	Health/Safety/Nutrition	5
ECED& 120	Practicum-Nurturing Rel	2
EDUC& 115	Child Development	5
EDUC& 136	School Age Care	3
Total Credits/Units		20

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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

State Early Childhood Education Certificate (CP)(Plan Code: ECESEC45)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills (minimum 3 credits/units required)</i>		
Select one from the following:		3-5
PTWR 135	Introduction to Applied Technical Writing	
ENGL& 101	English Composition I	
ENGL& 102	English Composition II	
ENGL& 235	Technical Writing	
Computational Skills (minimum 3 credits/units required)		
Course Options (p. 270)		3-5
<i>Human Relations (minimum 3 credits/units required)</i>		
EDUC& 150	Child/Family/Community	3
Major Area Requirements		
ECED& 105	Introduction to Early Childhood Education	5
ECED& 107	Health/Safety/Nutrition	5
ECED& 120	Practicum-Nurturing Rel	2
ECED& 160	Curriculum Development	5
ECED& 170	Environments - Young Child: Learning Environments	3
ECED& 180	Language and Literacy Development	3
ECED& 190	Observation and Assessment	3
EDUC& 115	Child Development	5
Select one from the following:		3
EDUC& 130	Guiding Behavior	
EDUC& 136	School Age Care	
ECED& 132	Infants/Toddler Care	
ECED& 134	Family Child Care: Management	
ECED& 139	Admin Early Learning Program: Administration of ECE	
Additional Electives to meet minimum 45 credit/unit requirement		0-2
Total Credits/Units		45-47

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:

- 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Early Childhood Education (AAS) (Plan Code: ECEECAPT)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
Course Options (p. 270)		1
<i>Health & Physical Education</i>		
Course Options (p. 270)		3
<i>Computational Skills</i>		
Course Options (p. 270)		3
<i>Human Relations</i>		
EDUC& 150	Child/Family/Community	3
<i>Humanities</i>		
Course Options (p. 271)		3
<i>Social Sciences</i>		
Course Options (p. 272)		3
<i>Natural Sciences</i>		
ENVS 109	Integrated Environmental Science (recommended)	5
Major Area Requirements		
ECE 102	Science and Mathematics for Young Children	3
ECE 116	Literature and Storytelling for Children	2
EDUC& 240	Diversity in Education	5
ECE 135	Partnerships With Families In Early Care & Educ	3
ECE 199 & ECE 215	Cooperative Work Experience and Early Childhood Seminar	3-5
ECE 211 & ECE 212	Learning Experiences for Young Children II and Learning Experiences for Young Children II Lab	5
ECE 222	Learning Experiences Lab Section II	1
ECE 213 & ECE 214	Learning Experiences for Young Children III and Learning Experiences for Young Children III Lab	5
ECE 224	Learning Experience Lab Section III	1
ECED& 105 & ECED& 120	Introduction to Early Childhood Education and Practicum-Nurturing Rel	7
ECED& 107	Health/Safety/Nutrition	5
ECED& 160	Curriculum Development	5
ECED& 170	Environments - Young Child: Learning Environments	3
ECED& 180	Language and Literacy Development	3
ECED& 190	Observation and Assessment	3
EDUC& 115	Child Development	5
EDUC& 130	Guiding Behavior	3
EDUC& 204	Inclusive Education	5

ECED& 132	Infants/Toddler Care	3
or EDUC& 136	School Age Care	
Total Credits/Units		96-98

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:

- 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

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/ MRP)(Plan Code: EECCEAS) (p. 61)
- Concentration in Computer Engineering (AST2)(Plan Code: EECCEAS, Subplan Code: COMPTRENGR) (p. 63)
- Concentration in Electrical Engineering (AST2/MRP)(Plan Code: EECCEAS, Subplan Code: ELECTENGR) (p. 62)

Electrical and Computer Engineering (AST2/ MRP)(Plan Code: EECCEAS)

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.

Students must earn a 2.0 cumulative GPA in order to qualify for graduation from Clark College and are encouraged to connect with their potential transfer institution to confirm GPA and course requirements for acceptance. It is recommended that students complete the sequenced science courses before transferring.

Electrical Engineering Transfer Degree AST2 requires students to complete minimum of 95 quarter hours of transferable credit with a cumulative grade point average of at least 2.00. In order for a student to be junior ready in Electrical Engineering at specific transfer institutions, there are additional credits/units beyond the AST2 credit/unit requirements for this degree that a student need to consider. Please consult your faculty adviser to learn more and to develop your education plan (www.engrccs.com/schedule). The minimum required credits/units are distributed as follows:

Code	Title	Credits/ Units
Basic Requirements		
<i>Communication Skills (minimum 5 credits/units)</i>		
ENGL& 101	English Composition I	5
<i>Mathematics (minimum 25 credits/units) ¹</i>		
MATH& 151	Calculus I	5
MATH& 152	Calculus II	5
MATH& 153	Calculus III	5
MATH 215	Linear Algebra	5
MATH 221	Differential Equations ²	5
Distribution Requirements		

Coursework should be planned with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend.

<i>Humanities</i>		
Course Options (p. 265)		5
<i>Social Sciences</i>		
Course Options (p. 266) ³		5
<i>Additional Credits/Units in either Humanities or Social Sciences</i>		5
<i>Physics</i> ⁴		
Sequence One		
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	5
Sequence Two:		
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	5
Sequence Three:		
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	5
<i>Chemistry with Lab</i>		
CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	5
<i>Required Major Courses</i>		
ENGR& 204	Electrical Circuits	5
CSE 121	Introduction to C	5
Specialization Courses		
Select Minimum of five (5) specialization courses (minimum 20 - 25 credits/units) as appropriate for intended major and intended baccalaureate institution:		20-25
CSE 101	Engineering and Computer Science Orientation	
CSE 120	Introduction to Electrical/Computing	
CSE 250	Digital Logic Design	
ENGR 252	Electrical Circuits and Signals	
ENGR 253	Signals and Systems	
ENGR 270	Digital Systems and Microprocessors	
MATH& 254	Calculus IV	
ENGL& 235	Technical Writing	
Total Credits/Units		95-100

¹ Calculus I (MATH& 151/MATH& 151) requires the successful completion of both Trigonometry (MATH 103/MATH 103) and College Algebra (MATH 110/MATH 110/MATH 111/MATH 111), or recommending score on an approved placement test prior to registration.

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

² Clark requires concurrent enrollment or completion of MATH& 254/MATH& 254 with a grade of "C" or better.

³ Either ECON/ECON& course recommended

⁴ 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:

- 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Concentration in Electrical Engineering (AST2/MRP)(Plan Code: EECCEAS, Subplan Code: ELECTENGR)

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.

Code	Title	Credits/ Units
General Education Requirements		
Communication Skills (minimum 5 credits/units)		
ENGL& 101	English Composition I	5
Mathematics (minimum of 25 credits/units) ¹		
MATH& 151	Calculus I	5
MATH& 152	Calculus II	5
MATH& 153	Calculus III	5
MATH 215	Linear Algebra	5
MATH 221	Differential Equations	5
Distribution Requirements ²		
Coursework should be planned with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend		
Humanities (minimum 5 credits/units)		5
Course Options (p. 265)		
Social Sciences (minimum 5 credits/units) ²		5
Course Options (p. 266)		
Additional 5 credits/units in either Humanities or Social Sciences		5
Physics ³		

Complete the following 3-term physics sequence with the required concurrent enrollment		
Sequence One:		
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	5
Sequence Two:		
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	5
Sequence Three:		
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	5
Chemistry with Laboratory (minimum 5 credits/units)		
CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	5
Required Major Courses (minimum 10 Credits/Units)		
ENGR& 204	Electrical Circuits	5
CSE 121	Introduction to C	5
Electives		
Select 5 (five) specialization courses (minimum of 20-25 credits/units) <i>in</i> 20-25 consultation with an advisor as appropriate for intended specialization in the major and the intended transfer institution:		
ENGL& 235	Technical Writing	
CSE 101	Engineering and Computer Science Orientation	
CSE 120	Introduction to Electrical/Computing	
CSE 250	Digital Logic Design	
ENGR 252	Electrical Circuits and Signals	
ENGR 253	Signals and Systems	
MATH& 254	Calculus IV	
ENGR 270	Digital Systems and Microprocessors	
Total Credits/Units		95-100

¹ MATH 103 and MATH 111/MATH 110 are required prerequisites for MATH& 151 that may be needed if calculus placement is not met.
² WGES 101, ECON& 202 and HIST& 128 are recommended
³ Requires concurrent enrollment in PHYS 94/PHYS 95/PHYS 96

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 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry

method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Concentration in Computer Engineering (AST2)(Plan Code: EECCEAS, Subplan Code: COMPTRENGR)

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.

In order for a student to be junior ready in Computer Engineering at specific transfer institutions, there are additional credits beyond the AST2 credit requirements for this degree that a student need to consider. Please consult your faculty adviser to learn more and to develop your education plan (www.engrcs.com/schedule).

Code	Title	Credits/ Units
Basic Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Mathematics</i> ¹		
MATH& 151	Calculus I	5
MATH& 152	Calculus II	5
MATH& 153	Calculus III	5
MATH 215	Linear Algebra	5
MATH 221	Differential Equations	5
<i>Distribution Requirements</i>		
Coursework should be planned with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend.		
<i>Humanities</i>		
Course Options (p. 265)		5
<i>Social Sciences</i> ²		
Course Options (p. 266)		5
<i>Minimum of additional 5 credits in either Humanities or Social Sciences</i>		
<i>Physics</i> ³		
Complete the following 3-term physics sequence with the required concurrent enrollment:		
Sequence One:		
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	5
Sequence Two:		
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	5
Sequence Three:		
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	5
<i>Chemistry with Lab</i>		

CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	5
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Required Major Courses

ENGR& 204	Electrical Circuits	5
CSE 121	Introduction to C	5

Specialization Courses

Select Minimum of four (4) specialization courses (minimum 15-20 15-20 units) as appropriate for intended major and intended baccalaureate institution:

CSE 222	Introduction to Data Structures
CSE 223	Data Structures & Object-Oriented Programming
CSE 224	Programming Tools
ENGL& 235	Technical Writing
ENGR 101	Engineering and Computer Science Orientation
ENGR 120	Intro to Electrical/Computer Sci & Engineering
ENGR 252	Electrical Circuits and Signals
ENGR 250	Digital Logic Design
ENGR 253	Signals and Systems
ENGR 270	Digital Systems and Microprocessors
MATH& 254	Calculus IV

Total Credits/Units **90-95**

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

² WGES 101, ECON& 202 and HIST& 128 are recommended

³ Requires concurrent enrollment in PHYS 94/PHYS 95/PHYS 96

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.
- 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

EMERGENCY MEDICAL SERVICES

Emergency Medical Technician

EMTs work in the pre-hospital setting alongside Paramedics, Firefighters, and police. They must have a good driving record and pass a background check to volunteer or be employed as an EMT. Emergency Medical Technicians learn to manage, assess, and treat ill or injured patients both on scene and en-route to a medical facility. Clark College's Emergency Medical Technician course is for students that would like to pursue a career in the medical field with a focus on pre-hospital emergency care.

To request information, please contact:

Welcome Center
start@clark.edu
360-992-2078

Clark County Fire District 5
CCFD5.org
11606 NE 66th Street, Suite 103
Vancouver, WA 98662
(564) 397-2100

More about the course

The EMT course is a 12-credit/unit course taught in different modules that include lecture, laboratory, and field experience on an ambulance and fire engine.

Classes take place on Monday and Wednesday evenings throughout the academic year. This course is not available during summer quarter/term.

Preliminary Requirements:

We encourage students interested in the EMT course to review the minimum requirements listed below. The following requirements must be met and submitted to Clark County Fire District 5 one week prior to the first night of class. Please see CCFD5's website (<https://ccfd5.org/courses/emt-training/emt-online>) for exact deadline and further instructions.

- Adult 17 years or older for eligibility to register for this course. Must be at least 18 before you can apply for a WA state EMT licensure.
- High school diploma or GED required to be licensed in the state of WA, however not required to be eligible to test for the NREMT.
- Copy of a medical level CPR card such as: American Heart Association BLS (card can be earned by taking HLTH 124 offered each term at Clark College). Emergency Care and Safety Institute for Healthcare Providers, Red Cross BLS for Healthcare Providers, or a CPR course for Professional Rescuers)
- Copy of driver's license or passport.
- Hepatitis B Immunization record (3-series) or waiver
- MMR Immunization (twice in a lifetime or within the last 10 years) or waiver
- Negative TB skin test or chest X-ray (valid within a year)
- Washington State criminal background check (valid within six months before course start date). See Washington State Patrol website for directions on how to complete a background check: www.wsp.wa.gov

Course instruction takes place at Clark County Fire District 5. For more information please visit: Clark County Fire District 5.

Clark County Fire District 5
11606 NE 66th Street, Suite 103
Vancouver, WA 98662
Phone: (564) 397-2100

- Emergency Medical Technician Accelerated (CC)(Plan Code: EMAETC01) (p. 64)

Emergency Medical Technician Accelerated (CC)(Plan Code: EMAETC01)

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 Certificate of Completion is posted to students' official transcripts automatically upon completion of the specified requirements, students do not need to apply for graduation to be awarded.

Code	Title	Credits/ Units
Program Requirements		
EMT 103	Emergency Medical Technician (Accelerated)	12
Total Credits/Units		12

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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

HEALTH INFORMATION MANAGEMENT / MEDICAL BILLING AND CODING

The Medical Billing/Coding Specialist Certificate of Proficiency leads to a Health Information Management AAT degree and prepares individuals for employment in the areas of medical insurance, physician's office coding, inpatient hospital coding, health care 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, HCPCS, ICD, PCS, MS-DRGs as well as the legislative changes in healthcare insurance.

The Health Information Management Associate in Applied Technology Program trains individuals on topics in health data content, structure and standards, information protection, access, disclosure, archives, privacy, security, health information technologies, revenue management, medical coding, compliance, and leadership. Health Information Management professionals may practice in different health care settings such as health information systems, health finance and billing services, and health information standards and policy development.

With highly marketable skills that will continue to be in demand, graduates are prepared to enter the workforce. This is a selective admissions program; a separate application is required.

Eligibility

To successfully pass one of the following examinations you will need to review each individual association's eligibility requirements.

National Certification:

- Certified Provider Certification (CPC) through the American Academy of Professional Coders (AAPC) (<https://www.aapc.com/certification/cpc/>)
- Certified Coding Associate (CCA) through the American Health Information Management Association (AHIMA) (<https://www.ahima.org/certification-careers/certifications/>)
- Certified Coding Specialist (CCS) through the American Health Information Management Association (AHIMA) (<https://www.ahima.org/certification-careers/certifications/ccs/>)

Applications are accepted at any time however this is a limited entry program.

- Medical Billing/Coding Specialist (CP)(Plan Code: MICMCC45) (p. 66)
- Health Information Management (AAT)(Plan Code: MICMCAPT) (p. 67)

Medical Billing/Coding Specialist (CP)(Plan Code: MICMCC45)

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.

Code	Title	Credits/Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Computational Skills</i>		
AH 261	Statistics for Health Care Professionals	3
<i>Human Relations</i>		
HIM 206	Professional Development	2
Major Area Requirements		
BUS 104	Keyboarding & Word Processing ¹	1-3
BUS 149	Computer Application Essentials	3
AH 100	Basic Concepts of Anatomy and Physiology I	3
AH 101	Basic Concepts of Anatomy and Physiology II	3
AH 104	Health Care Delivery & Career Exploration	3
AH 110	Medical Terminology I	3
AH 111	Medical Terminology II	3
HIM 101	Legal & Ethical Aspects of Healthcare	3
HIM 112	Introduction to Pathophysiology	3
HIM 114	Medical Office Administrative Procedures	4
HIM 131	Revenue Cycle Management	4
HIM 130	Medical Coding I	4
HIM 226	Professional Practice Practicum ²	2-4
HIM 232	Medical Coding II	5
HIM 233	Medical Coding III & Coding Exam Prep	5
HLTH 124	Healthcare Provider CPR and First Aid	1
Total Credits/Units		60

¹ Only 1 (one) credit/unit required

² Must take no less than 2 (two) 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:

- Apply health information policies, regulations, accreditation standards, and legal requirements to ensure compliance.
- Assign and validate diagnostic and procedural codes using standard classification systems (e.g., CPT, HCPCS, ICD, etc) and coding guidelines to support reimbursement and data quality.
- Apply and monitor revenue cycle processes, including charge capture, billing, and reimbursement methodologies, to ensure accurate financial outcomes.
- Demonstrate and model foundational leadership, teamwork, communication, and professional behavior in accordance with legal, ethical, and industry standards.
- Identify and explain foundational biomedical sciences (e.g., anatomy, physiology, pathophysiology, pharmacology, medical terminology) and allied health concepts essential for HIM practice.

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Health Information Management (AAT)(Plan Code: MICMCAPT)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Computational Skills</i>		
MATH& 146	Introduction to Stats	5
or PTCS 110	Professional Technical Computational Skills	
or BUS 102	Business Math Applications	
<i>Human Relations</i>		
CMST& 210	Interpersonal Communication	5
or CMST& 230	Small Group Communication	
Major Area Requirements		
AH 100	Basic Concepts of Anatomy and Physiology I	3
AH 101	Basic Concepts of Anatomy and Physiology II	3
AH 104	Health Care Delivery & Career Exploration	3
AH 110	Medical Terminology I	3
AH 111	Medical Terminology II	3
AH 261	Statistics for Health Care Professionals	3
BUS 104	Keyboarding & Word Processing ¹	1-3
BUS 149	Computer Application Essentials	3
BUS 169	Introduction to Excel	3
HLTH 124	Healthcare Provider CPR and First Aid	1
HIM 101	Legal & Ethical Aspects of Healthcare	3
HIM 112	Introduction to Pathophysiology	3
HIM 113	Pharmacology	3
HIM 114	Medical Office Administrative Procedures	4
HIM 130	Medical Coding I	4
HIM 131	Revenue Cycle Management	4
HIM 201	Health Information Governance	5
HIM 202	Health Care Quality	3
HIM 206	Professional Development	2
HIM 211	Health Informatics, Analytics, and Data Use	5
HIM 215	Health Organization, Management & Leadership	3
HIM 226	Professional Practice Practicum ²	2-4
HIM 232	Medical Coding II	5
HIM 233	Medical Coding III & Coding Exam Prep	5
HIM 280	Selected Topics	1
Total Credits/Units		93

¹ Only 1 (one) credit required for degree

² Must take no less than 2 (two) 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:

- Apply health information policies, regulations, accreditation standards, and legal requirements to ensure compliance.
- Utilize and evaluate health information technologies and systems (e.g., EHRs, data management tools) to capture, store, and retrieve health data.
- Apply and analyze statistical and health informatics tools to collect, validate, and report health data for quality, performance improvement, and decision-making.
- Assign and validate diagnostic and procedural codes using standard classification systems (e.g., CPT, HCPCS, ICD, etc) and coding guidelines to support reimbursement and data quality.
- Apply and monitor revenue cycle processes, including charge capture, billing, and reimbursement methodologies, to ensure accurate financial outcomes.
- Demonstrate and model foundational leadership, teamwork, communication, and professional behavior in accordance with legal, ethical, and industry standards.
- Identify and explain foundational biomedical sciences (e.g., anatomy, physiology, pathophysiology, pharmacology, medical terminology) and allied health concepts essential for HIM practice.\

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

HUMAN SERVICES (BAS)

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 Human Services. This BASHS degree will operate with a generalist and holistic approach. Students will be immersed in vital knowledge and skills needed to serve within an increasingly integrated system of care. These skills and knowledge will include course work and practical experience in:

- Mental Health
- Addiction Studies
- Human Services Values and Ethics
- Trauma Informed Care
- Social Justice
- Multidisciplinary Teams
- Human Development
- Crisis and Acute Care Intervention Strategies
- Prevention Strategies

All prospective students who meet the minimum requirements, and would like to apply for admission to the Bachelor's in Applied Science in Human Services (BASHS) 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.
- Statement of Intent submitted in-person, by mail, or email to the Enrollment Services Office

Address:
Clark College
Enrollment Services Office, GH1 128
1933 Fort Vancouver Way
Vancouver, WA 98663-3598
Telephone: 360-992-2107
Email: admissions@clark.edu

- Human Services (BAS)(Plan Code: HSTHSBAS) (p. 68)

Human Services (BAS)(Plan Code: HSTHSBAS)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
ENGL& 102	English Composition II	5
<i>Quantitative Skills</i>		
MATH& 146	Introduction to Stats	5
<i>Humanities</i>		
WGES 101	Women, Gender, and Power	5

Course Options (p. 265)		5
<i>Social Sciences</i>		
PSYC& 100	General Psychology	5
PSYC& 200	Lifespan Psychology	5
<i>Natural Sciences</i>		
Select a total of ten (10) credits of Natural Science with no less than 5 (five) credits lab (NS-Lab)		10
BIOL& 175	Human Biology w/ Lab (Recommended)	
Course Options (p. 267)		
<i>Additional General Education Courses</i>		
SOC 230 or SOC 250	Domestic Violence The Family in Cross-Cultural Perspective	5
ANTH& 206	Cultural Anthropology (recommended)	5
SOC& 101	Introduction to Sociology (recommended)	5
ACED courses and/or General Education Courses ¹		42
Major Area Requirements		
BASHS 301	Introduction to Human Services	5
BASHS 302	Systems and Social Justice	5
BASHS 303	Ethics In Human Services	5
BASHS 304	Practical Family Therapy	5
BASHS 305	Advanced Co-Occurring Disorders Treatment	5
BASHS 306	Trauma, Grief & Loss	5
BASHS 401	Multicultural Counseling In HS	5
BASHS 402	Human Services Intervention	5
BASHS 403	Research & Evaluation Methodologies In HS	5
BASHS 404	Advanced Case Management In HS	5
BASHS 410	Human Services Field Placement I	5
BASHS 411	Human Services Field Placement II	5
ACED 101	Survey of Addictionology	3
ACED 125	Group Counseling In Addictions	3
ACED 136	Law and Ethics In Addictions Counseling	3
ACED 160	Pharmacology of Drugs of Abuse	3
ACED 201	Theories of Counseling	3
ACED 204	Introduction to Addiction Counseling Skills	3
Total Credits/Units from Associate's Degree		90
Total Credits/Units for Degree		180

¹ Please work with advisor to identify any outstanding needs based on associate degree credits already earned.

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:

- Work Effectively with others
- Assess strengths needs in clients
- Plan services for clients
- Provide appropriate services with an emphasis on safety
- Link clients and their support networks to appropriate resources
- Advocate effectively for clients and their support networks

- Individualize care for clients
- Create and maintain required documentation
- Demonstrate professional and ethical behavior
- Engage in ongoing professional development

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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)(Plan Code: SALMAC45) (p. 70)
- Marketing (AAS)(Plan Code: SALMAAPT) (p. 70)

Marketing (CP)(Plan Code: SALMAC45)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills (minimum 3 credits/units required)</i>		
ENGL& 101	English Composition I	5
<i>Computational Skills (minimum 3 credits/units required)</i>		
BUS 102	Business Math Applications	5
<i>Human Relations (minimum 3 credits/units required)</i>		
BUS 148	Business Professional Self Development	3
Business Core Courses		
ACCT 129	Basic Accounting Procedures	5
BUS& 101	Introduction to Business	5
BUS 150	Computer Business Applications	5
MGMT 101	Principles of Management	3
Major Area Requirements		
BUS 117	Advertising	3
BUS 251	Professional Selling	3
COLL 101	College Essentials: Introduction to Clark	2
DMA 101	Photoshop Raster Graphics	4
ECON 101	Introduction to Economics	3
Total Credits/Units		46

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:

- Create an effective business advertisement to meet the needs of target market(s).
- Apply selling techniques managing a buyer-seller relationship, including service follow-up.
- Demonstrate digital imaging skills through photo sourcing, image manipulation, compositing, and output using software techniques and technical equipment.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Marketing (AAS)(Plan Code: SALMAAPT)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills (6 credits required)</i>		
ENGL& 101	English Composition I ¹	5
Course Options (p. 270)		1
<i>Health and Physical Education (minimum 3 credits/units required)</i>		
Course Options (p. 270)		3
<i>Humanities (minimum 3 credits/units required)</i>		
CMST& 220	Public Speaking	5
or CMST& 230 Small Group Communication		
<i>Natural Sciences (minimum 3 credits/units required)</i>		
Course Options (p. 272)		5
<i>Computational Skills (minimum 3 credits/units required)</i>		
BUS 102	Business Math Applications	5
<i>Human Relations (minimum 3 credits/units required)</i>		
BUS 148	Business Professional Self Development	3
<i>Social Sciences (minimum 3 credits/units required)</i>		
ECON 101	Introduction to Economics	3
Business Core		
ACCT 129	Basic Accounting Procedures	5
BUS& 101	Introduction to Business	5
BUS 150	Computer Business Applications	5
MGMT 101	Principles of Management	3
Major Area Requirements		
BUS 105	Introduction to International Business	3
BUS 110	Customer Service	3
BUS 117	Advertising	3
BUS 199	Cooperative Work Experience ²	1-5
BUS 251	Professional Selling	3
BUS 260	Principles of Marketing	5
BUS 270	Introduction to Digital Marketing	5

COLL 101	College Essentials: Introduction to Clark	2
DMA 101	Photoshop Raster Graphics	4
MGMT 103	Applied Management Skills	3
Electives are to be chosen from BUS, MGMT, ACCT, or ECON		8
Total Credits/Units		92

¹ Six credit/unit maximum.

² A minimum of 5 credit/units of BUS 199 are required for the AAS.

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:

- Develop product, pricing, promotion, and distribution strategies to meet organizational needs.
- Create an effective business advertisement to meet the needs of target market(s).
- Demonstrate digital imaging skills through photo sourcing, image manipulation, compositing, and output using software techniques and technical equipment.
- Apply digital and social media concepts and tools to make marketing decisions.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

MATERIALS SCIENCE

Understand and apply science and engineering principles to different materials.

- Materials Science and Manufacturing Engineering (AST2/MRP)(Plan Code: MEEMSAS) (p. 72)

Materials Science and Manufacturing Engineering (AST2/MRP)(Plan Code: MEEMSAS)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Mathematics</i> ¹		
MATH& 151	Calculus I	5
MATH& 152	Calculus II	5
MATH& 153	Calculus III	5
MATH 215	Linear Algebra	5
<i>Distribution Requirements</i>		
Coursework should be planned with the Help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend		
<i>Humanities</i>		5
Course Options (p. 265)		
<i>Social Sciences</i> ²		5
Course Options (p. 266)		
<i>Additional 5 credits in either Humanities or Social Sciences</i>		5
Physics		
Complete the following courses with the required concurrent enrollment ³		
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	5
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	5
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	5
<i>Chemistry with Laboratory</i>		
CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	5
<i>Additional Requirements</i>		
ENGR& 214	Statics	5
ENGR& 225	Mechanics of Materials	5
ENGR 221	Materials Science	5
Electives		

Select 5 (five) specialization courses (minimum of 20-25 credits/units) in 20-25 consultation with an advisor as appropriate for intended specialization in the major and the intended transfer institution:

BIOL& 221	Majors Ecology/Evolution
CSE 101	Engineering and Computer Science Orientation
CSE 121	Introduction to C
CHEM& 142 & CHEM& 152	General Chemistry II and General Chemistry Laboratory II
CHEM& 143 & CHEM& 153	General Chemistry III and General Chemistry Laboratory III
CHEM& 241	Organic Chemistry I
CHEM& 251	Organic Chemistry Laboratory I
ENGL& 235	Technical Writing
ENGR 101	Engineering and Computer Science Orientation
ENGR& 104	Introduction to Design
ENGR 105	Wheeler Innovation Lab Qualifications
ENGR 109	Introduction to Engineering
ENGR 113	Engineering Sketching and Visualization
ENGR 140	Basic Autocad
ENGR 150	Basic Solidworks
ENGR& 204	Electrical Circuits
ENGR 221	Materials Science
ENGR& 224	Thermodynamics
ENGR& 240	Engineering Computations
MATH 221	Differential Equations ⁴
MATH& 254	Calculus IV

Total Credits/Units **95-100**

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

² ECON& 201 or ECON& 202 is recommended, but not required.

³ Requires concurrent enrollment in PHYS 94/PHYS 95/PHYS 96

⁴ Clark requires concurrent enrollment or completion of MATH& 254 with a grade of "C" or higher.

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.
- 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

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry

method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

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)(Plan Code: METMEAS) (p. 74)

Math Education (DTA/MRP)(Plan Code: METMEAS)

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 pathway is applicable to students preparing to enter a secondary (that is, high school) mathematics teaching degree or certification program 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

Code	Title	Credits/ Units
Basic Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
ENGL& 102	English Composition II	5
<i>Quantitative/Symbolic Reasoning Requirements</i> ¹		
MATH& 151	Calculus I	5
Distribution Requirements		
<i>Humanities</i>		
CMST& 220	Public Speaking ²	5
Course Options (p. 265)		10
<i>Social Sciences</i>		
PSYC& 100	General Psychology	5
Course Options (p. 266)		10
<i>Natural Sciences</i>		
MATH& 152	Calculus II	5
Course Options (p. 267) ³		10
Major Requirements		
<i>Math Courses</i>		
MATH& 153	Calculus III	5
MATH 215	Linear Algebra	5
MATH& 254	Calculus IV	5
Electives		
<i>Elective Courses</i>		
Course Options (p. 268) ⁴		15
Total Credits/Units		90

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

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 maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

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.

- Civil and Mechanical Engineering (AST2/MRP)(Plan Code: MEEMCAS) (p. 75)
- Concentration in Aeronautical Engineering (AST2/ MRP)(Plan Code: MEEMCAS, Subplan: AEROENGR) (p. 76)
- Concentration in Civil Engineering (AST2/MRP)(Plan Code: MEEMCAS, Subplan: CIVILENGR) (p. 77)
- Concentration in Mechanical Engineering (AST2/MRP)(Plan Code: MEEMCAS, Subplan: MECHENGR) (p. 78)

Civil and Mechanical Engineering (AST2/MRP)(Plan Code: MEEMCAS)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Mathematics</i>		
MATH& 151	Calculus I ¹	5
MATH& 152	Calculus II	5
MATH& 153	Calculus III	5
MATH 215	Linear Algebra	5
MATH 221	Differential Equations ²	5
<i>Distribution Requirements</i>		

Coursework should be planned with the help of an advisor based on the requirements of specific discipline at the baccalaureate institution the student selects to attend.

<i>Humanities (HA/HB) Course</i>		5
<i>Social Sciences</i> ³		5
<i>Additional 5 (five) credits in either Humanities or Social Sciences</i>		5
<i>Physics</i> ⁴		
Complete the following 3-term physics sequence with the required concurrent enrollment		15
<i>Sequence One:</i>		
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	
<i>Sequence Two:</i>		
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	
<i>Sequence Three:</i>		
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	
<i>Chemistry with Laboratory</i>		
CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	5
CHEM& 142 & CHEM& 152	General Chemistry II and General Chemistry Laboratory II	5
<i>Additional Requirements</i>		
ENGR& 214	Statics	5
ENGR& 215	Dynamics	5
ENGR& 225	Mechanics of Materials	5
<i>Specialization Courses</i>		15-20
Select 4 (four) specialization courses (minimum 15-20 units) in consultation with an advisor as appropriate for intended specialization in the major and the intended transfer institution:		
BIOL& 222	Majors Cell/Molecular	
CHEM& 143 & CHEM& 153	General Chemistry III and General Chemistry Laboratory III	
CSE 121	Introduction to C	
ENGL& 235	Technical Writing	
ENGR 101	Engineering and Computer Science Orientation	
ENGR& 104	Introduction to Design	
ENGR 105	Wheeler Innovation Lab Qualifications	
ENGR 109	Introduction to Engineering	
ENGR 113	Engineering Sketching and Visualization	
ENGR 121	Field Survey I	
ENGR 140	Basic Autocad	
ENGR 150	Basic Solidworks	
ENGR& 204	Electrical Circuits	
ENGR 221	Materials Science	
ENGR& 224	Thermodynamics	
ENGR& 240	Engineering Computations	
MATH& 254	Calculus IV	
Total Credits/Units		100-105

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

² Clark requires concurrent enrollment or completion of MATH& 254 with a grade of "C" or higher.

³ ECON& 201 or ECON& 202 is recommended, but not required.
⁴ Requires concurrent enrollment in PHYS 94/PHYS 95/PHYS 96

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:

- 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Concentration in Aeronautical Engineering (AST2/ MRP)(Plan Code: MEEMCAS, Subplan Code: AEROENGR)

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.

Code	Title	Credits/Units
Basic Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Mathematics</i>		
MATH& 151	Calculus I ¹	5
MATH& 152	Calculus II	5
MATH& 153	Calculus III	5
MATH 215	Linear Algebra	5
MATH 221	Differential Equations ²	5
Distribution Requirements		
<i>Humanities</i>		5
Course Options (p. 265)		
<i>Social Sciences</i> ³		5
Course Options (p. 266)		
Additional Credits in either Humanities or Social Sciences		5

<i>Physics</i> ⁴		
<i>Sequence One:</i>		
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	5
<i>Sequence Two:</i>		
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	5
<i>Sequence Three:</i>		
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	5
<i>Chemistry with Lab</i>		
CHEM& 141	General Chemistry I	4
CHEM& 151	General Chemistry Laboratory I	1
CHEM& 142	General Chemistry II	4
CHEM& 152	General Chemistry Laboratory II	1
Additional Requirements		
ENGR& 214	Statics	5
ENGR& 215	Dynamics	5
ENGR& 225	Mechanics of Materials	5
Math/Engineering Electives		15-20
<i>Select a minimum of 4 specialization courses in consultation with an Engineering Advisor as appropriate for intended transfer institution</i>		
CSE 121	Introduction to C	
ENGL& 235	Technical Writing	
ENGR 105	Wheeler Innovation Lab Qualifications	
ENGR 109	Introduction to Engineering	
ENGR 113	Engineering Sketching and Visualization	
ENGR 140	Basic Autocad	
ENGR 150	Basic Solidworks	
ENGR& 204	Electrical Circuits	
ENGR 221	Materials Science	
ENGR& 224	Thermodynamics	
ENGR& 240	Engineering Computations	
MATH& 254	Calculus IV	
Total Credits/Units		100-105

¹ MATH 103 and MATH 111/MATH 110 are required prerequisites for MATH& 151 that may be needed if calculus placement is not met.
² Clark requires concurrent enrollment or completion of MATH& 254 with a grade of "C" or higher.
³ ECON& 201 or ECON& 202 is recommended, but not required.
⁴ Requires concurrent enrollment in PHYS 94/PHYS 95/PHYS 96

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 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Concentration in Civil Engineering (AST2/MRP)(Plan Code: MEEMCAS, Subplan Code: CIVILENGR)

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.

Code	Title	Credits/ Units
Basic Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Mathematics</i>		
MATH& 151	Calculus I ¹	5
MATH& 152	Calculus II	5
MATH& 153	Calculus III	5
MATH 215	Linear Algebra	5
MATH 221	Differential Equations ²	5
Distribution Requirements		
Coursework should be planned with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend.		
<i>Humanities</i>		5
Course Options (p. 265)		
<i>Social Sciences</i> ³		5
Course Options (p. 266)		
Additional Credits in either Humanities or Social Sciences		5
Physics ⁴		
<i>Sequence One:</i>		
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	5
<i>Sequence Two:</i>		
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	5
<i>Sequence Three:</i>		
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	5
Chemistry with Lab		
CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	5

CHEM& 142 & CHEM& 152	General Chemistry II and General Chemistry Laboratory II	5
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Additional Requirements

ENGR& 214	Statics	5
ENGR& 215	Dynamics	5
ENGR& 225	Mechanics of Materials	5

Math/Engineering Electives

Select a minimum of 4 specialization courses in consultation with an Engineering Advisor as appropriate for intended transfer institution

BIOL& 100	Survey of Biology (Select a minimum of 4 specialization courses in consultation with an Engineering Advisor as appropriate for intended transfer institution)
BIOL& 222	Majors Cell/Molecular
BIOL& 260	Microbiology
ENGL& 235	Technical Writing
ENGR 105	Wheeler Innovation Lab Qualifications
ENGR 109	Introduction to Engineering
ENGR 113	Engineering Sketching and Visualization
ENGR 121	Field Survey I
ENGR 140	Basic Autocad
ENGR 150	Basic Solidworks
ENGR 221	Materials Science
ENGR& 224	Thermodynamics
ENGR& 240	Engineering Computations
MATH& 254	Calculus IV

Total Credits/Units **100-106**

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

² Clark requires concurrent enrollment or completion of MATH& 254 with a grade of "C" or higher.

³ ECON& 201 or ECON& 202 is recommended, but not required.

⁴ Requires concurrent enrollment in PHYS 94/PHYS 95/PHYS 96

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 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Concentration in Mechanical Engineering (AST2/MRP)(Plan Code: MEEMCAS, Subplan Code: MECHENGR)

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.

Code	Title	Credits/ Units
Basic Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Mathematics</i> ¹		
MATH& 151	Calculus I ¹	5
MATH& 152	Calculus II	5
MATH& 153	Calculus III	5
MATH 215	Linear Algebra	5
MATH 221	Differential Equations ²	5
Distribution Requirements		
<i>Humanities</i>		5
Course Options (p. 265)		
Social Sciences ³		5
Course Options (p. 266)		
Additional Credits/Units in either Humanities or Social Sciences		5
Physics ⁴		
<i>Sequence One:</i>		
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	5
<i>Sequence Two:</i>		
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	5
<i>Sequence Three:</i>		
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	5
Chemistry with Lab		
CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	5
CHEM& 142 & CHEM& 152	General Chemistry II and General Chemistry Laboratory II	5
Additional Requirements		
ENGR& 214	Statics	5
ENGR& 215	Dynamics	5
ENGR& 225	Mechanics of Materials	5
Math/Engineering Electives		15-20

Select a minimum of 4 specialization courses in consultation with an Engineering Advisor as appropriate for intended transfer institution

ENGL& 235	Technical Writing
ENGR 105	Wheeler Innovation Lab Qualifications
ENGR 109	Introduction to Engineering
ENGR 113	Engineering Sketching and Visualization
ENGR 150	Basic Solidworks
ENGR 221	Materials Science
ENGR& 224	Thermodynamics
ENGR& 240	Engineering Computations
MATH& 254	Calculus IV

Total Credits/Units **100-105**

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

² Clark requires concurrent enrollment or completion of MATH& 254 with a grade of "C" or higher.

³ ECON& 201 or ECON& 202 is recommended, but not required.

⁴ Requires concurrent enrollment in PHYS 94/PHYS 95/PHYS 96

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 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

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 know-how 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)(Plan Code: ETEMFC01) (p. 79)
- Mechanical and Instrumentation Automation (CA)(Plan Code: ETEMAC20) (p. 79)
- Mechanical and Instrumentation Automation (AAT)(Plan Code: ETEMIAPT) (p. 80)

Mechatronics Fundamentals (CC) (Plan Code: ETEMFC01)

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.

Code	Title	Credits/ Units
Major Area Requirements		
MTX 100	Industrial Safety	1
MTX 101	DC Fundamentals	3
MTX 102	AC Fundamentals	4
MTX 103	Basic Measurement Tools	2
MTX 106	Fluid Power Systems	4
MTX 110	Electric Motor Control 1	4
Total Credits/Units		18

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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Mechanical and Instrumentation Automation (CA)(Plan Code: ETEMAC20)

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.

Code	Title	Credits/ Units
Major Area Requirements		
MTX 100	Industrial Safety	1
MTX 101	DC Fundamentals	3
MTX 102	AC Fundamentals	4
MTX 103	Basic Measurement Tools	2
MTX 106	Fluid Power Systems	4
MTX 110	Electric Motor Control 1	4
MTX 121	Semiconductors I	3
MTX 130 or MTX 132	Programmable Logic Controllers 1 Siemens PLC Lvl I	4
MTX 140	Robotic Systems	4
MTX 145	Electrical Power & Distribution Systems	4
MTX 175	Mechatronics Systems Fundamentals	3
MTX 180	Mechanical Systems	5
Total Credits/Units		41

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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Mechanical and Instrumentation Automation (AAT)(Plan Code: ETEMIAPT)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
PTWR 135	Introduction to Applied Technical Writing (recommended)	5
<i>Computational Skills</i>		
PTCS 110	Professional Technical Computational Skills (recommended)	5
<i>Human Relations</i>		
COLL 101	College Essentials: Introduction to Clark	2
BUS 148	Business Professional Self Development	3
or MGMT 101	Principles of Management	
Major Area Requirements		
MTX 100	Industrial Safety	1
MTX 101	DC Fundamentals	3
MTX 102	AC Fundamentals	4
MTX 103	Basic Measurement Tools	2
MTX 106	Fluid Power Systems	4
MTX 110	Electric Motor Control 1	4
MTX 121	Semiconductors I	3
MTX 130	Programmable Logic Controllers 1	4
MTX 132	Siemens PLC Lvl I	4
MTX 140	Robotic Systems	4
MTX 145	Electrical Power & Distribution Systems	4
MTX 175	Mechatronics Systems Fundamentals	3
MTX 180	Mechanical Systems	5
MTX 216	Mechatronics 2	5
MTX 221	Semiconductors 2	3
MTX 224	Motor Drive Systems	5
MTX 230	Laser Alignment	2
MTX 232	Digital Electronics Fundamentals	3
MTX 240	Process Control Systems	6
MTX 250	Advanced Programmable Logic Controllers	4
MTX 275	Advanced Fluid Power Systems	5
MTX 292	Manufacturing System Principles	4
MTX 296	Capstone/Final Project	4
Total Credits/Units		101

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, 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.
- Operate, measure, and modify, software-driven industrial control systems

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are

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
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>)

Applications are accepted at any time however this is a limited entry program. Candidates who meet the preliminary requirements will be considered for program entry. For more information, please visit the program website (<https://www.clark.edu/academics/programs/health-care-and-biosciences/med-assistant/>).

- Medical Assistant (CP)(Plan Code: MLAMAC45) (p. 81)
- Medical Assistant with Phlebotomy or Business Option (AAT)(Plan Code: MLAMSAPT) (p. 82)

Medical Assistant (CP)(Plan Code: MLAMAC45)

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.

Code	Title	Credits/ Units
Communication Skills (minimum 3 credits/units required)		
PTWR 135	Introduction to Applied Technical Writing	5
or ENGL& 101	English Composition I	
Computational Skills (minimum 3 credits/units required)		
MA 103	Math for Medical Assistants ¹	3
Human Relations (minimum 3 credits/units required)		
MA 104	Medical Office Administrative Procedures	6
Major Area Requirements		
AH 104	Health Care Delivery & Career Exploration	3
AH 100	Basic Concepts of Anatomy and Physiology I ¹	3
AH 110	Medical Terminology I ¹	3
AH 101	Basic Concepts of Anatomy and Physiology II ¹	3
AH 111	Medical Terminology II ¹	3
MA 123	Legal Aspects of The Medical Office ¹	3
AH 120	Bloodborne Pathogens in Healthcare Settings	1
MA 114	Medical Reimbursement	4
MA 124	Therapeutic Comm Skills for Health Prof	2
HLTH 124	Healthcare Provider CPR and First Aid	1
MA 201	Introduction to Pathophysiology	5
MA 202	MA Assistant Examination Review	2
MA 211	Medical Office Clinical Procedures	6
MA 212	Pharmacology for Medical Assistants	3
MA 221	Medical Office Laboratory Procedures	6
MA 222	Medical Assistant Practicum	6
MA 232	Medical Assistant Seminar	1
Total Credits/Units		69

¹ AH 100, AH 101, AH 110, AH 111, MA 103, AND MA 123 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:

- 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)
- Successfully complete all criteria necessary for taking the CMA Exam. (cognitive and psychomotor)

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Medical Assistant with Phlebotomy or Business Option (AAT)(Plan Code: MLAMSAPT)

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 Allied Health and the Medical Assisting courses are held at the CCW Campus. The CCW campus is located on WSU Vancouver campus, click here for map and directions.](#)

Code	Title	Credits/ Units
Basic Requirements		
<i>Communication Skills</i>		
PTWR 135 or ENGL& 101	Introduction to Applied Technical Writing ¹ English Composition I	5
<i>Computational Skills</i>		
MA 103	Math for Medical Assistants ²	3
AH 261	Statistics for Health Care Professionals	3
<i>Human Relations</i>		
MA 222	Medical Assistant Practicum	6
<i>Medical Assisting Foundation</i>		
AH 100	Basic Concepts of Anatomy and Physiology I ²	3
AH 101	Basic Concepts of Anatomy and Physiology II ²	3
AH 104	Health Care Delivery & Career Exploration	3
AH 110	Medical Terminology I ²	3
AH 111	Medical Terminology II ²	3
AH 120	Bloodborne Pathogens in Healthcare Settings	1
MA 123	Legal Aspects of The Medical Office ²	3
<i>Medical Assisting Core</i>		
BUS 104	Keyboarding & Word Processing ³	1-3
HLTH 124	Healthcare Provider CPR and First Aid	1
CMST& 210 or MA 124	Interpersonal Communication Therapeutic Comm Skills for Health Prof	4-5
MA 104	Medical Office Administrative Procedures	6
MA 114	Medical Reimbursement	4

MA 201	Introduction to Pathophysiology	5
MA 202	MA Assistant Examination Review	2
MA 211	Medical Office Clinical Procedures	6
MA 212	Pharmacology for Medical Assistants	3
MA 221	Medical Office Laboratory Procedures	6
MA 232	Medical Assistant Seminar	1
MA 241	Medical Coding for Medical Assistants	4
MA 251	Patient Advocacy and Care Navigation	3

Medical Assisting Specialization

Select from one of the following options: 12-13

Phlebotomy Option (Subplan: PHLEBOTOMY)

PHLE 115	Phlebotomy Education W/Lab
PHLE 116	Basic Laboratory for The Phlebotomist
PHLE 197	Phlebotomy Clinical Experience
PHLE 198	Phlebotomy Clinical Seminar

Business Management Option (Subplan: MANAGEMENT)

BUS 150	Computer Business Applications
BUS 211	Business Communications
MGMT 112	Conflict Management
MGMT 101	Principles of Management

Total Credits/Units 94-96

¹ PTWR 135 does not meet 100 level incoming/transfer credit requirements for Bachelor Degree programs.

² AH 100, AH 101, AH 110, AH 111, MA 103, and MA 123 must be seven (7) years current upon program entry.

³ Only 1 (one) credit required for 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:

- 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)

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry

method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

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. Students are encouraged to contact potential transfer institutions and advising as early as possible for guidance on specific course selections.

- Associate in Music (DTA/MRP)(Plan Code: MUSMUAA) (p. 84)

Associate in Music (DTA/MRP)(Plan Code: MUSMUAA)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
Take an additional five (5) credits/units from one of the following options:		5
Option One		
ENGL& 102	English Composition II or ENGL& 23 Technical Writing	
Option Two		
BUS 211	Business Communications	
and		
CMST& 210	Interpersonal Communication or CMST& 22 Public Speaking or CMST& 23 Small Group Communication	
<i>Quantitative Skills</i>		
Course Options (p. 265)		5
<i>Humanities</i>		
MUSC& 141	Music Theory I	5
MUSC& 142	Music Theory II	5
Select five credits/units from other disciplines (p. 265)		5
<i>Social Sciences</i>		
Selected from at least two disciplines (p. 266) ¹		15
<i>Natural Sciences</i>		
Selected from at least two disciplines (p. 267) ²		15
Major Area Requirements ³		
MUSC& 121	Ear Training 1	1
MUSC& 122	Ear Training 2	1
MUSC& 123	Ear Training 3	1
MUSC& 221	Ear Training 4	1
MUSC& 222	Ear Training 5	1
MUSC& 223	Ear Training 6	1

MUSC& 143	Music Theory III	5
MUSC 101	Beginning Piano Class	2
MUSC& 231	Music Theory IV	3
MUSC& 232	Music Theory V	3
MUSC& 233	Music Theory VI	3
MUSC 201	Intermediate Piano Class	2
<i>Applied Instrument, Piano, or Voice</i>		6
<i>Major Performing Ensemble - Orchestra, Concert Band, Concert Choir, Treble Choir, Chorale, or Jazz Band</i> ⁴		12
Total Credits/Units		102

- 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:

- 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

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.

Network Technology programs of study are designed with employability entry points both for the student just starting a new career, and for the IT professional seeking to update their skills and achieve industry certifications. Classes are offered in the evenings, both online and in-person options available to best suit working adult learners.

The Network Technology department offers training towards obtaining several well-recognized industry certifications, including:

- Cisco Certified Network Associate - CCNA
- Cisco Certified Cybersecurity Support Technician - CCST Cyber
- Cybersecurity Associate - CompTIA Security+
- Network Support technician - CompTIA Network+
- Linux Administrator - CompTIA Linux+
- Microsoft Azure Fundamentals - AZ-900
- Microsoft Azure Administrator - AZ-104
- Administering Windows Server Hybrid - AZ-800/801

Network Technology programs of study are designed with employability entry points both for the student just starting a new career, and also for the IT professional seeking to update their skills and new achieve industry certifications. Classes are offered in the evenings, both online and in-person options available to best suit working adult learners.

We invite you to visit our classrooms and see the leading-edge network technology laboratory students use to learn hands-on. Contact us with your questions and schedule a tour of our classroom and leading-edge lab facility. We look forward to meeting you and exploring how we may be part of your future success.

Department Chair: Professor Dwight Hughes
Email: dhughes@clark.edu

- Cisco Technician (CA)(Plan Code: TETCTC20) (p. 85)
- Microsoft Technician (CA)(Plan Code: CSTMTC20) (p. 85)
- Network Technologies (AAT)(Plan Code: CSTNTAPT) (p. 86)

Cisco Technician (CA)(Plan Code: TETCTC20)

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.

Code	Title	Credits/ Units
Major Area Requirements		
NTEC 103	IP Subnetting	3
NTEC 125	Introduction to Cybersecurity	5
NTEC 161	Network Scripting Fundamentals	5

NTEC 171	AI Prompt Fundamentals	3
NTEC 141	Microsoft Azure Cloud Fundamentals	3
NTEC 252	Linux Administration 1	5
NTEC 121	Introduction to Networks	5
NTEC 222	Switching, Routing, and Wireless Essentials	5
NTEC 223	Enterprise Networking, Security, and Automation	5
Total Credits/Units		39

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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Microsoft Technician (CA)(Plan Code: CSTMTC20)

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.

Code	Title	Credits/ Units
Major Area Requirements		
NTEC 103	IP Subnetting	3
NTEC 121	Introduction to Networks	5
NTEC 125	Introduction to Cybersecurity	5
NTEC 171	AI Prompt Fundamentals	3
NTEC 141	Microsoft Azure Cloud Fundamentals	3
NTEC 231	Microsoft Server Administration	5
NTEC 241	Microsoft Azure Administrator	5
NTEC 234	Administering Windows Server Hybrid Core Infrastructure	5
NTEC 235	Windows Server Hybrid Advanced Services	5
Total Credits/Units		39

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 Microsoft networks and domain structures to meet specific business needs.
- Implement Microsoft networks and domain structures to meet specific business needs.
- Maintain Microsoft networks and domain structures to meet specific business needs.
- Resolve common issues with Microsoft networks and domain structures.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Network Technologies (AAT)(Plan Code: CSTNTAPT)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I ¹	5
	or PTWR 135 Introduction to Applied Technical Writing	
<i>Computational Skills</i>		
Any generally transferable computational course with Intermediate Algebra as a prerequisite		
or		
MATH& 107	Math In Society ²	
	or PTCS 110 Professional Technical Computational Skills	
<i>Human Relations</i>		
COLL 101	College Essentials: Introduction to Clark	2
and		
Course Options (p. 270)		3
Major Area Requirements		
NTEC 103	IP Subnetting	3
NTEC 121	Introduction to Networks	5
NTEC 125	Introduction to Cybersecurity	5
NTEC 141	Microsoft Azure Cloud Fundamentals	3
NTEC 161	Network Scripting Fundamentals	5
NTEC 171	AI Prompt Fundamentals	3
NTEC 222	Switching, Routing, and Wireless Essentials	5
NTEC 223	Enterprise Networking, Security, and Automation	5
NTEC 225	Network Security	5
NTEC 231	Microsoft Server Administration	5
NTEC 234	Administering Windows Server Hybrid Core Infrastructure	5
NTEC 235	Windows Server Hybrid Advanced Services	5
NTEC 241	Microsoft Azure Administrator	5
NTEC 252	Linux Administration 1	5

NTEC 253	Linux Administration 2	5
NTEC 255	Deploying Linux Server Services	3
NTEC 297	Capstone Experience: Network Technologies	3
Total Credits/Units		90

¹ PTWR 135 does not meet 100 level incoming/transfer credit requirements for a Bachelor Degree program.

² PTCS 110 does not meet 100 level incoming/transferring credit requirements for a Bachelor Degree 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:

- 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

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.

Students must earn a 2.0 cumulative GPA in order to qualify for graduation from Clark College and are encouraged to connect with their potential transfer institution to confirm GPA and course requirements to entry.

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.

The Associate Degree Nursing Program at Clark College at the Washington State University campus located in Vancouver, Washington is accredited by:

ACEN
Accreditation Commission for Education In Nursing
3390 Peachtree Road NE, Suite 1400
Atlanta, Georgia 30326
www.acenursing.org (<http://www.acenursing.org>)

The most recent accreditation decision made by the ACEN Board of Commissioners for the Clark College Associate Degree Nursing Program is Continuing Accreditation.

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, there are limited spaces available, however, the program of study for the nursing transfer degree is open enrollment, following a holistic admissions selection process. Students who complete required orientations and clinical compliance requirements are able to begin the "Nursing Core" classes. The instructions on the Nursing program webpages explain the nursing transfer degree requirements and application process to be able to begin the Nursing Core classes.

For more information please see the Nursing website at <https://www.clark.edu/academics/programs/health-care-and-biosciences/nursing/> (<https://catalog.clark.edu/academic-plans/nursing/>) For more information please see the Nursing website at <https://www.clark.edu/academics/programs/health-care-and-biosciences/nursing/.html>.

Disability Statement for Health Occupations

Students with disabilities are qualified to participate in clinically based healthcare professions with the use of approved reasonable

accommodations (as defined by Section 504 of the Rehabilitation Act and the Americans with Disabilities Act). To be qualified for nursing programs at Clark College those individuals must be able to meet the essential abilities with or without reasonable accommodation. Accommodations for the classroom, laboratory, or clinical setting will be evaluated on a case-by-case basis for individual student disability needs and according to the reasonableness of the essential functions and learning of the program. Accommodations that compromise patient care, or that fundamentally alter the essential functions of the program or activity, are not considered to be reasonable. Further information can be found at the Disability Access Center. Documentation guidelines and procedures can be found at www.clark.edu/ (<https://www.clark.edu/dac/>) (<https://www.clark.edu/dac/>).

- Associates in Nursing (DTA/MRP)(Plan Code: RENDTAA) (p. 89)
- Pre-Nursing (DTA/MRP)(Plan Code: RENPNAS) (p. 87)

Pre-Nursing (DTA/MRP)(Plan Code: RENPNAS)

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 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.

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; St. Martin's 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 (for example, this degree does not require HPE), 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. This degree requires 2.0 cumulative GPA, and students are encouraged to reach out to advising and transfer institution(s) to ensure that they also meet the expected GPA and course requirements to apply for the program. 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.

Clark College Equivalents

Code	Title	Credits/ Units
Basic Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
ENGL& 102	English Composition II	5
<i>Quantitative/Symbolic Reasoning Requirement</i>		
MATH& 146	Introduction to Stats	5
Distribution Requirements		
<i>Humanities</i>		
CMST& 220	Public Speaking	5
or CMST& 240	Intercultural Communication	
or CMST& 210	Interpersonal Communication	
Select 10 term credits/units of other Humanities, five of which can be CMST (p. 265)		10
<i>Social Science</i>		
PSYC& 100	General Psychology	5
PSYC& 200	Lifespan Psychology	5
Select five credits/units of Social Science course (outside of Psychology) that has PPI designator (p. 265)		5
<i>Natural Science</i>		
BIOL& 160	General Biology W/Lab	5
BIOL& 260	Microbiology	5
CHEM& 121	Intro to Chemistry: Pre-Health	5
CHEM& 131	Intro to Organic/Biochem	5
NUTR& 101	Nutrition ¹	3
Select from one of the following sequences:		10-15
BIOL& 241 & BIOL& 242	Human Anatomy and Physiology I and Human Anatomy and Physiology II	
or		
BIOL& 251 & BIOL& 252 & BIOL& 253	Human A & P I and Human A & P II and Human A & P III	
Electives		
Elective Courses (p. 268) ²		7-12
Total Credits/Units		90

¹ Students need to be aware that Clark College's nutrition class is only three credits/units, not the required five credits/units.

² Up to ten (10) additional credits/units of general electives can apply. Courses must be 100-level or higher. Physical Education activity credits are limited to a maximum of three (3) credits/units. Coursework

in FLPC cannot apply. Students should consult with the transfer institution to ensure courses are "fully transferable".

Notes

Basic Requirements

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).

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.

Social Sciences

Walla Walla requires a course in General Sociology.

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.

Natural Sciences

Introductory survey courses or review courses do not meet the content level expectations for these natural science requirements.

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:

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Associates in Nursing (DTA/MRP) (Plan Code: RENDTAA)

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.

Code	Title	Credits/ Units
Nursing Degree Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
Select an additional five credits/units (p. 265)		5
<i>Quantitative Skills</i>		
MATH& 146	Introduction to Stats	5
<i>Humanities</i> ¹		
Course Options (p. 265)		10
<i>Social Sciences</i>		
PSYC& 100	General Psychology	5
PSYC& 200	Lifespan Psychology	5
<i>Natural Science</i> ²		
CHEM& 121	Intro to Chemistry: Pre-Health	5
BIOL& 160	General Biology W/Lab	5
BIOL& 241 & BIOL& 242	Human Anatomy and Physiology I and Human Anatomy and Physiology II ³	10
BIOL& 260	Microbiology	5
NUTR& 101	Nutrition	3
Nursing Core Requirements		
<i>First Term</i>		
NURS 110	Foundations of Nursing Concepts	2
NURS 111	Foundations of Clinical Nursing	2
ENGL 112	Ethics and Policy In Healthcare I	2
NURS 113	Lifespan Assessment Concepts	3
NURS 114	Nursing Skills Application I	1
NURS 115	Nursing Skills Lab I	2
<i>Second Term</i>		
NURS 122	Family-Centered Nursing	2
PSYC 122	Psychosocial Issues In Health Care I	1
NURS 123	Family-Centered Clinical Nursing	4
PSYC 124	Psychosocial Issues In Health Care II	2
NURS 127	Nursing Skills Application II	1
NURS 128	Nursing Skills Lab II	2
<i>Third Term</i>		
NURS 135	Medical Surgical Nursing Concepts 1	3
NURS 136	Medical-Surgical Clinical Nursing I	5
NURS 137	Nursing Skills Application III	1

NURS 138	Nursing Skills Lab III	2
NUTR 139	Nutrition In Healthcare I	1
<i>Fourth Term</i>		
NUTR 240	Nutrition In Healthcare II	1
NURS 241	Medical-Surgical Nursing Concepts II	3
NURS 242	Medical/Surgical Clinical Nursing II	8
<i>Fifth Term</i>		
NURS 251	Medical-Surgical Nursing Concepts III	2
NURS 252	Advanced Holistic Clinical Nursing	8
PSYC 253	Psychosocial Issues In Health Care III	2
<i>Sixth Term</i>		
NURS 261	Professional Leadership Transition to Practice	4
NURS 262	Professional Leadership in Practice	4
NURS 264	NCLEX-RN Preparation	1
ENGL 273	Ethics and Policy In Healthcare II	3
Total Credits/Units		135

¹ Maximum of 5 (five) credits/units of ENGL credits/units allowed.

² All Natural Science (NS) classes except BIOL& 160 must be seven years current upon program entry.

³ Completion of BIOL& 251, BIOL& 252 and BIOL& 253 may be used in place of both BIOL& 241 and BIOL& 242.

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:

- Model effective communication within the healthcare team.
- Implement nursing clinical judgment in providing evidence-based care.
- Integrate the patient's culture, needs, and preferences into the plan of care.
- Maintain personal accountability to professional nursing standards.
- Advocate for safe nursing care practices.

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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.

Program Pathway

Clark College also offers an expanded Pharmacy Technician curriculum leading to an Associate in Applied Technology (AAT) degree 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 Access Center office to support his/her accommodation requests. Documentation guidelines and procedures can be found at www.clark.edu/dac/ (<https://www.clark.edu/dac/>). Once the student is qualified by DAC 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)(Plan Code: PTAPTC45) (p. 90)
- Pharmacy Technician Leadership (AAT)(Plan Code: PTAPTAPT) (p. 91)

Pharmacy Technician (CP)(Plan Code: PTAPTC45)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills (minimum 3 credits/units required)</i>		
Eligibility for ENGL& 101 + ENGL 99		3
<i>Computational Skills (minimum 3 credits/units required)</i>		
PHAR 110	Pharmacy Calculations	3
<i>Human Relations (minimum 3 credits/units required)</i>		
CMST& 210	Interpersonal Communication	5
	or CMST& 230 Small Group Communication	
Program Requirements		
AH 100	Basic Concepts of Anatomy and Physiology I ¹	3
AH 101	Basic Concepts of Anatomy and Physiology II ¹	3
AH 104	Health Care Delivery & Career Exploration	3
AH 110	Medical Terminology I ¹	3
AH 111	Medical Terminology II ¹	3
AH 120	Bloodborne Pathogens in Healthcare Settings	1
HLTH 124	Healthcare Provider CPR and First Aid	1
BUS 149	Computer Application Essentials	3
Major Area Requirements		
PHAR 105	Introduction to Pharmacy	4
PHAR 112	Pharmacology I	5
PHAR 114	Pharmacy Practice and Technology	5
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	5
PHAR 128	Pharmacy Externship II	4
PHAR 129	Pharmacy Externship Seminar II	2
PHAR 189	Pharmacy Capstone	2
PHAR 198	Pharmacy Advanced Simulation Lab	1
Additional Requisite Requirements		
Completion of MATH 92, BUS 102, PTCS 110, MA 103 or equivalent with a grade of "C" or better (2.0) or higher, or placement into MATH 96 (Must be 7 years current upon program entry).		
Total Credits/Units		70-72

¹ Must be seven 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:

- 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Pharmacy Technician Leadership (AAT)(Plan Code: PTAPTAPT)

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.

Code	Title	Credits/ Units
Foundational Courses		
AH 110	Medical Terminology I ¹	3
AH 100	Basic Concepts of Anatomy and Physiology I ¹	3
AH 101	Basic Concepts of Anatomy and Physiology II ¹	3
AH 104	Health Care Delivery & Career Exploration	3
AH 111	Medical Terminology II ¹	3
AH 120	Bloodborne Pathogens in Healthcare Settings	1
HLTH 124	Healthcare Provider CPR and First Aid	1
BUS 149	Computer Application Essentials	3
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Computational Skills</i>		
Course Options (p. 270)		5
<i>Human Relations</i>		
CMST& 210	Interpersonal Communication	5
or CMST& 230	Small Group Communication	
Major Area Requirements		
PHAR 105	Introduction to Pharmacy	4

PHAR 110	Pharmacy Calculations	3
PHAR 112	Pharmacology I	5
PHAR 114	Pharmacy Practice and Technology	5
PHAR 118	Pharmacy Externship I	4
PHAR 119	Pharmacy Externship Seminar I	1
PHAR 122	Pharmacology II	5
PHAR 123	Pharmacy Law	2
PHAR 127	Pharmacy Compounding	5
PHAR 128	Pharmacy Externship II	4
PHAR 129	Pharmacy Externship Seminar II	1
PHAR 198	Pharmacy Advanced Simulation Lab	1
PHAR 189	Pharmacy Capstone	2

Additional Requirements

BUS 110	Customer Service	3
MGMT 106	Motivation and Performance	3
BUS 148	Business Professional Self Development	3
MGMT 112	Conflict Management	2
MGMT 101	Principles of Management	3
MGMT 133	Production and Operations Management	3

Additional Requirements

Completion of ENGL 90 or equivalent with a grade of "C" or better (2.0) or placement into ENGL& 101 + ENGL 099. Completion of MATH 92, BUS 102, PTCS 110, MA 103 or equivalent with a grade of "C" (2.0) or higher or eligibility for MATH 096 (must be 7 years current upon program entry).

Total Credits/Units **94**

¹ AH 100, AH 101, AH 110, and AH 111 must be seven 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:

- 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

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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 Access Center (DAC) office to support his/her accommodation requests. Documentation guidelines and procedures can be found at www.clark.edu/dac/ (<https://www.clark.edu/dac/>). Once the student is qualified by DAC 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)(Plan Code: PHLPHC20) (p. 93)

Phlebotomy (CA)(Plan Code: PHLPHC20)

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.

Preliminary Requirements

- High School Diploma or Equivalent
- Must meet eligibility requirements for ENGL& 101 + 099
- Obtain a minimum APPLICABLE GPA of 2.5 prior to program entry
 - Applicable GPA designated courses are: AH 110, AH 104, AH 110, CMST& 210 and MA 124
- Complete each required course with grade of 'C' (2.0) or higher

Code	Title	Credits/ Units
Phlebotomy Foundation		
AH 110	Medical Terminology I ¹	3
AH 104	Health Care Delivery & Career Exploration	3
HLTH 124	Healthcare Provider CPR and First Aid	1
AH 120	Bloodborne Pathogens in Healthcare Settings	1
AH 100	Basic Concepts of Anatomy and Physiology I ¹	3
Phlebotomy Core		
<i>Select from one of the following:</i>		
CMST& 210	Interpersonal Communication	5
MA 124	Therapeutic Comm Skills for Health Prof	2
<i>Complete all of the following:</i>		
PHLE 115	Phlebotomy Education W/Lab	3
PHLE 116	Basic Laboratory for The Phlebotomist	3
PHLE 197	Phlebotomy Clinical Experience	5
PHLE 198	Phlebotomy Clinical Seminar	1
Total Credits/Units		25-28

¹ AH 100 and AH 110 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:

- 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.

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SURGICAL TECHNOLOGY

Complete the **Clark College Application for Admission** and the **Surgical Technology Application**. Return them to Clark College Enrollment Services with the non-refundable fee: \$50 for the program application fee (note: all fees subject to change). **Date of Surgical Technology Application (fee paid date) will be considered in selecting students for entry into the program. Eligible students may be included in the selection process a maximum of two times before they must reapply.**

High school diploma, GED completion, or higher U.S. degree conferment. Students must attest that they have completed this requirement and explain how and when it was completed.

Submit official college transcripts if you have transfer credits you wish to apply to the program. Students who do not plan to apply transfer credits towards the program are not required to submit official transcripts. Course credit hours and equivalency will be determined by Clark College.

The following courses are required prior to program entry:

Code	Title	Credits/ Units
ENGL& 101	English Composition I	5
AH 150 or BIOL& 260	Medical Microbiology Microbiology	5
MATH& 107 or MATH 111 or MATH 110	Math In Society (or any higher level math course) ¹ College Algebra College Algebra With Support	5
Any qualifying HR course(s) to reach 5 credits ²		5

Select from one of the following three options:

AH 100 & AH 101	Basic Concepts of Anatomy and Physiology I and Basic Concepts of Anatomy and Physiology II
BIOL& 241 & BIOL& 242	Human Anatomy and Physiology I and Human Anatomy and Physiology II
BIOL& 251 & BIOL& 252 & BIOL& 253	Human A & P I and Human A & P II and Human A & P III

¹ MATH 111 or MATH 110 is recommended.

² PSYC& 200 is recommended.

Obtain a minimum **Clark College cumulative GPA of 2.0 or above.**

To participate in the clinical externship, clinical sites may require proof of current immunizations. Students should consider starting the Hepatitis B series and titer as soon as possible as this can take approximately seven months to complete. Please see the program web site for details on immunizations and medical clearance requirements.

Students enrolled in clinical courses are required to complete a comprehensive Criminal Background Check (as required by the clinical sites). Students should be aware that the clinical site may deny the student access and the student may not be able to complete their healthcare program based on the results of a background check.

Students may be required to complete a drug screen before beginning their clinical experience at the request of the clinical site. Drug screening costs are the responsibility of the student (approximately \$37). If the clinical site finds the student's drug screen to be unsatisfactory, the

student may be dismissed from the program (see substance abuse policy).

Health Insurance - Proof of health insurance may be required by the clinical site. Keep in mind that you are responsible for your own health and testing requirements should an accident or injury occur. Clinical sites are not responsible for any injury that occurs during externship.

Working conditions: positions in the hospital and/or clinical settings may require working flexible schedules, including weekends and holidays; potential exposure to chemical hazards; ability to wear gloves and other personal protective equipment (mask, coat, etc.) for extended periods of time. It is strongly recommended that all applicants observe closely the activities of those practicing in the profession to understand the technical requirements of the program more fully.

To participate in this program, students must be able to perform standard technical requirements as described above. Admission to the program may be contingent upon the applicant verifying his or her ability to perform the established technical standards of the program with or without reasonable accommodation (Please reference the disability statement in the Surgical Technology handbook for additional information).

Clinical assignments are typically "day shift" or during the hours of 5:00am-4:00pm. Start and end times vary between clinical sites. Surgical Technology theory classes are hybrid and all lab and clinical is in person. Reliable transportation is an important consideration as clinical facilities may require driving significant distances (up to approximately 50 miles distance from Clark).

- Surgical Technology (AAT)(Plan code: SUESTAPT) (p. 95)

Surgical Technology (AAT)(Plan code: SUESTAPT)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills (5 credits required)</i>		
ENGL& 101	English Composition I	5
or PTWR 135	Introduction to Applied Technical Writing	
<i>Computational Skills (5 credits required)</i>		
MATH& 107	Math In Society (or any higher level math class)	5
or MATH 111	College Algebra	
or MATH 110	College Algebra With Support	
<i>Human Relations (5 credits required)</i>		
Course Options (p. 270)		5
Major Area Requirement		
<i>Select from one of the following three options:</i>		6-15
AH 100 & AH 101	Basic Concepts of Anatomy and Physiology I and Basic Concepts of Anatomy and Physiology II	
BIOL& 241 & BIOL& 242	Human Anatomy and Physiology I and Human Anatomy and Physiology II	

BIOL& 251 & BIOL& 252 & BIOL& 253	Human A & P I and Human A & P II and Human A & P III	
AH 115	Medical Terminology for Surgical Technology	5
AH 150 or BIOL& 260	Medical Microbiology Microbiology	5
BUS 150	Computer Business Applications	5
MA 201	Introduction to Pathophysiology	5
SURG 100	Introduction to Surgical Technology	2
SURG 101	Surgical Procedures I	5
SURG 104	Central Service Clinical I	1
SURG 107	Surgical Environment	3
SURG 111	Technical Skills Lab I	4
SURG 202	Surgical Procedures II	6
SURG 203	Surgical Procedures III	4
SURG 206	Perioperative Care of the Patient	4
SURG 212	Technical Skills Lab II	4
SURG 250	Surgical Seminar	3
SURG 254	Operating Room Practicum I	2
SURG 255	Operating Room Practicum II	5
SURG 256	Operating Room Practicum III	10
Total Credits/Units		94-103

Program Outcomes

After successful completion of this program, students will be able to:

- Ensure a sterile environment while preparing an operating room for surgical procedures.
- Perform the duties of a surgical technologist within the recognized scope of practice in an operating room setting.
- Ethically adhere to healthcare policy and standards when performing the duties of a surgical technologist to ensure safe patient care.
- Function collaboratively, as a member of a health care team as appropriate for a surgical technologist.

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To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

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.

- Surveying Geomatics Technician - Boundary (CP)(Plan Code: SUTBOC45) (p. 97)
- Surveying Geomatics Technician - GIS (CP)(Plan Code: SUTSGC45) (p. 97)
- Surveying/Geomatics (AAS)(Plan Code: SUTSGAPT) (p. 98)

Surveying Geomatics Technician - GIS (CP)(Plan Code: SUTSGC45)

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.

Code	Title	Credits/Units
General Education Requirements		
	<i>Communication Skills</i>	3

PTWR 135 Introduction to Applied Technical Writing (recommended)

Computational Skills		
MATH 103	College Trigonometry	5
Human Relations		
CMST& 210	Interpersonal Communication (recommended)	3
Major Area Requirements		
ENGR 140	Basic Autocad	4
SURV 104	Survey Computation	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 253	Introduction to GPS	3
SURV 255	Emerging Technology	3
Total Credits/Units		48

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:

- 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Surveying Geomatics Technician - Boundary (CP)(Plan Code: SUTBOC45)

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.

Code	Title	Credits/Units
General Education Requirements		
	<i>Communication Skills</i>	3

PTWR 135	Introduction to Applied Technical Writing (recommended)	
Computational Skills		
MATH 103	College Trigonometry	5
Human Relations		3
CMST& 210	Interpersonal Communication (recommended)	
Major Area Requirements		
ENGR 140	Basic Autocad	4
SURV 104	Survey Computation	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		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:

- 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.

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Surveying/Geomatics (AAS)(Plan Code: SUTSGAPT)

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.

Code	Title	Credits/ Units
General Education Requirements		
Communication Skills (minimum 6 units required)		6

PTWR 135	Introduction to Applied Technical Writing (recommended)	
Course Options (p. 265)		
Health & Physical Education (minimum 3 units required)		3
HPE 220	Occupational Wellness (recommended)	
Computational Skills (minimum 3 units required)		
MATH 103	College Trigonometry	5
Human Relations (minimum 3 units required)		3
CMST& 210	Interpersonal Communication (recommended)	
Humanities (minimum 3 units required)		3
Course Options (p. 271)		
Social Sciences (minimum 3 units required)		3
Course Options (p. 272)		
Natural Sciences (minimum 3 units required)		3
PHSC 101	General Physical Science (recommended)	
Major Area Requirements		
BUS 169	Introduction to Excel	3
ENGR 140	Basic Autocad	4
ENGR 113	Engineering Sketching and Visualization	2
MATH 110	College Algebra With Support (or higher)	5
or MATH 111	College Algebra	
MATH& 151	Calculus I (or higher)	5
or SURV 199	Cooperative Work Experience	
SURV 104	Survey Computation	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 202	Boundary Surveys	4
SURV 203	Legal Descriptions	3
SURV 223	Boundary Law I	3
SURV 225	Subdivision Planning and Platting	3
SURV 250	Arc GIS I	3
SURV 253	Introduction to GPS	3
SURV 255	Emerging Technology	3
SURV 264	Survey Software Applications	4
Total Credits/Units		95

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 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.

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TEACHER EDUCATION (BAS)

The Bachelor of Applied Science in Teaching Preschool – 3rd Grade (BASTE) is a two-year, career-oriented degree that combines technical, academic, and teaching method courses. Students also have the opportunity to endorse in Bilingual Teaching. This 90-credit program is designed for students who have completed an associate's degree, or applied science degree in ECE or higher.

This program is limited entry and an additional program application is required. Please see the program page (<https://www.clark.edu/academics/programs/public-service-society-and-education/baste/admission.php>) for requirements.

- Teacher Education (BAS)(Plan Code: EETTEBAS) (p. 100)

Teacher Education (BAS)(Plan Code: EETTEBAS)

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.

Code	Title	Credits/ Units
BAS General Education Requirements		
<i>Communication Skills (WC)</i>		
ENGL& 101	English Composition I	5
ENGL& 102	English Composition II	5
<i>Quantitative Skills (Q)</i>		
MATH 122	Math for Elementary Teachers (recommended)	5
or		
Select one option: (p.)		5
<i>Humanities (HA/HB)</i>		
ART 330	Creative Arts in Teaching	5
Humanities Course Options (p. 265)		5
<i>Social Sciences (SS)</i>		
SOC 360	Social Studies for Teachers	5
Social Sciences Course Options (p. 266)		5
<i>Natural Science (NS)</i>		
ENVS 300	Inquiry-Based Science for Teachers	5
Course Options (p. 267)		5
<i>Additional General Education Courses</i>		
DTA Natural Science, Social Science and/or Humanities distribution list courses		15
ECE, EDUC, and ECED courses and/or General Education Courses		27
Major Area Requirements		
ECED& 160	Curriculum Development	5
EDUC& 115	Child Development	5
EDUC& 130	Guiding Behavior	3
EDUC& 204	Inclusive Education	5
EDUC& 240	Diversity in Education	5
BASTE 301	Leadership and Supervision	3
BASTE 302	Integrated Health and Physical Education	2

BASTE 303	Language and Literacy Acquisition	5
BASTE 304	Effective and Meaningful Curriculum Design	5
BASTE 305	Observation and Assessment	5
BASTE 306	Law and Ethics	5
BASTE 307	Vision to Practice Anti-Bias Education	5
BASTE 401	Social Emotional Guidance and Trauma Informed Practices	5
BASTE 402	Meaningful Math Methods	5
BASTE 404	Individualized Teaching	5
or BASTE 403	Bilingual Teaching	
BASTE 405	Residency Teaching 1	8
BASTE 406	Seminar 1	4
BASTE 407	Residency Teaching 2	9
BASTE 408	Seminar 2	3
BASTE 409	Issues of Child Abuse in Education	1
Total Credits/Units		180

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:

- **POWER, PRIVILEGE INEQUITY AND CULTURALLY RESPONSIVE PRACTICES:** The candidate demonstrates awareness and evaluates own cultural identity, biases and beliefs while maintaining an understanding of differences in perspectives and approaches; and creates and maintains learning environments that are culturally safe and responsive for a variety of students and their families where all feel safe and have a place;
- **PEDAGOGICAL SKILLS:** The candidate will apply learning theories while incorporating a variety of evidence-based instructional strategies in teaching practices across disciplines that are culturally, linguistically, individually, and developmentally appropriate for students with a variety of learning needs, and includes navigation of technology and utilization of learning management systems;
- **AREAS OF CONTENT KNOWLEDGE:** The candidate will develop and implement central concepts of Language Arts, Science, Mathematics, Health and Fitness, Technology and Social Studies, Social and Emotional Development, all of which include 21st century skills such as critical thinking and the ability to identify resources the individual student needs for support, development and success;
- **CHILD DEVELOPMENT AND INDIVIDUALIZATION:** The candidate applies theory of child development, including awareness of cultural responsiveness and diverse learning needs in planning and implementing learning plans that support students for individual growth across all developmental domains including students who are second language learners;
- **SUPPORTIVE COMMUNITIES:** The candidate develops a teaching philosophy that includes the importance of relationships with students, families, colleagues and community resource agencies; creates and maintains those relationships to support the growth and development of individual students;
- **ASSESSMENT:** The candidate will analyze and implement a variety of culturally and developmentally appropriate assessments while evaluating progress in collaboration with colleagues and families in

order to guide the development of each student and demonstrate the ability to self-assess one's own teaching strategies;

- **GUIDANCE AND SUPPORT:** The candidate observes and analyzes the behavior of students, to develop and implement strategies that are culturally, developmentally and effective in maximizing the success of each student and of the classroom while utilizing resources available within and outside of the classroom;
- **PROFESSIONALISM:** The candidate, in pursuit of developing their teaching identity, is familiar with and engages with on-going professional development in alignment with district, state and national standards and trends, both collaboratively and individually;
- **ORGANIZATION AND COMPLIANCE:** The candidate appraises, implements strategies and monitors the Individual Family Service Plan (IFSP), Individual Education Plan (IEP), and 504 plans in collaboration with teams that include families, professionals and teachers to provide support necessary for an individual student's success and has awareness of WAC's and other codes of which apply to teaching standards;
- **PLANNING:** The candidate will prepare lesson plans based in theory and will routinely analyze, evaluate and synthesize the results of their own teaching practices and make appropriate changes that respond more effectively to student growth and development, recognizing cultural, ability and language diversity, while including appropriate partners in the process.

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WEB DEVELOPMENT

Gain foundational skills in web coding, multimedia, and web design practices that provide a well-rounded set of skills necessary for web developers to thrive in today's market.

- Web Development (CP)(Plan Code: WMMWDC45) (p. 102)
- Web Development (AAT)(Plan Code: WMMWDAPT) (p. 102)

Web Development (CP)(Plan Code: WMMWDC45)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
or PTWR 135	Introduction to Applied Technical Writing	
<i>Computational Skills</i>		
PTCS 110	Professional Technical Computational Skills (or completed MATH course with C or better where prereq requirements are MATH 96 or higher.)	5
<i>Human Relations</i>		
CTEC 165	Business Web Practices	4
Major Area Requirements		
COLL 101	College Essentials: Introduction to Clark	2
CTEC 121	Intro to Programming & Problem Solving	5
CTEC 117	User Experience Design	4
CTEC 122	HTML Fundamentals	4
CTEC 126	JavaScript	5
CTEC 160	WordPress I	5
CTEC 166	Web Content and Social Media	5
CTEC 270	Web and Interface Design I	4
CTEC 271	Web and Interface Design II	4
DMA 101	Photoshop Raster Graphics	4
Total Credits/Units		56

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 written, verbal and visual means to effectively present and communicate web design projects.
- Demonstrate work and 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.

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Web Development (AAT)(Plan Code: WMMWDAPT)

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.

Prepare for a career as a full-stack web developer. Learn front-end and back-end development with HTML, CSS, JavaScript, databases, and frameworks. Discover how AI is reshaping the field while gaining knowledge of accessibility, user experience, and designing digital experiences that adapt across today's technologies.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
or PTWR 135	Introduction to Applied Technical Writing	
<i>Computational Skills</i>		
PTCS 110	Professional Technical Computational Skills (or completed MATH course with 'C' or better where prerequisite requirements are MATH 096 or higher)	5
<i>Human Relations</i>		
CTEC 165	Business Web Practices	4
COLL 101	College Essentials: Introduction to Clark	2
Major Area Requirements		
CTEC 121	Intro to Programming & Problem Solving	5
CTEC 117	User Experience Design	4
CTEC 122	HTML Fundamentals	4
CTEC 126	JavaScript	5
CTEC 127	PHP With SQL I	5
CTEC 134	Microsoft Database Admin	5
CTEC 145	Web Server Technology	5
CTEC 160	WordPress I	5
CTEC 166	Web Content and Social Media	5
CTEC 227	PHP With SQL II	5
CTEC 275	Emerging Technologies	5
or CTEC 135	Microsoft Software Development With C#	
CTEC 270	Web and Interface Design I	4
CTEC 271	Web and Interface Design II	4
CTEC 293	Web Skills Portfolio	5

DMA 101	Photoshop Raster Graphics	4
DMA 201	Video and Sound Production I	4
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:

- 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.

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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.

- Flux Core Arc Welding (CA)(Plan Code: WETFCC20) (p. 104)
- Gas Metal Arc Welding (CA)(Plan Code: WETGMC20) (p. 104)
- Gas Tungsten Arc Welding (CA)(Plan Code: WETGTC20) (p. 105)
- Shielded Metal Arc Welding (CA)(Plan Code: WETSMC20) (p. 105)
- Welding Technician (CP)(Plan Code: WETWTC45) (p. 105)
- Welding Technologies (AAT)(Plan Code: WETWCAPT) (p. 106)

Flux Core Arc Welding (CA)(Plan Code: WETFCC20)

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 Certificate of Achievement is posted to students' official transcripts automatically upon completion of the specified requirements, students do not need to apply for graduation to be awarded.

Code	Title	Credits/ Units
Major Area Requirements		
HLTH 120	Adult CPR and First Aid	1
WELD 102	Introduction to Welding	6
WELD 110	Welding Blueprint Reading	5
WELD 142	Flux Core Arc Welding	6
WELD 143	Flux Core Arc Fabrication	6
Total Credits/Units		24

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, terminology and safe practices related to Flux Core Arc Welding (FCAW) and cutting processes.
- Explain the use of FCAW electrodes.

- Demonstrate the functions of FCAW power sources, electrical parameters, output characteristics and auxiliary controls.
- Describe the criteria for visual inspection of FCAW weldments.
- Demonstrate Oxy Fuel Cutting and Plasma Arc Cutting principles of operation.
- Interpret blueprints and specifications.

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Gas Metal Arc Welding (CA)(Plan Code: WETGMC20)

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 Certificate of Achievement is posted to students' official transcripts automatically upon completion of the specified requirements, students do not need to apply for graduation to be awarded.

Code	Title	Credits/ Units
Major Area Requirements		
HLTH 120	Adult CPR and First Aid	1
WELD 102	Introduction to Welding	6
WELD 110	Welding Blueprint Reading	5
WELD 140	Gas Metal Arc Welding	6
WELD 141	Gas Metal Arc Fabrication	6
Total Credits/Units		24

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.

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To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Gas Tungsten Arc Welding (CA)(Plan Code: WETGTC20)

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 Certificate of Achievement is posted to students' official transcripts automatically upon completion of the specified requirements, students do not need to apply for graduation to be awarded.

Code	Title	Credits/ Units
Major Area Requirements		
HLTH 120	Adult CPR and First Aid	1
WELD 102	Introduction to Welding	6
WELD 110	Welding Blueprint Reading	5
WELD 240	Gas Tungsten Arc Welding	6
WELD 241	Gas Tungsten Arc Fabrication	6
Total Credits/Units		24

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 Tungsten Arc Welding (GTAW) and cutting processes.
- 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.
- Demonstrate Plasma Arc Welding and Plasma Arc Cutting principles of operation.
- Interpret blueprints and specifications.

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Shielded Metal Arc Welding (CA)(Plan Code: WETSMC20)

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 Certificate of Achievement is posted to students' official transcripts automatically upon completion of the specified requirements, students do not need to apply for graduation to be awarded.

Code	Title	Credits/ Units
Major Area Requirements		
HLTH 120	Adult CPR and First Aid	1
WELD 102	Introduction to Welding	6
WELD 110	Welding Blueprint Reading	5
WELD 144	Shielded Metal Arc Welding	6
WELD 145	Shielded Metal Arc Fabrication	6
Total Credits/Units		24

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.

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Welding Technician (CP)(Plan Code: WETWTC45)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills (minimum 3 credits/units required)</i>		
Course Options (p. 270)		3
<i>Computational Skills (minimum 3 credits/units required)</i>		
Course Options (p. 270)		3
<i>Human Relations (minimum 3 credits/units required)</i>		
Course Options (p. 270)		3
Major Area Requirements		

HLTH 120	Adult CPR and First Aid	1
WELD 102	Introduction to Welding	6
WELD 110	Welding Blueprint Reading	5
WELD 140	Gas Metal Arc Welding	6
WELD 141	Gas Metal Arc Fabrication	6
WELD 142	Flux Core Arc Welding	6
WELD 143	Flux Core Arc Fabrication	6
WELD 144	Shielded Metal Arc Welding	6
WELD 145	Shielded Metal Arc Fabrication	6
WELD 156	Welding Certification Prep	2
WELD 240	Gas Tungsten Arc Welding	6
WELD 241	Gas Tungsten Arc Fabrication	6

Total Credits/Units **71**

Program Outcomes

After successful completion of this program, students will be able to:

- 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 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.
- 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 GMAW, 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. 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 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.
- Obtain or work towards AWS certifications in multiple process. Enhance skills in FCAW, SMAW, GTAW, 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.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

Welding Technologies (AAT)(Plan Code: WETWCAPT)

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.

Code	Title	Credits/ Units
General Education Requirements		
<i>Communication Skills</i>		
	Course Options (p. 270)	5
<i>Computational Skills</i>		
	Course Options (p. 270)	5
<i>Human Relations</i>		
COLL 101	College Essentials: Introduction to Clark	2
	Course Options (p. 270)	3
Major Area Requirements		
HLTH 120	Adult CPR and First Aid	1
WELD 102	Introduction to Welding	6
WELD 110	Welding Blueprint Reading	5
WELD 140	Gas Metal Arc Welding	6
WELD 141	Gas Metal Arc Fabrication	6
WELD 142	Flux Core Arc Welding	6
WELD 143	Flux Core Arc Fabrication	6
WELD 144	Shielded Metal Arc Welding	6
WELD 145	Shielded Metal Arc Fabrication	6
WELD 156	Welding Certification Prep	2
or WELD 157	Weld Fabrication Projects	
WELD 200	Applied Material Science	5
WELD 240	Gas Tungsten Arc Welding	6
WELD 241	Gas Tungsten Arc Fabrication	6
WELD 242	Advanced Wire Feed Welding	6
WELD 243	Advanced Wire Feed Fabrication	6
WELD 244	Advanced Gas Tungsten Arc Welding	6
WELD 245	Advanced Gas Tungsten Arc Fabrication	6
WELD 256	Weld Certification Test	1
Total Credits/Units		107

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 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 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 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 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, 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.
- Obtain or work towards AWS certifications in multiple process. Enhance skills in FCAW, SMAW, GTAW, GMAW, SAW, PAC and Oxy/fuel cutting processes.
- Identify and use Welding Technology principles of operation, terms and safe practices related to OFC, PAW 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 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 use Welding Technology principles of operation, terms and safe practices related to GMAW, 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. 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.

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To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics>

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ACCOUNTING (ACCT/ACCT&)

Basic Accounting Procedures

ACCT 129 5 Credits/Units

5.0 hours of lecture

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10

Analyze financial transactions using the accounting equation and concepts by journalizing, posting transactions to the general ledger, preparing adjustments and closing entries, preparing financial statements that complete the accounting cycle, use an accounting system that has subsidiary ledgers and special journals and post transactions of a merchandising operation using perpetual and periodic inventory systems. [GE]

Accounting Applications

ACCT 136 3 Credits/Units

3.0 hours of lecture

Prerequisite: ACCT 129 or (BUS 28 and BUS 29) (grades of "C" or higher).

Compute the Cost of Inventories and Cost of Goods Sold using the periodic and perpetual inventory systems. Perform a bank reconciliation and a reconciliation of petty cash fund. Analyze the accounts and notes receivables and journalize for probable uncollectibles. Calculate due dates and interest due on notes receivable. Analyze long-term assets and calculate depreciation, depletion and amortization. Calculate payroll, payroll taxes and analyze current liabilities to determine adjustments. [GE]

Principles of Accounting I

ACCT& 201 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL& 101 (grade of "C" or higher) and MATH 92 (grade of "C" or higher) or placement into Math level 30.

Accounting theory and practice including the entire accounting cycle, accounting for merchandising operations, receivables, and current liabilities. [GE, SE]

Principles of Accounting II

ACCT& 202 5 Credits/Units

5.0 hours of lecture

Prerequisite: ACCT& 201 (grade of "C" or higher)

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. [GE, SE]

Principles of Accounting III

ACCT& 203 5 Credits/Units

5.0 hours of lecture

Prerequisite: ACCT& 201 (grade of "C" or higher)

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. [GE, SE]

ADDICTION COUNSELOR EDUCATION (ACED)

Survey of Addictionology

ACED 101 3 Credits/Units

3.0 hours of lecture

Prerequisite: ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

Biological, psychological, and sociological theories of the use of major drugs of abuse, as well as addictive behaviors. Explores the distinction between use, abuse and addiction. For majors and non-majors. [GE, HR, SE, SS]

Group Counseling In Addictions

ACED 125 3 Credits/Units

3.0 hours of lecture

Department consent required for enrollment. 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

ACED 132 3 Credits/Units

3.0 hours of lecture

Department consent required for enrollment. Knowledge and skills for working with significant persons in the addicted client's environment. Emphasis on counseling immediate family members. [GE]

Law and Ethics In Addictions Counseling

ACED 136 3 Credits/Units

3.0 hours of lecture

Department consent required for enrollment. 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

ACED 137 3 Credits/Units

3.0 hours of lecture

Department consent required for enrollment. Differential and dual diagnosis. Use of current edition of Diagnostic and Statistical Manual. Referral and networking with mental health professionals; relapse prevention techniques; screening that includes comorbidity. [GE]

Prevention and Education In The Community

ACED 138 3 Credits/Units

3.0 hours of lecture

Department consent required for enrollment. Application of the Public Health and Social Development models to prevention activities. Knowledge of community resources in developing community education and prevention programs. [GE]

Pharmacology of Drugs of Abuse

ACED 160 3 Credits/Units

3.0 hours of lecture

Department consent required for enrollment. Pharmacological effects of alcohol and drugs on the human body and mind. [GE]

Adolescent Addiction Assessment & Treatment

ACED 164 3 Credits/Units

3.0 hours of lecture

Department consent required for enrollment. An examination of adolescent development and the detrimental impact of addiction on youth development. The assessment process and treatment modalities for adolescents are presented. [GE]

Air- and Blood-Borne Pathogens

ACED 170 3 Credits/Units

3.0 hours of lecture

Department consent required for enrollment. Skills to reduce impact of air- and blood-borne pathogens on addiction clients. HIV/AIDS, pathogen, and suicidality brief risk intervention for the addiction client population. Community resources available to clients. [GE]

Theories of Counseling

ACED 201 3 Credits/Units

3.0 hours of lecture

Department consent required for enrollment. Introduces the major counseling theories and techniques focusing on individual counseling within a Human Services framework. Students are encouraged to develop a counseling orientation based on these theories which include their own personal and professional ethical orientation. For majors and non-majors. [GE, HR]

Multi-Cultural Addictions Counseling

ACED 202 3 Credits/Units

3.0 hours of lecture

Department consent required for enrollment. Culturally learned assumptions that shape a counseling interview. Culture as the heart of any counseling relationship. The impact of culture on treatment planning with an addiction client population. [GE]

Case Management In Addiction Medicine

ACED 203 3 Credits/Units

3.0 hours of lecture

Department consent required for enrollment. Requirements for managing cases in treatment clinics: treatment and aftercare plans, notes, testing, preparation of accurate reports and other documents, confidentiality, and advocacy. ASAM criteria and treatment. [GE]

Introduction to Addiction Counseling Skills

ACED 204 3 Credits/Units

3.0 hours of lecture

Prerequisite: ACED 101 and ENGL& 101 (grades of "C" or higher).

Department consent required for enrollment. Covers the application of basic counseling theories and practices, including relapse prevention, to a chemical dependency client population. Practical application of counseling skills utilized. Group, individual, and family counseling are also addressed, as well as cultural issues. [GE]

Advanced Techniques for Addiction Counsel

ACED 205 3 Credits/Units

3.0 hours of lecture

Department consent required for enrollment. Development of skills needed to establish and maintain effective helping relationships with clients. Integration of relapse prevention counseling in treatment. [GE]

Field Placement I

ACED 210 1-6 Credits/Units

1.0 hours of lecture / 15.0 hours of clinical

Department consent required for enrollment. 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 1-6 Credits/Units

1.0 hours of lecture / 15.0 hours of clinical

Department consent required for enrollment. 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 1-3 Credits/Units

3.0 hours of lecture

Prerequisite: ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

Department consent required for enrollment. Selected topics in Chemical Dependence. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE]

Special Projects

ACED 290 1-5 Credits/Units

5.0 hours of lecture

Department consent required for enrollment. Opportunity to plan, organize and complete special projects approved by the department. [GE]

ADVANCED MANUFACTURING (AM)

Advanced Manufacturing Career Exploration

AM 101 5 Credits/Units

4.0 hours of lecture / 2.0 hours of lab

Intro to manufacturing with a focus 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, career exploration in MTX, Welding, Robotics, Machining and General MFG, workplace soft skills, basic cyber security practices and an introduction to student resources at the college. [GE, HR]

OSHA 10 Safety

AM 102 1 Credit/Unit

1.0 hours of lecture

Occupational Safety and Health Administration (OSHA) 10 - General Industry training prepares students to be aware of potential safety issues in industry as well as best practices. [GE][PNP]

Welding, Cutting & Fabrication Processes

AM 105 6 Credits/Units

4.0 hours of lecture / 4.0 hours of lab

Prerequisite: AM 101, AM 102, AM 110, HLTH 120, and PTWR 135 (grades of "C" or higher) and eligibility for Math Level 30.

An introduction to welding processes used in the advanced manufacturing industry including: GMAW, GTAW, PAC, OFC. Practical application in general shop safety and department required training on metal working equipment. [GE][PNP]

Blueprint and Schematic Reading

AM 108 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: AM 101, AM 102, AM 110, HLTH 120, and PTWR 135 (grades of "C" or higher) and eligibility for Math Level 30.

Create shop drawings and schematics. Demonstrate use and interpret drawing elements, including welding symbols and geometric dimensioning and tolerancing (GD&T). Interpret title block components and drawing notes. Understand and explain multi-view drawing change systems, dimensioning and tolerancing that are used in the advanced manufacturing industry. [GE]

Manual Manufacturing I

AM 110 3 Credits/Units

1.0 hours of lecture / 4.0 hours of lab

Prerequisite: CAP 42 (grade of "C" or higher), or placement into Math level 20.

Introduction to manufacturing environment and manual tools including files, hand tools, electric tools, and air tools. Application of OSHA safety, blueprint and schematic reading, mathematics, and precision measurement tools. [GE]

Manual Manufacturing II

AM 120 3 Credits/Units

1.0 hours of lecture / 4.0 hours of lab

Prerequisite: (AM 130, and (AM 105 or WELD 102), and (AM 108 or WELD 110) (grades of "C" or higher)), and eligibility for Math Level 60. Introduces manual material removal operations including basic part setup, drilling, precision grinding, manual milling, and manual lathe processes. Continued application of OSHA safety, blueprint and schematic reading, mathematics, and precision measurement tools. Continued application of welding skills including: GMAW, GTAW, PAC, OFC. [GE]

Intro to SolidWorks

AM 130 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: AM 101, AM 102, AM 110, HLTH 120, and PTWR 135 (grades of "C" or higher) and eligibility for Math Level 30.

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. [GE]

Intro to Programming & Problem Solving

AM 150 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: (AM 130, and (AM 105 or WELD 102), and (AM 108 or WELD 110) (grades of "C" or higher)), and eligibility for Math Level 60. Introduction to programming. Emphasis on program design, verification, and testing. Programming related concepts in computer science will be covered. [GE]

Applied Material Science

AM 200 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: AM 120 and AM 150 (grades of "C" or higher) and (MATH 110 or MATH 111 (grade of "C" or higher) or eligibility for Math Level 80).

Introduction to applied material science for technical professionals. Covers basic theory, application, and advanced manufacturing methods through a combination of lecture and laboratory activities. Topics: material properties, material structure, testing, manufacturing, joining, and material classification and identification for metallic, ceramic, polymeric, and composite materials. [GE]

Applied Metrology

AM 208 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Prerequisite: AM 200, AM 210, and AM 215 (grades of "C" or higher) and (MATH 103 (grade of "C" or higher) or eligibility for Math Level 80).

An introduction to the concepts and vocabulary of precision measurement systems in advanced manufacturing. Learn the calibration, setup, and operation of coordinate measurement machines (CMM), optical comparators and digital scanners for verification of tolerances, surfaces, threads, holes, general part dimension and quality, and reverse engineering. [GE]

Additive Manufacturing

AM 210 5 Credits/Units

2.0 hours of lecture / 6.0 hours of lab

Prerequisite: AM 120 and AM 150 (grades of "C" or higher) and (MATH 110 or MATH 111 (grade of "C" or higher) or eligibility for Math Level 80).

Learn the fundamental additive manufacturing methods of: STL, FFF, DLP and other emerging technologies used in manufacturing. In preparation of printing 3D models, learn to use slicing software as well as various post processing techniques to produce completed models, parts or assemblies. [GE]

Robotics I

AM 215 4 Credits/Units

1.0 hours of lecture / 6.0 hours of lab

Prerequisite: AM 120 and AM 150 (grades of "C" or higher) and (MATH 110 or MATH 111 (grade of "C" or higher) or eligibility for Math Level 80).

Identification and use of robotic coordinate systems, pick and place robot configurations, programming, move types, and robot safety. [GE]

Robotics II

AM 216 4 Credits/Units

1.0 hours of lecture / 6.0 hours of lab

Prerequisite: AM 200, AM 210, and AM 215 (grades of "C" or higher) and (MATH 103 (grade of "C" or higher) or eligibility for Math Level 80).

Introduction to robots in computer integrated manufacturing (CIM), applying fundamental robotic welding processes, weldments, weld procedures, introduction to offline programming software, cycle time estimates, troubleshooting, saving and backup program data. [GE]

Robotics III

AM 217 4 Credits/Units

1.0 hours of lecture / 6.0 hours of lab

Prerequisite: AM 208, AM 216, AM 220, and AM 235 (grades of "C" or higher).

Applying industry 4.0 concepts in robotic computer integrated manufacturing, inputs and outputs, machine tending, interfacing with different equipment, safety, offline program, lock out tag-out and performing basic maintenance procedures. [GE]

Subtractive Manufacturing I

AM 220 6 Credits/Units

2.0 hours of lecture / 8.0 hours of lab

Prerequisite: AM 200, AM 210, and AM 215 (grades of "C" or higher) and (MATH 103 (grade of "C" or higher) or eligibility for Math Level 80).

An introduction to G&M code for CNC lathe, CNC laser cutting and CNC waterjet cutting machines. Learn the programming practices, setup procedures, and operation of CNC machines such as the lathe, laser cutting, and waterjet cutting machines. [GE]

Subtractive Manufacturing II

AM 230 6 Credits/Units

2.0 hours of lecture / 8.0 hours of lab

Prerequisite: AM 208, AM 216, AM 220, and AM 235 (grades of "C" or higher).

A continuation of CNC programming and manufacturing in AM 220. Learn programming practices, setup, and safe operation of a CNC mill. Includes G&M code programming and operation of CNC lathe, waterjet, laser cutting, precision grinding and other subtractive manufacturing equipment. [GE]

Computer Aided Machining (CAM)

AM 235 3 Credits/Units

1.0 hours of lecture / 4.0 hours of lab

Prerequisite: AM 200, AM 210, and AM 215 (grades of "C" or higher) and (MATH 103 (grade of "C" or higher) or eligibility for Math Level 80).

Use Computer Aided Machining (CAM) programs to generate toolpaths from CAD models, to produce G&M code for a variety of CNC equipment including: CNC Mill, CNC Lathe, CNC EDM, Waterjet Cutting, Laser Cutting, and CNC Router. Students will group operations, post-process, modify toolpaths, path around obstacles, and define proper tooling. [GE]

Systems Integration

AM 250 3 Credits/Units

1.0 hours of lecture / 4.0 hours of lab

Prerequisite: AM 208, AM 216, AM 220, and AM 235 (grades of "C" or higher).

Fundamental introduction to integration of assembly and sub-assemblies and related troubleshooting techniques. Examining transducers and actuator transfer functions and controller functions, Root cause analysis of integrated systems. Incorporating team building, critical thinking and problem solving techniques. [GE]

Capstone Lab

AM 260 6 Credits/Units

1.0 hours of lecture / 10.0 hours of lab

Prerequisite: AM 208, AM 216, AM 220, and AM 235 (grades of "C" or higher).

Applied project management principles, team work and critical thinking skills to complete a large assembly project using various skills and technologies learned from prior classes in the degree pathway. [GE][PNP]

ALLIED HEALTH (AH)

Basic Concepts of Anatomy and Physiology I

AH 100 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Introduction to basic anatomical and physiology concepts as they apply to allied health occupations (excluding nursing and dental hygiene). Basic overview of body systems including integumentary, musculoskeletal, cardiovascular, lymphatic, immune, and endocrine systems. Includes a laboratory component that is integral to the course concepts and skills. [GE]

Basic Concepts of Anatomy and Physiology II

AH 101 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Prerequisite: AH 100 (grade of "C" or higher)

Introduction to basic anatomical and physiological concepts as they apply to allied health occupations (excluding nursing and dental hygiene). Basic overview of body systems including nervous, sensory, respiratory, digestive, urinary, and reproductive systems. Includes a laboratory component that is integral to the course concepts and skills. [GE]

Health Care Delivery & Career Exploration

AH 104 3 Credits/Units

3.0 hours of lecture

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]

Medical Terminology I

AH 110 3 Credits/Units

3.0 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 to human anatomy, pathology, diagnostic tests, clinical procedures, and abbreviations associated with each body system. Medical Terminology I covers the following body systems: integumentary, musculoskeletal, cardiovascular, lymphatic, immune, and endocrine systems. Includes spelling and pronunciation of terms. [GE]

Medical Terminology II

AH 111 3 Credits/Units

3.0 hours of lecture

Prerequisite: AH 110 (grade of "C" or higher)

Continuation of Medical Terminology I, AH 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: nervous, sensory, respiratory, digestive, urinary and reproductive systems. Course work will include spelling and pronunciation of terms. [GE]

Medical Terminology for Surgical Technology

AH 115 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. Introduction to medical word building with common medical roots, prefixes, and suffixes. Study of terms related to the body, as well as terms related to human anatomy, pathology, diagnostic tests, clinical procedures, and abbreviations associated with each body system. Covers the following body systems: integumentary, musculoskeletal, nervous, sensory, circulatory, cardiovascular, lymphatic, respiratory, digestive, genitourinary, reproductive, and endocrine. Will cover commonly used abbreviations and the DO NOT USE list of abbreviations. [GE]

Bloodborne Pathogens in Healthcare Settings

AH 120 1 Credit/Unit

1.0 hours of lecture

Comprehensive study of primary bloodborne pathogens of concern in healthcare settings: HIV, hepatitis B, and hepatitis C. [GE]

Medical Microbiology

AH 150 5 Credits/Units

5.0 hours of lecture

Prerequisite: Intended for students who are preparing for and have declared Surgical Technology as their program.

Intended for students who are preparing for and have declared Surgical Technology as their major. An introduction to basic microbiology theory. Learn the classifications of microorganisms, modes of disease transmission and disease process and epidemiology and practices in the control of pathogenic microorganisms. [GE]

Pathophysiology for Surgical Technology

AH 200 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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 as it relates to surgical technology. [GE]

Statistics for Health Care Professionals

AH 261 3 Credits/Units

3.0 hours of lecture

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10

Admission into the program required for enrollment. Introduction to statistical computations and analysis used in healthcare. Topics include patient census, occupancy, length of stay, mortality and morbidity statistics. [CP, GE]

Special Projects

AH 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the faculty of the department. [GE]

AMERICAN SIGN LANGUAGE (ASL/ASL&)

American Deaf Culture

ASL 125 5 Credits/Units

5.0 hours of lecture

This course will focus on topics in the culture of deaf people including studies of their beliefs, practices and language. [GE, HA, SE]

Selected Topics

ASL 280 1-3 Credits/Units

3.0 hours of lecture

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. Individual topics are listed in the term class schedules. [GE][PNP]

Special Projects

ASL 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

Am Sign Language I

ASL& 121 5 Credits/Units

5.0 hours of lecture

Introduction to American Sign Language emphasizing instruction and practice in expressive and receptive ASL skills. Focus on basic vocabulary, grammar, and cultural aspects of the deaf community. [GE, HA, SE]

Am Sign Language II

ASL& 122 5 Credits/Units

5.0 hours of lecture

Prerequisite: ASL& 121 (grade of "C" or higher). Students with prior language experience can request consent of instructional unit.

Continuation of ASL I, developing skills for the student with a basic knowledge of ASL. Focus on grammar, idioms, vocabulary building, culture and language. [GE, HA, SE]

Am Sign Language III

ASL& 123 5 Credits/Units

5.0 hours of lecture

Prerequisite: ASL& 122 (grade of "C" or higher). Students with prior language experience can request consent of instructional unit.

Continuation of ASL II, developing grammar and vocabulary skills, with emphasis on students expressive and receptive skills. Topics include abstract concepts of language and the deaf culture's values, attitudes, and community. [GE, HA, SE]

Am Sign Language IV

ASL& 221 5 Credits/Units

5.0 hours of lecture

Prerequisite: ASL& 123 (grade of "C" or higher). Students with prior language experience can request consent of instructional unit.

First of the second-year sequence in studying the language of Deaf Americans. Topics include developing receptive and expressive skill and fluency; correct formation of signs, movement, rhythm, phrasing and clarity; vocabulary building; developing proficiency in ASL grammar. Students will develop a respect for ASL as a language, including acceptance and appreciation of its diverse regional and personal applications within its culture. [GE, HA, SE]

Am Sign Language V

ASL& 222 5 Credits/Units

5.0 hours of lecture

Prerequisite: ASL& 221 (grade of "C" or higher). Students with prior language experience can request consent of instructional unit.

Second of second-year sequence in studying the language of Deaf Americans. Topics include developing receptive and expressive skills in dialogue; applying ASL informal discourse styles; vocabulary building; developing proficiency in ASL grammar for recreation, social services, government and the workplace. Students will develop a respect for ASL as a language, including acceptance and appreciation of its diverse regional and personal applications within its culture. [GE, HA, SE]

Am Sign Language VI

ASL& 223 5 Credits/Units

5.0 hours of lecture

Prerequisite: ASL& 222 (grade of "C" or higher). Students with prior language experience can request consent of instructional unit.

Third of second-year sequence in studying the language of Deaf Americans. Continuing development of receptive and expressive skills and fluency. Emphasis on increasing vocabulary, classifier, phrases and grammatical usage with a decrease dependency on English syntax structure. Students will be able to initiate and converse in topics such as technical fields of work, college level academic subjects, politics, and religion with consistent grammatical accuracy with native ASL users. [GE, HA, SE]

ANTHROPOLOGY (ANTH/ANTH&)

Selected Topics

ANTH 280 1-3 Credits/Units

3.0 hours of lecture

Selected topics in Anthropology. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE, SE]

Special Projects

ANTH 290 1-5 Credits/Units

5.0 hours of lecture

Department consent required for enrollment. Opportunity to plan, organize, and complete special projects approved by the department. [GE]

Archaeology

ANTH& 204 5 Credits/Units

5.0 hours of lecture

Study of ancient and prehistoric cultures of the world. Introduction to theories and techniques of archaeological investigation. [GE, SE, SS]

Cultural Anthropology

ANTH& 206 5 Credits/Units

5.0 hours of lecture

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. [GE, SE, SS]

Bioanthropology W/Lab

ANTH& 215 5 Credits/Units

4.0 hours of lecture / 2.0 hours of lab

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. [GE, NS, NS-LAB, SE, SS]

Primatology

ANTH& 245 5 Credits/Units

5.0 hours of lecture

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. [GE, NS, SE]

ART (ART/ART&)

2D Art and Design

ART 101 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Foundational art course working with line, shape, value, color, and the principles of spatial organization. May include designing with computers. [GE, HB, SE][PNP]

Drawing I

ART 103 5 Credits/Units

3.0 hours of lecture / 4.0 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. [GE, HB, SE][PNP]

Observational Drawing

ART 104 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 103 (grade of "C" or higher)

Continuation of ART 103. Analysis and 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. [GE, HB, SE][PNP]

Drawing for Comics

ART 105 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 103 (grade of "C" or higher)

Study and practice of creating comics and graphic narratives in a variety of genres and media. Emphasis is on form and process from ideation to finished art. Classes may include a nude model. [GE, HB, SE][PNP]

Creativity and Concept

ART 110 3 Credits/Units

2.0 hours of lecture / 2.0 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. [GE, HB, SE]

Three-Dimensional Design

ART 117 5 Credits/Units

3.0 hours of lecture / 4.0 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. Introduction to 3D modeling software and applicable computer aided manufacturing technologies such as laser cutting, 3D scanning, and 3D printing. [GE, HB, SE][PNP]

Time-Based Art and Design

ART 118 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Introduction to the concepts and tools of moving imagery including digital video, sound, animation, and elements of installation and performance. This course will explore the personal, cultural, formal, political, and historical aspects of the medium through readings, writings and critical reflection of relevant 20th and 21st century artworks. Activities include lectures, software and equipment tutorials, and studio time for experimental project development. [GE, HA, SE]

Printmaking I

ART 120 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Introduction to basic materials, techniques, and concepts in a variety of printmaking processes. Special topics vary from term to term, but may include linocut, woodcut, screen printing, monotype, collagraph, drypoint, and various photo sensitive print processes. Stencils will be created through both hand drawn and digitally generated artwork. This is an introductory course, with no pre-requisite, however it will build on some drawing and design skills. [GE, HB, SE][PNP]

Printmaking II

ART 121 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 120 (grade of "C" or higher)

Builds on the skills learned in ART 120 Printmaking I, and will refine handling of basic materials and concepts in a variety of printmaking processes. Students are welcome to choose an area of concentration within different printing disciplines. [GE, HB, SE][PNP]

Printmaking III

ART 122 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 121 (grade of "C" or higher)

Builds on the skills learned in ART 120 Printmaking I, and ART 121 Printmaking II, and will refine handling of basic materials and concepts in a variety of printmaking processes. Projects are more self-directed and independent in this third class of the Printmaking sequence. [GE, HB, SE][PNP]

Photography I

ART 123 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

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. [GE, HB, SE][PNP]

Photography II

ART 124 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 123 (grade of "C" or higher)

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. [GE, HB, SE][PNP]

Photography III

ART 125 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 124 (grade of "C" or higher)

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.

[GE, HB, SE][PNP]

Photographic Storytelling

ART 131 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

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. [GE, HA, SE]

Publication Production I

ART 170 3 Credits/Units

6.0 hours of lab

Prerequisite: ART 101 (grade of "C" or higher).

First of two courses offering an opportunity to learn real-world design and production for publication. Intended for art and graphic design majors and those interested in the publishing field. Topics vary by quarter and may include: Adobe InDesign for layout, preparing artwork for print, editing and proofing copy, creating promotional materials including social media, working with printers, budgeting, managing the project and working with a team. [GE, HB, SE][PNP]

Graphic Design Exploration

ART 172 5 Credits/Units

5.0 hours of lecture

Survey of the discipline of graphic design and its cultural and historical context. Focus on how graphic design functions as a mode of visual communication and its role in society. Presented with a balance of theoretical and hands-on learning methods. Appropriate for non-majors. [GE, HA, SE]

Graphic Design Studio I

ART 173 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 101 and (DMA 101 or DMA 102) (grades of "C" or higher)

Practical introduction to the discipline of graphic design. The elements and principles of design and the design process will be reviewed through a series of hands-on projects stressing visual literacy and unity of form, and utilizing common tools of the trade, including computers. [GE, HB, SE]

Typography I

ART 174 5 Credits/Units

4.0 hours of lecture / 2.0 hours of lab

Prerequisite: DMA 102 (grade of "C" or higher)

An introduction to the art and craft of designing and arranging type as applied to graphic design practice. Topics include the anatomy and nomenclature of letterforms, the history and classification of typefaces, choosing and combining fonts, using InDesign for typesetting, and may include the creation of original letterform designs. [GE, HB, SE]

Ceramics I

ART 180 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Working with clay. Hand-building techniques of pinch, coil, slab and press mold. Introduction to the potter's wheel. Basic glazing techniques. [GE, HB, SE][PNP]

Ceramics II

ART 181 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 180 (grade of "C" or higher)

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. [GE, HB, SE][PNP]

Ceramics III

ART 182 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 181 (grade of "C" or higher)

Combining hand and wheel techniques to create original pieces as sculpture or for specific functions. Mold making, slip casting, underglazing, and kiln firing. [GE, HB, SE][PNP]

Metal Arts I

ART 189 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Aesthetic expression within the context of applied design using metal. Design and technical skills will be equally emphasized. Fabrication and design of jewelry and other objects of metal. History of the fabrication of metal objects in other cultures and through other contemporary approaches. Techniques covered may include piercing, riveting, soldering, sizing jewelry, making chain, and use of hand tools. [GE, HB, SE][PNP]

Metal Arts II

ART 190 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 189 (grade of "C" or higher)

Continuation of ART 189. Aesthetic expression within the context of applied design using metal. Design and technical skills will be equally emphasized. Fabrication and design of jewelry and other objects of metal. History of the fabrication of metal objects in other cultures and through other contemporary approaches. Techniques covered may include hinge fabrication, pillow-forming with the use of a hydraulic press, fold-forming, scoring and bending, and advanced patination work. [GE, HB, SE][PNP]

Metal Arts III

ART 191 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 190 (grade of "C" or higher)

Continuation of ART 190. Aesthetic expression within the context of applied design using metal. Design and technical skills will be equally emphasized. Fabrication and design of jewelry and other objects of metal. History of the fabrication of metal objects in other cultures and through other contemporary approaches. Techniques covered may include casting and attachment connections such as tabs, forming, stitching and weaving metal. [GE, HB, SE][PNP]

Cooperative Work Experience

ART 199 1-5 Credits/Units

15.0 hours of clinical

Supervised work experience in art or photography. Completion of specific learning objectives and employer evaluation. [GE]

The Human Figure I

ART 203 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 103 (grade of "C" or higher)

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. [GE, HB, SE]

The Human Figure II

ART 204 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 203 (grade of "C" or higher)

Working from the male and female form in a variety of drawing media. Emphasis on expressive power and individual development. Classes include a nude model. [GE, HB, SE]

Digital Painting & Illustration

ART 208 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: DMA 101 (formerly CGT 101) and DMA 102 (formerly CGT 102) (grades of "C" or higher).

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. [GE, HB, SE]

Portfolio Development

ART 215 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

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. [GE, SE]

Art History: Ancient to Late Antique

ART 220 5 Credits/Units

5.0 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. [GE, HA, SE]

Art History: Medieval-Renaissance

ART 221 5 Credits/Units

5.0 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. [GE, HA, SE]

Art History: Baroque-Modern

ART 222 5 Credits/Units

5.0 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. [GE, HA, SE]

Art History: 20th Century

ART 223 5 Credits/Units

5.0 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. [GE, HA, SE]

Art History: Asian Art

ART 225 5 Credits/Units

5.0 hours of lecture

Survey of the visual arts and architecture of India, China, and Japan. 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. [GE, HA, SE]

Women Artists Through History

ART 250 5 Credits/Units

5.0 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. [GE, HA, PPI, SE]

Painting I

ART 257 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 101, ART 103 or ART 115 (grade of "C" or higher)
Introduction to the principles and practice of painting through basic theory, composition, and color. Assignments approach painting observationally through still life, landscape, and the figure with conceptual prompts encouraging expression and criticality. Classes may include a nude model. [GE, HB, SE]

Painting II

ART 258 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 257 (grade of "C" or higher)

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. [GE, HB, SE]

Painting III

ART 259 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 258 (grade of "C" or higher)

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. [GE, HB, SE]

Watercolor I

ART 260 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 103 (grade of "C" or higher)

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. [GE, HB, SE]

Watercolor II

ART 261 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 260 (grade of "C" or higher)

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. [GE, HB, SE]

Watercolor III

ART 262 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 261 (grade of "C" or higher)

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. [GE, HB, SE]

Publication Production

ART 270 3 Credits/Units

6.0 hours of lab

Prerequisite: ART 170 (grade of "C" or higher).

Department consent required for enrollment. Second of two courses offering the opportunity to learn real-world design and production for publication. Intended for art and graphic design majors and those interested in the publishing field. Topics vary by quarter and may include: Adobe InDesign for layout, preparing artwork for print, editing and proofing copy, creating promotional materials including social media, working with printers, budgeting, managing the project and working with a team. [GE, HB, SE][PNP]

Typography II

ART 271 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 174 (grade of "C" or higher)

Continuation of ART 174 with a focus on typesetting as applied to the discipline of graphic design. Topics include technical exercises using Adobe InDesign and its typographic tools, a survey of various publication formats, an introduction to using grids and proportional systems for designing page layouts, analyzing and applying legibility and readability factors, and culminating in an individual book project with a heavy emphasis on conveying a unique voice. [GE, HB, SE]

Graphic Design History

ART 272 5 Credits/Units

5.0 hours of lecture

A survey of influential individuals, artifacts, technologies and intellectual thought in graphic design from its origins to contemporary practice. Emphasis on the development of a visual vocabulary and providing historical and cultural context for design practice. Appropriate for non-majors. Fulfills PPI distribution requirement. [GE, HA, PPI, SE][PNP]

Graphic Design Studio II

ART 273 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 173 and DMA 102 (grades of "C" or higher)

Continuation of ART 173 with a focus on layout, messaging, technical and functional constraints for various types of communication design disciplines such as packaging design, persuasive design, infographics, and branding and identity. Topics include ethical considerations related to graphic design such as sustainability, public service, consumerism, and universal design. [GE, HB, SE]

Graphic Design Studio III

ART 274 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ART 273 (grade of "C" or higher)

Focus on real-world design tasks and discussion of professional practices to prepare the student for employment and/or upper division coursework. Portfolio-quality graphic design work will be produced and may include a personal identity and self-promotional package. [GE, HB, SE]

Selected Topics

ART 280 1-5 Credits/Units

5.0 hours of lecture

Selected topics in Art. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE, SE]

Special Projects

ART 290 1-6 Credits/Units

6.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

Special Projects - Lab

ART 291 1-6 Credits/Units

12.0 hours of lab

Department consent required for enrollment. Opportunity to plan, organize and complete special projects/labs approved by the department. [GE]

Creative Arts in Teaching

ART 330 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Admission into the program required for enrollment. An exploration of principles, methods and materials for teaching young children art through process-oriented experiences. Explores theory, technique, and curriculum design to offer a variety of developmentally appropriate art media to children. [GE]

Art Appreciation

ART& 100 5 Credits/Units

5.0 hours of lecture

The visual arts with which we come in contact every day. Ways contemporary and historic creative expression have influenced and continue to influence and reflect living and thinking. Content includes art forms including, but not limited to, painting, sculpture and architecture. The class emphasis is on building a general appreciation of the techniques, styles, themes in art, and the history of art. Some hands-on experience. Especially for non-majors. [GE, HA, SE]

ASTRONOMY (ASTR&)

Introduction to Astronomy

ASTR& 101 5 Credits/Units

4.0 hours of lecture / 2.0 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. [GE, NS, NS-LAB, SE]

AUTOMOTIVE TECHNOLOGY (AUTO)

Automotive Bridge Program Readiness

AUTO 140 2 Credits/Units

2.0 hours of lecture

Admission into the program required for enrollment. Basic skills and knowledge necessary for success in automotive program courses. Topics include college information technology systems access and use, written communication, computational processes, automotive shop safety, and entry level soft skills required in the automotive industry. This course provides foundational information students will utilize in subsequent program offerings. [GE, HR]

Introduction to Toyota

AUTO 150 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Prerequisite: T-Ten Program Acceptance. See your advisor for more information.

Admission into the program required for enrollment. 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]

Toyota Electrical I

AUTO 151 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. 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]

Toyota Electrical II

AUTO 152 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. Second of two courses exploring electrical properties, circuits and testing. Major focus on the proper use of the DVOM in voltage drop diagnosis of multiplexed circuits used in Toyota vehicles with an introduction to computer controlled electrical systems operation and testing using a DSO. This course is a prerequisite for all future Toyota courses. Acceptance and good standing in the T-Ten Program. [GE]

Toyota Brakes

AUTO 153 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. Theory and hands-on training in the operation, diagnostics, and service of Toyota vehicle braking systems. Initial focus on performing basic brake service procedures and diagnosis. Specific emphasis on the correct diagnostic strategies to locate and repair faults in ABS, VSC and VDIM systems. This course is a prerequisite for all future Toyota courses. Acceptance and good standing in the T-Ten Program. [GE]

Toyota Internship I

AUTO 154 8 Credits/Units

4.0 hours of lecture / 8.0 hours of lab

Admission into the program required for enrollment. First managed internship experience in a Toyota/Lexus dealership, with focus on practicing skills learned throughout the first term of automotive instruction, including performing basic maintenance and diagnosing/repairing electrical and braking systems. Emphasis on developing strong customer-service and teamwork skills. Students required to document and share these experiences while working towards ASE and Toyota Certification. Acceptance and good standing in the T-Ten Program. [GE]

Toyota Steering and Suspension

AUTO 155 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. 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]

Toyota Engine Performance I

AUTO 156 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. 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. [GE]

Toyota Engine Performance II

AUTO 157 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. Second of two courses on operation, diagnosis, service and repair of Toyota Engine Management Systems. Focus on advanced level diagnostics including fuel trim, DTC's drivability, Mode \$06 scan tool usage, and emissions control systems. Acceptance and good standing in the T-Ten Program. [GE]

Introduction to Dealership Operations

AUTO 160 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Prerequisite: HiTECC Program Acceptance. See your advisor for more information.

Admission into the program required for enrollment. 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. [GE]

Electrical I

AUTO 161 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. 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. [GE]

Electrical II

AUTO 162 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. 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 computer controlled 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. [GE]

Brakes

AUTO 163 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. 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. [GE]

Internship I

AUTO 164 8 Credits/Units

4.0 hours of lecture / 8.0 hours of lab

Admission into the program required for enrollment. 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 as they work toward ASE Certification. Emphasis will also be placed on developing strong customer service and teamworking skills. Remain in good standing in the HiTECC Program. [GE]

Steering and Suspension

AUTO 165 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. 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. [GE]

Engine Performance I

AUTO 166 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. Instruction related to the operation, diagnosis, service and repair of engine management systems. Initial focus is on the operation and testing of the internal combustion engine then progress to engine and fuel management systems. Emphasis will be placed on ignition, fuel delivery, and computer input sensor diagnosis. Students will gain necessary knowledge of diagnostic strategies and tools used daily in the dealership to repair drivability and/or engine performance related issues. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. [GE]

Engine Performance II

AUTO 167 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. Instruction regarding 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. [GE]

Automotive Processes

AUTO 170 3 Credits/Units

3.0 hours of lecture

Admission into the program required for enrollment. 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. [GE]

Mechanical Processes

AUTO 171 5 Credits/Units

4.0 hours of lecture / 2.0 hours of lab

Admission into the program required for enrollment. 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. [GE]

Maintenance Processes

AUTO 172 8 Credits/Units

4.0 hours of lecture / 8.0 hours of lab

Admission into the program required for enrollment. Emphasis on maintenance procedures and processes performed in express service environments. Particular attention paid to practice of comprehensive vehicle inspection and preventative maintenance operations. Introduction to tire service procedures also included in the course. While a combination lecture/lab will be utilized for instruction, course will be delivered primarily through lab activities. [GE]

Undercar Service and Repair

AUTO 173 15 Credits/Units

10.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. 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. [GE]

Underhood Service and Repair

AUTO 174 15 Credits/Units

10.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. Underhood maintenance processes 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. [GE]

Professionalism in Automotive

AUTO 180 5 Credits/Units

3.0 hours of lecture / 6.0 hours of clinical

Focus on developing professionalism and technical proficiency while concurrently participating in a paid internship. [GE, HR]

Cooperative Work Experience

AUTO 199 1-5 Credits/Units

15.0 hours of clinical

Admission into the program required for enrollment. Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

Toyota Climate Control

AUTO 250 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. Introduction 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]

Toyota Internship II

AUTO 251 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Admission into the program required for enrollment. 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 while working towards ASE and Toyota Certification. Acceptance and good standing in the T-Ten Program. [GE]

Toyota Engine Mechanical

AUTO 252 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. 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]

Toyota Manual Transmission

AUTO 253 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. Introduction to automotive manual transmissions and drivetrains. Topics include the principles of torque multiplication, engine braking, and gear ratios. Emphasis on the diagnosis and repair of clutch assembly, manual transmission, transfer cases, and drivetrains of Toyota vehicles. Acceptance in and good standing in the T-Ten Program. [GE]

Toyota Automatic Transmissions

AUTO 254 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. 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]

Toyota Hybrid Systems and Advanced Technologies

AUTO 256 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. 120-hr course with a focus on Hybrid Drivetrain Diagnosis and Repair. Additionally, develop diagnostic skills for other new and advanced technologies not covered in other courses. Successful completion will result in recognition as a Toyota Hybrid Certified Technician. [GE]

Climate Control

AUTO 260 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Prerequisite: AUTO 165, AUTO 166 and AUTO 167 (grades of "C" or higher)

Admission into the program required for enrollment. 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. [GE]

Internship II

AUTO 261 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Admission into the program required for enrollment. 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. [GE]

Engine Mechanical

AUTO 262 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. 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. [GE]

Manual Transmission

AUTO 263 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. 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. [GE]

Automatic Transmissions

AUTO 264 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. 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. [GE]

Advanced Applied Electrical

AUTO 266 7 Credits/Units

2.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. Advanced electrical applications with a focus on Hybrid/Electric Vehicle (HEV) drivetrain diagnosis and repair. Develop diagnostic skills for other new and advanced technologies not covered in previous courses, such as ADAS (Advanced Driver Assistance Systems), Stop/Start Technology, and others. Successful completion will prepare students to sit for the Automotive Service Excellence (ASE) L3 - Advanced Hybrid/Electric Vehicle Certification Test. [GE]

Driver Comfort and Convenience Systems

AUTO 271 15 Credits/Units

10.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. 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. [GE]

Advanced Diagnostic Strategies

AUTO 272 15 Credits/Units

10.0 hours of lecture / 10.0 hours of lab

Admission into the program required for enrollment. 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. [GE]

Capstone New Technology

AUTO 273 4 Credits/Units

1.0 hours of lecture / 6.0 hours of lab

Admission into the program required for enrollment. An alternative to a internship in which students will study a new automotive technology of their choice. Final project will vary with each instructor. [GE]

Internship

AUTO 274 4 Credits/Units

1.0 hours of lecture / 9.0 hours of clinical

Admission into the program required for enrollment. 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. [GE]

Selected Topics

AUTO 280 1-8 Credits/Units

8.0 hours of lecture

Admission into the program required for enrollment. Selected topics in Auto. 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

AUTO 290 1-3 Credits/Units

3.0 hours of lecture

Admission into the program required for enrollment. For automotive majors only. Opportunity to plan, organize and complete special projects approved by the department. [GE]

BAS APPLIED MANAGEMENT (BASAM)

Foundations of Management

BASAM 301 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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

BASAM 305 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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

BASAM 320 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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. [GE]

Business Principles

BASAM 325 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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

BASAM 330 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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

BASAM 335 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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

BASAM 340 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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

BASAM 400 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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

BASAM 410 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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

BASAM 415 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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

BASAM 425 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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

BASAM 440 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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

BASAM 450 5 Credits/Units

2.0 hours of lecture / 9.0 hours of clinical

Admission into the program required for enrollment. 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)

Special Projects

BASHS 290 1-6 Credits/Units

6.0 hours of lecture

Admission into the program required for enrollment. Opportunity to plan, organize and complete special projects approved by the department.

Introduction to Human Services

BASHS 301 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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

BASHS 302 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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. [GE]

Ethics In Human Services

BASHS 303 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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. [GE]

Practical Family Therapy

BASHS 304 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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. [GE]

Advanced Co-Occurring Disorders Treatment

BASHS 305 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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. [GE]

Trauma, Grief & Loss

BASHS 306 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. Provides a theoretical and practical framework for working with traumatized and grieving populations and individuals in a broad Human Services context. [GE]

Multicultural Counseling In HS

BASHS 401 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. Presents current theories and practices for working with clients of various cultural, racial, economic, and ethnic backgrounds and subcultures. [GE]

Human Services Intervention

BASHS 402 5 Credits/Units

5.0 hours of lecture

Prerequisite: ACED 201 and ACED 204 (grades of "C" or higher).

Admission into the program required for enrollment. 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. [GE]

Research & Evaluation Methodologies In HS

BASHS 403 5 Credits/Units

5.0 hours of lecture

Prerequisite: MATH& 146 (grade of "C" or higher)

Admission into the program required for enrollment. 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. [GE]

Advanced Case Management In HS

BASHS 404 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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. [GE]

Human Services Field Placement I

BASHS 410 5 Credits/Units

1.0 hours of lecture / 12.0 hours of clinical

Admission into the program required for enrollment. 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. [GE]

Human Services Field Placement II

BASHS 411 5 Credits/Units

1.0 hours of lecture / 12.0 hours of clinical

Admission into the program required for enrollment. 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. [GE]

Special Projects

BASHS 490 1-6 Credits/Units

6.0 hours of lecture

Admission into the program required for enrollment. Opportunity to plan, organize and complete special projects approved by the department.

BAS CYBERSECURITY (CBAS)

Enterprise Networking Foundation

CBAS 321 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Admission into the program required for enrollment. 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+. Cannot receive credit for both NTEC 321 & CBAS 321. [GE]

Cybersecurity Programming & Scripting Foundation

CBAS 361 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Admission into the program required for enrollment. Focuses on learning to use the Python programming language to accomplish coding tasks related to the basics of programming as well as the fundamental notions and techniques used in object-oriented programming. May prepare students to attain the industry certification PCAP (Certified Associate in Python Programming) from the Python Institute. Cannot receive credit for both NTEC 361 & CBAS 361. [GE]

IoT Foundation: Connecting Things

CBAS 364 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: CBAS 361 (grade of "C" or higher)

Admission into the program required for enrollment. Explores how nearly every object can be connected to the Internet, from washing machines to an airplane's jet engine, even organic items like crops and cows. Introduction to the basis of this exciting and emerging field using hands-on activities to model securely connecting sensors to cloud services over IP networks and collecting data in an end-to-end IoT (Internet of Things) system. Cannot receive credit for both NTEC 364 & CBAS 364. [GE]

Big Data & Analytics Foundation

CBAS 365 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: CBAS 361 and CBAS 364 (grades of "C" or higher)

Admission into the program required for enrollment. Explores modern, real-time applications, IoT (Internet of Things) systems and the data they collect. Includes collecting, storing, and visualizing data obtained from IoT sensors and using data analytics to gain insights from the intelligence produced. Cannot receive credit for both NTEC 365 & CBAS 365. [GE]

Cybersecurity Foundation

CBAS 371 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: CBAS 321 (grade of "C" or higher)

Admission into the program required for enrollment. Provides a wide overview of cybersecurity concepts and places an emphasis on mitigating specific security issues with extensive hands-on lab activities. May prepare students to attain the industry certification CompTIA Security+. Cannot receive credit for both NTEC 371 & CBAS 371. [GE]

Cybersecurity Penetration Testing

CBAS 472 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: CBAS 361 and CBAS 371 (grades of "C" or higher)

Admission into the program required for enrollment. Covers the penetration testing as well as vulnerability assessment and management. Emphasizes skills necessary to determine the resiliency of a network against attacks. Includes how to customize assessment frameworks to effectively collaborate on and report findings as well as best practices to communicate recommended strategies to improve the overall state of IT security. May prepare students to attain the industry certification CompTIA Pen Test. Cannot receive credit for both NTEC 472 & CBAS 472. [GE]

Cybersecurity Analyst

CBAS 473 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: CBAS 361 and CBAS 371 (grades of "C" or higher)

Admission into the program required for enrollment. Covers behavioral analytics skills to identify and combat malware and advanced persistent threats with an emphasis on performing data analysis and interpreting the results to identify vulnerabilities, threats and risks to an organization. Includes how to configure and use threat-detection tools and how to secure and protect applications and systems within a organization. May prepare students to attain the industry certification CompTIA CySA+. Cannot receive credit for both NTEC 473 & CBAS 473. [GE]

Cybersecurity Operations

CBAS 475 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: CBAS 472 and CBAS 473 (grades of "C" or higher)

Admission into the program required for enrollment. Focuses on how to monitor, detect and respond to cybersecurity threats with specific instruction in cryptography, host-based security analysis, security monitoring, computer forensics, attack methods and incident reporting and handling. May prepare students to attain the industry certification Cisco CyberOps Associate. Cannot receive credit for both NTEC 475 & CBAS 475. [GE]

Capstone Project

CBAS 499 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: CBAS 472 and CBAS 473 (grades of "C" or higher)

Admission into the program required for enrollment. Integrates and synthesizes competencies from across the degree program. Each project consists of a technical work proposal, the proposal's implementation, and a post-implementation report that describes the students' experience in developing and implementing the capstone project. Cannot receive credit for both NTEC 499 & CBAS 499. [GE]

BAS TEACHER EDUCATION

Leadership and Supervision

BASTE 301 3 Credits/Units

3.0 hours of lecture

Admission into the program required for enrollment. Develop skills needed to effectively collaborate with others including school personnel, community partners personnel, students and their families to support student learning preschool to third grade who are culturally, linguistically, and ability diverse. Supervision of assistants and paraprofessionals will also be specifically addressed. [GE]

Integrated Health and Physical Education

BASTE 302 2 Credits/Units

2.0 hours of lecture

Admission into the program required for enrollment. Prepares pre-service educators to teach health and fitness to young learners including strategies for integrating culturally responsive health and physical education experiences into the classroom. Topics: nutrition, movement for fitness and joy, body image, current issues in health, and issues in access and discrimination in wellness. [GE]

Language and Literacy Acquisition

BASTE 303 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. Examine current research, including theories of first and second language acquisition, for supporting the development of literacy and language skills for children, birth through elementary age. A variety of culturally and developmentally appropriate assessments are introduced and analyzed as part of the comprehensive continuum of literacy and language acquisition. The study of curriculum, instruction, intervention and exemplary classroom practices is the focus of this course [GE]

Effective and Meaningful Curriculum Design

BASTE 304 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. Examines diverse pedagogical approaches for teaching in educational settings that are meaningful and representative, including ability, culturally and linguistically diverse learners. Emphasizes curriculum theory, design, practice, evaluation, as well as diverse approaches to learning and dispositions, Integrates Washington State Common Core Standards and Developmental Guidelines. [GE]

Observation and Assessment

BASTE 305 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. Using a variety of observation skills, select, administer, score and interpret formal assessment tools. Evaluate students for placement or resources needed for learning. Understand Individual Education Plans (IEPs) and Individual Family Service Plans (IFSPs and 504 plans for children who are culturally, linguistically, and ability diverse and their families). [GE]

Law and Ethics

BASTE 306 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. Provide a clear understanding of how special education standards, principles, and procedures impact service implementation for students with disabilities. Topics addressed: issues, trends, and implementation of special education as well as historical perspectives of disability. [GE]

Vision to Practice Anti-Bias Education

BASTE 307 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. An approach to expectations of Anti-bias education that sets forth actions against bias and unfairness that shifts from the theoretical ideal of addressing bias to the implementation of anti-bias curriculum. Objective: to create education that supports dismantling a systemic oppression through an increase in children's understanding of social problems and to equip teachers with applicable strategies to improve the equitable learning experiences of their students including those students who are linguistically, culturally and ability diverse. [GE]

Social Emotional Guidance and Trauma Informed Practices

BASTE 401 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. A foundational understanding of social emotional learning (SEL) standards and practices, positive behavior guidance, and tools to support the development of executive functioning. Includes: SEL competencies for students and adults, creating an inclusive culturally responsive classroom climate, consideration of adverse childhood experiences, and trauma informed approaches. [GE]

Meaningful Math Methods

BASTE 402 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. Examine spatial and mathematical learning across all content strands using state early learning guidelines and standards for children preschool through 3rd grade and their families who are culturally, linguistically, and ability diverse. [GE]

Bilingual Teaching

BASTE 403 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. A comprehensive survey of bilingual education through the lens of the three pillars of dual language education (bilingualism/biliteracy, high academic achievement, and sociocultural competence). [GE]

Individualized Teaching

BASTE 404 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. Fundamental knowledge and experiences for designing and implementing Individualized Education Programs. Additional topics: effective use of assessments, successful collaboration, provision of specially designed instruction, evidence-based supports and strategies, accommodation and modifications and considerations for inclusion. [GE]

Residency Teaching 1

BASTE 405 8 Credits/Units

24.0 hours of clinical

Admission into the program required for enrollment. Candidates will demonstrate all Professional Educator Standards Board (PESB) competencies required for the endorsement they are seeking. [GE]

Seminar 1

BASTE 406 4 Credits/Units

4.0 hours of lecture

Admission into the program required for enrollment. Reflection on residency experience in school settings with children who are culturally, linguistically, and ability diverse. [GE]

Residency Teaching 2

BASTE 407 9 Credits/Units

27.0 hours of clinical

Admission into the program required for enrollment. Candidates will demonstrate all Professional Educators Standards Board (PESB) competencies required for the endorsement they are seeking. [GE]

Seminar 2

BASTE 408 3 Credits/Units

3.0 hours of lecture

Admission into the program required for enrollment. Student candidates will reflect on their residency experience in their school setting with children who are culturally, linguistically, and ability diverse. [GE]

Issues of Child Abuse in Education

BASTE 409 1 Credit/Unit

1.0 hours of lecture

Admission into the program required for enrollment. Scope and problems of child abuse, including, but not limited to neglect, family violence, community violence and/or exploitation, and behaviors exhibited by abused and neglected children. Includes identification and reporting procedures, the legal and professional responsibilities of the educator and other mandated reporters (nurses, social workers, etc.). Methods of teaching personal safety will also be addressed including ways to evaluate appropriate curriculum. [GE]

Special Projects

BASTE 490 1-5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. Opportunity to plan, organize, and complete special projects approved by the department. [GE]

BS COMPUTER SCIENCE (CSBS)

Updated 07.01.26 - please refer to course corrections page (<https://catalog.clark.edu/corrections/course-corrections/>) for updates

Software Engineering

CSBS 310 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSE 223 (grade of "C" or higher) and admission into the BS Computer Science program.

Admission into the program required for enrollment. Practical experience in all stages of software development lifecycle from requirement analysis to release. Topics include requirements analysis, specification, design, abstraction, programming style, testing, maintenance, communication, teamwork, and software project management, with emphasis on effective teamwork in software development. Cannot have credit for both CSE 310 and CSBS 310. [GE]

Programming Language Design

CSBS 315 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSE 223 (grade of "C" or higher) and admission into the BS Computer Science program.

Admission into the program required for enrollment. Key topics in programming language design and implementation. Additionally, students evaluate three distinct programming languages based on principles and practices of programming language design. Cannot have credit for both CSE 315 and CSBS 315. [GE]

Design & Analysis of Algorithms

CSBS 320 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSE 223 and CSE 215 (grades of "C" or higher), and admission into the BS Computer Science program.

Admission into the program required for enrollment. Intermediate analysis and design of algorithms with an emphasis on efficiency and effectiveness. Topics include techniques to evaluate an algorithm's efficiency and effectiveness, as well as design algorithms for commonly encountered problems. Cannot have credit for both CSE 320 and CSBS 320. [GE]

Software Design & Development

CSBS 325 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSE 223 and CSE 215 (grades of "C" or higher), and admission into the BS Computer Science program.

Admission into the program required for enrollment. Intermediate software design and development with emphasis on user interface design, architectures, and software patterns. Cannot have credit for both CSE 325 and CSBS 325. [GE]

Computer Networks

CSBS 330 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSE 223 (grade of "C" or higher) and admission into the BS Computer Science program.

Admission into the program required for enrollment. Introduction to computer networking with a focus on network topology, OSI layers, and developing programs to explore and utilize features of the network. Topics include the role of networking in security, cloud computing, and the Internet of Things (IoT), with an emphasis on effective teamwork in developing network-related software. Cannot have credit for both CSE 330 and CSBS 330. [GE]

Introduction to Database Systems

CSBS 340 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSE 223 (grade of "C" or higher) and admission into the BS Computer Science program.

Admission into the program required for enrollment. Introduction to database design and use of databases to manage application and user data, as well as SQL programming in the relational database context to demonstrate database language concepts and identify issues and potential solutions. Topics also include core database design concepts such as indexing and optimization. Cannot have credit for both CSE 340 and CSBS 340. [GE]

System Programming

CSBS 345 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSE 223 and CSBS 370 (grades of "C" or higher), and admission into the BS Computer Science program.

Admission into the program required for enrollment. Focus on design, development, and maintenance of systems software that interfaces directly with the underlying hardware of a computer system. Topics include memory management, process management, file systems, device drivers, as well as writing low-level code using programming languages such as C and C++. Cannot have credit for both CSE 345 and CSBS 345. [GE]

Computer Organization & Architecture

CSBS 370 5 Credits/Units

4.0 hours of lecture / 2.0 hours of lab

Prerequisite: CSE 250 (grade of "C" or higher).

Introduction to computer organization, microprocessor system architecture, instruction sets, interfacing and assembly language. Application of concepts using Microchip micro controller in lab projects. Cannot have credit for both CSE 370 and CSBS 370. [GE]

Special Projects

CSBS 390 1-5 Credits/Units

5.0 hours of lecture

Department consent required for enrollment. Opportunity to plan, organize, and complete special projects approved by the department. [GE]

Project & Program Management

CSBS 410 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSE 223 and ENGL& 235 (grade of "C" or higher), and admission into the BS Computer Science program.

Admission into the program required for enrollment. Emphasis on techniques and tools required to manage software projects effectively and efficiently, while ensuring the software meets the quality standards and user requirements. Topics include goal setting, resource planning, scheduling, and risk management in the context of Lean Software development and Agile Methodology. Cannot have credit for both CSE 410 and CSBS 410. [GE]

Ethics & Intellectual Property

CSBS 415 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSE 223 and ENGL& 235 (grade of "C" or higher), and admission into the BS Computer Science program.

Admission into the program required for enrollment. Introduction to intellectual property concepts (Patents, Copyright, Copyleft, Trade Secrets) and the application of ethical standards in the field of computer science. Cannot have credit for both CSE 415 and CSBS 415. [GE]

Human-Computer Interface

CSBS 420 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSE 223 and ENGL& 235 (grade of "C" or higher), and admission into the BS Computer Science program.

Admission into the program required for enrollment. Introduction to Human-Computer Interaction with an emphasis on developing effective and easy-to-use graphical user interfaces. Cannot have credit for both CSE 420 and CSBS 420. [GE]

Introduction to Artificial Intelligence

CSBS 430 2 Credits/Units

2.0 hours of lecture

Prerequisite: CSE 223 (grade of "C" or higher) and admission into the BS Computer Science program.

Admission into the program required for enrollment. First in a three-course sequence in Artificial Intelligence. Introduction to Artificial Intelligence (AI) general theories, machine learning with emphasis on techniques, theory, and algorithms, that enable computers to learn. Topics include AI's current and future effects on society (economic, employment, social, military, politics). Cannot have credit for both CSE 430 and CSBS 430. [GE]

Fundamentals of Artificial Intelligence

CSBS 431 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSE 223, CSBS 430, and MATH 215 (grades of "C" or higher). Admission into the BS Computer Science program.

Admission into the program required for enrollment. Second course in a three-course sequence in Artificial Intelligence. Topics include AI's general theories and algorithms with emphasis on techniques and tools of Machine Learning (ML) and associated hardware platforms (e.g. neuromorphic computing, GPUs, etc.). Cannot have credit for both CSE 431 and CSBS 431. [GE]

Application of Artificial Intelligence

CSBS 432 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSBS 431 (grade of "C" or higher) and admission into the BS Computer Science program.

Admission into the program required for enrollment. Third and final course in a three-course sequence focuses on application of key concepts of Artificial Intelligence (AI), with emphasis on application of Machine Learning (ML) techniques, theory, and algorithms to design project and analyzing real world case studies. Cannot have credit for both CSE 432 and CSBS 432. [GE]

Introduction to Data Science

CSBS 435 2 Credits/Units

2.0 hours of lecture

Prerequisite: CSE 223 (grade of "C" or higher) and admission into the BS Computer Science program.

Admission into the program required for enrollment. First in a three-course sequence. Introduction to opportunities and challenges in Data Science. Topics include Python data science packages, statistical analysis methods and effective data visualization. Cannot have credit for both CSE 435 and CSBS 435. [GE]

Fundamentals of Data Science

CSBS 436 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSE 223 and CSBS 435 (grades of "C" or higher), and admission into the BS Computer Science program.

Admission into the program required for enrollment. Second in a three-course sequence on Data Science. Developing skills in analyzing and visualizing a broad range of large data sets using Data Science fundamentals and techniques. Topics include predictions through probabilistic modeling, statistical inference, Python Data Science tools, and visualization techniques. Cannot have credit for both CSE 436 and CSBS 436. [GE]

Application of Data Science

CSBS 437 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSBS 436 (grade of "C" or higher) and admission into the BS Computer Science program.

Admission into the program required for enrollment. Third and final course in a three-course sequence on Data Science. Emphasis on developing visualization and decision-making tools based on industry-relevant large data sets using Data Science processes, tools, and techniques. Case studies in various industry domains is used to develop skills required for an informed and effective Data Science practitioner. Cannot have credit for both CSE 437 and CSBS 437. [GE]

Introduction to Cloud Computing

CSBS 440 2 Credits/Units

2.0 hours of lecture

Prerequisite: CSE 222 (grade of "C" or higher) and admission into the BS Computer Science program.

Admission into the program required for enrollment. First in a three-course sequence on Cloud Computing. Introduction to concepts, opportunities, and challenges in cloud computing. Topics include cloud storage, compute, event, messaging, web app, security, and monitoring. Cannot have credit for both CSE 440 and CSBS 440. [GE]

Fundamentals of Cloud Computing

CSBS 441 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSBS 325, CSBS 330, CSBS 340, and CSBS 440 (grades of "C" or higher). Admission into the BS Computer Science program. Admission into the program required for enrollment. Second course in a three-course sequence in Cloud Computing. Topics include Fundamentals of cloud computing, cloud storage, compute, event, messaging, web app, security, and monitoring. Cannot have credit for both CSE 441 and CSBS 441. [GE]

Application of Cloud Computing

CSBS 442 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSBS 441 (grade of "C" or higher) and admission into the BS Computer Science program. Admission into the program required for enrollment. Third and final course in a three-course sequence on Cloud Computing. Emphasis on developing cloud computing applications using Microsoft Azure cloud infrastructure and C# programming language. Cannot have credit for both CSE 442 and CSBS 442. [GE]

Introduction to Mobile Application

CSBS 445 2 Credits/Units

2.0 hours of lecture

Prerequisite: CSE 223 (grade of "C" or higher) and admission into the BS Computer Science program. Admission into the program required for enrollment. First in a three-course sequence on mobile application. Introduction to concepts, opportunities, and challenges in mobile application development. Topics will include designing, developing, deploying, and testing mobile applications using the Dart programming language and the Flutter development environment. Cannot have credit for both CSE 445 and CSBS 445. [GE]

Fundamentals of Mobile Application

CSBS 446 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSBS 325, CSBS 340, and CSBS 445 (grades of "C" or higher). Admission into the BS Computer Science program. Admission into the program required for enrollment. Second in a three-course sequence on mobile application. Focus on fundamentals of mobile application development. Topics include designing, developing, deploying, and testing mobile application fundamentals. Cannot have credit for both CSE 446 and CSBS 446. [GE]

Developing Mobile Applications

CSBS 447 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSBS 446 (grade of "C" or higher) and admission into the BS Computer Science program. Admission into the program required for enrollment. Third and final course in a three-course sequence on mobile application. Focus on mobile computing application development. Topics include designing, developing, deploying, and testing mobile applications using the Dart programming language and the Flutter development environment. Cannot have credit for both CSE 447 and CSBS 447. [GE]

Survey of Cybersecurity

CSBS 450 2 Credits/Units

2.0 hours of lecture

Prerequisite: CSE 223 (grade of "C" or higher) and admission into the BS Computer Science program. Admission into the program required for enrollment. First course in a three-course sequence in Cybersecurity. Introduction to Cybersecurity concepts, opportunities, and challenges. Topics include cyber-attack types, access control, authentication, cryptography, network security and application security. Cannot have credit for both CSE 450 and CSBS 450. [GE]

Fundamentals of Cybersecurity

CSBS 451 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSBS 330 and CSBS 450 (grades of "C" or higher), and admission into the BS Computer Science program. Admission into the program required for enrollment. Second course in a three-course sequence in Cybersecurity. Designed to equip computer scientists with the principles of secure software engineering. Explore the tools, processes, and architectural elements required to develop resilient applications and software systems. Key topics include building resilience into the software development lifecycles (SDLC), including secure design, vulnerability mitigation, and the integration of security concepts like cryptography and threat modeling into the overall software development process. Cannot have credit for both CSE 451 and CSBS 451. [GE]

Capstone Project I

CSBS 490 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSBS 310, CSBS 325, and CSBS 340 (grades of "C" or higher) and concurrent enrollment in CSBS 410. Admission into the BS Computer Science program. Admission into the program required for enrollment. First of a three-course sequence on capstone project. Emphasis on working in teams to propose an industry-relevant project by defining problem statements, evaluating existing solutions, and proposing more effective or more efficient solutions. Cannot have credit for both CSE 490 and CSBS 490. [GE]

Capstone Project II

CSBS 491 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSBS 490 (grade of "C" or higher) and admission into the BS Computer Science program. Admission into the program required for enrollment. Second of a three-course sequence on capstone project. Emphasis on working in teams to develop prototype of a new solution to an industry-relevant problem. Topics include alternative solution idea development, idea evaluation, selection process, creating project plans, implementing prototype of the selected solution idea. Cannot have credit for both CSE 491 and CSBS 491. [GE]

Capstone Project III

CSBS 492 4 Credits/Units

4.0 hours of lecture

Prerequisite: CSBS 491 (grade of "C" or higher) and admission into the BS Computer Science program. Admission into the program required for enrollment. Third and final course in a three-course sequence on capstone project. Emphasis on continuous process improvement, teamwork, risk assessment and management, as well as software project execution, verification, and delivery. Cannot have credit for both CSE 492 and CSBS 492. [GE]

BIOLOGY (BIOL/BIOL&)

Environ Biol Conf/Lab

BIOL 101 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

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. [GE, NS, NS-LAB, SE]

The Process of Discovery

BIOL 102 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Introduction to the processes of discovery used in the natural and social sciences. Includes authentic research on factors that contribute to college student success, studied in social, psychological, and physiological contexts. Research topics include hypothesis development, experimental design, literature searches, data analysis, research ethics and human subjects research considerations. Course fulfills COLL 101: College Essentials outcomes including 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, NS, NS-LAB, SE] [PNP]

Small World Antibiotics Research 1

BIOL 105 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Investigative course involving authentic research to discover potentially 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, NS, NS-LAB, SE][PNP]

Small World Antibiotics Research 2b

BIOL 106 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

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. [GE, NS, NS-LAB, SE][PNP]

Introduction to Wildlife

BIOL 139 3 Credits/Units

3.0 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. [GE, NS, SE]

Mammals of The Northwest

BIOL 140 3 Credits/Units

3.0 hours of lecture

Important mammals of the Pacific Northwest. Their identification, classification, life histories, ecology, current status, and management. [GE, NS, SE]

Birds of The Pacific Northwest

BIOL 141 3 Credits/Units

3.0 hours of lecture

Important Birds of the Pacific Northwest. Their identification, classification, life histories, ecology, current status, and management. [GE, NS, SE]

Freshwater Fishes of The Pacific Northwest

BIOL 142 3 Credits/Units

3.0 hours of lecture

Important fishes of the Pacific Northwest. Identification, classification, and basic biology of freshwater fishes of the Pacific Northwest. Introduction to fishery management concepts. Overview of factors affecting salmon in the Columbia River Basin. [GE, NS, SE]

Reptiles & Amphibians of The Pacific NW

BIOL 145 3 Credits/Units

3.0 hours of lecture

Introduction to the biology, ecology, evolution, and geographic distribution of Pacific Northwest reptiles and amphibians. [GE, NS, SE]

Marine Biology

BIOL 150 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

The marine environment (physical and chemical properties), its plants, bacteria, animal life (vertebrates, invertebrates), ecosystems, fisheries and pollution. [GE, NS, NS-LAB, SE]

Human Genetics

BIOL 167 3 Credits/Units

3.0 hours of lecture

An introduction to a variety of genetics topics for non-science majors. Topics include: basic cell biology, DNA structure & function, mutations, inherited diseases, home genetic/ancestry testing, pedigree analysis, forensic sciences, gene therapy, cloning, eugenics, and realized and/or potential societal impacts. Gain greater knowledge & understanding of genetics and how it does/can impact you. [GE, NS, SE][PNP]

Bioethics

BIOL 180 3 Credits/Units

3.0 hours of lecture

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. [GE, NS, SE][PNP]

Cooperative Work Experience

BIOL 199 1-5 Credits/Units

15.0 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

Field Studies In Biology

BIOL 208 1-10 Credits/Units

2.0 hours of lecture / 16.0 hours of lab

Prerequisite: Completion of a 100- or 200-level Biology course (BIOL, BIOL&) grade of "C" or higher

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. [GE, NS, NS-LAB, SE]

Flowering Plants of The Pacific Northwest

BIOL 224 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Identification and ecology of local wildflowers through the use of taxonomic keys, preparation of specimens and field trips to study native species in their habitats. For forestry, wildlife, recreation, botany and non-biology majors interested in learning to recognize local wildflowers. [GE, NS, NS-LAB, SE]

Human Cadaver Dissection

BIOL 275 1-6 Credits/Units

6.0 hours of lab

Department consent required for enrollment. Dissection of the muscular, circulatory, nervous, digestive and reproductive systems. [GE, SE]

Selected Topics

BIOL 280 1-5 Credits/Units

5.0 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. [GE, SE]

Special Projects

BIOL 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize, and complete special projects approved by department. [GE]

Survey of Biology

BIOL& 100 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Overview of basic concepts and issues in biology including the cellular basis of life, metabolism, principles of inheritance, evolution and diversity. Strong emphasis on the process of scientific inquiry using critical thinking 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. Required for psychology majors. [GE, NS, NS-LAB, SE]

General Biology W/Lab

BIOL& 160 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Introduction to the study of the cell, the basic component of all living organisms. Emphasis on cell chemistry, structure, metabolism, energetics, cell division and genetic principles. Intended for students seeking a two-year degree in the health occupations. Lab work is required. [GE, NS, NS-LAB, SE][PNP]

Human Biology w/ Lab

BIOL& 175 5 Credits/Units

4.0 hours of lecture / 2.0 hours of lab

Introductory owner's manual to the human body for non-science majors. Gain greater knowledge of how your body works and more confidence when you encounter information about human biology or communicate with doctors. Topics: fundamentals of chemistry, cell structure/function, anatomy/physiology of selected organ systems (e.g. digestive, circulatory, respiratory, endocrine, reproductive, etc.), and examples of health issues associated with respective organ systems. Lab simulations and activities reinforce and extend lecture topics. [GE, NS, NS-LAB, SE]

Majors Ecology/Evolution

BIOL& 221 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: BIOL& 100 (grade of "B" or higher) or BIOL& 222 (grade of "C" or higher)

Third course of three introductory courses for life science majors. Covers Mendelian genetics, evolution, adaption, specialization, 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. [GE, NS, NS-LAB, SE]

Majors Cell/Molecular

BIOL& 222 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: MATH 96 (grade of "C" or higher) or placement into Math level 50.

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. [GE, NS, NS-LAB, SE]

Majors Organismal Phys

BIOL& 223 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: BIOL& 222 (grade of "C" or higher)

Second course of three introductory courses for life science majors. Covers the physiology of major animal and plant organ systems. BIOL& 222 is the first course in the three-course series for majors, to be taken prior to (second) BIOL& 223 and (third) BIOL& 221. [GE, NS, NS-LAB, SE]

Human Anatomy and Physiology I

BIOL& 241 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: BIOL& 160 (grade of "C" or higher)

The first in a two-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, terminology, histology, the integumentary, skeletal, articular, muscular, nervous, and endocrine systems. [GE, NS, NS-LAB, SE]

Human Anatomy and Physiology II

BIOL& 242 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: BIOL& 241 (grade of "C" or higher)

The second in a two-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 endocrine, cardiovascular, respiratory, digestive, urinary, and reproductive systems and fluid and electrolyte balance. [GE, NS, NS-LAB, SE]

Human A & P I

BIOL& 251 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: BIOL& 100, BIOL& 160, BIOL& 175, BIOL& 221, CHEM& 121, or CHEM& 141 (grade of "C" or higher)

The first 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, terminology, cells, protein synthesis, DNA replication, histology, the integumentary, skeletal, articular, and muscular systems, and bone, muscle and membrane physiology. [GE, NS, NS-LAB, SE]

Human A & P II

BIOL& 252 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: BIOL& 251 (grade of "C" or higher)

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. [GE, NS, NS-LAB, SE]

Human A & P III

BIOL& 253 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: BIOL& 252 (grade of "C" or higher)

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. [GE, NS, NS-LAB, SE]

Microbiology

BIOL& 260 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: BIOL& 160 (grade of "C" or higher)

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. [GE, NS, NS-LAB, SE]

BUSINESS ADMINISTRATION (BUS/BUS&)

Business Math Applications

BUS 102 5 Credits/Units

5.0 hours of lecture

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10

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. [CP, GE]

Keyboarding & Word Processing

BUS 104 1-3 Credits/Units

1.0 hours of lecture / 4.0 hours of lab

Introduction to the keyboard, development of touch typing, speed and accuracy, and basic word processing skills for formatting simple letters, memos, tables, and reports. [GE][PNP]

Introduction to International Business

BUS 105 3 Credits/Units

3.0 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. [GE]

Office English

BUS 107 5 Credits/Units

5.0 hours of lecture

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, GE, SE]

Customer Service

BUS 110 3 Credits/Units

3.0 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]

Small Business Management

BUS 115 5 Credits/Units

5.0 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]

Advertising

BUS 117 3 Credits/Units

3.0 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. [GE][PNP]

Computerized Accounting

BUS 130 3 Credits/Units

3.0 hours of lecture

Prerequisite: ACCT 129 or ACCT& 201 (grade of "C" or higher)

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. [CP][GE][PNP][SE]

Business Professional Self Development

BUS 148 3 Credits/Units

3.0 hours of lecture

An overview of the job search process and exploration of the importance of developing and using soft skills in a business setting. Professional business concepts and communication skills for employees or prospective employees who wish to improve their professional relations and growth potential. [GE, HR][PNP]

Computer Application Essentials

BUS 149 3 Credits/Units

3.0 hours of lecture

Fundamentals of common business applications: word processing, spreadsheet, presentation software, and file management. [GE][PNP]

Computer Business Applications

BUS 150 5 Credits/Units

5.0 hours of lecture

Introduction to creating business projects using MS Office that emphasize critical thinking and problem-solving skills. Assignments include managing files/folders, creating and formatting Word documents, Excel workbooks, PowerPoint presentations, Access databases, and in teams, creating and giving a presentation based on research. [GE]

Personal Finance

BUS 160 5 Credits/Units

5.0 hours of lecture

Buying insurance (life, health, property, and auto), buying and financing a home, minimizing Federal income tax, borrowing, saving, and investing. [CP, GE][PNP]

Introduction to Excel

BUS 169 3 Credits/Units

3.0 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 use 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][PNP]

Excel for Business

BUS 170 3 Credits/Units

3.0 hours of lecture

Prerequisite: BUS 102 and (BTEC 169 or BUS 169) (grades of "C" or higher)

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 Visual Basics for Applications (VBA), macros, and making an application in Excel. [GE][PNP]

Cooperative Work Experience

BUS 199 1-5 Credits/Units

15.0 hours of clinical

Up to 5 credits for supervised work experience in an approved job.

Completion of specific learning objectives and employer evaluation. [GE][PNP]

Principles of Finance I

BUS 206 5 Credits/Units

5.0 hours of lecture

Prerequisite: ACCT& 201 (grade of "C" or higher)

Finance theory and practice through the lens of Time Value of Money by examining the financial health of a company based on market conditions, risk, and profitability; evaluate sources of financing based on risk, cost, terms and valuation; and analyze asset structure and financing framework. [GE]

Principles of Finance II

BUS 207 5 Credits/Units

5.0 hours of lecture

Prerequisite: BUS 206 (grade of "C" or higher).

A continuation of Principles of Finance I to investigate finance theory and practice through the lens of Time Value of Money by examining the mix of debt and equity to fund assets as well as dividend distributions, apply measurement tools to make informed capital budgeting decisions, evaluate factors influencing the risk of an investment, and identify capital markets. [GE]

Business Communications

BUS 211 3 Credits/Units

3.0 hours of lecture

Prerequisite: ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

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. [CA, CT, GE, SE, WC]

Professional Selling

BUS 251 3 Credits/Units

3.0 hours of lecture

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]

Principles of Marketing

BUS 260 5 Credits/Units

5.0 hours of lecture

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]

Introduction to Digital Marketing

BUS 270 5 Credits/Units

5.0 hours of lecture

Gain an understanding of how digital marketing works and develop the critical insights necessary to succeed in digital and social media marketing. Learn various methodologies of marketing efforts to digital technologies such as search engines, email, social media, mobile and more. [GE, SE]

Selected Topics

BUS 280 1-5 Credits/Units

5.0 hours of lecture

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. Individual topics are listed in the term class schedules. [GE]

Special Projects

BUS 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

Introduction to Business

BUS& 101 5 Credits/Units

5.0 hours of lecture

Learn about the business functions of management, human resources, marketing, law, computers, accounting, finance, production, small business and international business. [GE, HR, SE][PNP]

Business Law

BUS& 201 5 Credits/Units

5.0 hours of lecture

Prerequisite: Sophomore Standing (completion of 45 credits or more)

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. [GE, SE]

CHEMISTRY (CHEM/CHEM&)

Support for General Chemistry I

CHEM 41 2 Credits/Units

2.0 hours of lecture

Prerequisite: CHEM 41, CHEM& 141, and CHEM& 151 must be in your shopping cart to register. Eligibility for Math level 50 and (CHEM& 139 (grade of "C" or higher) or score of 19-21 on chemistry placement exam). Develop chemical vocabulary, knowledge of fundamental chemistry concepts and problem-solving skills to support student success in CHEM& 141. College success strategies are integrated throughout the course. Must enroll in linked section of General Chemistry I (CHEM& 141) to take this course.

Selected Topics

CHEM 80 1-5 Credits/Units

5.0 hours of lecture

Selected topics in chemistry. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules.

Small World Antibiotics Research 2a

CHEM 106 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: BIOL 105 (grade of "C" or higher)

Investigates 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. [GE, NS, NS-LAB, SE][PNP]

Cooperative Work Experience

CHEM 199 1-5 Credits/Units

15.0 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

Selected Topics

CHEM 280 1-5 Credits/Units

5.0 hours of lecture

Selected topics in chemistry. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules.

Special Projects

CHEM 290 1-6 Credits/Units

6.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

Chemical Concepts: Your Intricate Environment

CHEM& 105 5 Credits/Units

5.0 hours of lecture

Designed to increase scientific literacy in non-science majors, with little or no scientific background. Together we will explore your world through the lens of chemistry. You will be introduced to basic chemical concepts, the laws that govern them, and use that foundation to explore the connection between human actions and the state of the environment. This course is distinct from CHEM& 110 in both content and practice; since it uses a relatively non-mathematical approach it does not serve as a prerequisite to other CHEM courses. [GE, NS, SE]

Chemical Concepts W/Lab

CHEM& 110 5 Credits/Units

4.0 hours of lecture / 2.0 hours of lab

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. [GE, NS, NS-LAB, SE]

Intro to Chemistry: Pre-Health

CHEM& 121 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: MATH 96 (grade of "C" or higher), or placement into Math level 45.

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. [GE, NS, NS-LAB, SE]

Intro to Organic/Biochem

CHEM& 131 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: CHEM& 121 (grade of "C" or higher)

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. [GE, NS, NS-LAB, SE]

General Chemistry Preparation

CHEM& 139 4 Credits/Units

4.0 hours of lecture

Prerequisite: MATH 96 (grade of "C" or higher) or placement into Math level 50.

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. [GE, SE]

General Chemistry I

CHEM& 141 4 Credits/Units

4.0 hours of lecture

Prerequisite: Both CHEM& 141 and CHEM& 151 must be in your shopping cart to register. Eligibility for College Algebra (Math Level 50) and (CHEM& 139 w/ grade of "C" or higher or score above 21 on chem placement exam or concurrent enrollment in CHEM 41).

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. [GE, NS, SE]

General Chemistry II

CHEM& 142 4 Credits/Units

4.0 hours of lecture

Prerequisite: CHEM& 141 and CHEM& 151 (grades of "C" or higher), and concurrent enrollment in CHEM& 142 and CHEM& 152

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. [GE, NS, SE]

General Chemistry III

CHEM& 143 4 Credits/Units

4.0 hours of lecture

Prerequisite: CHEM& 142 and CHEM& 152 (grades of "C" or higher). Concurrent enrollment in CHEM& 153 is recommended.

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. [GE, NS, SE]

General Chemistry Laboratory I

CHEM& 151 1 Credit/Unit

2.0 hours of lab

Prerequisite: Both CHEM& 141 and CHEM& 151 must be in your shopping cart to register. Eligibility for College Algebra (Math Level 50) and (CHEM& 139 w/ grade of "C" or higher or score above 21 on chem placement exam or concurrent enrollment in CHEM 41).

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. [GE, NS, NS-LAB, SE]

General Chemistry Laboratory II

CHEM& 152 1 Credit/Unit

2.0 hours of lab

Prerequisite: CHEM& 141 and CHEM& 151 (grades of "C" or higher), and concurrent enrollment in CHEM& 142 and CHEM& 152

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. [GE, NS, NS-LAB, SE]

General Chemistry Laboratory III

CHEM& 153 2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Prerequisite: CHEM& 142 and CHEM& 152 (grades of "C" or higher), and concurrent enrollment in CHEM& 143 and CHEM& 153

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. [GE, NS, NS-LAB, SE]

Organic Chemistry I

CHEM& 241 4 Credits/Units

4.0 hours of lecture

Prerequisite: CHEM& 143 and CHEM& 153 (grades of "C" or higher) and concurrent enrollment in CHEM& 241 and CHEM& 251

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. [GE, NS, SE]

Organic Chemistry II

CHEM& 242 4 Credits/Units

4.0 hours of lecture

Prerequisite: CHEM& 241 and CHEM& 251 (grades of "C" or higher) and concurrent enrollment in CHEM& 242 and CHEM& 252

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. [GE, NS, SE]

Organic Chemistry III

CHEM& 243 4 Credits/Units

4.0 hours of lecture

Prerequisite: CHEM& 242 and CHEM& 252 (grades of "C" or higher) and concurrent enrollment in CHEM& 243 and CHEM& 253

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. [GE, NS, SE]

Organic Chemistry Laboratory I

CHEM& 251 2 Credits/Units

4.0 hours of lab

Prerequisite: CHEM& 143 and CHEM& 153 (grades of "C" or higher) and concurrent enrollment in CHEM& 241 and CHEM& 251

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. [GE, NS, NS-LAB, SE]

Organic Chemistry Laboratory II

CHEM& 252 2 Credits/Units

4.0 hours of lab

Concurrent enrollment in CHEM& 242, or consent of Instructional Unit.

Prerequisite: CHEM& 241 and CHEM& 251 (grades of "C" or higher) and concurrent enrollment in CHEM& 242 and CHEM& 252

Second of a 3-term laboratory sequence designed for science and engineering majors, or students seeking a career 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. [GE, NS, NS-LAB, SE]

Organic Chemistry Laboratory III

CHEM& 253 2 Credits/Units

4.0 hours of lab

Prerequisite: CHEM& 242 and CHEM& 252 (grades of "C" or higher) and concurrent enrollment in CHEM& 243 and CHEM& 253

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. [GE, NS, NS-LAB, SE]

COLLEGE AND ACADEMIC PREPARATION (CAP/CCAP)

Educational Interviewing

CAP 1 1 Credit/Unit

1.0 hours of lecture

For individuals new to Basic Education for Adults. Participants will be assessed and advised into appropriate classes, set goals, and create an educational plan. [PNP]

Jumpstart: Reading & Writing

CAP 5 1-6 Credits/Units

6.0 hours of lecture

Development of standards-based reading and writing skills in the contexts of science and social studies to successfully transition into appropriate HS+ courses.

Jumpstart: Math

CAP 6 1-6 Credits/Units

6.0 hours of lecture

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 HS+ courses, apprenticeships, earn the GED credential, or transition to additional workforce opportunities.

On-Ramp to Healthcare

CAP 23 6 Credits/Units

6.0 hours of lecture

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. HS+ students will earn 1 Health or Occupational Education credit toward the HS+ diploma. [PNP]

Integrated English and Business

CAP 24 7 Credits/Units

7.0 hours of lecture

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. HS+ students will earn 1 Occupational Education credit toward the HS+ diploma.

US History

CAP 26 3 Credits/Units

3.0 hours of lecture

Earn credit toward the HS+ diploma or prepare for the GED Social Studies test. Gain a deeper understanding of US history and government. HS+ students will earn 1 US History credit toward the high school diploma.

Civics

CAP 27 3 Credits/Units

3.0 hours of lecture

Preparation for GED or HS+ diploma: study of our national government, constitution, and rights and responsibilities of citizenship at federal, state, and local levels. Topics: federal, state, tribal, and local government organization procedures; current issues addressed at each level of government; electoral issues, including elections, ballot measures, initiatives, and referenda; study and completion of the civics component of the federally administered naturalization test required of persons seeking to become naturalized citizens; and character traits and basic values of living in a free society. HS+ students will earn 1 Civics credit toward the HS+ diploma.

Ecology Basics

CAP 28 3 Credits/Units

3.0 hours of lecture

Elements of life science that are focused on ecological understanding. Explore relationships between living organisms and relate these relationships to ecological issues locally and globally. HS+ students will earn 1 lab science credit toward the high school diploma.

Lab Science

CAP 29 3 Credits/Units

3.0 hours of lecture

Introduces concepts from biology, chemistry and physics. Explore the scientific method through designing, implementing, and sharing a project using scientific inquiry as well as complete several labs throughout the quarter. HS+ students will earn 1 Lab Science credit toward the HS+ diploma. [PNP]

Fine Arts

CAP 30 3 Credits/Units

3.0 hours of lecture

Earn credit toward HS+ diploma, prepare for the GED test or improve skills to transition to college-level courses. Gain a deeper understanding of the arts and how to evaluate the impressions gained by exposure to different forms of media. HS+ students will earn 1 Fine Arts credit toward the HS+ diploma. [PNP]

Washington State History

CAP 31 3 Credits/Units

3.0 hours of lecture

Prepare for the GED or the HS+ diploma. Provides a social, political, economic history of the Pacific Northwest with particular emphasis on the state of Washington, including Native American history and gender/ethnic history. HS+ students will earn 1 WA State History credit toward the HS+ diploma.

Math for Personal Finance

CAP 40 7 Credits/Units

7.0 hours of lecture

Department consent required for enrollment. Introduce and apply fundamental math skills (e.g. whole numbers, fractions, decimals, integers, percents, basic geometry, standard American measurement, basic tables/graphs) in the context of personal finance. HS+ students will earn 2 Elective credits toward the HS+ diploma.

Integrated Math and Science

CAP 42 7 Credits/Units

7.0 hours of lecture

Apply 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. HS+ students will earn 2 Math credits and 1 Lab Science credit toward the HS+ diploma.

Math Applications

CAP 46 7 Credits/Units

7.0 hours of lecture

Prerequisite: Eligibility for CAP 46

Prepare to transition to MATH 107 and MATH 146 with MATH 6. Apply math skills in appropriate contexts and develop critical thinking skills. Topics include complex expressions, equations, inequalities, compound inequalities, graphs and equations using point-slope and slope-intercept form, square roots, exponential, polynomial expressions and equations, exponential and polynomial functions, exponential functions, exponential and logarithmic functions. HS+ students will earn 1 Math credit and 1 Elective Credit toward the HS+ diploma.

CAP Math Support

CAP 49 1-3 Credits/Units

3.0 hours of lecture

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 61 6 Credits/Units

6.0 hours of lecture

Earn credits toward HS+ diploma, prepare for the GED test or improve skills to transition to college-level courses. Gain a deeper understanding of the human body's systems while improving reading and writing skills. HS+ students will earn 1 Health credit toward the HS+ diploma.

Integrated English & WA State History/Fine Arts

CAP 64 7 Credits/Units

7.0 hours of lecture

Earn credits toward HS+ diploma, prepare for the GED test or improve skills to transition to college-level courses. Integrates WA State history and Fine Arts with critical reading and writing skills. HS+ students will earn 3 English credits, 1 WA State History credit and 1 Fine Arts credit toward the HS+ diploma.

Integrated English and US History & Government

CAP 70 7 Credits/Units

7.0 hours of lecture

Earn credits toward HS+ diploma, prepare for the GED test or improve skills to transition to college-level courses. Integrates US history and government with critical reading and writing skills. HS+ students will earn 3 English credits, 1 US History and Government credit and 0.5 Civics credit toward the HS+ diploma.

Integrated English & Science/CWP

CAP 74 7 Credits/Units

7.0 hours of lecture

Earn credits toward HS+ diploma, prepare for the GED test or improve skills to transition to college-level courses. Integrates Science and CWP with critical reading and writing skills. HS+ students will earn 3 English credits, 1 Science credit and 1 Contemporary World Problems credit toward the HS+ diploma.

CAP Special Topics

CAP 80 1-10 Credits/Units

10.0 hours of lecture

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.

CAP Special Topics-Lab

CAP 81 1-10 Credits/Units

20.0 hours of lab

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.

Academic Grammar

CAP 88 1-4 Credits/Units

4.0 hours of lecture

Development of writing skills for academic purposes that will emphasize concepts such as sentence types, sentence structure, clauses, phrases and verb tenses. Students will apply academic English conventions to their own writing. HS+ students will earn 0.5 Elective credit toward the HS+ diploma.

Integrated English/CWP (PP&I)

CAP 90 7 Credits/Units

7.0 hours of lecture

Prepare for the GED, HS+ diploma and/or college coursework. 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. HS+ students will earn 1 Contemporary World Problems credit and English credit toward the HS+ diploma. Number of English credits earned will depend on the student's high school graduation year. [PNP]

Health

CAP 93 2 Credits/Units

2.0 hours of lecture

Earn health credit for the HS+ diploma. Gain a deeper understanding of a healthy lifestyle. HS+ students will earn 1 Health credit toward the HS+ diploma.

Occupational Education

CAP 94 2 Credits/Units

2.0 hours of lecture

Earn occupational education credit for the HS+ diploma. Gain a deeper understanding of preparing for a job and working successfully with co-workers. HS+ students will earn 1 credit of Occupational Education toward the HS+ diploma.

Physical Education

CAP 95 2 Credits/Units

2.0 hours of lecture

Earn physical education credit for the HS+ diploma. Gain a deeper understanding of physical education by creating a personalized self-directed exercise plan. HS+ students will earn 1.5 Physical Education credits toward the HS+ diploma.

Electives

CAP 96 2 Credits/Units

2.0 hours of lecture

Earn elective credit for the HS+ diploma. Work on independent projects in a variety of subject areas. HS+ students will earn elective credits toward the HS+ diploma.

CAP Special Projects

CAP 99 1-10 Credits/Units

10.0 hours of lecture

CAP Special Projects

Jump Start

CCAP 10 1-12 Credits/Units

12.0 hours of lecture

Competency-based course designed for those preparing for the GED® test or need to earn credit for the HS+ diploma. Topics include: Pre-Algebra, Basic Statistics, Algebra, Geometry, Measurement, Reading and Writing (English), Science, and Social Studies. [PNP]

Jump Start

CCAP 11 1-12 Credits/Units

24.0 hours of lab

Competency-based course designed for those preparing for the GED® test or need to earn credit for the HS+ diploma. Topics include: Pre-Algebra, Basic Statistics, Algebra, Geometry, Measurement, Reading and Writing (English), Science, and Social Studies. [PNP]

Science

CCAP 27 1-3 Credits/Units

3.0 hours of lecture

Prerequisite: Eligible for CCAP 27

Competency-based course designed to earn Science credit for the HS+ diploma. Explore the scientific method in the areas of ecology, sustainability and the environment. Demonstrated achievement of competencies will award 1 Science credit toward the HS+ diploma.

Contemporary World Problems

CCAP 28 1-3 Credits/Units

3.0 hours of lecture

Prerequisite: Eligible for CCAP 28

This competency-based course is designed for students who need to earn CWP credit for the HS+ diploma. Evaluation of major world events and human activity in order to better understand human impacts on our world. Evaluation of global civil rights movements and exploitation of resources to further understand the implications of human activity on local and global environments. Demonstrated achievement of the competencies will award 1 credit of CWP toward the HS+ diploma. [PNP]

Lab Science

CCAP 29 1-3 Credits/Units

3.0 hours of lecture

Prerequisite: Eligible for CCAP 29

Competency-based course designed to earn Lab Science credit for the HS+ diploma. Introduction of concepts from biology, chemistry and physics. Explore the scientific method through designing, implementing, and sharing a project using scientific inquiry. Demonstrated achievement of competencies will award 1 Lab Science credit toward the HS+ diploma.

Fine Arts

CCAP 30 1-3 Credits/Units

3.0 hours of lecture

Prerequisite: Eligible for CCAP 30

Competency-based course designed to earn Fine Arts credit for the HS+ diploma. Gain a deeper understanding of the arts and how to evaluate the impressions gained by exposure to different forms of media. Demonstrated achievement of the competencies will award 1 credit of Fine Arts toward the HS+ diploma. [PNP]

Washington State History

CCAP 31 1-3 Credits/Units

3.0 hours of lecture

Prerequisite: Eligible for CCAP 31

This competency-based course is designed for students who need to earn WA State History credit for the HS+ diploma. Provides a social, political, economic history of the Pacific Northwest with particular emphasis on the state of Washington, including Native American history and gender/ethnic history. Demonstrated achievement of the competencies will award 1 credit of WA State History toward the HS+ diploma. [PNP]

US History & Government

CCAP 33 1-3 Credits/Units

3.0 hours of lecture

Prerequisite: Eligible for CCAP 33

This competency-based course is designed for students who need to earn US History and Government credit. Demonstrated achievement of the competencies will award 1 credit of US History & 1 credit of Government toward the HS+ diploma, or 1 elective credit if Government credit is not needed. This course will analyze key events and time periods in US history to develop a more informed understanding of why and how the US exists today. [PNP]

Pre-Algebra

CCAP 40 1-6 Credits/Units

6.0 hours of lecture

Prerequisite: Eligible for CCAP 40

This competency-based course is designed for students who need to earn credit for the HS+ diploma. Application of math skills in real world contexts. Topics include: basic math skills, percent, decimals, fractions, mean, median, mode, graphs, expressions, equations, exponents, order of operation, perimeter, area, volume, formulas, measurement (metric and standard), signed numbers, absolute value, ratio, and proportion. Demonstrated achievement of competencies will award 1 elective credit for HS+ diploma. [PNP]

Algebra

CCAP 41 1-6 Credits/Units

6.0 hours of lecture

Prerequisite: Eligible for CCAP 41

Competency-based course designed to earn Algebra credit for the HS+ diploma. Topics: how equations work, factoring, graphing linear equations, solving inequalities and simplifying polynomials with various operations. Demonstrated achievement of the competencies will award 1 Algebra credit toward the HS+ diploma.

Geometry

CCAP 43 1-6 Credits/Units

6.0 hours of lecture

Prerequisite: Eligible for CCAP 43

Competency-based course designed to earn Geometry credit for the HS+ diploma. Topics: geometry properties, area, perimeter, surface area, volume, and various transformations. Demonstrated achievement of the competencies will award 1 Geometry credit toward the HS+ diploma.

Algebra 2

CCAP 45 1-6 Credits/Units

6.0 hours of lecture

Competency-based course designed to earn Algebra 2 credit for the HS+ diploma. Topics: graph & solve inequalities, linear and exponential equations; simplify, add, subtract, multiply, divide and factor polynomials; solve quadratic equations; solve and simplify logarithms; identify functions; and solve & graph system of equations problems. Demonstrated achievement of competencies will award 1 Algebra 2 credit toward the HS+ diploma.

Applied English

CCAP 63 1-6 Credits/Units

6.0 hours of lecture

Prerequisite: Eligible for CCAP 63

Competency-based course designed to earn English credit for the HS+ diploma. Emphasis on critical reading and analytical writing skills. Demonstrated achievement of the competencies will award 1-3 credits of English toward the HS+ diploma.

CCAP Special Topics

CCAP 80 1-12 Credits/Units

12.0 hours of lecture

Variable topics in Career and Academic Preparation. 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.

Health

CCAP 93 1-2 Credits/Units

2.0 hours of lecture

Prerequisite: Eligible for CCAP 93

This competency-based course is designed for students who need to earn Health credit for the HS+ diploma. Students will gain a deeper understanding of a healthy lifestyle. Demonstrated achievement of the competencies will award 1 Health credit toward the HS+ diploma. [PNP]

Physical Education & Fitness

CCAP 95 1-2 Credits/Units

2.0 hours of lecture

Prerequisite: Eligible for CCAP 95

Competency-based course designed to earn physical education credit for the HS+ diploma. Gain a deeper understanding of physical education by creating a personalized self-directed exercise plan. Demonstrated achievement of the competencies will award 1.5 physical education credits toward the HS+ diploma. [PNP]

Electives

CCAP 96 1-2 Credits/Units

2.0 hours of lecture

Prerequisite: Eligible for CCAP 96

This competency-based course is designed for students who need to earn elective credit for the HS+ diploma. Students will work on independent projects in a variety of subject areas in order to fulfill graduation requirements for a high school diploma. Demonstrated achievement of the competencies will provide .5-1 electives credits toward the HS+ diploma.

COLLEGE PREPARATION (COLL)

College Essentials: Introduction to Clark

COLL 101 2 Credits/Units

2.0 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/CMST&)

Professional Communication and Technology

CMST 103 3 Credits/Units

3.0 hours of lecture

Professional use of current communication technology in a variety of settings. Examination of internet profile and development of communication competence in social media environments. Course concepts taught and assessed using a variety of communication technology tools and applications. [GE, HA, HR, SE]

Introduction to Journalism

CMST 105 5 Credits/Units

5.0 hours of lecture

Prerequisite: Eligibility for ENGL& 101 (CAP 90, ENGL 90, or IELP 90 (grade of "B" or higher) or eligibility through multiple measures placement.)

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, and interviewing. Writing-intensive activities to master a clear, concise, accurate style. Oral communication activities to master ability to network and interview. Cannot receive credit for both JOUR 101 & CMST 105. [GE, HA, SE]

Cooperative Work Experience

CMST 199 1-5 Credits/Units

15.0 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

Selected Topics

CMST 280 1-5 Credits/Units

5.0 hours of lecture

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. Individual topics are listed in the term class schedules. [GE, SE]

Special Projects

CMST 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

Organizational Communication

CMST 310 5 Credits/Units

5.0 hours of lecture

Prerequisite: CMST& 210, CMST& 220, or CMST& 230 (grade of "C" or higher).

Admission into the program required for enrollment. 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. [GE, SE, WC]

Intro to Mass Media

CMST& 102 5 Credits/Units

5.0 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. [GE, HA, HR, PPI, SE]

Interpersonal Communication

CMST& 210 5 Credits/Units

5.0 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. [GE, HA, HR, OC, SE]

Public Speaking

CMST& 220 5 Credits/Units

5.0 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. [GE, HA, OC, SE]

Small Group Communication

CMST& 230 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL& 101 or PTWR 135 (grade of "C" or higher)

Emphasizing theoretical principles and their application, students will spend an average of 2-3 hours a week outside of class to meet with their peers in a small group, offering opportunities to become more effective and active members 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. [GE, HA, HR, OC, SE, SS]

Intercultural Communication

CMST& 240 5 Credits/Units

5.0 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. Cannot receive credit for both CMST 216 and CMST& 240. [GE, HA, PPI, SE]

COMPUTER SCIENCE & ENGINEERING (CSE)

Updated 07.01.26 - please refer to course corrections page (<https://catalog.clark.edu/corrections/course-corrections/>) for updates

Engineering and Computer Science Orientation

CSE 101 1 Credit/Unit

2.0 hours of lab

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. [GE, SE]

Introduction to Electrical/Computing

CSE 120 5 Credits/Units

3.5 hours of lecture / 3.0 hours of lab

Prerequisite: MATH 95 (grade of "C" or higher) or placement into Math level 60.

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. [GE, SE]

Introduction to C

CSE 121 5 Credits/Units

5.0 hours of lecture

Prerequisite: MATH& 151, ENGR 120, CSE 120, ENGR 109 or CTEC 121 (grade of "C" or higher)

Introduction to the C programming language. Emphasis on program design, verification, and testing. Programming related concepts in computer science will be covered. [GE, SE]

Discrete Structures

CSE 215 5 Credits/Units

5.0 hours of lecture

Prerequisite: CSE 121 and ENGR 250 (grades of "C" or higher)

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). [GE, SE]

Introduction to Data Structures

CSE 222 5 Credits/Units

5.0 hours of lecture

Prerequisite: CSE 121 and CSE 224 (grades of "C" or higher)

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. [GE, SE]

Data Structures & Object-Oriented Programming

CSE 223 5 Credits/Units

5.0 hours of lecture

Prerequisite: CSE 215 and CSE 222 (grades of "C" or higher)

Study of data structures and the analysis of algorithms, object-oriented programming, concurrency, memory management. [GE, SE]

Programming Tools

CSE 224 5 Credits/Units

5.0 hours of lecture

Prerequisite: CSE 121 (grade of "C" or higher)

Study of tools and techniques that facilitate programming and debugging, including debuggers, profilers, and scripting. [GE, SE]

Digital Logic Design

CSE 250 5 Credits/Units

4.0 hours of lecture / 2.0 hours of lab

Prerequisite: CSE 120 and CSE 121 (grades of "C" or higher).

Introduction to digital logic elements, design, and analysis techniques and tools. Course labs provide hands-on design and implementation of digital systems. [GE]

Selected Topics

CSE 280 1-5 Credits/Units

5.0 hours of lecture

Selected topics in Computer Science & Engineering. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE]

Special Projects

CSE 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize, and complete special projects approved by the department. [GE]

COMPUTER TECHNOLOGY (CTEC)

Updated 07.01.26 - please refer to course corrections page (<https://catalog.clark.edu/corrections/course-corrections/>) for updates

Computing Essentials

CTEC 101 2 Credits/Units

2.0 hours of lecture

Prerequisite: Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

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 email and worldwide web including how to document and save web pages, and a survey of the purposes of various types of application programs. [GE]

IT Support

CTEC 104 3 Credits/Units

3.0 hours of lecture

Prerequisite: Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

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

5.0 hours of lecture

Prerequisite: Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

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

3.0 hours of lecture

Prerequisite: Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

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. [GE]

Internet Research and Living Online

CTEC 115 3 Credits/Units

3.0 hours of lecture

Prerequisite: Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

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

2.0 hours of lecture / 4.0 hours of lab

Prerequisite: Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

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]

Intro to Programming & Problem Solving

CTEC 121 5 Credits/Units

5.0 hours of lecture

Prerequisite: Eligibility for ENGL& 101 and completion of PTCS 110 (grade of "C" or higher) or placement into Math Level 30.

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, GE, SE]

HTML Fundamentals

CTEC 122 4 Credits/Units

4.0 hours of lecture

Prerequisite: Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

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. [GE, SE]

JavaScript

CTEC 126 5 Credits/Units

5.0 hours of lecture

Prerequisite: (CTEC 112, CTEC 121 or CSE 121) and CTEC 122 (grades of "C" or higher)

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

5.0 hours of lecture

Prerequisite: (CTEC 112, CTEC 121 or CSE 121) and CTEC 122 (grades of "C" or higher)

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

3.0 hours of lecture

Prerequisite: Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

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

3.0 hours of lecture

Prerequisite: Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

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

4.0 hours of lecture

Prerequisite: NTEC 103 (grade of "C" or higher)

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. [GE]

Microsoft Security Fundamentals

CTEC 133 3 Credits/Units

3.0 hours of lecture

Prerequisite: Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

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

5.0 hours of lecture

Prerequisite: Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

Provides a foundational overview of the concepts, practices, and operations involved in designing, developing, and administering a database. Topics include core database concepts, creating database objects, manipulating data, data storage, and database administration. Familiarity with Windows and Microsoft Office is highly recommended. [GE]

Microsoft Software Development With C#

CTEC 135 5 Credits/Units

5.0 hours of lecture

Prerequisite: CTEC 121 or CSE 121 (grade of "C" or higher) and eligibility for ENGL 90.

Fundamental concepts related to developing desktop and web applications with the Microsoft C# programming language, including the use of the Microsoft SQL relational database management system. Topics covered include: program design, object-oriented and procedural coding, debugging, testing, and documentation. [GE]

Web Server Technology

CTEC 145 5 Credits/Units

5.0 hours of lecture

Prerequisite: Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

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]

WordPress I

CTEC 160 5 Credits/Units

5.0 hours of lecture

Prerequisite: Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

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

4.0 hours of lecture

Prerequisite: Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

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. [GE, HR]

Web Content and Social Media

CTEC 166 5 Credits/Units

5.0 hours of lecture

Prerequisite: CTEC 122, CTEC 160 and (ENGL&101 or PTWR 135) (grades of "C" or higher)

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. [GE]

Cooperative Work Experience

CTEC 199 1-5 Credits/Units

15.0 hours of clinical

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

1.0 hours of lecture / 6.0 hours of clinical

Prerequisite: CTEC 104 (grade of "C" or higher)

Technical support work experience for a real world learning environment that supports technology needs for the local community. 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

1.0 hours of lecture / 6.0 hours of clinical

Prerequisite: CTEC 200 (grade of "C" or higher)

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

5.0 hours of lecture

Prerequisite: ENGL& 101 or PTWR 135 (grade of "C" or higher)

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 lab work 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

4.0 hours of lecture

Prerequisite: CTEC 106 (grade of "C" or higher) and eligibility for ENGL 99

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

4.0 hours of lecture

Prerequisite: CTEC 106 (grade of "C" or higher) and eligibility for ENGL 99

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

5.0 hours of lecture

Prerequisite: CTEC 127 (grade of "C" or higher)

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

5.0 hours of lecture

Prerequisite: CTEC 131 (grade of "C" or higher) and eligibility for ENGL 99

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

5.0 hours of lecture

Prerequisite: CTEC 233 (grade of "C" or higher) and eligibility for ENGL 99

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]

Web and Interface Design I

CTEC 270 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Prerequisite: CTEC 122 (grade of "C" or higher)

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. [GE]

Web and Interface Design II

CTEC 271 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Prerequisite: CTEC 270 (grade of "C" or higher)

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. [GE]

Emerging Technologies

CTEC 275 5 Credits/Units

5.0 hours of lecture

Prerequisite: CSE 121 or CTEC 121 (grade of "C" or higher).

Overview of robotics, artificial intelligence and 3D printing. Topics: interactive review of statistics, machine learning, artificial intelligence, review of the Python programming, security in robotics, and big data analysis. Apply programming skills for robotic devices, Artificial Intelligence and machine learning services. Develop 3D models that will be generated on 3D printers. [GE]

Selected Topics

CTEC 280 1-6 Credits/Units

6.0 hours of lecture

Selected topics in Computer Technology. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE]

Special Projects

CTEC 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize, and complete special projects approved by the department. [GE]

Web Skills Portfolio

CTEC 293 5 Credits/Units

15.0 hours of clinical

Department consent required for enrollment. Capstone projects and activities for Web Development AAT. Create a website and an online presence that will demonstrate proficiency in various skill sets of web development. Develop resume and professional branding, perform job research, develop job search strategies, and make contacts with potential employers. [GE]

Capstone Experience

CTEC 295 3 Credits/Units

3.0 hours of lecture

Department consent required for enrollment. 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. [GE]

CUISINE (CUIS)

Culinary Fundamentals I

CUIS 110 5 Credits/Units

2.0 hours of lecture / 6.0 hours of lab

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10, eligibility for ENGL 99, and concurrent enrollment in CUIS 110 and CUIS 111.

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. [GE]

Professional Cooking I

CUIS 111 8 Credits/Units

16.0 hours of lab

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10, eligibility for ENGL 99, and concurrent enrollment in CUIS 110 and CUIS 111.

Hands-on preparation of product utilizing 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. [GE]

Culinary Fundamentals II

CUIS 120 5 Credits/Units

2.0 hours of lecture / 6.0 hours of lab

Prerequisite: CUIS 110 and CUIS 111 (grades of "C" or higher), and concurrent enrollment in CUIS 120 and CUIS 121.

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. [GE]

Professional Cooking II

CUIS 121 8 Credits/Units

16.0 hours of lab

Prerequisite: CUIS 110 and CUIS 111 (grades of "C" or higher), and concurrent enrollment in CUIS 120 and CUIS 121.

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. [GE]

Culinary Fundamentals III

CUIS 130 5 Credits/Units

2.0 hours of lecture / 6.0 hours of lab

Prerequisite: CUIS 120 and CUIS 121 (grades of "C" or higher), and concurrent enrollment in CUIS 130 and CUIS 131

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. [GE]

Professional Cooking III

CUIS 131 8 Credits/Units

16.0 hours of lab

Prerequisite: CUIS 120 and CUIS 121 (grades of "C" or higher), and concurrent enrollment in CUIS 130 and CUIS 131

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. [GE]

Classic and Modern Soups and Sauces

CUIS 140 2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Prerequisite: CUIS 110 and CUIS 111 (grades of "C" or higher)

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. [GE]

Meat Cutting and Fabrication

CUIS 141 3 Credits/Units

1.0 hours of lecture / 4.0 hours of lab

Prerequisite: CUIS 110 and CUIS 111 (grades of "C" or higher)

Identification of carcass and boxed meats and their fabrication into restaurant cuts. Cutting of poultry, beef, hog, lamb, fish and introduction to sausage production. [GE]

Wine, Beer, Spirits and Food Pairings

CUIS 142 2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Prerequisite: CUIS 110 and CUIS 111 (grades of "C" or higher)

Gain an understanding of how to choose a wine, beer or spirit to compliment a dish. Discuss flavor profiles and how incorporating beverages can elevate the dining experience. Hands on use of beverages in production of a variety of flavorful dishes. [GE]

Restaurant Baking

CUIS 143 2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Prerequisite: CUIS 110 and CUIS 111 (grades of "C" or higher)

Introduction of restaurant style baking including yeast breads, biscuits, scones, muffins, cookies, pies, quick breads, plated desserts and sauces. Basic understanding of baking science. [GE]

Catering Operations

CUIS 144 2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Prerequisite: CUIS 110 and CUIS 111 (grades of "C" or higher)

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. [GE]

Wine Appreciation

CUIS 145 3 Credits/Units

3.0 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. [GE]

Culinary Essentials

CUIS 146 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

A hands-on approach of learning basic kitchen skills. Emphasizes kitchen safety, knife skills, basic cooking preparations, sanitation, stock preparation, basic meat/protein fabrication. This course is designed for both beginners and those who want to enhance their cooking skills. [GE]

Barbeque Basics

CUIS 147 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Prerequisite: CUIS 110 and CUIS 111 (grades of "C" or higher)

A hands-on approach of learning basic barbecue and grilling techniques. Emphasizes kitchen safety, knife skills, basic rub, marinade and sauce preparation, sanitation, indirect cooking, basic meat/protein fabrication, cold smoking and preservation. This course is designed for both beginners and those who want to enhance their barbecue and grilling skills. [GE]

Advanced Garde Manger

CUIS 148 2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Prerequisite: CUIS 110 and CUIS 111 (grades of "C" or higher)

Hands-on practical application of Garde Manger applications including garnishes, carvings and classic chaud froid. [GE]

Flavors of the World

CUIS 150 4 Credits/Units

3.0 hours of lecture / 2.0 hours of lab

An interactive demonstration approach of identifying and cooking a variety of dishes from around the globe. Learn about different cultures through their food. Washington State Food Handler's Card is required. [GE]

The History and Evolution of Food Media in the 20th Century & Beyond

CUIS 151 4 Credits/Units

4.0 hours of lecture

Future Culinarrians, be empowered to explore career paths within the vast range of Food/Culinary Media, advocate for accurate representation in media, bridge the gap as it relates to creating a universal standard of expectation towards media, and the ways in which narratives are delivered & received. Explore current trends and standards and discuss how the culinary world has been affected by media and the ways in which we are informed. [GE][PNP]

Fermentation Basics

CUIS 152 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Gain a fundamental understanding of food fermentation science and technology. Washington State Food Handler's Card is required. [GE]

Pasta Making

CUIS 153 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Techniques and knowledge on how to make superior handmade pasta. Washington State Food Handler's Card is required. [GE]

Guest Service Operations

CUIS 154 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Covers all aspects of front office management, concentrating on an overview of the hotel industry, guest expectations, reservations, front office management, uniformed services, and guest accounting. Emphasizes the importance of effective communication and the key role the front office plays within the framework of the entire hotel. [GE]

Modern/Alternative Cooking Methods and Techniques

CUIS 155 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Challenge current understanding of the applications of science to cooking and how it changes the perception of cuisine, ingredients, and flavors. Washington State Food Handler's Card is required. [GE]

Healthy Cooking and Nutrition

CUIS 156 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Gain an understanding of nutrition foundation concepts and the health-promoting food that will help meet basic needs. [GE]

Food Science

CUIS 157 3 Credits/Units

3.0 hours of lecture

A broad foundation for understanding food and cooking through the lens of science. Focus topics: ingredients, heat, cooking methods, taste perceptions, nutrition, nutritional epidemiology, reactions in cooking and baking, colors in foods, acids and bases, colloids, gluten, protein and umami, fermentation, salts, and pathogens. In addition, recipe development, commercial food production, and food laws will be addressed. Washington State Food Handler's Card is required. [GE]

Career Explorations

CUIS 200 9 Credits/Units

1.0 hours of lecture / 16.0 hours of lab

Prerequisite: CUIS 130 and CUIS 131 (grades of "C" or higher).

Apply acquired knowledge providing food service to the campus community through Kiosk cookery and an industry internship. Rotate within various cooking stations to hone culinary skills preparation of second year curriculum. Take part in the first of two internships, supervised on-the-job work experience at an approved industry location, preferably a Career Launch partner, with specific learning objectives and employer evaluation. Apply and hone culinary skills, as well as, further develop employment skills within industry. [GE]

Advanced Culinary Fundamentals

CUIS 210 5 Credits/Units

2.0 hours of lecture / 6.0 hours of lab

Prerequisite: CUIS 130, CUIS 131 and CUIS 200 (grades of "C" or higher), and concurrent enrollment in CUIS 210 and CUIS 211.

Advanced theory with emphasis on international and regional cuisine including terminology, nutrition discussion, menu feasibility and ingredient identification, international cooking methods and adaptations. Advanced plate presentation, garnitures, menu writing and recipe study. Understanding of management skills focusing on team leadership. Introduction to banquet and buffet. [GE]

Advanced Culinary Practices

CUIS 211 8 Credits/Units

16.0 hours of lab

Prerequisite: CUIS 130, CUIS 131 and CUIS 200 (grades of "C" or higher), and concurrent enrollment in CUIS 210 and CUIS 211.

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. [GE]

Management and Banquet Theory

CUIS 220 5 Credits/Units

2.0 hours of lecture / 6.0 hours of lab

Prerequisite: CUIS 210 and CUIS 211 (grades of "C" or higher), and concurrent enrollment in CUIS 220 and CUIS 221

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. [GE]

Management Practices

CUIS 221 8 Credits/Units

16.0 hours of lab

Prerequisite: CUIS 210 and CUIS 211 (grades of "C" or higher), and concurrent enrollment in CUIS 220 and CUIS 221

Utilizing acquired skills, supervise workers in food service settings. Manage product ordering, inventory and control for selected menu. Display proper execution of the entire menu including preparation, personnel management, service, menu and sales analysis. [GE]

Cuisine Capstone

CUIS 230 6 Credits/Units

1.0 hours of lecture / 10.0 hours of lab

Prerequisite: CUIS 220 and CUIS 221 (grades of "C" or higher), and concurrent enrollment in CUIS 230 and CUIS 231

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. [GE]

Industry Internship

CUIS 231 4 Credits/Units

12.0 hours of clinical

Prerequisite: CUIS 220 and CUIS 221 (grades of "C" or higher), and concurrent enrollment in CUIS 230 and CUIS 231

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. [GE]

Selected Topics

CUIS 280 1-5 Credits/Units

5.0 hours of lecture

Selected topics in Cuisine. 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]

Selected Topics - Lab

CUIS 281 1-5 Credits/Units

10.0 hours of lab

Selected topics in Cuisine. 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

CUIS 290 1-6 Credits/Units

6.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

DENTAL HYGIENE (DH)

Selected Topics - Lab

DH 281 1-5 Credits/Units
10.0 hours of lab

Admission into the program required for enrollment. 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. Individual topics are listed in the term class schedules.

Pharmacology I

DH 282 1 Credit/Unit
1.0 hours of lecture

Admission into the program required for enrollment. 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
3.0 hours of lecture / 6.0 hours of lab

Admission into the program required for enrollment. 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
2.0 hours of lecture

Admission into the program required for enrollment. 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. [GE]

Periodontics I

DH 285 3 Credits/Units
2.0 hours of lecture / 2.0 hours of lab

Admission into the program required for enrollment. 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
3.0 hours of lecture

Admission into the program required for enrollment. 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 1-15 Credits/Units
15.0 hours of lecture

Admission into the program required for enrollment. Opportunity to plan, organize and complete special projects approved by the department. [GE] [PNP]

Introduction to Digital Management Systems

DH 292 1 Credit/Unit
2.0 hours of lab

Admission into the program required for enrollment. An introduction to the electronic health care 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
2.0 hours of lecture / 2.0 hours of lab

Admission into the program required for enrollment. 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
3.0 hours of lecture

Admission into the program required for enrollment. 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
2.0 hours of lecture

Admission into the program required for enrollment. 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 5.5 Credits/Units
1.5 hours of lecture / 8.0 hours of lab

Admission into the program required for enrollment. Emphasis on the principles of instrumentation and patient management. Clinical practice in oral prophylaxis, preventive procedures, and patient management at the introductory level. [GE]

Clinical Dental Hygiene Techniques III

DH 314 5.5 Credits/Units
1.5 hours of lecture / 8.0 hours of lab

Admission into the program required for enrollment. 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
8.0 hours of lab

Admission into the program required for enrollment. 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]

Oral Radiology I

DH 323 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Admission into the program required for enrollment. Radiographic theory, equipment, patient safety, and techniques for exposing, processing, and mounting dental radiographs. [GE]

Oral Radiology II

DH 324 1 Credit/Unit

2.0 hours of lab

Admission into the program required for enrollment. Second in a series on radiographic theory application and radiographic image interpretation. Continued experience in exposing, processing and mounting, and critiquing dental radiographs. [GE]

Oral Radiology III

DH 331 2 Credits/Units

2.0 hours of lecture

Admission into the program required for enrollment. 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]

General and Oral Pathology

DH 344 3 Credits/Units

3.0 hours of lecture

Admission into the program required for enrollment. Fundamentals of oral pathology including the inflammatory processes, tumor development, metabolic pathways and developmental disturbances. [GE]

Ethics and The Profession

DH 353 1 Credit/Unit

1.0 hours of lecture

Admission into the program required for enrollment. 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]

Local Anesthesia & Pain Control

DH 364 4 Credits/Units

2.0 hours of lecture / 3.0 hours of lab

Admission into the program required for enrollment. 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]

Cariology

DH 373 2 Credits/Units

2.0 hours of lecture

Admission into the program required for enrollment. Presentation of cause, progression, and prevention of dental caries with an emphasis on fluoride and other remineralization strategies. [GE]

Selected Topics

DH 380 1-9 Credits/Units

9.0 hours of lecture

Admission into the program required for enrollment. 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. Please refer to course syllabus for details. [GE]

Pharmacology II

DH 383 1 Credit/Unit

1.0 hours of lecture

Admission into the program required for enrollment. 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]

Pharmacology III

DH 384 1 Credit/Unit

1.0 hours of lecture

Admission into the program required for enrollment. 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, anti-neoplastic, immune function, anti-Parkinson, and Alzheimer's disease medications. [GE]

Special Projects

DH 390 1-9 Credits/Units

9.0 hours of lecture

Admission into the program required for enrollment. Opportunity to plan, organize and complete special projects approved by the department. [GE] [PNP]

Clinical Dental Hygiene Techniques II Lab

DH 393 0.5 Credits/Units

1.0 hours of lab

Admission into the program required for enrollment. Clinical practice at an introductory level, evaluating the potential treatment needs of a diverse community including reviewing medical histories, current medications, and general oral and systemic health assessments. [GE]

Clinical Dental Hygiene Techniques III Lab

DH 394 0.5 Credits/Units

1.0 hours of lab

Admission into the program required for enrollment. Clinical practice at a developmental level, evaluating the potential treatment needs of a diverse community including reviewing medical histories, current medications, and general oral and systemic health assessments. [GE]

Dental Public Health - Research Methods I

DH 402 2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Admission into the program required for enrollment. 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]

Dental Public Health - Research Methods II

DH 403 2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Admission into the program required for enrollment. 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]

Dental Public Health - Research Methods III

DH 404 1 Credit/Unit

2.0 hours of lab

Admission into the program required for enrollment. 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]

Behavior Modification

DH 410 1 Credit/Unit

2.0 hours of lab

Admission into the program required for enrollment. Fundamentals of behavior modification strategies to help patients progress toward healthier lifestyles. Develop a collaborative, patient-centered communication style and motivational skills to use while applying health behavior change theory. Communication skills involve using motivational interviewing, compassionate communication and goal setting to evoke change. [GE]

Clinical Dental Hygiene Techniques V

DH 412 8 Credits/Units

16.0 hours of lab

Admission into the program required for enrollment. Introduction to development level of advanced instrumentation and patient treatment techniques. [GE]

Clinical Dental Hygiene Techniques VI

DH 413 8 Credits/Units

16.0 hours of lab

Admission into the program required for enrollment. Developmental level of advanced instrumentation and patient treatment techniques. [GE]

Clinical Dental Hygiene Techniques VII

DH 414 8 Credits/Units

16.0 hours of lab

Admission into the program required for enrollment. Demonstration and integration of advanced skills and knowledge with an emphasis on preparation for the practice of dental hygiene. [GE]

Clinical Dental Hygiene Techniques V Lab

DH 422 1 Credit/Unit

2.0 hours of lab

Admission into the program required for enrollment. Clinical practice at a developmental level, evaluating the potential treatment needs of a diverse community including reviewing medical histories, current medications, and general oral and systemic health assessments. [GE]

Clinical Dental Hygiene Techniques VI Lab

DH 423 1 Credit/Unit

2.0 hours of lab

Admission into the program required for enrollment. Clinical practice at a developmental to DISK level, evaluating the potential treatment needs of a diverse community including reviewing medical histories, current medications, and general oral and systemic health assessments. [GE]

Clinical Dental Hygiene Techniques VII Lab

DH 424 1 Credit/Unit

2.0 hours of lab

Admission into the program required for enrollment. Clinical practice at a DISK level, evaluating the potential treatment needs of a diverse community including reviewing medical histories, current medications, and general oral and systemic health assessments. [GE]

Restorative Dentistry I

DH 431 2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Admission into the program required for enrollment. 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

2.0 hours of lecture / 6.0 hours of lab

Admission into the program required for enrollment. 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 2.5 Credits/Units

1.0 hours of lecture / 3.0 hours of lab

Admission into the program required for enrollment. 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 1.5 Credits/Units

1.0 hours of lecture / 1.0 hours of lab

Admission into the program required for enrollment. 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]

Restorative Dentistry III Lab

DH 443 1.5 Credits/Units

3.0 hours of lab

Admission into the program required for enrollment. Clinical practice at an introductory to developmental level, treating a diverse population of community members. Skills include placing and finishing restorations, practicing local anesthesia, and evaluating dental materials for use in the clinical setting. [GE]

Restorative Dentistry IV Lab

DH 444 1.5 Credits/Units

3.0 hours of lab

Admission into the program required for enrollment. Clinical practice at a developmental to Demonstration-and-Integration-of-Skills-and-Knowledge (DISK) level, treating a diverse population of community members. Skills include placing and finishing restorations, practicing local anesthesia, and evaluating dental materials for use in the clinical setting. [GE]

Patient Care for Diverse Populations

DH 451 1 Credit/Unit

1.0 hours of lecture

Admission into the program required for enrollment. This course addresses the provision of dental hygiene care for individuals whose medical, physical, psychological, developmental, intellectual, or social conditions may require modification of standard treatment procedures. Emphasis is placed on assessment, treatment planning, and the delivery of patient-centered care that promotes equitable access to oral health services. [GE]

Dental Hygiene Senior Clinic Seminar

DH 463 1 Credit/Unit

2.0 hours of lab

Admission into the program required for enrollment. Emphasis on the principles of instrumentation, patient management, ethical problem solving, and interprofessional collaboration to prepare senior dental hygiene students for the challenges they may encounter in their professional careers. Cannot receive credit for both DH 463 & DH 452.

Nitrous Oxide Sedation

DH 471 1 Credit/Unit

0.8 hours of lecture / 0.4 hours of lab

Admission into the program required for enrollment. 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

2.0 hours of lecture

Admission into the program required for enrollment. 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

2.0 hours of lecture

Admission into the program required for enrollment. Evidence-based periodontal disease treatment modalities including non-surgical procedures, modulation of the host response, antimicrobials, lasers, and reevaluation and maintenance procedures. [GE]

Selected Topics

DH 480 1-9 Credits/Units

9.0 hours of lecture

Admission into the program required for enrollment. 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. Please refer to course syllabus for details. [GE]

Capstone

DH 484 3 Credits/Units

3.0 hours of lecture

Admission into the program required for enrollment. 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]

Special Projects

DH 490 1-9 Credits/Units

9.0 hours of lecture

Admission into the program required for enrollment. Opportunity to plan, organize and complete special projects approved by the department. [GE] [PNP]

DIESEL TECHNOLOGY (DIES)

Diesel Fundamentals

DIES 111 5 Credits/Units

5.0 hours of lecture

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10, and eligibility for ENGL 99.

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 10 Credits/Units

5.0 hours of lecture / 10.0 hours of lab

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10, and eligibility for ENGL 99.

Disassembly, inspection, assembly, and adjustment of various diesel engines used in highway and off-highway vehicles. [GE][PNP]

Diesel Engines/Fuel Systems

DIES 113 5 Credits/Units

5.0 hours of lecture

Prerequisite: DIES 111 and DIES 112 (grades of "C" or higher)

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 10 Credits/Units

5.0 hours of lecture / 10.0 hours of lab

Prerequisite: DIES 111 and DIES 112 (grades of "C" or higher)

Test, adjust, and diagnostics of engines and maintenance practices. [GE][PNP]

Drive Trains

DIES 115 5 Credits/Units

5.0 hours of lecture

Prerequisite: DIES 113 and DIES 114 (grades of "C" or higher)

Principles of operation and basic construction of drive train components used in on- and off-highway equipment. [GE]

Diesel Procedures

DIES 116 10 Credits/Units

5.0 hours of lecture / 10.0 hours of lab

Prerequisite: DIES 113 and DIES 114 (grades of "C" or higher)

Disassembly, inspection, assembly, and adjustments of drive train components. [GE][PNP]

Basic Electrical

DIES 120 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10, eligibility for ENGL 99, and concurrent enrollment in DIES 112.

Introduction to basic electrical fundamentals needed by technicians to diagnose and repair vehicle electrical systems. [GE]

Electronic Engine Management Systems

DIES 121 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Prerequisite: DIES 120 (grade of "C" or higher), and concurrent enrollment in DIES 114

Introduction to electronic engine management systems and emission technology. [GE]

Electronic Vehicle Control Systems

DIES 122 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Prerequisite: DIES 121 (grade "C" or higher), and concurrent enrollment in DIES 116

Introduction to electronic controls used in diesel and heavy equipment. [GE]

Electrical/Electronic Systems

DIES 221 5 Credits/Units

5.0 hours of lecture

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10, and eligibility for ENGL 99.

Charging, starting, lighting, and control circuits and components used on heavy equipment and highway trucks. [GE]

Diesel Procedures

DIES 222 6 Credits/Units

3.0 hours of lecture / 6.0 hours of lab

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10, and eligibility for ENGL 99.

Repair and maintenance of diesel and heavy equipment. Students will participate in customer repair projects. [GE][PNP]

Hydraulic Systems

DIES 223 5 Credits/Units

5.0 hours of lecture

Prerequisite: DIES 221 and DIES 222 (grades of "C" or higher)

Theory and principles of operation of mobile hydraulic systems. [GE]

Diesel Procedures

DIES 224 10 Credits/Units

5.0 hours of lecture / 10.0 hours of lab

Prerequisite: DIES 221 and DIES 222 (grades of "C" or higher)

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

5.0 hours of lecture

Prerequisite: DIES 223 and DIES 224 (grades of "C" or higher)

Hydraulic and air brake systems, steering and suspension used on highway trucks, and heavy equipment. [GE]

Diesel Procedures

DIES 226 10 Credits/Units

5.0 hours of lecture / 10.0 hours of lab

Prerequisite: DIES 223 and DIES 224 (grades of "C" or higher)

Repair and maintenance of diesel and heavy equipment. Students will participate in customer repair projects. [GE][PNP]

Selected Topics

DIES 280 1-5 Credits/Units

5.0 hours of lecture

Selected topics in Diesel Technology. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE][PNP]

Special Projects

DIES 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

DIGITAL MEDIA ARTS (DMA)

Photoshop Raster Graphics

DMA 101 4 Credits/Units

2.0 hours of lecture / 4.0 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. [GE]

Illustrator Vector Graphics

DMA 102 4 Credits/Units

2.0 hours of lecture / 4.0 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. [GE]

Audio Storytelling & Podcasting

DMA 103 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Explores audio as a storytelling medium through hands-on practice with portable recorders, microphones, and Adobe Audition. Emphasizes podcast production while covering recording, editing, and narrative structure. Projects combine creative practice and technical skills, culminating in a polished 5-7 minute podcast. [GE]

Motion Graphics and Animation I

DMA 104 4 Credits/Units

2.0 hours of lecture / 4.0 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. [GE]

Professional Practices and Portfolio I

DMA 114 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Department consent required for enrollment. 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. [GE]

Cooperative Work Experience

DMA 199 1-4 Credits/Units

12.0 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. [GE]

AI for Creative Media

DMA 200 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Explores artificial intelligence as a tool in digital media production. Covers text, image, video, and sound generation along with ethical and professional considerations. Emphasizes prompt design, critical evaluation of outputs, and creative integration of AI into media projects. Work culminates in an original project demonstrating both technical skill and reflective practice. [GE]

Video and Sound Production I

DMA 201 4 Credits/Units

2.0 hours of lecture / 4.0 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). [GE]

Video and Sound Production II

DMA 202 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Prerequisite: DMA 201 or CGT 201 (grade of "C" or higher)

Further study in digital video and sound production. Develop advanced proficiency to plan, produce and publish videos that tell a compelling story, provide informative or educational value and/or encourage a call to action. Focus on conceptual thinking, video composition, lighting design, audio editing, professional practices and promotional strategies. May include client projects or team-based experience. [GE]

Video and Sound Production III

DMA 203 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Prerequisite: DMA 202 (grade of "C" or higher)

Explores color as a storytelling tool through hands-on practice with industry-standard editing and grading software. Emphasizes correction and grading workflows while covering color theory, scopes, shot matching, LUTs, and delivery standards. Students examine how color influences mood, clarity, and audience engagement across digital media projects, then apply these principles through practical labs and creative assignments. Work culminates in a fully graded 3-5 minute sequence that demonstrates both technical accuracy and artistic intention, ready for inclusion in a professional portfolio. [GE]

Motion Graphics and Animation II

DMA 204 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Prerequisite: DMA 104 or CGT 104 (grade of "C" or higher)

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. [GE]

Motion Graphics and Animation III

DMA 205 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Prerequisite: DMA 204 and CTEC 117 (grade of "C" or higher)

Builds on earlier motion graphics and animation courses with a focus on creating more advanced and interactive designs. Students extend creative and technical range through rigging, procedural techniques, and state-based motion to simulate real-world applications in UI/UX, branding, games, and data visualization. Projects integrate conceptual depth with professional execution, culminating in a portfolio-ready piece that demonstrates both motion design principles and interactive thinking. [GE]

Professional Practices and Portfolio II

DMA 214 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: DMA 114 or CGT 214 (grade of "C" or higher) and Consent of Instructional Unit

Department consent required for enrollment. 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. [GE]

Professional Studio Experience

DMA 215 5 Credits/Units

2.0 hours of lecture / 6.0 hours of lab

Department consent required for enrollment. 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. [GE]

Special Projects

DMA 290 1-4 Credits/Units

4.0 hours of lecture

Opportunity to plan, organize, and complete special projects approved by the department. [GE]

Special Projects - Lab

DMA 291 1-4 Credits/Units

8.0 hours of lab

Opportunity to plan, organize, and complete special projects approved by the department. [GE]

DRAMA (DRMA/DRMA&)

Acting I - Drama

DRMA 140 4 Credits/Units

3.0 hours of lecture / 2.0 hours of lab

Techniques and principles of acting. [GE, HB, SE]

Acting II - Theatre

DRMA 141 4 Credits/Units

3.0 hours of lecture / 2.0 hours of lab

Prerequisite: DRMA 140 (grade of "C" or higher)

Continuation of DRMA 140. Emphasis on scene study, characterization, and period styles of acting. [GE, HB, SE]

Basic Stagecraft

DRMA 150 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Principles and techniques of scenery construction and painting. Students will also learn the use of shop tools. [GE, HB, SE]

Stage Make-Up

DRMA 152 3 Credits/Units

3.0 hours of lecture

Design and application of stage make-up. Formerly THEA 152. [GE, HB, SE]

Introduction to Cinema

DRMA 154 5 Credits/Units

5.0 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. [GE, HA, SE]

Cooperative Work Experience

DRMA 199 1-5 Credits/Units

15.0 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

Stage Lighting Design

DRMA 250 3 Credits/Units

3.0 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. [GE, HB, SE]

Introduction to Script Analysis

DRMA 254 5 Credits/Units

5.0 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, HA, SE][PNP]

Selected Topics

DRMA 280 1-3 Credits/Units

3.0 hours of lecture

Selected topics in Drama. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE, SE]

Special Projects

DRMA 290 1-5 Credits/Units

5.0 hours of lecture

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]

Introduction to Theatre: Theatre Appreciation

DRMA& 101 5 Credits/Units

5.0 hours of lecture

Survey key theories, movements, and figures in theatre history with an emphasis on Western Theatre. Focuses on plays representative of systemically nondominant populations. Emphasizes the roles of director, actor, designer, and playwright in production. [GE, HA, SE]

EARLY CHILDHOOD EDUCATION (ECE)

Child Development: Birth to Six

ECE 100 3 Credits/Units

3.0 hours of lecture

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

ECE 102 3 Credits/Units

3.0 hours of lecture

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]

Early Childhood Education Workshops

ECE 111 1-3 Credits/Units

3.0 hours of lecture

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

ECE 116 2 Credits/Units

2.0 hours of lecture

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]

Partnerships With Families In Early Care & Educ

ECE 135 3 Credits/Units

3.0 hours of lecture

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

ECE 199 1-3 Credits/Units

9.0 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

Learning Experiences for Young Children II

ECE 211 3 Credits/Units

3.0 hours of lecture

Prerequisite: ECED& 160 (grade of "C" or higher), and concurrent enrollment in ECE 212 and ECE 222

Develop teaching practices and curriculum approaches that are implemented with children, through the lens of cultural responsiveness in our practices in early learning environments recognizing issues of diversity, power, privilege, inequity and our own personal biases. [GE]

Learning Experiences for Young Children II Lab

ECE 212 2 Credits/Units

4.0 hours of lab

Prerequisite: ECED& 160 (grade of "C" or higher), and concurrent enrollment in ECE 211

Lab experience in Early Childhood Education Laboratory School. Plan, implement and analyze plans in relation to relevant topics in ECE 211. [GE]

Learning Experiences for Young Children III

ECE 213 3 Credits/Units

3.0 hours of lecture

Prerequisite: ECE 211 (grade of "C" or higher), and concurrent enrollment in ECE 214

Further develop curriculum planning processes with 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]

Learning Experiences for Young Children III Lab

ECE 214 2 Credits/Units

4.0 hours of lab

Prerequisite: ECE 212 (grade of "C" or higher), and concurrent enrollment in ECE 213

Lab experiences in Early Childhood Education Laboratory School. Plan, implement and analyze plans in relation to relevant topics in ECE 213. [GE]

Early Childhood Seminar

ECE 215 2 Credits/Units

2.0 hours of lecture

Prerequisite: ECE 214 (grade of "C" or higher), and concurrent enrollment in ECE 199

Seminar on professionalism, ethics and issues in teaching and administration. 15 hours per week required as field placement for students in teaching degree program. [GE]

Learning Experiences Lab Section II

ECE 222 1 Credit/Unit

2.0 hours of lab

Prerequisite: Concurrent enrollment in, or completion of ECE 211 and ECE 212 (grade of "C" or higher)

Department consent required for enrollment. Lab experience in Early Childhood Education Laboratory School. Plan, implement and analyze plans in relation to relevant topics in ECE 211 and ECE 212. [GE]

Learning Experience Lab Section III

ECE 224 1 Credit/Unit

2.0 hours of lab

Prerequisite: Concurrent enrollment in, or completion of ECE 213 and ECE 214 (grade of "C" or higher)

Department consent required for enrollment. Lab experience in Early Childhood Education Laboratory School. Plan, implement and analyze plans in relation to relevant topics in ECE 213 and ECE 214. [GE]

Selected Topics

ECE 280 1-3 Credits/Units

3.0 hours of lecture

Selected topics in Early Childhood Education. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE]

Special Projects

ECE 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

EARLY CHILDHOOD EDUCATION (ECED/ECED&)

Introduction to Early Childhood Education

ECED& 105 5 Credits/Units

5.0 hours of lecture

Prerequisite: Concurrent enrollment in ECED& 105 and ECED& 120
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. [GE, SE]

Health/Safety/Nutrition

ECED& 107 5 Credits/Units

5.0 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 Rel

ECED& 120 2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Prerequisite: Concurrent enrollment in ECED& 105 and ECED& 120
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. [GE, SE]

Infants/Toddler Care

ECED& 132 3 Credits/Units

3.0 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 Child Care: Management

ECED& 134 3 Credits/Units

3.0 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]

Admin Early Learning Program: Administration of ECE

ECED& 139 3 Credits/Units

3.0 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 Credits/Units

5.0 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]

Environments - Young Child: Learning Environments

ECED& 170 3 Credits/Units

3.0 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 Development

ECED& 180 3 Credits/Units

3.0 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 Credits/Units

3.0 hours of lecture

Practice collecting and presenting observation data of children, teaching practices and learning centers in an early childhood setting. [GE]

ECONOMICS (ECON/ECON&)

Introduction to Economics

ECON 101 3 Credits/Units

3.0 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. [GE, SE, SS][PNP]

Introduction to The Global Economy

ECON 110 5 Credits/Units

5.0 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. [GE, SE, SS]

International Economics

ECON 120 3 Credits/Units

3.0 hours of lecture

Prerequisite: ECON 101 (grade of "C" or higher)

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. [GE, SE, SS]

Selected Topics

ECON 280 1-5 Credits/Units

5.0 hours of lecture

Selected topics Economics. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE, SE]

Special Projects

ECON 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

Managerial and Global Economics

ECON 405 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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. [GE, SE, SS]

Micro Economics

ECON& 201 5 Credits/Units

5.0 hours of lecture

Prerequisite: ECON 101, ECON 110, ECON 120, or MATH 96 (grade of "C" or higher) or placement into Math level 45.

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. [GE, SE, SS]

Macro Economics

ECON& 202 5 Credits/Units

5.0 hours of lecture

Prerequisite: ECON 101, ECON 110, ECON 120, or MATH 96 (grade of "C" or higher) or placement into Math level 45.

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. [GE, SE, SS]

EDUCATION (EDUC/EDUC&)

Child Development

EDUC& 115 5 Credits/Units

5.0 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. [SE]

Guiding Behavior

EDUC& 130 3 Credits/Units

3.0 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

3.0 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

3.0 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, SE]

Inclusive Education

EDUC& 204 5 Credits/Units

5.0 hours of lecture

Introductory course in recognition and identification of exceptionality in children from birth through high school. Includes policies and regulations concerning state and federal provisions of special education and related services, as well as adaptations for serving students with special needs in general education classrooms. [GE]

Diversity in Education

EDUC& 240 5 Credits/Units

5.0 hours of lecture

Students will explore diversity and social justice issues influencing educational settings. Students will examine in depth the historical and current impact of children's, teachers', and families' cultural, social and political context in schools. [GE, PPI, SE]

EMERGENCY MEDICAL TECHNICIAN (EMT)

Emergency Medical Technician (Accelerated)

EMT 103 12 Credits/Units

7.0 hours of lecture / 10.0 hours of lab

Training in pre-hospital emergency care with clinical education experience. An accelerated EMT program that provides for supervised practice of skills taught in each lesson. As required by Washington State Department of Health, this course is under the supervision of a Medical Program Director and Senior EMS Instructor. Meets the requirements of NREMT certification. [GE]

Selected Topics

EMT 280 1-12 Credits/Units

24.0 hours of lecture

Prerequisite: Intended for students who have declared Emergency Medical Technician as their program.

Admission into the program required for enrollment. Selected topics in Emergency Medical Technician. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules.

Selected Topics - Lab

EMT 281 1-12 Credits/Units

24.0 hours of lab

Prerequisite: Intended for students who have declared Emergency Medical Technician as their program.

Admission into the program required for enrollment. Selected topics lab in Emergency Medical Technician. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules.

Selected Topics - Clinical

EMT 282 1-12 Credits/Units

36.0 hours of clinical

Prerequisite: Intended for students who have declared Emergency Medical Technician as their program.

Admission into the program required for enrollment. Selected topics clinical in Emergency Medical Technician. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules.

Special Projects

EMT 290 1-4 Credits/Units

4.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

ENGINEERING (ENGR/ENGR&)

Engineering and Computer Science Orientation

ENGR 101 1 Credit/Unit

2.0 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. [GE, SE][PNP]

Wheeler Innovation Lab Qualifications

ENGR 105 2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

A series of online training and hands on learning activities to learn how to use equipment in the Wheeler Innovation Lab. You will earn proficiency qualifications for at least two pieces of equipment and complete a project of your own design. [GE, SE][PNP]

Intro to Aerospace Engineering

ENGR 107 2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Prerequisite: College Trigonometry (MATH 102 or MATH 103) grade of "C" or higher and concurrent enrollment in, or completion of College Algebra (MATH 110 or MATH 111) grade of "C" or higher

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. [GE, SE]

Introduction to Engineering

ENGR 109 5 Credits/Units

5.0 hours of lecture

Prerequisite: College Trigonometry (MATH 102 or MATH 103) grade of "C" or higher and concurrent enrollment in, or completion of College Algebra (MATH 110 or MATH 111) grade of "C" or higher

Introduction to the engineering profession: its branches, principles, and practices. Engineering problem-solving, methods of analysis and design, and an introduction to engineering fundamentals. [GE, SE]

Engineering Sketching and Visualization

ENGR 113 2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Prerequisite: MATH 96 (grade of "C" or higher) or placement into Math level 50.

Engineering communication and graphics through freehand sketching. Visualization and development of orthographic theory, scales, and lettering. [GE, SE]

Geometric Dimensioning and Tolerancing

ENGR 115 2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Prerequisite: ENGR 113 and (CADD 150 or ENGR 150) (grades of "C" or higher)

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. [GE, SE]

Intro to Electrical/Computer Sci & Engineering

ENGR 120 5 Credits/Units

3.5 hours of lecture / 3.0 hours of lab

Prerequisite: College Trigonometry (MATH 102 or MATH 103) grade of "C" or higher and concurrent enrollment in, or completion of College Algebra (MATH 110 or MATH 111) grade of "C" or higher

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. [GE, SE]

Field Survey I

ENGR 121 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: MATH& 151 (grade of "C" or higher) or placement into Math Level 90

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. [GE, SE]

Basic Autocad

ENGR 140 4 Credits/Units

1.5 hours of lecture / 5.0 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. [GE]

Civil 3D

ENGR 143 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: (CADD 140 or ENGR 140) and ENGR 113 (grades of "C" or higher).

Foundations of civil drafting concepts and practices. 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 and basic construction. [GE, SE]

Basic Solidworks

ENGR 150 4 Credits/Units

1.5 hours of lecture / 5.0 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. [GE, SE]

Cooperative Work Experience

ENGR 199 1-5 Credits/Units

15.0 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

Fundamentals of Flight

ENGR 208 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Prerequisite: ENGR 107 and MATH& 151 and (CADD 150 or ENGR 150) (grades of "C" or higher)

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. [GE, SE]

Introduction to Gas Dynamics

ENGR 209 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Prerequisite: Concurrent enrollment in, or completion of ENGR 208 and MATH& 152 (grades of "C" or higher).

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 Reyleigh flow. The course includes a team design project. [GE, SE]

Integrated Computational Design

ENGR 216 3 Credits/Units

1.0 hours of lecture / 4.0 hours of lab

Prerequisite: Concurrent enrollment in, or completion of, ENGR 150 and ENGR& 214 (grades of "C" or higher)

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. [GE]

Materials Science

ENGR 221 5 Credits/Units

5.0 hours of lecture

Prerequisite: CHEM& 142 (grade of "C" or higher)

Basic structure and properties of materials. Phase equilibrium and transformations. Mechanical properties, electronic structure, thermal, electrical, and magnetic properties. [GE, SE]

Civil/Construction Materials

ENGR 226 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: ENGR 109 (grade of "C" or higher).

Introduction to materials used in Civil Engineering and Construction. Theory to construction materials such as concrete, steel, wood, masonry, and composites. Properties of materials with fundamental principles governing the use of construction materials and their behavior. Understanding of how materials contribute to the structural integrity of buildings and infrastructure. Construction methods, techniques, and applications. [GE]

Manufacturing Processes

ENGR 239 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Introduction to manufacturing processes, emphasizing methods and practices used when machining, welding, and fabricating metals and related materials. [GE, SE]

Digital Logic Design

ENGR 250 5 Credits/Units

3.5 hours of lecture / 3.0 hours of lab

Prerequisite: ENGR 120 or CSE 120 (grade of "C" or higher)

Digital logic design, testing and implementation, including Boolean Algebra, Karnaugh map and design of logic circuits to solve practical problems using sequential/combinational/synchronous/asynchronous circuits, application of standard SSI/MSI/LSI logic systems, design/test/implement development cycle and Hardware Description Language (HDL). [GE]

Electrical Circuits and Signals

ENGR 252 5 Credits/Units

3.5 hours of lecture / 3.0 hours of lab

Prerequisite: ENGR& 204 (grade of "C" or higher)

Continuation of Electrical Circuits. Analysis and design of RLC circuits in sinusoidal steady state, complex-frequency domain of linear and lumped parameter circuits, active/passive filter circuits, poly phase and two-port circuits. Application of Fourier series, Fourier transforms and computer tools in circuit analysis. [GE, SE]

Signals and Systems

ENGR 253 5 Credits/Units

3.5 hours of lecture / 3.0 hours of lab

Prerequisite: ENGR 252 (grade of "C" or higher)

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. [GE, SE]

Digital Systems and Microprocessors

ENGR 270 5 Credits/Units

3.5 hours of lecture / 3.0 hours of lab

Prerequisite: ENGR 250 and CSE 121 (grades of "C" or higher)

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. [GE, SE]

Selected Topics

ENGR 280 1-5 Credits/Units

5.0 hours of lecture

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. Individual topics are listed in the term class schedules. [GE, SE]

Special Projects

ENGR 290 1-6 Credits/Units

6.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

Introduction to Design

ENGR& 104 5 Credits/Units

3.0 hours of lecture / 4.0 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. [GE, NS, NS-LAB, SE]

Electrical Circuits

ENGR& 204 5 Credits/Units

3.5 hours of lecture / 3.0 hours of lab

Prerequisite: MATH& 152 (grade of "C" or higher) or placement into Math Level 100

Basic concepts of AC and DC electrical circuits. Analyze and design voltage and current relationships for series and parallel RLC circuit. Use of Kirchhoff's laws, Thevenin/Norton theorems, Operational Amplifier circuits, and Step/Natural/Steady-State circuit response. Use of test and measurement equipment in a laboratory setting. [GE, SE]

Statics

ENGR& 214 5 Credits/Units

5.0 hours of lecture

Prerequisite: MATH& 152 (grade of "C" or higher) or placement into Math Level 100

Solution of two and three dimensional vector systems using vector algebra notation and free-body diagrams. Friction, centroids, moment of inertia, radius of gyration, and loads involved in structures, machines, and trusses. [GE, SE]

Dynamics

ENGR& 215 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGR& 214 and MATH& 152 (grades of "C" or higher)

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. [GE, SE]

Thermodynamics

ENGR& 224 5 Credits/Units

5.0 hours of lecture

Prerequisite: MATH& 152 and PHYS& 241 (grades of "C" or higher)

Explores the fundamentals of thermodynamics. Investigates the thermodynamic properties of matter with emphasis on ideal and real gases and introduces the concepts of heat and work. Defines the first and second laws of thermodynamics and explores their impact with examples. Uses thermodynamic cycles to apply the concepts of learned and relates the principles to applications. [GE, SE]

Mechanics of Materials

ENGR& 225 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGR& 214 and MATH& 152 (grades of "C" or higher)

Concepts of stress and strain for deformable objects. Axial, torsional and bending loading, combined loadings. Column loading and stability with other applied topics. [GE, SE]

Engineering Computations

ENGR& 240 5 Credits/Units

4.0 hours of lecture / 2.0 hours of lab

Prerequisite: MATH& 153 and (ENGR 109 or ENGR 120) (grades of "C" or higher) and completion of or concurrent enrollment in MATH 215.

Introduction to the use of computers to solve engineering and other applied mathematics problems. After an introduction to the target programming language, the course will focus on computational approaches to solving systems of linear equations, curve fitting problems, ordinary differential equations, sequential decision making, and other topics specified in the schedule. Limitations of various computational algorithms will also be discussed. Cannot receive credit for both ENGR& 240 and ENGR 240. [GE]

ENGLISH (ENGL/ENGL&)

Intro to College Writing and Critical Reading

ENGL 90 6 Credits/Units

5.0 hours of lecture

Prerequisite: Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

Integrated approach to reading, critical thinking, and writing in academic settings. Topics include reading and writing as processes; thinking critically; summarizing, analyzing, and responding to texts; editing for clarity and coherence; and practicing metacognition and Productive Persistence

College Writing and Critical Reading Seminar

ENGL 99 1 Credit/Unit

Prerequisite: Eligible for ENGL& 101 Plus 99

Corequisite instruction in college-level writing, critical thinking, and critical reading to support achievement of ENGL& 101 student learning outcomes as well as support success in other 100-level courses, using Productive Persistence and collaborative learning strategies. Course emphasis will be targeted to the requirements of each group of students. [CA]

Ethics and Policy In Healthcare I

ENGL 112 2 Credits/Units

2.0 hours of lecture

Prerequisite: Acceptance into the clinical portion of the program, and concurrent enrollment in NURS 110, NURS 111, ENGL 112, NURS 113, NURS 114 and NURS 115. These classes are linked: failure in one requires repeat of all concurrent classes.

Admission into the program required for enrollment. 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. [GE, HA, SE]

Introduction to Creative Writing

ENGL 121 5 Credits/Units

5.0 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. [GE, HB, SE]

Fiction Writing

ENGL 125 5 Credits/Units

5.0 hours of lecture

Exploration of fiction writing, with an emphasis on literary short fiction. Development of polished pieces of short fiction, 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. [GE, HB, SE]

Poetry Writing

ENGL 126 5 Credits/Units

5.0 hours of lecture

Exploration of poetry writing, 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 writing. [GE, HB, SE]

Creative Nonfiction Writing

ENGL 127 5 Credits/Units

5.0 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. [GE, HB, SE][PNP]

Introduction to Writing Comics

ENGL 128 5 Credits/Units

5.0 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. [GE, HB, SE][PNP]

Introduction to Short Fiction

ENGL 133 5 Credits/Units

5.0 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. [GE, HA, SE][PNP]

Introduction to Comics as Literature

ENGL 142 5 Credits/Units

5.0 hours of lecture

Surveys graphic literary genres such as comic books, graphic novels, graphic memoir, and manga. Using the tools of literary analysis, examines visual texts within aesthetic, historical, and socio-cultural contexts and considers their unique impact on the study of literature. [GE, HA, SE][PNP]

Science Fiction and Fantasy

ENGL 143 5 Credits/Units

5.0 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 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. [GE, HA, SE][PNP]

Detective Fiction

ENGL 145 5 Credits/Units

5.0 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. [GE, HA, SE][PNP]

Introduction to Mythology

ENGL 150 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

Study of significant world myths, including their sources and literary expressions. Introduces methods and vocabulary of mythological analysis to build close reading skills. [GE, HA, SE][PNP]

Introduction to the Novel

ENGL 156 5 Credits/Units

5.0 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. [GE, HA, SE][PNP]

Introduction to LGBTQ Studies

ENGL 175 5 Credits/Units

5.0 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. [GE, HA, PPI, SE, SS]

Nature and the Humanities

ENGL 176 5 Credits/Units

5.0 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. [GE, HA, PPI, SE]

Cooperative Work Experience

ENGL 199 1-5 Credits/Units

15.0 hours of clinical

For students interested in careers that emphasize writing, co-op work experience offers credit for supervised work in writing-related jobs. [GE]

Literature By Women

ENGL 240 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

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. [GE, HA, PPI, SE][PNP]

Native American Literature

ENGL 242 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

Study of Native American literature as a lens for the experience, culture, and history of Native people within 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. [GE, HA, SE][PNP]

Queer Literature

ENGL 243 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

An introductory survey of literature relevant to the gay, lesbian, bisexual, and trans communities and their historical predecessors from 1800 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. [GE, HA, PPI, SE][PNP]

Latiné Literature in Context

ENGL 247 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

Explores evolving Latino/a, Chicano/a, Hispanic, and/or indigenous voices and representation through a range of cultural, historical, and socio-economic experiences. Using tools of literary analysis, contextualizes the American Latiné experience against a shifting continental backdrop. Possible topics include language, acculturation, hybridization, immigration, magical realism, futurism, and celebration. [GE, HA, SE, PPI][PNP]

Asian American & Native Hawaiian/Pacific Islander Literature

ENGL 248 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

Explores Asian American, Native Hawaiian, and/or Pacific Islander literature through a range of cultural, historical, and socio-economic experiences. Using tools of literary analysis, contextualizes AA&NH/PI literary traditions within North American historical events, imperialism, and systemic racism. Possible topics include language and storytelling traditions; ethnic diversity and diaspora; and national belonging and evolving representation. [GE, HA, PPI, SE][PNP]

Black/African American Literature

ENGL 267 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

Explores Black American literature through a range of cultural, historical, and socio-economic experiences. Using tools of literary analysis, contextualizes the Black/African American experience within American historical events, civil rights movements, systemic racism, and the evolving representation of Black American culture. Possible topics include The Harlem Renaissance, Black Arts Movement, Afro-Futurism, identity and autonomy, language and storytelling, national belonging, and joy. [GE, HA, PPI, SE][PNP]

Pacific Northwest Literature

ENGL 271 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL& 101 (grade of "C" or higher) 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. [GE, HA, SE][PNP]

Shakespeare

ENGL 272 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL& 101 (grade of "C" or higher) 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. [GE, HA, SE]

Ethics and Policy In Healthcare II

ENGL 273 3 Credits/Units

3.0 hours of lecture

Prerequisite: Concurrent enrollment in ENGL 273, NURS 261, NURS 262, and NURS 264. Classes are linked: failure in one class requires repeat of all concurrent enrollment classes.

Admission into the program required for enrollment. 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. 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. [GE, HA, SE]

Advanced Fiction Writing

ENGL 275 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL 121, ENGL 125, or ENGL 127 (grade of "C" or higher) 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. [GE, HB, SE]**Advanced Poetry Writing**

ENGL 276 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL 121 or ENGL 126 (grade of "C" or higher) 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. [GE, HB, SE]**Literary Publication**

ENGL 277 1-5 Credits/Units

5.0 hours of lecture

Prerequisite: Eligibility for ENGL& 101 (CAP 90, ENGL 90, or IELP 90 (grade of "B" or higher) or eligibility through multiple measures placement.)

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. 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 Clark's literary journal staff, creative writing students, and others interested in literary publication and editing. [GE, HB, SE][PNP]

Selected Topics

ENGL 280 1-5 Credits/Units

5.0 hours of lecture

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. Individual topics are listed in the term class schedules. [GE, SE]

Special Projects

ENGL 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize, and complete special projects approved by the department. [GE]

English Composition I

ENGL& 101 5 Credits/Units

5.0 hours of lecture

Prerequisite: Eligibility for ENGL& 101 (CAP 90, ENGL 90, or IELP 90 (grade of "B" or higher) or eligibility through multiple measures placement.)

Integrated college reading and writing, emphasizing deep comprehension, critical thinking in response to texts from various genres, and writing for a variety of purposes and audiences in a range of modalities. Strengthens skills through rhetorical awareness, application of genre knowledge, and reflection on past and future writing tasks to enable skill transfer to new situations in college, workplaces, and communities. Reading and writing processes emphasized. [CA, CT, GE, SE, WC]

English Composition II

ENGL& 102 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

Studies in exposition and argumentation emphasizing the research paper and its conventions. Focus on developing genre awareness with respect to discipline-specific research, reading, composition, and documentation. Analysis and synthesis of discipline-appropriate texts in the context of supporting a focused position or recommendation on an issue in an area of study. [CA, CT, GE, SE, WC]

Intro to Poetry

ENGL& 113 5 Credits/Units

5.0 hours of lecture

Study of poetry and poetic forms, including classic and contemporary examples, with an emphasis on developing critical reading skills as well how poetry represents diverse cultural perspectives. Introduction to the language and principles of literary analysis. [GE, HA, SE][PNP]

Intro to Drama

ENGL& 114 5 Credits/Units

5.0 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. [GE, HA, SE][PNP]

British Literature III: The Empire Writes Back-Literature of the Former British Empire

ENGL& 228 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

Maps the landscape of English language literatures shaped by British imperialism. Integrates reading and analysis to explore themes such as shifting identities and boundaries, colonialism, postcolonialism, and globalization. Coursework delves into the dynamic relationship between literary history and contemporary reimaginings. [GE, HA, SE][PNP]

Technical Writing

ENGL& 235 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL& 101, ENGL 135 or PTWR 135 (grade of "C" or higher)

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, GE, SE, WC][PNP]

American Literature I: Haunted America

ENGL& 244 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

Explores origins, themes, and contemporary expressions of horror and Gothic aesthetics in American culture. Coursework analyzes how these genres reflect and critique social anxieties and shape cultural identities. Possible topics include the monstrous, supernatural, uncanny, and sublime within their historical and socio-political contexts. [GE, HA, PPI, SE][PNP]

American Literature II: Landscapes, Migration, and Imaginary Homelands

ENGL& 245 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

Explores the sense of place within American literature with an emphasis on the physical, spiritual, and natural forces that have altered the American landscape. Coursework integrates reading and analysis through historical and socio-political contexts. Possible topics include nature writing, historical migration, asylum narratives, indigenous spaces, and explorations of home. [GE, HA, PPI, SE][PNP]

American Literature III: Liberation Stories

ENGL& 246 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

Explores the American story of resistance, the rhetoric of liberty, and stories of oppressed peoples past and present. Coursework integrates reading and analysis within historical and socio-cultural contexts to examine the shifting definition of freedom in America. Provides insight into the experiences of people attempting to understand, navigate, and dismantle inequity. [GE, HA, PPI, SE][PNP]

World Literature I: Origin Stories Across Cultures

ENGL& 254 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

Considers stories of where we come from and what our origin stories reveal about identities, beliefs, and sense of place. Uses tools of literary analysis to read texts that dramatize individual and cultural formation from antiquity through the present. Approaches cultural diversity through historical, social, political, and philosophical frameworks. [GE, HA, SE][PNP]

World Literature II: Voices of Resistance

ENGL& 255 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

Examines how literature champions individual freedom and challenges authority and oppressive systems. Focuses on works that address social justice, equality, and human rights in global contexts. Coursework integrates reading and analysis to encourage a deeper appreciation for the power of storytelling in asserting personal agency and advocating for social change. [GE, HA, SE][PNP]

World Literature III: The Magical and the Fantastic

ENGL& 256 5 Credits/Units

5.0 hours of lecture

Prerequisite: ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

Explores fantastical literary works from around the globe that inspire awe and challenge conventional ideas of reality, identity, and power. Coursework integrates reading and textual analysis from wonder tales to magical realism. Provides insight into how language shapes perceptions, defies expectations, and redefines hierarchies across continents and time. [GE, HA, SE][PNP]

ENGLISH AS A SECOND LANGUAGE (ESL)

ESL Educational Interviewing Levels 4-6

ESL 3 1-2 Credits/Units

2.0 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.

Levels 2-4 Integrated English & Technology

ESL 10 1-18 Credits/Units

18.0 hours of lecture

Develop high beginning to low-intermediate skills in listening, speaking, reading and writing. Learn grammar concepts such as past, present and future tenses, vocabulary, basic math, and technology skills to help you at work, in the community, and at school. Current CASAS scores required for enrollment.

Beginning Oral Communication Level 1

ESL 11 1-6 Credits/Units

6.0 hours of lecture

Develop low-beginning English skills in listening and speaking. Learn basic English vocabulary and grammar to help you at work, in the community and with your family. Current CASAS scores required for enrollment.

Beginning Written Communication Level 1

ESL 12 1-6 Credits/Units

6.0 hours of lecture

Develop low-beginning English skills in reading and writing. Learn basic English vocabulary and grammar to help you at work, in the community and with your family. Current CASAS scores required for enrollment.

Foundations Written Communication Levels 2-3

ESL 13 1-6 Credits/Units

6.0 hours of lecture

Develop high-beginning English skills in reading and writing. Learn English vocabulary and grammar to help you at work, in the community and with your family. Current CASAS scores required for enrollment.

Foundations Oral Communication Levels 2-3

ESL 15 1-6 Credits/Units

6.0 hours of lecture

Develop high-beginning English skills in listening and speaking. Learn English vocabulary and grammar to help you at work, in the community and with your family. Current CASAS scores required for enrollment.

Pronunciation Essentials

ESL 18 2 Credits/Units

2.0 hours of lecture

Introduction of key features of English pronunciation in the context of structured situations in school and work. Learn to recognize, understand and pronounce consonant sounds, vowel sounds, stress, intonation, and reduced speech.

Pronunciation for College & Career

ESL 19 2 Credits/Units

2.0 hours of lecture

Introduction and development of key features of English pronunciation, focusing on common problems non-native speakers of English experience in understanding and producing consonant sounds, vowel sounds, stress, intonation, rhythm, and reduced speech in the context of college and career.

Intensive Level 4 Study Skills

ESL 45 2 Credits/Units

2.0 hours of lecture

Prerequisite: Concurrent enrollment in ESL 45, ESL 47, and ESL 49 is required

Introduction and development of study skills plus reflection on various strategies of successful college students. Current CASAS scores required for enrollment.

Level 4 Oral Communication

ESL 46 1-6 Credits/Units

6.0 hours of lecture

Develop intermediate skills in listening and speaking. Learn grammar concepts such as simple past tense, technology skills, and vocabulary to help you at work, in the community, and at school. Current CASAS scores required for enrollment.

Intensive Level 4 Oral Communication

ESL 47 7 Credits/Units

7.0 hours of lecture

Prerequisite: Concurrent enrollment in ESL 45, ESL 47, and ESL 49 is required

Development and practice of speaking and listening communication skills appropriate to Intermediate ESL. Grammar concepts such as simple past tense, technology skills, and vocabulary to help you at work, in the community, and at school. Current CASAS scores required for enrollment.

Level 4 Written Communication

ESL 48 1-6 Credits/Units

6.0 hours of lecture

Develop intermediate skills in reading and writing. Learn grammar concepts such as simple past tense, technology skills, and vocabulary to help you at work, in the community, and at school. Current CASAS scores required for enrollment.

Intensive Level 4 Written Communication

ESL 49 7 Credits/Units

7.0 hours of lecture

Prerequisite: Concurrent enrollment in ESL 45, ESL 47, and ESL 49 is required

Development and practice of reading and written communication skills appropriate to Intermediate ESL. Grammar concepts such as simple past tense, technology skills, and vocabulary to help you at work, in the community, and at school. Current CASAS scores required for enrollment.

Level 5 Oral Communication

ESL 51 1-6 Credits/Units

6.0 hours of lecture

Develop low-advanced skills in listening and speaking. Learn grammar concepts such as present perfect tense, pronunciation and communication strategies. Practice technology skills and vocabulary for a future college program or career path, or to help you at work now. HS+ students will earn 0.5 Occupational Education credit toward the HS+ diploma. Current CASAS scores required for enrollment. Cannot receive credit for both ESL 51 & CAP 16.

Level 5 Written Communication

ESL 52 1-6 Credits/Units

6.0 hours of lecture

Develop low-advanced skills in reading and writing. Learn grammar such as present perfect. Write sentences and paragraphs. Practice technology skills and vocabulary for a future college program or career path, or to help you at work now. HS+ students will earn 0.5 Occupational Education credit toward the HS+ diploma. Current CASAS scores required for enrollment. Cannot receive credit for both ESL 52 & CAP 18

Intensive ESL Level 5 Technology and Study Skills

ESL 55 4 Credits/Units

4.0 hours of lecture

Prerequisite: Concurrent enrollment in ESL 55, ESL 57, and ESL 59 is required

Department consent required for enrollment. Develop technology and study skills in the context of college and work. HS+ students will earn Occupational Education credit toward their HS+ diploma. Cannot receive credit for both CAP 11, 12, 13, 14 course sequence and ESL 55, 57, 59 course sequence.

Intensive ESL Level 5 Oral Communication and Professional Portfolio

ESL 57 6 Credits/Units

6.0 hours of lecture

Prerequisite: Concurrent enrollment in ESL 55, ESL 57, and ESL 59 is required

Develop oral communication skills to support your ability to listen actively and speak so others can understand in the context of college and work. HS+ students will earn Occupational Education credit toward their HS+ diploma. Cannot receive credit for both CAP 11, 12, 13, 14 course sequence and ESL 55, 57, 59 course sequence.

Intensive Level 5 Written Communication

ESL 59 6 Credits/Units

6.0 hours of lecture

Prerequisite: Concurrent enrollment in ESL 55, ESL 57, and ESL 59 is required

Develop your ability to read with understanding and convey your ideas in writing in the context of career exploration. HS+ students will earn Occupational Education credit toward their HS+ diploma. Cannot receive credit for both CAP 11, 12, 13, 14 course sequence and ESL 55, 57, 59 course sequence.

Level 6 Oral Communication

ESL 61 1-6 Credits/Units

6.0 hours of lecture

Development of oral communication skills, focusing on college readiness. Improve listening comprehension as well as fluency and accuracy in speaking. HS+ students will earn 0.5 Elective credit toward the HS+ diploma. Current CASAS scores required for enrollment. Cannot receive credit for both ESL 61 & CAP 22.

Level 6 Written Communication

ESL 62 1-6 Credits/Units

6.0 hours of lecture

Development of written communication skills, focusing on college readiness. Improve written fluency as well as accuracy in writing, grammar, and vocabulary use. HS+ students will earn 0.5 Elective credit toward the HS+ diploma. Current CASAS scores required for enrollment. Cannot receive credit for both ESL 62 & CAP 21.

English for Life and Work Levels 1-3

ESL 71 1-12 Credits/Units

12.0 hours of lecture

Improve listening, speaking, reading and writing skills to help you in daily life and at work. Learn basic English grammar and vocabulary in weekly topics such as letters and numbers, personal information and family, money and US customary units, shopping, home and housing, community, health and emergencies, and work. Current CASAS scores required for enrollment.

English for Life and Work Levels 4-6

ESL 74 1-12 Credits/Units

12.0 hours of lecture

Improve listening, speaking, reading and writing skills to help you in daily life and at work. Learn intermediate grammar and vocabulary in weekly topics such as career exploration, job application, workplace rules and safety, employee benefits and rights, teamwork, work performance, healthy living and safe driving, US educational system, and US culture. Current CASAS scores required for enrollment.

ESL Selected Topics

ESL 80 1-12 Credits/Units

12.0 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 90 1-2 Credits/Units

2.0 hours of lecture

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.

Reading, Speaking and US Citizenship

ESL 95 3 Credits/Units

3.0 hours of lecture

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.

ENVIRONMENTAL SCIENCE (ENVS/ENVS&)

Updated 07.01.26 - please refer to course corrections page (<https://catalog.clark.edu/corrections/course-corrections/>) for updates

Integrated Environmental Science

ENVS 109 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

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. Outdoor field activities are included. Designed for non-science majors and addressing the curriculum needs of early childhood educators. [GE, NS, NS-LAB, SE]

Global Climate Change

ENVS 200 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10

An introduction to climate change for non-science majors. Learn what climate means, what makes it change and the techniques scientists use to study it. Use data collection and measurements to see for yourself! Investigate how we can slow climate change, consider how we can live in this new climate and learn to better communicate to others what climate change means. Credit can not be granted for both METR 201 and ENVS 200. [GE, NS, NS-LAB, SE]

Introduction to Soils: A Living System

ENVS 201 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

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. [GE, NS, NS-LAB, SE]

Native Plant Propagation: Principles & Practice

ENVS 202 3 Credits/Units

3.0 hours of lecture

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. [GE, NS, SE]

Field Studies In Environmental Science

ENVS 208 1-8 Credits/Units

2.0 hours of lecture / 12.0 hours of lab

Prerequisite: Completion of a 100- or 200-level BIOL, BIOL&, ENVS, ENVS&, GEOL or GEOL& course (grade of "C" or higher)
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 transportation. [GE, NS, NS-LAB, SE]

Introduction to Ecological Restoration

ENVS 218 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

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. [GE, NS, NS-LAB, SE]

Environmental Politics

ENVS 231 5 Credits/Units

5.0 hours of lecture

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. Credit not allowed for both ENVS 231 and POLS 231. [GE, SE, SS]

Selected Topics

ENVS 280 1-5 Credits/Units

5.0 hours of lecture

Selected topics in environmental science. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE]

Special Projects

ENVS 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize, and complete special projects approved by the department. [GE]

Inquiry-Based Science for Teachers

ENVS 300 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Admission into the program required for enrollment. A survey of earth, physical, and life sciences for early childhood teachers. Exploration of scientific phenomena and engineering design using inquiry-based learning. [GE]

Sustainability & Environmental Practices

ENVS 430 5 Credits/Units

4.0 hours of lecture / 2.0 hours of lab

Admission into the program required for enrollment. 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. [GE, NS, NS-LAB, SE]

Introduction to Environmental Science

ENVS& 101 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: CAP 46 or MATH 92 or PTCS 110 (grade of "C" or higher) or placement into Math level 30

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 minoring in environmental science or environmental studies. [GE, NS, NS-LAB, SE]

GEOGRAPHY (GEOG/GEOG&)

Physical Geography

GEOG 205 5 Credits/Units

5.0 hours of lecture

A study of the Earth and the processes that create and shape its physical features and landforms. Topics examined include Earth dimensions and motions, seasons, weather and climate, tectonic and surface process, landforms, map reading, and tools used by geographers. Emphasis is placed on recognizing, describing, and interpreting the spatial distribution of Earth features and their relationship to humanity through the lens of power, privilege and inequity. [GE, NS, PPI, SE, SS]

The Geopolitics of The Middle East

GEOG 220 5 Credits/Units

5.0 hours of lecture

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 GEOG 220 and POLS 220. [GE, SE, SS]

The Geopolitics of Africa

GEOG 221 5 Credits/Units

5.0 hours of lecture

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 GEOG 221 and POLS 221. [GE, SE, SS]

The Geopolitics of Asia and Oceania

GEOG 222 5 Credits/Units

5.0 hours of lecture

Geo-political survey of Asia and Oceania, 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 Asia and Oceania on the rest of the world, as well as examine the impact and influence of the rest of the world on this region. Credit not allowed for both GEOG 222 and POLS 222. [GE, SE, SS]

The Geopolitics of Eurasia

GEOG 223 5 Credits/Units

5.0 hours of lecture

Geo-political survey of Europe, Russia 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. Examines the importance and impact of Eurasia on the rest of the world, as well as examine the impact and influence of the rest of the world on Eurasia. Credit not allowed for both GEOG 223 and POLS 223. [GE, SE, SS]

Geopolitics of Latin America and Caribbean

GEOG 224 5 Credits/Units

5.0 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. Examines 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. [GE, SE, SS]

Maps and Geospatial Technology: A Critical Introduction

GEOG 260 5 Credits/Units

4.0 hours of lecture / 2.0 hours of lab

A critical introduction to geospatial sciences using open-source GIS software. Lectures explore core spatial concepts, critical cartography, and participatory mapping while learning foundational scientific methodologies and GIS technical skills. Examine relationships between mapping, representation, and power, including attention to naming, data ethics, concepts of place, and sovereignty. Hands-on labs and case studies that includes considering how mapping practices shape knowledge and can reinforce or challenge social and environmental inequalities emphasizing inclusive mapping practices and community-engaged applications. [GE, PPI, SE, SS][PNP]

Selected Topics

GEOG 280 1-5 Credits/Units

5.0 hours of lecture

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. Individual topics are listed in the term class schedules. [GE, SE]

Special Projects

GEOG 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

Introduction to Geography

GEOG& 100 5 Credits/Units

5.0 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. [GE, SE, SS]

World Regional Geography

GEOG& 102 5 Credits/Units

5.0 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. [GE, SE, SS]

Human Geography

GEOG& 200 5 Credits/Units

5.0 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. [GE, SE, SS]

Economic Geography

GEOG& 207 5 Credits/Units

5.0 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. [GE, SE, SS][PNP]

GEOLOGY (GEOL/GEOL&)

Intro to Geology II Lab

GEOL 102 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

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. [GE, NS, NS-LAB, SE]

Northwest Geology

GEOL 109 5 Credits/Units

5.0 hours of lecture

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. [GE, NS, SE]

Cooperative Work Experience

GEOL 199 1-3 Credits/Units

9.0 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

Field Studies In Geology

GEOL 218 1-6 Credits/Units

2.0 hours of lecture / 8.0 hours of lab

Prerequisite: 10 units in Geology (GEOL, GEOL&) grades of "C" or higher
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. [GE, NS, NS-LAB, SE]

Special Projects

GEOL 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

Introduction to Physical Geology

GEOL& 101 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

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. [GE, NS, NS-LAB, SE]

Historical Geology: The Earth Through Time

GEOL& 103 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

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. [GE, NS, NS-LAB, SE]

HEALTH & PHYSICAL EDUCATION (HPE)

Occupational Wellness

HPE 220 3 Credits/Units

2.0 hours of lecture / 2.0 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 activities 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. [GE, HPE, SE]

Wilderness Health and Safety

HPE 240 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Exploration of outdoor activities and how to engage in activities safely and with confidence. Focus on nutrition, exercise, logistical preparations, and overcoming common obstacles in wilderness activities including land, water, and snow sports. Engage in activities to develop cardiovascular, strength, and flexibility fitness for participation in outdoor activities. Individuals may choose hiking as the core course activity, but other options are available based on ability, access to equipment, and interest. Past experience is not necessary. [GE, HPE, SE]

Fitness-Wellness

HPE 258 3 Credits/Units

2.0 hours of lecture / 2.0 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. [GE, HPE, SE]

Mind Body Health

HPE 266 3 Credits/Units

2.0 hours of lecture / 2.0 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 mediation, yoga, tai chi and breathing techniques in addition to activities that improve strength and cardiovascular fitness. [GE, HPE, SE][PNP]

Selected Topics

HPE 280 1-5 Credits/Units

5.0 hours of lecture

Selected topics in Health & 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. Individual topics are listed in the term class schedules. [GE, SE]

Special Projects

HPE 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

HEALTH (HLTH)

Food and Your Health

HLTH 100 2 Credits/Units

2.0 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. [GE, HE, SE][PNP]

Health for Adult Living

HLTH 101 3 Credits/Units

3.0 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. [GE, HE, SE]

Happiness and Your Health

HLTH 108 2 Credits/Units

2.0 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. [GE, HE, SE]

Adult CPR and First Aid

HLTH 120 1 Credit/Unit

1.0 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. [GE]

Healthcare Provider CPR and First Aid

HLTH 124 1 Credit/Unit

1.0 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 health care 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. [GE][PNP]

Cooperative Work Experience

HLTH 199 1-3 Credits/Units

9.0 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

Human Sexuality and Your Health

HLTH 206 3 Credits/Units

3.0 hours of lecture

Exploration of the connection between personal choices and sexual health across the life cycle. Using multiple perspectives, students examine social, cultural, and historical influences on human sexuality while analyzing systems of power, privilege, and inequity (PPI) that shape sexual attitudes, behaviors, and access to sexual health resources. 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, advance sexual health, and foster equity and inclusion. [GE, HE, PPI, SE]

Women's Health

HLTH 207 3 Credits/Units

3.0 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 well be developed. [GE, HE, PPI, SE]

Health and Social Justice

HLTH 210 3 Credits/Units

3.0 hours of lecture

Exploration of the complex interactions between race, culture, ethnicity, religion, gender, socioeconomic status, sexual orientation, age, social class, and ability as they relate to health behavior, healthcare, and health outcomes. Development of personalized behavior change strategies to advance health. [GE, HE, PPI, SE]

Selected Topics

HLTH 280 1-3 Credits/Units

3.0 hours of lecture

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. Individual topics are listed in the term class schedules. [GE,SE]

Special Projects

HLTH 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

HEALTH INFORMATION MANAGEMENT (HIM)

Legal & Ethical Aspects of Healthcare

HIM 101 3 Credits/Units

3.0 hours of lecture

Prerequisite: Concurrent enrollment in, or completion of HIM 114 (grade of "C" or higher). Credit cannot be earned for this course and BMED 140. Admission into the AAT Health Information Management or CP Medical Billing/Coding Specialist program.

Admission into the program required for enrollment. Introduction to legal and ethical concepts with particular focus on health information management. General overview of US legal system as it pertains to healthcare. Highlighted information on HIPAA, ARRA, HITECH, and Federal Trade Commission's Red Flag Rule. Topics include liability of hospital and providers of care as well as current pertinent legislation, legal status of medical staff, access to health information, laws relating to ethical issues, and court orders. [GE]

Introduction to Pathophysiology

HIM 112 3 Credits/Units

3.0 hours of lecture

Prerequisite: AH 100, AH 104, and AH 110 (grades of "C" or higher) and admission into AAT Health Information Management or CP Medical Billing/Coding program

Admission into the program required for enrollment. 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]

Pharmacology

HIM 113 3 Credits/Units

3.0 hours of lecture

Prerequisite: AH 110 (grade of "C" or higher) and admission into AAT Health Information Management or CP Medical Billing/Coding Specialist program

Admission into the program required for enrollment. 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]

Medical Office Administrative Procedures

HIM 114 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Prerequisite: AH 100, AH 104, and AH 110 (grades of "C" or higher) and admission into AAT Health Information Management or CP Medical Billing/Coding program

Admission into the program required for enrollment. Introduction to medical office administrative positions. Gain introductory administrative competencies compliant with health information management standards. The lab portion includes medical office competencies and relevant electronic medical records software. [GE]

Medical Coding I

HIM 130 4 Credits/Units

4.0 hours of lecture

Prerequisite: AH 100 and AH 110 (grades of "C" or higher) and admission into AAT Health Information Management or CP Medical Billing/Coding Specialist program

Admission into the program required for enrollment. Introductory instruction and practice of diagnostic and procedural coding for outpatient health care settings. Exploration of guidelines, conventions, symbols, terminology, medical necessity, and methods of ICD and CPT code sets. Step-by-step guidance provided through health record case studies. [GE]

Revenue Cycle Management

HIM 131 4 Credits/Units

4.0 hours of lecture

Prerequisite: AH 100 and AH 110 (grades of "C" or higher) and admission into AAT Health Information Management or CP Medical Billing/Coding Specialist program

Admission into the program required for enrollment. A comprehensive study of the revenue cycle management, health insurance terminology, insurance plans, health insurance claim forms, and reimbursement methodologies for outpatient and inpatient healthcare services. Topics include, introducing how medical coding is part of the reimbursement cycle, HIPAA compliance issues, fraud and abuse. Step by step guidance for proper completion of billing forms by means of homework exercises and case studies. [GE]

Health Information Governance

HIM 201 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: HIM 114 and HIM 232 (grades of "C" or higher) and admission into AAT Health Information Management or CP Medical Billing/Coding Specialist program

Admission into the program required for enrollment. Introduction to foundational concepts of health information management and data content structures & standards. Topics include: clinical vocabularies & classification system; health record documentation requirements; data accuracy & integrity; data integration & interoperability; and the needs for data, information standards and data management policies & procedures. [GE]

Health Care Quality

HIM 202 3 Credits/Units

3.0 hours of lecture

Prerequisite: HIM 201 (grade of "C" or higher) and admission into AAT Health Information Management or CP Medical Billing/Coding Specialist program

Admission into the program required for enrollment. 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. Presenting various national efforts, systems and tools used in quality assessment, performance, improvement and measurement. [GE]

Professional Development

HIM 206 2 Credits/Units

2.0 hours of lecture

Prerequisite: HIM 101, HIM 130, HIM 131, and HIM 232 (grades of "C" or higher). Concurrent enrollment in HIM 226. Admission into the Health Information Management or Medical Billing & Coding program. Admission into the program is required for enrollment. Offers students the opportunity to build a comprehensive professional portfolio and navigate the job search process with confidence in Health Information Management. Emphasis is placed on developing and applying essential soft skills for success in today's healthcare business environment. Students will explore effective career planning strategies, resume and cover letter writing, interviewing techniques, and professional networking. Highlights the importance of communication, teamwork, problem-solving, and other interpersonal skills that support career success and advancement. Designed specifically for Health Information Management including Medical Billing and Coding, helps students strengthen their professional image, enhance workplace relationships, and expand their opportunities for career growth. [GE, HR, SE]

Health Informatics, Analytics, and Data Use

HIM 211 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: BUS 169 and HIM 201 (grades of "C" or higher). Admission into AAT Health Information Management or CP Medical Billing/Coding Specialist program.

Admission into the program required for enrollment. 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 to learn its significance, its breadth, and its opportunities. Group activities around data mining and analyzing. [GE]

Health Organization, Management & Leadership

HIM 215 3 Credits/Units

3.0 hours of lecture

Prerequisite: HIM 211 (grade of "C" or higher) and admission into AAT Health Information Management or CP Medical Billing/Coding Specialist program

Admission into the program required for enrollment. 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]

Professional Practice Practicum

HIM 226 2-4 Credits/Units

12.0 hours of clinical

Prerequisite: Concurrent enrollment in HIM 206. Admission into the Health Information Management or Medical Billing & Coding program. Admission into the program is required for enrollment. This practicum provides students with supervised, hands-on experience in health information management functions, utilizing medical record technologies in classroom simulations or local healthcare facilities. Students apply theoretical knowledge and technical skills to real-world administrative procedures while developing professional competencies and attitudes necessary for effective interaction with healthcare professionals and consumers. Credit hours vary based on clinical placement and total practicum hours. [GE]

Medical Coding II

HIM 232 5 Credits/Units

5.0 hours of lecture

Prerequisite: HIM 112 and HIM 130 (grades of "C" or higher) and admission into AAT Health Information Management or CP Medical Billing/Coding Specialist program. Admission into the program required for enrollment. Intermediate application of diagnostic and procedural coding systems ICD, CPT, and HCPCS. Continuation of concepts covered in Medical Coding I, HIM 130. Topics include content and structure of diagnostic and procedural coding systems, steps for abstracting information from health records, coding problem solving, and compliance with national coding guidelines. [GE]

Medical Coding III & Coding Exam Prep

HIM 233 5 Credits/Units

5.0 hours of lecture

Prerequisite: HIM 113 and HIM 232 (grades of "C" or higher) and admission into AAT Health Information Management or CP Medical Billing/Coding Specialist program. Admission into the program required for enrollment. Advanced application of diagnostic and procedural coding systems. In depth application of ICD, CPT, HCPCS, and PCS. Topics include medical coding problem solving and measures for data quality and compliance, diagnostic related groups (DRGs), and other prospective payment systems. Credentialing exam prep is integrated throughout the course with emphasis on body systems, pathophysiology and pharmacology. [GE]

Selected Topics

HIM 280 1-4 Credits/Units

4.0 hours of lecture

Prerequisite: Admission into AAT Health Information Management or CP Medical Billing/Coding Specialist program. Admission into the program required for enrollment. Selected topics in Health Information Management. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE]

HISTORY (HIST/HIST&)

Cooperative Work Experience

HIST 199 1-3 Credits/Units

9.0 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

East Asian History

HIST 221 5 Credits/Units

5.0 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. [GE, SE]

History of Genocide

HIST 231 5 Credits/Units

5.0 hours of lecture

Examination of several incidences of genocide beginning with the extermination of the Herero of Namibia in the late 19th century. Topics include: the definition of genocide developed by Raphael Lemkin and adopted by the United Nations; when and where genocide has occurred, based on reading and lectures; recognizing a genocide in the making; actions for extending the lessons of the course. Culmination is a research project focusing on a particular incidence of genocide chosen from a list provided. [GE, SE, SS]

Women In World History I

HIST 251 5 Credits/Units

5.0 hours of lecture

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. [GE, SE, SS]

Women In World History II

HIST 252 5 Credits/Units

5.0 hours of lecture

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 role of women in an industrial society and their influence in major movements such as 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. [GE, SE, SS]

American Diplomatic History

HIST 255 5 Credits/Units

5.0 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. [GE, SE]

African History

HIST 260 5 Credits/Units

5.0 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. [GE, SE][PNP]

African-American History

HIST 275 5 Credits/Units

5.0 hours of lecture

Survey of the history of the African-American experience from 1619 to the present. [GE, SE, SS][PNP]

Selected Topics

HIST 280 1-5 Credits/Units

5.0 hours of lecture

Selected topics in History. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE, SE]

History of Latin America

HIST 285 5 Credits/Units

5.0 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. [GE, SE]

Special Projects

HIST 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

World Civilizations I

HIST& 126 5 Credits/Units

5.0 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. [GE, SE, SS]

World Civilizations II

HIST& 127 5 Credits/Units

5.0 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. [GE, SE, SS]

World Civilizations III

HIST& 128 5 Credits/Units

5.0 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. [GE, SE, SS]

US History I

HIST& 146 5 Credits/Units

5.0 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. [GE, SE, SS]

US History II

HIST& 147 5 Credits/Units

5.0 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. [GE, SE, SS]

US History III

HIST& 148 5 Credits/Units

5.0 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. [GE, SE, SS]

Pacific NW History

HIST& 214 5 Credits/Units

5.0 hours of lecture

Survey of the political, cultural, economic and social development of the Pacific Northwest with special emphasis on Washington State history. [GE, SE, SS][PNP]

Women In US History

HIST& 215 5 Credits/Units

5.0 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. [GE, SE, SS][PNP]

Native American History

HIST& 219 5 Credits/Units

5.0 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. [GE, SE, SS]

INTENSIVE ENGLISH LANGUAGE PROGRAM (IELP)

Essential Technology and Study Skills

IELP 16 4 Credits/Units

0.0 hours of lecture

For learners of English language at the beginning to low-intermediate level of academic English. Designed for students who have had some prior English study, rather than true beginners. Develop technology skills in the context of college and career. Cannot receive credit for both IELP 11, 12, 13, 14, 15 course sequence and IELP 16, 17, 18 course sequence.

Essential Oral Communication and Professional Portfolio

IELP 17 6 Credits/Units

0.0 hours of lecture

For learners of English language at the beginning to low-intermediate level of academic English. Designed for students who have had some prior English study, rather than true beginners. Develop oral communication skills to support your ability to listen actively and speak so others can understand in the context of college and work. Cannot receive credit for both IELP 11, 12, 13, 14, 15 course sequence and IELP 16, 17, 18 course sequence.

Essential Written Communication

IELP 18 6 Credits/Units

0.0 hours of lecture

For learners of English language at the beginning to low-intermediate level of academic English. Designed for students who have had some prior English study, rather than true beginners. Develop your ability to read with understanding and convey your ideas in writing in the context of career exploration. Cannot receive credit for both IELP 11, 12, 13, 14, 15 course sequence and IELP 16, 17, 18 course sequence.

Essential Pronunciation

IELP 19 2 Credits/Units

2.0 hours of lecture

For learners of English language who need to develop 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. Introduction and development of key features of English pronunciation, focusing on common problems non-native speakers of English experience in understanding and producing consonant sounds, vowel sounds, stress, intonation, rhythm, and reduced speech in the context of college and career.

Intermediate Written Communication Skills

IELP 31 6 Credits/Units

6.0 hours of lecture

For learners of English language who need to improve writing skills at the intermediate level of academic English. Development of writing skills for academic purposes that focuses on college readiness. Students will improve written fluency as well as accuracy in writing, grammar, and vocabulary use.

Intermediate Oral Communication Skills

IELP 32 6 Credits/Units

6.0 hours of lecture

For learners of English language who need to improve oral communication skills at the intermediate level of academic English. Focus on college readiness. Students will improve listening comprehension as well as fluency and accuracy in speaking.

Intermediate English & Health

IELP 33 6 Credits/Units

6.0 hours of lecture

For learners of English language who need to improve writing skills at the intermediate level of academic English. Development of writing skills for academic purposes that focuses on college readiness in the context of health (health assessment, improvement plans, body functions, nutrition and healthy life practices).

Advanced English & US History/Government

IELP 51 7 Credits/Units

7.0 hours of lecture

For learners of English language who need to improve writing skills at the advanced level of academic English. Development of writing skills for academic purposes. Critical reading and writing skills are taught in the context of US history and government.

Advanced English & Science/CWP

IELP 52 7 Credits/Units

7.0 hours of lecture

For learners of English language who need to improve writing skills at the advanced level of academic English. Development of writing skills for academic purposes. Critical reading and writing skills are taught in the context of Science and Contemporary World Problems.

Advanced Academic Grammar

IELP 53 4 Credits/Units

4.0 hours of lecture

For learners of English language who need to improve accuracy in their writing at the advanced level of academic English. Development of writing skills for academic purposes that will emphasize concepts such as sentence types, sentence structure, clauses, phrases and verb tenses. Students will apply academic English conventions to their own writing.

UpperAdvanced English/Contemporary World Problem

IELP 90 7 Credits/Units

7.0 hours of lecture

For learners of English language who need to improve writing skills at the upper advanced level of academic English. Development of writing skills for academic purposes that will emphasize college-level reading and writing skills for direct transition into college-level English composition. Students will improve written fluency as well as accuracy in writing, grammar and vocabulary as they gain a deeper understanding of the systems of power, privilege, and inequity and how they relate to current world problems.

Selected Topics

IELP 99 1-8 Credits/Units

8.0 hours of lecture

Department consent required for enrollment. Various topics, themes, content in intensive English language studies. Because the content varies, this course is repeatable for credit for different topics. [PNP]

JAPANESE (JAPN/JAPN&)

Japanese Culture and Society

JAPN 171 5 Credits/Units

5.0 hours of lecture

Introductory study of Japanese culture and society with various topics, including education, gender roles, and family structure. Emphasis on traditional elements that have shaped Japanese values such as history, religion, and art, as well as social changes and current social issues. Hands-on study is included such as Japanese etiquette, tea ceremony and calligraphy. [GE, SE]

Cooperative Work Experience

JAPN 199 1-8 Credits/Units

24.0 hours of clinical

Summer cooperative work experience in Japan. Requires use of Japanese language. Enroll in this course Spring quarter prior to participation abroad. [GE, SE]

Selected Topics

JAPN 280 1-5 Credits/Units

5.0 hours of lecture

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. Individual topics are listed in the term class schedules. [GE, SE]

Special Projects

JAPN 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

Japanese I

JAPN& 121 5 Credits/Units

5.0 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. [GE, HA, SE]

Japanese II

JAPN& 122 5 Credits/Units

5.0 hours of lecture

Prerequisite: JAPN& 121 (grade of "C" or higher)

Continuation of JAPN& 121. Not open to native speakers except with instructor's permission. [GE, HA, SE]

Japanese III

JAPN& 123 5 Credits/Units

5.0 hours of lecture

Prerequisite: JAPN& 122 (grade of "C" or higher)

Continuation of JAPN& 122. Not open to native speakers except with instructor's permission. [GE, HA, SE]

Japanese IV

JAPN& 221 5 Credits/Units

5.0 hours of lecture

Prerequisite: JAPN& 123 (grade of "C" or higher)

Continuation of First-Year Japanese: speaking, reading and writing with primary emphasis on oral communication. [GE, HA, SE]

Japanese V

JAPN& 222 5 Credits/Units

5.0 hours of lecture

Prerequisite: JAPN& 221 (grade of "C" or higher)

Continuation of First-Year Japanese: speaking, reading and writing with primary emphasis on oral communication. [GE, HA, SE]

Japanese VI

JAPN& 223 5 Credits/Units

5.0 hours of lecture

Prerequisite: JAPN& 222 (grade of "C" or higher)

Continuation of First-Year Japanese: speaking, reading and writing with primary emphasis on oral communication. [GE, HA, SE]

MANAGEMENT (MGMT)

Principles of Management

MGMT 101 3 Credits/Units

3.0 hours of lecture

Introduction to management theory, functions, and topics to include diversity, leading change, decision making, and team work. Focus on practical applications, useful to both new and experienced managers. [GE, HR]

Applied Management Skills

MGMT 103 3 Credits/Units

3.0 hours of lecture

Developing concepts and skills in employee motivation, communication, and supervisory leadership. Promoting effective relations and performance in the work group. Case discussions and role situations develop understanding of individual and group problems encountered by the supervisor. [GE, HR]

Motivation and Performance

MGMT 106 3 Credits/Units

3.0 hours of lecture

Review of motivational factors of human relations used to enhance motivation and interpersonal communications; focus on the ways motivation impacts the success or failure of organizations. [GE, HR]

Creative Problem Solving

MGMT 110 3 Credits/Units

3.0 hours of lecture

Review of the creative and analytical thinking necessary for effective problem-solving in the workplace. Concepts include left/right brain thinking, stages in the creative process, habits that hinder thinking and producing ideas, the role of criticism, and effective communication of solutions. [GE, HR]

Conflict Management

MGMT 112 2 Credits/Units

2.0 hours of lecture

Study of the factors causing conflicts and ways to resolve them. Conflict with individuals and groups, conflict management styles, and win-win situations. [GE, HR][PNP]

Supervisor As A Trainer Coach

MGMT 120 3 Credits/Units

3.0 hours of lecture

Study of the supervisor's role in the training and professional development of employees. Topics include identifying training needs, selecting the appropriate type of training, distinguishing between training and coaching situations, and supporting employees to improve performance. Activities include practical training and coaching techniques. [GE, HR]

Introduction to Project Management

MGMT 126 4 Credits/Units

4.0 hours of lecture

Introduction to current practices in successful project management and in 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

3.0 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

3.0 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

3.0 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]

Introduction to Hospitality Systems

MGMT 240 5 Credits/Units

5.0 hours of lecture

Management functions relating to the planning and operational policies of various hotel and restaurant departments. [SE]

Selected Topics

MGMT 280 1-5 Credits/Units

5.0 hours of lecture

Selected topics in supervisory management. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE]

Special Projects

MGMT 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

MATHEMATICS (MATH/MATH&)

Support for Finite Math

MATH 4 3 Credits/Units

3.0 hours of lecture

Designed to help successfully learn the course material in Finite Math with Support (MATH 104). Includes prerequisite topics, success skills, and course content support. Meets for three hours a week. Must be enrolled with the linked section of Finite Math with Support (MATH 104) to take this course.

Support for Introduction to Statistics

MATH 6 2 Credits/Units

2.0 hours of lecture

Prerequisite: CAP 46 or MATH 92 or PTCS 110 (grade of "C" or higher) or placement into Math level 30

Develops vocabulary and numeration skills to support student success in MATH& 146. College success strategies are integrated throughout the course. Students must be enrolled with the linked section of Introduction to Statistics (MATH& 146) in order to take this course.

Support for Math in Society

MATH 7 2 Credits/Units

2.0 hours of lecture

Prerequisite: CAP 46 or MATH 92 or PTCS 110 (grade of "C" or higher) or placement into Math level 30

Develops numeration and algebra skills to support student success in MATH& 107. College success strategies are integrated throughout the course. Students must be enrolled with the linked section of Math in Society (MATH& 107) in order to take this course.

Support for College Algebra

MATH 10 3 Credits/Units

3.0 hours of lecture

Prerequisite: MATH 96 (grade of "C" or higher), or placement into Math level 45.

Designed to help successfully learn the course material in College Algebra with Support (MATH 110). Includes prerequisite topics, success skills, and course content support. Meets for three hours a week. Must be enrolled with the linked section of College Algebra with Support (MATH 110) to take this course.

Elementary Algebra

MATH 90 5 Credits/Units

5.0 hours of lecture

Prerequisite: CAP 42 (grade of "C" or higher), or placement into Math level 20.

Primarily intended for STEM and Business programs requiring college-level coursework such as College Algebra, College Trigonometry, or Finite Mathematics. Also suitable as a program prerequisite. Provides a foundation in elementary algebra skills and preparation for Intermediate Algebra (MATH 95). Topics include: Numeric and algebraic expressions, linear equations and inequalities in one variable, the coordinate plane, lines, systems of linear equations in two variables, functions, integer exponents, polynomials. [CP]

Applied Elementary Algebra

MATH 92 5 Credits/Units

5.0 hours of lecture

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10

Primarily intended for programs that require college-level coursework such as Math in Society, Statistics, or Mathematics for Elementary Teachers. Also suitable as a program prerequisite. Provides a foundation in elementary algebra skills & applications and preparation for Applied Intermediate Algebra (Math 96). 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]

Intermediate Algebra

MATH 95 5 Credits/Units

5.0 hours of lecture

Prerequisite: CAP 46 or MATH 90 (grade of "C" or higher), or placement into Math level 40.

A continuation of Math 090. Primarily intended for STEM and Business programs that require college-level coursework such as College Algebra, College Trigonometry, or Finite Mathematics. Also suitable as a program prerequisite. Provides a foundation in intermediate algebra skills and preparation for college-level coursework. Topics include: Factoring, rational expressions, radical expressions, rational exponents, quadratic equations, exponential and logarithmic functions. [CP]

Applied Intermediate Algebra

MATH 96 5 Credits/Units

5.0 hours of lecture

Prerequisite: CAP 46 or MATH 92 or PTCS 110 (grade of "C" or higher) or placement into Math level 30

A continuation of Math 092. Primarily intended for programs that require college-level coursework such as Math in Society, Statistics, or Mathematics for Elementary Teachers. Also suitable as a program prerequisite. Covers intermediate algebra skills & 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]

College Trigonometry

MATH 103 5 Credits/Units

5.0 hours of lecture

Prerequisite: MATH 95 (grade of "C" or higher) or placement into Math level 60.

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. The Mathematics Division highly recommends that students who need BOTH College Algebra (MATH 111 or MATH 110) AND College Trigonometry (MATH 103) complete College Algebra first. [CP, GE, Q, SE]

Finite Math with Support

MATH 104 5 Credits/Units

5.0 hours of lecture

Prerequisite: MATH 96 (grade of "C" or higher) or placement into Math level 50 and concurrent enrollment in MATH 4.

Covers the same topics as Finite Mathematics (MATH 105), paired with a linked support course (MATH 4). This course allows students who are placed near but not at college readiness to take Finite Math, and provides support for students who complete MATH 96 and choose to change majors. Topics include; lines; linear systems; matrices; linear programming using geometric and simplex methods; mathematics of finance; polynomial, rational, exponential and logarithmic functions and models. [CP, GE, Q, SE]

Finite Mathematics

MATH 105 5 Credits/Units

5.0 hours of lecture

Prerequisite: MATH 95 (grade of "C" or higher) or placement into Math level 60.

Lines; linear systems; matrices; linear programming using geometric and simplex methods; mathematics of finance; polynomial, rational, exponential and logarithmic functions and models. [CP, GE, Q, SE]

College Algebra With Support

MATH 110 5 Credits/Units

5.0 hours of lecture

Prerequisite: MATH 96 (grade of "C" or higher) or placement into Math level 50.

Covers the same topics as college algebra (MATH 111), paired with a linked course (MATH 10). This allows students who are placed near but not at college readiness to take College Algebra, and provides support for students who complete MATH 96 and choose to change majors. 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, GE, Q, SE]

College Algebra

MATH 111 5 Credits/Units

5.0 hours of lecture

Prerequisite: MATH 95 (grade of "C" or higher) or placement into Math level 60.

An introduction to functions from symbolic, numerical, and graphical points of view. Topics include polynomial; logarithmic, and exponential functions; inequalities, absolute value equations and inequalities, 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. The Mathematics Division highly recommends that students who need BOTH College Algebra (MATH 111 or MATH 110) AND College Trigonometry (MATH 103) complete College Algebra first. [CP, GE, Q, SE]

Math for Elementary Teachers

MATH 122 5 Credits/Units

5.0 hours of lecture

Prerequisite: MATH 96 (grade of "C" or higher) or placement into Math level 50.

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. [CP, GE, Q, SE]

Math for Elementary Teachers

MATH 123 5 Credits/Units

5.0 hours of lecture

Prerequisite: MATH 122 (grade of "C" or higher)

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. [CP, GE, Q, SE]

Math for Elementary Teachers

MATH 124 5 Credits/Units

5.0 hours of lecture

Prerequisite: MATH 122 (grade of "C" or higher)

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. [CP, GE, Q, SE]

Calculus for Life Sciences

MATH 140 6 Credits/Units

6.0 hours of lecture

Prerequisite: MATH 110 or MATH 111 and MATH 103 (grades of "C" or higher) or placement into Math level 80.

Survey of differentiation and integration with applications to problems in Biology and Environmental Science. [CP, GE, Q, SE]

Statistics II

MATH 147 3 Credits/Units

3.0 hours of lecture

Prerequisite: MATH& 146 (grade of "C" or higher)

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. [CP, GE, Q, SE]

Cooperative Work Experience

MATH 199 1-5 Credits/Units

15.0 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

Linear Algebra

MATH 215 5 Credits/Units

5.0 hours of lecture

Prerequisite: MATH& 152 (grade of "C" or higher) or placement into Math Level 100

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. [CP, GE, Q, SE]

Differential Equations

MATH 221 5 Credits/Units

5.0 hours of lecture

Prerequisite: Concurrent enrollment in, or completion of MATH& 254 (grade of "C" or higher)

Elementary theory and applications of ordinary differential equations. Linear equations, linear systems, Laplace transforms, boundary value problems, series and iterative methods. [CP, GE, Q, SE]

Selected Topics

MATH 280 1-5 Credits/Units

5.0 hours of lecture

Selected topics in mathematics. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE, SE]

Special Projects

MATH 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

Math In Society

MATH& 107 5 Credits/Units

5.0 hours of lecture

Prerequisite: CAP 46 or MATH 96 (grade of "C" or higher), placement into Math level 45, or concurrent enrollment in MATH 7

A 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. [CP, GE, Q, SE]

Introduction to Stats

MATH& 146 5 Credits/Units

5.0 hours of lecture

Prerequisite: MATH 96 (grade of "C" or higher), placement into Math level 45, or concurrent enrollment in MATH 6.

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. [CP, GE, Q, SE]

Business Calculus

MATH& 148 5 Credits/Units

5.0 hours of lecture

Prerequisite: MATH 104, MATH 105, MATH 110, or MATH 111 (grade of "C" or higher) or placement into Math level 70.

Introductory calculus with applications for business, life sciences, and social sciences. Differential, integral, and elementary multivariate calculus. [CP, GE, Q, SE]

Calculus I

MATH& 151 5 Credits/Units

5.0 hours of lecture

Prerequisite: MATH 110 or MATH 111 and MATH 103 (grades of "C" or higher) or placement into Math level 80.

First course in the four term calculus sequence intended primarily for students of mathematics, the physical sciences, or engineering. Covers the foundations of calculus of a single variable. Topics include limits, differentiation, applications of differentiation to properties of functions and their graphs, solving real-world problems, and the basics of integration. [CP, GE, Q, SE]

Calculus II

MATH& 152 5 Credits/Units

5.0 hours of lecture

Prerequisite: MATH& 151 (grade of "C" or higher) or placement into Math Level 90

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. [CP, GE, Q, SE]

Calculus III

MATH& 153 5 Credits/Units

5.0 hours of lecture

Prerequisite: MATH& 152 (grade of "C" or higher) or placement into Math Level 100

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. [CP, GE, Q, SE]

Calculus IV

MATH& 254 5 Credits/Units

5.0 hours of lecture

Prerequisite: MATH& 153 (grade of "C" or higher) or placement into Math Level 110

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. [CP, GE, Q, SE]

MECHATRONICS (MTX)

Industrial Safety

MTX 100 1 Credit/Unit

1.0 hours of lecture

Introduction to the general safety practices and information needed while working in a manufacturing setting. Material will include federal safety regulations, safe operations and practices in the technical crafts of the industry. [GE]

DC Fundamentals

MTX 101 3 Credits/Units

1.0 hours of lecture / 4.0 hours of lab

Prerequisite: MTX 100 and MTX 103 (grades of "C" or higher) and (PTCS 110 (grade of "C" or higher) or Placement into Math Level 30). Fundamentals of DC circuits with emphasis on algebraic analysis of resistive networks. Includes hands-on experience in DC circuit construction, measurement and troubleshooting. [GE]

AC Fundamentals

MTX 102 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Prerequisite: MTX 101, MTX 106, and MTX 180 (grades of "C" or higher) and (PTCS 110 (grade of "C" or higher) or Placement into Math Level 30). 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]

Basic Measurement Tools

MTX 103 2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Fundamentals of measurement tools. Topics include basic measurement, S.I. and U.S. customary measurement, precision measurement tools and dimensional gauging. [GE]

Fluid Power Systems

MTX 106 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Prerequisite: MTX 100 and MTX 103 (grades of "C" or higher) and (PTCS 110 (grade of "C" or higher) or Placement into Math Level 30). 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]

Electric Motor Control 1

MTX 110 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Prerequisite: MTX 102, MTX 130, and MTX 132 (grades of "C" or higher). 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]

Semiconductors I

MTX 121 3 Credits/Units

1.0 hours of lecture / 4.0 hours of lab

Prerequisite: MTX 110 and MTX 140 (grades of "C" or higher). Fundamentals and applications of diodes, transistors and special-purpose semiconductor devices. Includes hands-on experience in semiconductor circuit construction, measurement and troubleshooting. [GE]

Programmable Logic Controllers 1

MTX 130 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Prerequisite: MTX 101, MTX 106, and MTX 180 (grades of "C" or higher) and (PTCS 110 (grade of "C" or higher) or Placement into Math Level 30). 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]

Siemens PLC Lvl I

MTX 132 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Prerequisite: MTX 101, MTX 106, and MTX 180 (grades of "C" or higher) and (PTCS 110 (grade of "C" or higher) or Placement into Math Level 30). 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 Sieman STEP 7 programming. May prepare them for Siemens PLC Level 1 certification. [GE]

Robotic Systems

MTX 140 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Prerequisite: MTX 102, MTX 130, and MTX 132 (grades of "C" or higher). 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]

Electrical Power & Distribution Systems

MTX 145 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Prerequisite: MTX 110 and MTX 140 (grades of "C" or higher). 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]

Mechatronics Systems Fundamentals

MTX 175 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Prerequisite: MTX 110 and MTX 140 (grades of "C" or higher). 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

2.0 hours of lecture / 6.0 hours of lab

Prerequisite: MTX 100 and MTX 103 (grades of "C" or higher) and (PTCS 110 (grade of "C" or higher) or Placement into Math Level 30). 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]

Cooperative Work Experience

MTX 199 1-5 Credits/Units

15.0 hours of clinical

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]

Mechatronics 2

MTX 216 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: MTX 221, MTX 224, and MTX 250 (grades of "C" or higher) 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]

Semiconductors 2

MTX 221 3 Credits/Units

1.0 hours of lecture / 4.0 hours of lab

Prerequisite: MTX 121, MTX 145, MTX 175, and MTX 230 (grades of "C" or higher).

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]

Motor Drive Systems

MTX 224 5 Credits/Units

2.0 hours of lecture / 6.0 hours of lab

Prerequisite: MTX 121, MTX 145, MTX 175, and MTX 230 (grades of "C" or higher).

Introduction to DC drives and Variable Frequency AC speed control systems. Topics include DC motion control, SCR control, DC spindle drives, DC axis drives, DC pulse width modulations drives, variable frequency AC drives, VFD speed and torque, VFD acceleration, deceleration, braking, VFD fault diagnostics and troubleshooting SCR motor control systems. [GE]

Laser Alignment

MTX 230 2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Prerequisite: MTX 110 and MTX 140 (grades of "C" or higher).

Introduction to the concept and proper practices of laser alignment. Topics include laser shaft alignment, including rough and precision alignment, soft foot correction and analysis. [GE]

Digital Electronics Fundamentals

MTX 232 3 Credits/Units

1.0 hours of lecture / 4.0 hours of lab

Prerequisite: MTX 221, MTX 224, and MTX 250 (grades of "C" or higher) 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]

Process Control Systems

MTX 240 6 Credits/Units

3.0 hours of lecture / 6.0 hours of lab

Prerequisite: MTX 216, MTX 232, and MTX 275 (grades of "C" or higher).

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]

Advanced Programmable Logic Controllers

MTX 250 4 Credits/Units

2.0 hours of lecture / 4.0 hours of lab

Prerequisite: MTX 121, MTX 145, MTX 175, and MTX 230 (grades of "C" or higher).

Intermediate concepts of Programmable Logic Controls. Topics include analog input and output modules, analog scaling, network concepts, an introduction to Panelview and remote I/O concepts. [GE]

Advanced Fluid Power Systems

MTX 275 5 Credits/Units

2.0 hours of lecture / 6.0 hours of lab

Prerequisite: MTX 221, MTX 224, and MTX 250 (grades of "C" or higher)

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]

Selected Topics

MTX 280 1-5 Credits/Units

5.0 hours of lecture

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 class schedules. [GE]

Special Projects

MTX 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize, and complete special projects approved by the department. [GE]

Special Projects - Lab

MTX 291 1-5 Credits/Units

10.0 hours of lab

Opportunity to plan, organize, and complete special projects approved by the department. [GE]

Manufacturing System Principles

MTX 292 4 Credits/Units

3.0 hours of lecture / 2.0 hours of lab

Prerequisite: MTX 216, MTX 232, and MTX 275 (grades of "C" or higher).

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]

Capstone/Final Project

MTX 296 4 Credits/Units

1.0 hours of lecture / 6.0 hours of lab

Prerequisite: MTX 216, MTX 232, and MTX 275 (grades of "C" or higher).

Department consent required for enrollment. 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]

MEDICAL ASSISTING (MA)

Math for Medical Assistants

MA 103 3 Credits/Units

3.0 hours of lecture

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10

Prepares medical assistants to understand and master the mathematics encountered in the medical assistant profession. Mathematical concepts will relate to both administrative procedures and dosage calculations for the physician's office and/or medical care facility. Cannot receive credit for both BMED 103 and MA 103. [CP, GE]

Medical Office Administrative Procedures

MA 104 6 Credits/Units

3.0 hours of lecture / 6.0 hours of lab

Admission into the program required for enrollment. Introduction to administrative positions in the medical field. Students gain introductory administrative competencies. The lab portion of the class prepares the student in medical office competencies and relevant software. Encompasses 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. [GE, HR]

Medical Reimbursement

MA 114 4 Credits/Units

4.0 hours of lecture

Admission into the program required for enrollment. Comprehensive study of the revenue cycle, health insurance terminology, insurance plans, claim forms, and reimbursement methodologies for outpatient and inpatient health care services. Topics include, study of standard industry claim forms, introduction to medical coding, HIPAA compliance, fraud and abuse issues. Step by step guidance for proper completion and processing of billing forms by means of homework exercises and case studies. [GE, HR]

Legal Aspects of The Medical Office

MA 123 3 Credits/Units

3.0 hours of lecture

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]

Therapeutic Comm Skills for Health Prof

MA 124 2 Credits/Units

2.0 hours of lecture

Admission into the program required for enrollment. Identify and describe the basic components of the communication model, the various types of communication, and the role communication plays to satisfy needs. Techniques for encouraging a therapeutic and helping relationship with the patient, providers, and families. Includes an overview of the psychosocial development of a person, from birth to death. [GE]

Introduction to Pathophysiology

MA 201 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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]

MA Assistant Examination Review

MA 202 2 Credits/Units

2.0 hours of lecture

Admission into the program required for enrollment. Review of Medical Assistant administrative and clinical competencies. Cognitive knowledge review of all major concepts necessary for students in preparation to take the CMA (AAMA) examination. Discussion of studying and test taking techniques to prepare for the CMA certification. [GE]

Medical Office Clinical Procedures

MA 211 6 Credits/Units

3.0 hours of lecture / 6.0 hours of lab

Admission into the program required for enrollment. Principles of medical office clinical procedures including preparing a patient for assisting a physician with examinations, procedures, and components of patient history. It includes patient charting, vital signs, sterile setups, universal blood precautions, methods of asepsis and sterilization, collecting blood, processing specimens, equipment preparation and operation, electrocardiography (EKG), and medication administration. Topics also include techniques in patient interviewing and education. Lab provides the opportunity for practice and to demonstrate proficiency in procedures. [GE]

Pharmacology for Medical Assistants

MA 212 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Admission into the program required for enrollment. 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. Cannot receive credit for both HEOC 130 and MA 212. [GE]

Medical Office Laboratory Procedures

MA 221 6 Credits/Units

2.0 hours of lecture / 8.0 hours of lab

Admission into the program required for enrollment. 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. Continued practice in blood specimen collection and injections. Quality control measures are taught and implemented. Lab safety emphasized. [GE]

Medical Assistant Practicum

MA 222 6 Credits/Units

17.0 hours of clinical

Admission into the program required for enrollment. 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]

Medical Assistant Seminar

MA 232 1 Credit/Unit

1.0 hours of lecture

Admission into the program required for enrollment. Develop skills that provide an edge in the health care job market and develop the soft skills - the personal qualities, habits, attitudes, and social graces necessary to be high functioning employees in various health care environments. [GE]

Medical Coding for Medical Assistants

MA 241 4 Credits/Units

4.0 hours of lecture

Admission into the program required for enrollment. Introduction to procedural and diagnostic coding in ambulatory settings using current diagnostic and procedural coding systems. Introduction to the symbols, terminology and methods of both diagnostic and procedural coding used by physicians and third parties and is guided step-by-step through various coding scenarios by means of workbook exercises and actual case studies. The format and guidelines of the ICD, CPT, and HCPCS code sets are reviewed to include E/M codes and modifiers. [GE]

Patient Advocacy and Care Navigation

MA 251 3 Credits/Units

3.0 hours of lecture

Admission into the program required for enrollment. Introduction to the knowledge, skills, and attitudes necessary to apply care navigation for the benefit of the patient. The content focuses on the healthcare systems, patient profiles and needs, communication basics, an introduction to chronic illness, and health coaching. [GE]

Statistics for Health Care Professionals

MA 261 2 Credits/Units

2.0 hours of lecture

Admission into the program required for enrollment. Introduction to statistical computations and analysis used in healthcare. Topics include patient census, occupancy, length of stay, mortality and morbidity statistics. Cannot receive credit for both BMED 105 and MA 261. [GE]

Selected Topics

MA 280 1-4 Credits/Units

4.0 hours of lecture

Admission into the program required for enrollment. Selected topics in Medical Assisting. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE]

Special Projects

MA 290 1-5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. Opportunity to plan, organize and complete special projects approved by the department. [GE]

METEOROLOGY (METR)

Atmosphere and The Environment

METR 101 5 Credits/Units

4.0 hours of lecture / 2.0 hours of lab

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. [GE, NS, NS-LAB, SE]

Special Projects

METR 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

MUSIC (MUSC/MUSC&/MUSCA)

Beginning Piano Class

MUSC 101 2 Credits/Units

2.0 hours of lecture

Beginning-level study of the piano. [GE, HB, SE]

Beginning Guitar Class

MUSC 110 2 Credits/Units

2.0 hours of lecture

Beginning-level study of the guitar. [GE, HB, SE]

Beginning Voice Class

MUSC 115 2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Basic technique and knowledge about singing. No previous experience or music study required. [GE, HB, SE]

Music History: Middle Ages to Baroque

MUSC 116 5 Credits/Units

5.0 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. [GE, HA, SE]

Music History: Classical/Romantic

MUSC 117 5 Credits/Units

5.0 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. [GE, HA, SE]

Music History: Twentieth Century

MUSC 118 5 Credits/Units

5.0 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. [GE, SE, HA]

Rock Music

MUSC 125 3 Credits/Units

3.0 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. [GE, HA, SE]

World Folk Music

MUSC 127 3 Credits/Units

3.0 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. [GE, HA, SE]

Jazz Appreciation

MUSC 135 3 Credits/Units

3.0 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. [GE, HA, SE]

Clark College Chorale

MUSC 137 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Department consent required for enrollment. 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. [GE, HB, SE][PNP]

Clark College Chorale

MUSC 138 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Department consent required for enrollment. 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. [GE, HB, SE][PNP]

Clark College Chorale

MUSC 139 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Department consent required for enrollment. 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. [GE, HB, SE][PNP]

Orchestra

MUSC 150 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Performance of orchestral literature from a variety of periods and styles. [GE, HB, SE]

Orchestra

MUSC 151 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Performance of orchestral literature from a variety of periods and styles. [GE, HB, SE]

Orchestra

MUSC 152 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Performance of orchestral literature from a variety of periods and styles. [GE, HB, SE]

Treble Ensemble

MUSC 153 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Department consent required for enrollment. Performance of choral music from a variety of periods and styles written for women's voices. [GE, HB, SE][PNP]

Treble Ensemble

MUSC 154 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Department consent required for enrollment. Performance of choral music from a variety of periods and styles written for women's voices.

[GE, HB, SE][PNP]

Treble Ensemble

MUSC 155 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Department consent required for enrollment. Performance of choral music from a variety of periods and styles written for women's voices.

[GE, HB, SE][PNP]

Applied Voice

MUSC 170 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private voice lessons. [GE, HB, SE]

Applied Voice

MUSC 171 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private voice lessons. [GE, HB, SE]

Applied Voice

MUSC 172 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private voice lessons. [GE, HB, SE]

Applied Piano

MUSC 173 1 Credit/Unit

1.0 hours of lecture

Prerequisite: MUSC 201 (grade of "C" or higher)

Department consent required for enrollment. Private piano lessons. For students with some previous keyboard experience. [GE, HB, SE]

Applied Piano

MUSC 174 1 Credit/Unit

1.0 hours of lecture

Prerequisite: MUSC 201 (grade of "C" or higher)

Department consent required for enrollment. Private piano lessons. For students with some previous keyboard experience. [GE, HB, SE]

Applied Piano

MUSC 175 1 Credit/Unit

1.0 hours of lecture

Prerequisite: MUSC 201 (grade of "C" or higher)

Department consent required for enrollment. Private piano lessons. For students with some previous keyboard experience. [GE, HB, SE]

Concert Band

MUSC 180 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per term. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [GE, HB, SE]

Concert Band

MUSC 181 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per term. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [GE, HB, SE]

Concert Band

MUSC 182 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per term. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [GE, HB, SE]

Concert Choir

MUSC 183 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Department consent required for enrollment. The concert choir performs a wide variety of choral music in at least one public concert per term. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. [GE, HB, SE]

Concert Choir

MUSC 184 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Department consent required for enrollment. The concert choir performs a wide variety of choral music in at least one public concert per term. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. [GE, HB, SE]

Concert Choir

MUSC 185 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Department consent required for enrollment. The concert choir performs a wide variety of choral music in at least one public concert per term. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. [GE, HB, SE]

Jazz Improvisation

MUSC 186 2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Improvisation on one or more of the traditional jazz band instruments or through vocal interpretation. [GE, HB, SE]

Jazz Band

MUSC 195 1-2 Credits/Units

1.0 hours of lecture / 2.0 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. [GE, HB, SE]

Jazz Band

MUSC 196 1-2 Credits/Units

1.0 hours of lecture / 2.0 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. [GE, HB, SE]

Jazz Band

MUSC 197 1-2 Credits/Units

1.0 hours of lecture / 2.0 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. [GE, HB, SE]

Intermediate Piano Class

MUSC 201 2 Credits/Units

2.0 hours of lecture

Prerequisite: MUSC 101 (grade of "C" or higher)

Department consent required for enrollment. Intermediate-level study of the piano. [GE, HB, SE]

Advanced Piano Class

MUSC 202 2 Credits/Units

2.0 hours of lecture

Prerequisite: MUSC 201 (grade of "C" or higher)

A continuation of instruction from Intermediate Piano. Baroque, classic, romantic, and contemporary repertoire, jazz stylings and fake books. [GE, HB, SE]

Intermediate Guitar Class

MUSC 210 2 Credits/Units

2.0 hours of lecture

Prerequisite: MUSC 110 (grade of "C" or higher)

Intermediate-level study of the guitar. [GE, HB, SE]

Clark College Chorale

MUSC 237 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Department consent required for enrollment. 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. [GE, HB, SE][PNP]

Clark College Chorale

MUSC 238 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Department consent required for enrollment. 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. [GE, HB, SE][PNP]

Clark College Chorale

MUSC 239 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Department consent required for enrollment. 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. [GE, HB, SE][PNP]

Orchestra

MUSC 250 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Performance of orchestral literature from a variety of periods and styles. [GE, HB, SE]

Orchestra

MUSC 251 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Performance of orchestral literature from a variety of periods and styles. [GE, HB, SE]

Orchestra

MUSC 252 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Performance of orchestral literature from a variety of periods and styles. [GE, HB, SE]

Treble Ensemble

MUSC 253 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Department consent required for enrollment. Performance of choral music from a variety of periods and styles written for women's voices. [GE, HB, SE][PNP]

Treble Ensemble

MUSC 254 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Department consent required for enrollment. Performance of choral music from a variety of periods and styles written for women's voices. [GE, HB, SE][PNP]

Treble Ensemble

MUSC 255 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Department consent required for enrollment. Performance of choral music from a variety of periods and styles written for women's voices.

[GE, HB, SE][PNP]

Applied Voice

MUSC 270 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private voice lessons. [GE, HB, SE]

Applied Voice

MUSC 271 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private voice lessons. [GE, HB, SE]

Applied Voice

MUSC 272 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private voice lessons. [GE, HB, SE]

Applied Piano

MUSC 273 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private piano lessons. For students with some previous keyboard experience. [GE, HB, SE]

Applied Piano

MUSC 274 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private piano lessons. For students with some previous keyboard experience. [GE, HB, SE]

Applied Piano

MUSC 275 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private piano lessons. For students with some previous keyboard experience. [GE, HB, SE]

Concert Band

MUSC 280 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per term. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [GE, HB, SE]

Concert Band

MUSC 281 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per term. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [GE, HB, SE]

Concert Band

MUSC 282 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per term. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [GE, HB, SE]

Concert Choir

MUSC 283 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Department consent required for enrollment. The concert choir performs a wide variety of choral music in at least one public concert per term. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. [GE, HB, SE]

Concert Choir

MUSC 284 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Department consent required for enrollment. The concert choir performs a wide variety of choral music in at least one public concert per term. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. [GE, HB, SE]

Concert Choir

MUSC 285 1-2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

Department consent required for enrollment. The concert choir performs a wide variety of choral music in at least one public concert per term. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. [GE, HB, SE]

Special Projects

MUSC 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE, HB, SE]

Jazz Band

MUSC 295 1-2 Credits/Units

1.0 hours of lecture / 2.0 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. [GE, HB, SE]

Jazz Band

MUSC 296 1-2 Credits/Units

1.0 hours of lecture / 2.0 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. [GE, HB, SE]

Jazz Band

MUSC 297 1-2 Credits/Units

1.0 hours of lecture / 2.0 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. [GE, HB, SE]

Music Appreciation

MUSC& 104 3 Credits/Units

3.0 hours of lecture

Study and understanding of music. Nonverbal explorations into the listening process, a brief look at the history of Western music, and work in formal descriptive music analysis. [GE, HA, SE]

Ear Training 1

MUSC& 121 1 Credit/Unit

2.0 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. [GE, HB, SE]

Ear Training 2

MUSC& 122 1 Credit/Unit

2.0 hours of lab

Prerequisite: MUSC& 121 (grade of "C" or higher)
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. [GE, HB, SE]

Ear Training 3

MUSC& 123 1 Credit/Unit

2.0 hours of lab

Prerequisite: MUSC& 122 (grade of "C" or higher)
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. [GE, HB, SE]

Music Theory I

MUSC& 141 5 Credits/Units

5.0 hours of lecture

Prerequisite: Concurrent enrollment in MUSC& 121

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. [GE, HA, SE]

Music Theory II

MUSC& 142 5 Credits/Units

5.0 hours of lecture

Prerequisite: MUSC& 141 (grade of "C" or higher), and concurrent enrollment in MUSC& 122

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. [GE, HA, SE]

Music Theory III

MUSC& 143 5 Credits/Units

5.0 hours of lecture

Prerequisite: MUSC& 142 (grade of "C" or higher), and concurrent enrollment in MUSC& 123

Continuation of MUSC& 142. Chromatic chords, popular song forms and jazz-related harmonies and forms. [GE, HA, SE]

Ear Training 4

MUSC& 221 1 Credit/Unit

2.0 hours of lab

Prerequisite: MUSC& 123 (grade of "C" or higher)

Continuation of MUSC& 123. Trains students to write what they hear in harmonic and polyphonic textures. Examples coordinated with theory classes. [GE, HB, SE]

Ear Training 5

MUSC& 222 1 Credit/Unit

2.0 hours of lab

Prerequisite: MUSC& 221 (grade of "C" or higher)

Trains students to write what they hear in harmonic and polyphonic textures. Examples coordinated with theory classes. [GE, HB, SE]

Ear Training 6

MUSC& 223 1 Credit/Unit

2.0 hours of lab

Prerequisite: MUSC& 222 (grade of "C" or higher)

Trains students to write what they hear in harmonic and polyphonic textures. Examples coordinated with theory classes. [GE, HB, SE]

Music Theory IV

MUSC& 231 3 Credits/Units

3.0 hours of lecture

Prerequisite: MUSC& 143 (grade of "C" or higher), and concurrent enrollment in MUSC& 221

Extended chromatic chords, borrowed chords, Neapolitan 6th chords, augmented 6th chords, and study of two part inventions and fugue. [GE, HA, SE]

Music Theory V

MUSC& 232 3 Credits/Units

3.0 hours of lecture

Prerequisite: MUSC& 231 (grade of "C" or higher) and concurrent enrollment in MUSC& 222.

Study of altered dominants, chromatic mediants, variation form, sonata form, and rondo form. [GE, HA, SE]

Music Theory VI

MUSC& 233 3 Credits/Units

3.0 hours of lecture

Prerequisite: MUSC& 232 (grade of "C" or higher) and concurrent enrollment in MUSC& 223.

Extensions of harmonic language and compositional style of the 20th/21st century, including atonal forms. [GE, HA, SE]

Applied Instrument:Flute

MUSCA 101 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private flute lessons. [GE, HB, SE]

Applied Instrument:Violin

MUSCA 102 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private violin lessons. [GE, HB, SE]

Applied Instrument:Cello

MUSCA 103 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private cello lessons. [GE, HB, SE]

Applied Instrument:Viola

MUSCA 104 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private viola lessons. [GE, HB, SE]

Applied Instrument:Trumpet

MUSCA 105 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private trumpet lessons. [GE, HB, SE]

Applied Instrument:Guitar

MUSCA 106 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private guitar lessons. [GE, HB, SE]

Applied Instrument:Clarinet

MUSCA 107 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private clarinet lessons. [GE, HB, SE]

Applied Instrument:Bass

MUSCA 108 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private bass lessons. [GE, HB, SE]

Applied Instrument:Horn

MUSCA 109 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private horn lessons. [GE, HB, SE]

Applied Instrument:Bassoon

MUSCA 110 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private bassoon lessons. [GE, HB, SE]

Applied Instrument:Trombone

MUSCA 111 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private trombone lessons. [GE, HB, SE]

Applied Instrument:Sax

MUSCA 112 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private sax lessons. [GE, HB, SE]

Applied Instrument:Percussion

MUSCA 113 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private percussion lessons. [GE, HB, SE]

Applied Instrument:Oboe

MUSCA 114 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private oboe lessons. [GE, HB, SE]

Applied Instrument:Euphonium

MUSCA 115 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private euphonium lessons. [GE, HB, SE]

Applied Instrument:Tuba

MUSCA 116 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private tuba lessons. [GE, HB, SE]

Applied Instrument:Flute

MUSCA 131 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private flute lessons.

Continuation of MUSCA 101. [GE, HB, SE]

Applied Instrument:Violin

MUSCA 132 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private violin lessons.

Continuation of MUSCA 102. [GE, HB, SE]

Applied Instrument:Cello

MUSCA 133 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private cello lessons.

Continuation of MUSCA 103. [GE, HB, SE]

Applied Instrument:Viola

MUSCA 134 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private viola lessons.

Continuation of MUSCA 104. [GE, HB, SE]

Applied Instrument:Trumpet

MUSCA 135 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private trumpet lessons.

Continuation of MUSCA 105. [GE, HB, SE]

Applied Instrument:Guitar

MUSCA 136 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private guitar lessons.

Continuation of MUSCA 106. [GE, HB, SE]

Applied Instrument:Clarinet

MUSCA 137 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private clarinet lessons.

Continuation of MUSCA 107. [GE, HB, SE]

Applied Instrument:Bass

MUSCA 138 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private bass lessons.

Continuation of MUSCA 108. [GE, HB, SE]

Applied Instrument:Horn

MUSCA 139 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private horn lessons.

Continuation of MUSCA 109. [GE, HB, SE]

Applied Instrument:Bassoon

MUSCA 140 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private bassoon lessons.

Continuation of MUSCA 110. [GE, HB, SE]

Applied Instrument:Trombone

MUSCA 141 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private trombone lessons.

Continuation of MUSCA 111. [GE, HB, SE]

Applied Instrument:Sax

MUSCA 142 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private sax lessons.

Continuation of MUSCA 112. [GE, HB, SE]

Applied Instrument:Percussion

MUSCA 143 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private percussion lessons.

Continuation of MUSCA 113. [GE, HB, SE]

Applied Instrument:Oboe

MUSCA 144 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private oboe lessons.

Continuation of MUSCA 114. [GE, HB, SE]

Applied Instrument:Euphonium

MUSCA 145 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private euphonium lessons.

Continuation of MUSCA 115. [GE, HB, SE]

Applied Instrument:Tuba

MUSCA 146 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private tuba lessons.

Continuation of MUSCA 116. [GE, HB, SE]

Applied Instrument:Flute

MUSCA 171 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private flute lessons.

Continuation of MUSCA 131. [GE, HB, SE]

Applied Instrument:Violin

MUSCA 172 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private violin lessons.

Continuation of MUSCA 132. [GE, HB, SE]

Applied Instrument:Cello

MUSCA 173 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private cello lessons.

Continuation of MUSCA 133. [GE, HB, SE]

Applied Instrument:Viola

MUSCA 174 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private viola lessons.

Continuation of MUSCA 134. [GE, HB, SE]

Applied Instrument:Trumpet

MUSCA 175 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private trumpet lessons.

Continuation of MUSCA 135. [GE, HB, SE]

Applied Instrument:Guitar

MUSCA 176 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private guitar lessons.

Continuation of MUSCA 136. [GE, HB, SE]

Applied Instrument:Clarinet

MUSCA 177 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private clarinet lessons.

Continuation of MUSCA 137. [GE, HB, SE]

Applied Instrument:Bass

MUSCA 178 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private bass lessons.

Continuation of MUSCA 138. [GE, HB, SE]

Applied Instrument:Horn

MUSCA 179 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private horn lessons.

Continuation of MUSCA 139. [GE, HB, SE]

Applied Instrument:Bassoon

MUSCA 180 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private bassoon lessons.

Continuation of MUSCA 140. [GE, HB, SE]

Applied Instrument:Trombone

MUSCA 181 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private trombone lessons.

Continuation of MUSCA 141. [GE, HB, SE]

Applied Instrument:Sax

MUSCA 182 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private sax lessons.

Continuation of MUSCA 142. [GE, HB, SE]

Applied Instrument:Percussion

MUSCA 183 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private percussion lessons.

Continuation of MUSCA 143. [GE, HB, SE]

Applied Instrument:Oboe

MUSCA 184 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private oboe lessons.

Continuation of MUSCA 144. [GE, HB, SE]

Applied Instrument:Euphonium

MUSCA 185 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private euphonium lessons.

Continuation of MUSCA 145. [GE, HB, SE]

Applied Instrument:Tuba

MUSCA 186 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private tuba lessons.

Continuation of MUSCA 146. [GE, HB, SE]

Applied Instrument:Flute

MUSCA 201 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private flute lessons.

Continuation of MUSCA 171. [GE, HB, SE]

Applied Instrument:Violin

MUSCA 202 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private violin lessons.

Continuation of MUSCA 172. [GE, HB, SE]

Applied Instrument:Cello

MUSCA 203 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private cello lessons.

Continuation of MUSCA 173. [GE, HB, SE]

Applied Instrument:Viola

MUSCA 204 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private viola lessons.

Continuation of MUSCA 174. [GE, HB, SE]

Applied Instrument:Trumpet

MUSCA 205 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private trumpet lessons.

Continuation of MUSCA 175. [GE, HB, SE]

Applied Instrument:Guitar

MUSCA 206 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private guitar lessons.

Continuation of MUSCA 176. [GE, HB, SE]

Applied Instrument:Clarinet

MUSCA 207 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private clarinet lessons.

Continuation of MUSCA 177. [GE, HB, SE]

Applied Instrument:Bass

MUSCA 208 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private bass lessons.

Continuation of MUSCA 178. [GE, HB, SE]

Applied Instrument:Horn

MUSCA 209 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private horn lessons.

Continuation of MUSCA 179. [GE, HB, SE]

Applied Instrument:Bassoon

MUSCA 210 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private bassoon lessons.

Continuation of MUSCA 180. [GE, HB, SE]

Applied Instrument:Trombone

MUSCA 211 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private trombone lessons.

Continuation of MUSCA 181. [GE, HB, SE]

Applied Instrument:Sax

MUSCA 212 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private sax lessons.

Continuation of MUSCA 182. [GE, HB, SE]

Applied Instrument:Percussion

MUSCA 213 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private percussion lessons.

Continuation of MUSCA 183. [GE, HB, SE]

Applied Instrument:Oboe

MUSCA 214 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private oboe lessons.

Continuation of MUSCA 184. [GE, HB, SE]

Applied Instrument:Euphonium

MUSCA 215 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private euphonium lessons.

Continuation of MUSCA 185. [GE, HB, SE]

Applied Instrument:Tuba

MUSCA 216 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private tuba lessons.

Continuation of MUSCA 186. [GE, HB, SE]

Applied Instrument:Flute

MUSCA 231 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private flute lessons.

Continuation of MUSCA 201. [GE, HB, SE]

Applied Instrument:Violin

MUSCA 232 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private violin lessons.

Continuation of MUSCA 202. [GE, HB, SE]

Applied Instrument:Cello

MUSCA 233 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private cello lessons.

Continuation of MUSCA 203. [GE, HB, SE]

Applied Instrument:Viola

MUSCA 234 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private viola lessons.

Continuation of MUSCA 204. [GE, HB, SE]

Applied Instrument:Trumpet

MUSCA 235 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private trumpet lessons.

Continuation of MUSCA 205. [GE, HB, SE]

Applied Instrument:Guitar

MUSCA 236 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private guitar lessons.

Continuation of MUSCA 206. [GE, HB, SE]

Applied Instrument:Clarinet

MUSCA 237 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private clarinet lessons.

Continuation of MUSCA 207. [GE, HB, SE]

Applied Instrument:Bass

MUSCA 238 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private bass lessons.

Continuation of MUSCA 208. [GE, HB, SE]

Applied Instrument:Horn

MUSCA 239 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private horn lessons.

Continuation of MUSCA 209. [GE, HB, SE]

Applied Instrument:Bassoon

MUSCA 240 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private bassoon lessons.

Continuation of MUSCA 210. [GE, HB, SE]

Applied Instrument:Trombone

MUSCA 241 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private trombone lessons.

Continuation of MUSCA 211. [GE, HB, SE]

Applied Instrument:Sax

MUSCA 242 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private sax lessons.

Continuation of MUSCA 212. [GE, HB, SE]

Applied Instrument:Percussion

MUSCA 243 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private percussion lessons.

Continuation of MUSCA 213. [GE, HB, SE]

Applied Instrument:Oboe

MUSCA 244 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private oboe lessons.

Continuation of MUSCA 214. [GE, HB, SE]

Applied Instrument:Euphonium

MUSCA 245 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private euphonium lessons.

Continuation of MUSCA 215. [GE, HB, SE]

Applied Instrument:Tuba

MUSCA 246 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private tuba lessons.

Continuation of MUSCA 216. [GE, HB, SE]

Applied Instrument:Flute

MUSCA 271 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private flute lessons.

Continuation of MUSCA 231. [GE, HB, SE]

Applied Instrument:Violin

MUSCA 272 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private Violin lessons.

Continuation of MUSCA 232. [GE, HB, SE]

Applied Instrument:Cello

MUSCA 273 1 Credit/Unit

1.0 hours of lecture

Prerequisite: MUSC 201 (grade of "C" or higher)

Department consent required for enrollment. Private cello lessons.

Continuation of MUSCA 233. [GE, HB, SE]

Applied Instrument:Viola

MUSCA 274 1 Credit/Unit

1.0 hours of lecture

Prerequisite: MUSC 201 (grade of "C" or higher)

Department consent required for enrollment. Private viola lessons.

Continuation of MUSCA 234. [GE, HB, SE]

Applied Instrument:Trumpet

MUSCA 275 1 Credit/Unit

1.0 hours of lecture

Prerequisite: MUSC 201 (grade of "C" or higher)

Department consent required for enrollment. Private trumpet lessons.

Continuation of MUSCA 235. [GE, HB, SE]

Applied Instrument:Guitar

MUSCA 276 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private guitar lessons.

Continuation of MUSCA 236. [GE, HB, SE]

Applied Instrument:Clarinet

MUSCA 277 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private clarinet lessons.

Continuation of MUSCA 237. [GE, HB, SE]

Applied Instrument:Bass

MUSCA 278 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private bass lessons.

Continuation of MUSCA 238. [GE, HB, SE]

Applied Instrument:Horn

MUSCA 279 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private horn lessons.

Continuation of MUSCA 239. [GE, HB, SE]

Applied Instrument:Bassoon

MUSCA 280 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private bassoon lessons.

Continuation of MUSCA 240. [GE, HB, SE]

Applied Instrument:Trombone

MUSCA 281 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private trombone lessons.

Continuation of MUSCA 241. [GE, HB, SE]

Applied Instrument:Sax

MUSCA 282 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private sax lessons.

Continuation of MUSCA 242. [GE, HB, SE]

Applied Instrument:Percussion

MUSCA 283 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private percussion lessons.

Continuation of MUSCA 243. [GE, HB, SE]

Applied Instrument:Oboe

MUSCA 284 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private oboe lessons.

Continuation of MUSCA 244. [GE, HB, SE]

Applied Instrument:Euphonium

MUSCA 285 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private euphonium lessons.

Continuation of MUSCA 245. [GE, HB, SE]

Applied Instrument:Tuba

MUSCA 286 1 Credit/Unit

1.0 hours of lecture

Department consent required for enrollment. Private tuba lessons.

Continuation of MUSCA 246. [GE, HB, SE]

NETWORK TECHNOLOGY (NTEC)

Updated 04.22.26 - please refer to course corrections page (<https://catalog.clark.edu/corrections/course-corrections/>) for updates

IP Subnetting

NTEC 103 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10

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. [GE]

Introduction to Networks

NTEC 121 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: Concurrent enrollment in, or completion of NTEC 103 (grade of "C" or higher)

Introduction to the architecture, structure, functions, components, and models of the Internet, and other computer networks. Fundamentals to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Part one of a three-course sequence to prepare for the Cisco CCNA Routing and Switching industry certification. Cannot receive credit for both NTEC 121 and NTEC 221. [GE]

Introduction to Cybersecurity

NTEC 125 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: Concurrent enrollment in, or completion of NTEC 121 (grade of "C" or higher)

Network security topics, including how hacker attacks are carried out and how to select the right security solutions for each type of risk. Learn to create clear and enforceable security policies and to keep them up to date; to establish reliable processes for 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. May be helpful in preparing for the entry-level Cisco Certified Support Technician (CCST) Cybersecurity certification and entry-level cybersecurity positions, such as Cybersecurity Technician, Junior Cybersecurity Analyst, or Tier 1 Help Desk Support roles. [GE]

Microsoft Azure Cloud Fundamentals

NTEC 141 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10

Foundational knowledge of cloud computing and introduces Microsoft Azure services, cloud concepts, governance features, Azure management tools, and security principles. May be helpful in preparing for the AZ-900 - Microsoft Azure Fundamentals industry certification. Cannot receive credit for both NTEC 141 and NTEC 142. [GE]

Network Scripting Fundamentals

NTEC 161 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: Complete NTEC 121 (grade of "C" or higher)

Network programming to build complex scripts that can easily scale to fit the needs of a network. Fundamentals of how to use libraries for SSH management of network hardware and write scripts to perform a number of network configurations. From a simple script with one connection and one command, to building a powerful script that can read multiple commands and multiple IPs from a file, prompt for user credentials, handle errors, and find specific devices. [GE]

AI Prompt Fundamentals

NTEC 171 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10

Unlock AI's potential with effective prompts. Teaches how to give clear and specific instructions to generative AI - known as prompting. Core concepts of generative AI, how to write effective prompts, and practical techniques to optimize AI-generated content and tasks for various applications. [GE]

Cooperative Work Experience

NTEC 199 1-6 Credits/Units

18.0 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employee evaluation. [GE] [PNP]

Switching, Routing, and Wireless Essentials

NTEC 222 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: NTEC 121 (grade of "C" or higher)

Learn the architecture, components, and operations of routers and switches in an enterprise network, how to configure VLANs, routing protocols; troubleshoot routers and switches; resolve common issues with networks. Part two of a three-course sequence to prepare for the Cisco CCNA Routing and Switching industry certification. [GE]

Enterprise Networking, Security, and Automation

NTEC 223 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: NTEC 222 (grade of "C" or higher)

Learn how to configure routers and switches for advanced functionality; to configure and troubleshoot routers and switches and resolve common issues in both IPv4 and IPv6 networks. Develop the knowledge and skills needed to manage a complex network. Part three of a three-course sequence to prepare for the Cisco CCNA Routing Switching industry certification. [GE]

Network Security

NTEC 225 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: NTEC 125 (grade of "C" or higher).

Understand and use the most recent advancements in cybersecurity technology, terms, techniques, and tools, such as: automation, zero trust, risk analysis, operational technology, and IoT. Key skills for the ever-evolving cybersecurity landscape. This course may help students prepare for the CompTIA industry certification exam Security+. [GE]

Microsoft Server Administration

NTEC 231 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: NTEC 121 (grade of "C" or higher)

Preparation to configure, manage, and troubleshoot Windows Server environments effectively. Gain hands-on experience with server installation, networking, security configurations, and automation tools to support enterprise IT infrastructure. [GE]

Administering Windows Server Hybrid Core Infrastructure

NTEC 234 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: NTEC 231 and NTEC 241 (grade of "C" or higher)

Students will learn to accomplish the following technical tasks: deploy and manage Active Directory Domain Services (AD DS) in on-premises and cloud environments; manage Windows Servers and workloads in a hybrid environment; manage virtual machines and containers; implement and manage an on-premises and hybrid networking infrastructure; and manage storage and file services. This course may help students prepare for the Microsoft industry certification exam AZ-800: Administering Windows Server Hybrid Core Infrastructure. [GE]

Windows Server Hybrid Advanced Services

NTEC 235 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: NTEC 234 (grade of "C" or higher).

Students will learn to accomplish the following technical tasks: secure Windows Server on-premises and hybrid infrastructures; implement and manage Windows Server high availability; implement disaster recovery; migrate servers and workloads; and monitor and troubleshoot Windows Server environments. This course may help students prepare for the Microsoft industry certification exam AZ-801: Configuring Windows Server Hybrid Advanced Services. [GE]

Microsoft Azure Administrator

NTEC 241 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: NTEC 141 (grade of "C" or higher)

Covers implementing, managing, and monitoring an organization's Microsoft Azure environment, including virtual networks, storage, compute, identity, security, and governance. May be helpful in preparing for the AZ-104 - Microsoft Azure Administrator industry certification. Cannot receive credit for both NTEC 241 and NTEC 242. [GE]

Linux Administration 1

NTEC 252 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10

Explores the basics of Linux. Covers system architecture, Linux installation and package management, GNU and UNIX commands, devices, Linux file systems, and file system hierarchy standards. [GE]

Linux Administration 2

NTEC 253 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: NTEC 252 (grade of "C" or higher)

A deeper dive into Linux administration. Covers shells, scripting and data management, interfaces and desktops, administrative tasks, essential system services, networking fundamentals, and security. [GE]

Deploying Linux Server Services

NTEC 255 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Prerequisite: NTEC 252 (grade of "C" or higher)

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. Cannot receive credit for both NTEC 220 and NTEC 255. [GE]

Selected Topics

NTEC 280 1-6 Credits/Units

6.0 hours of lecture

Selected topics in Network Technology. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE]

Special Projects

NTEC 290 1-6 Credits/Units

6.0 hours of lecture

Opportunity to plan, organize, and complete special projects approved by the department. [GE]

Capstone Experience: Network Technologies

NTEC 297 3 Credits/Units

1.0 hours of lecture / 4.0 hours of lab

Department consent required for enrollment. 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. [GE]

NURSING (NURS)

Foundations of Nursing Concepts

NURS 110 2 Credits/Units

2.0 hours of lecture

Concurrent enrollment in NURS 111, 113, 114, and 115 and ENGL 112.

Admission into the program required for enrollment. 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]

Foundations of Clinical Nursing

NURS 111 2 Credits/Units

4.0 hours of lab

Concurrent enrollment is required in NURS 110, 113, 114, 115 and ENGL 112.

Admission into the program required for enrollment. 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]

Lifespan Assessment Concepts

NURS 113 3 Credits/Units

3.0 hours of lecture

Concurrent enrollment in NURS 110, 111, 114, 115 and ENGL 112.

Admission into the program required for enrollment. 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]

Nursing Skills Application I

NURS 114 1 Credit/Unit

2.0 hours of lab

Concurrent enrollment in NURS 110, 111, 113, 115 and ENGL 112.

Admission into the program required for enrollment. 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]

Nursing Skills Lab I

NURS 115 2 Credits/Units

4.0 hours of lab

Admission into the program required for enrollment. Supervised skills practice and competency achievement in the nursing skills lab. [GE]

Family-Centered Nursing

NURS 122 2 Credits/Units

2.0 hours of lecture

Prerequisite: Concurrent enrollment in PSYC 122, PSYC 124, NURS 123, NURS 127 and NURS 128. These classes are linked; a failing grade in any one of these classes requires repeat of all concurrent classes.

Admission into the program required for enrollment. Theory and the nursing process related to the care of children and their families.

Physiologic and psychologic adaptation during childhood and the childbearing/childrearing years, emphasis on the nurse's role in health promotion and education in the care of culturally diverse families in the community. [GE]

Family-Centered Clinical Nursing

NURS 123 4 Credits/Units

8.0 hours of lab

Concurrent enrollment in NURS 122, 127, 128, PSYC 122 and 124.

Admission into the program required for enrollment. 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]

Nursing Skills Application II

NURS 127 1 Credit/Unit

2.0 hours of lab

Concurrent enrollment in NURS 122, 123, 128, PSYC 122 and 124.

Admission into the program required for enrollment. 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]

Nursing Skills Lab II

NURS 128 2 Credits/Units

4.0 hours of lab

Concurrent enrollment in NURS 122, 123, 127, PSYC 122 and 124.

Admission into the program required for enrollment. 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]

Medical Surgical Nursing Concepts 1

NURS 135 3 Credits/Units

3.0 hours of lecture

Concurrent enrollment in NURS 136, 137, 138 and NUTR 139.

Admission into the program required for enrollment. 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]

Medical-Surgical Clinical Nursing I

NURS 136 5 Credits/Units

10.0 hours of lab

Concurrent enrollment in NURS 135, 137, 138 and NUTR 139.

Admission into the program required for enrollment. 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

2.0 hours of lab

Concurrent enrollment in NURS 135, 136, 138 and NUTR 139.

Admission into the program required for enrollment. 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]

Nursing Skills Lab III

NURS 138 2 Credits/Units

4.0 hours of lab

Concurrent enrollment in NURS 135, 136, 137 and NUTR 139.

Admission into the program required for enrollment. Practice and nursing skill achievement of NURS 137 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]

Cooperative Work Experience

NURS 199 1-5 Credits/Units

15.0 hours of clinical

Admission into the program required for enrollment. Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

Medical-Surgical Nursing Concepts II

NURS 241 3 Credits/Units

3.0 hours of lecture

Concurrent enrollment in NURS 242 and NUTR 240.

Admission into the program required for enrollment. 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]

Medical/Surgical Clinical Nursing II

NURS 242 8 Credits/Units

16.0 hours of lab

Concurrent enrollment in NURS 241 and NUTR 240.

Admission into the program required for enrollment. 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

2.0 hours of lecture

Concurrent enrollment in NURS 252 and PSYC 253.

Admission into the program required for enrollment. 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

16.0 hours of lab

Concurrent enrollment in NURS 251 and PSYC 253.

Admission into the program required for enrollment. 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 4 Credits/Units

4.0 hours of lecture

Prerequisite: Concurrent enrollment in ENGL 273, NURS 261, NURS 262, and NURS 264. Classes are linked: failure in one class requires repeat of all concurrent enrollment classes.

Admission into the program required for enrollment. Explores principles essential to the role development of the professional nurse within the healthcare system. [GE]

Professional Leadership in Practice

NURS 262 4 Credits/Units

12.0 hours of clinical

Prerequisite: Concurrent enrollment in ENGL 273, NURS 261, NURS 262, and NURS 264. Classes are linked: failure in one class requires repeat of all concurrent enrollment classes.

Admission into the program required for enrollment. Clinical course where students demonstrate competency of end of program student learning outcomes in a precepted clinical learning environment as the student prepares to enter the nursing profession. [GE]

NCLEX-RN Preparation

NURS 264 1 Credit/Unit

1.0 hours of lecture

Prerequisite: Concurrent enrollment in ENGL 273, NURS 261, NURS 262, and NURS 264. Classes are linked: failure in one class requires repeat of all concurrent enrollment classes.

Admission into the program required for enrollment. Students engage in a systematic, focused, and comprehensive review of national prelicensure content and test taking strategies to prepare for the NCLEX-RN exam. [GE]

Selected Topics

NURS 280 1-5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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 1-15 Credits/Units

15.0 hours of lecture

Admission into the program required for enrollment. Opportunity to plan, organize and complete special projects approved by the department. [GE]

NUTRITION (NUTR/NUTR&)

Nutrition In Healthcare I

NUTR 139 1 Credit/Unit

1.0 hours of lecture

Admission into the program required for enrollment. 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. [GE, NS, SE]

Nutrition In Healthcare II

NUTR 240 1 Credit/Unit

1.0 hours of lecture

Admission into the program required for enrollment. 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. [GE, NS, SE]

Nutrition

NUTR& 101 3 Credits/Units

3.0 hours of lecture

Prerequisite: CHEM& 121 or higher (grade of "C" 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. [GE, NS, SE]

OCEANOGRAPHY (OCEA&)

Introduction to Oceanography w/Lab

OCEA& 101 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

An introduction to physical oceanography and its influence on global patterns. Topics will integrate the study of physical, chemical, geologic, atmospheric and biologic systems. Human-ocean interactions will be explored. Specific areas of study include ocean geologic structure and seawater composition, global circulation and ocean currents and their connection with atmospheric motions, hurricanes, waves, tides, tsunamis, the importance of oceans to understanding climate change, coastal processes, pollution impacts, El Nino/La Nina, and the influence of the physical environment on life. [GE, NS, NS-LAB, SE]

PHARMACY (PHAR)

Overview of Pharmacy

PHAR 100 2 Credits/Units

2.0 hours of lecture

Admission into the program required for enrollment. Overview of pharmacy with particular focus on the technician in pharmacy practice settings including job roles, resources and ethical standards of practice. [GE]

A Mini Dose of Pharmacy

PHAR 101 1 Credit/Unit

1.0 hours of lecture

A preview of the practice of pharmacy. Identifies the role of the pharmacy tech, explores various pharmacy practice settings for employment, beginning basics of the language of pharmacy, both in written and oral forms. [GE]

Introduction to Pharmacy

PHAR 105 4 Credits/Units

4.0 hours of lecture

Admission into the program required for enrollment. 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]

Pharmacy Calculations

PHAR 110 3 Credits/Units

3.0 hours of lecture

Admission into the program required for enrollment. 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]

Pharmacology I

PHAR 112 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. First of 2-term sequence in pharmacology. Topics include pharmacokinetic and pharmacodynamic principles of drug therapy, with focus on absorption, distribution, metabolism, excretion, drug classification, indication for use, dose, and side effects of the most common drugs, including antibiotics, analgesics, autonomic system, cardiovascular and respiratory drugs. [GE]

Pharmacy Practice and Technology

PHAR 114 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Admission into the program required for enrollment. 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]

Pharmacy Externship I

PHAR 118 4 Credits/Units

12.0 hours of clinical

Concurrent enrollment in PHAR 119 required.

Admission into the program required for enrollment. 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]

Pharmacy Externship Seminar I

PHAR 119 1-2 Credits/Units

1.0 hours of lecture

Admission into the program required for enrollment. 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]

Pharmacology II

PHAR 122 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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]

Pharmacy Law

PHAR 123 2 Credits/Units

2.0 hours of lecture

Admission into the program required for enrollment. 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]

Pharmacy Compounding

PHAR 127 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Admission into the program required for enrollment. 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]

Pharmacy Externship II

PHAR 128 4 Credits/Units

12.0 hours of clinical

Admission into the program required for enrollment. Continued practical, on-the-job instruction in the knowledge base required of a pharmacy (technician) in the work force. [GE]

Pharmacy Externship Seminar II

PHAR 129 1-2 Credits/Units

1.0 hours of lecture

Admission into the program required for enrollment. 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]

Pharmacy Capstone

PHAR 189 2 Credits/Units

2.0 hours of lecture

Admission into the program required for enrollment. Reflect on experiences within the Pharmacy Technician Program by compiling a resume and cover letter, review and apply for the Pharmacy Technician Certification Exam (PTCE), and create a portfolio with appropriate assessments demonstrating fulfillment of program outcomes. [GE]

Pharmacy Advanced Simulation Lab

PHAR 198 1 Credit/Unit

2.0 hours of lab

Admission into the program required for enrollment. Advanced lab concepts such as medication errors, interdisciplinary concepts, immunization practice, and a review of previous lab concepts with more in-depth practice. [C,GE,SE]

Selected Topics

PHAR 280 1-5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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]

Selected Topics - Lab

PHAR 281 1-5 Credits/Units

10.0 hours of lab

Admission into the program required for enrollment. Selected topics in Pharmacy. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE] [PNP]

Special Projects

PHAR 290 1-15 Credits/Units

15.0 hours of lecture

Admission into the program required for enrollment. Opportunity to plan, organize and complete special projects approved by the department. [GE] [PNP]

Special Projects - Lab

PHAR 291 1-5 Credits/Units

10.0 hours of lab

Department consent required for enrollment. Opportunity to plan, organize, and complete special projects approved by the department. [GE] [PNP]

PHILOSOPHY (PHIL/PHIL&)

Social & Political Philosophy

PHIL 110 5 Credits/Units

5.0 hours of lecture

Introduction to the fundamental theories of political and social philosophy and their practical relevance to contemporary issues. Embracing an inclusive perspective, highlights a wide array of scholarly voices, encompassing both Western and non-Western traditions. Explore topics such as the nature of justice, the impact of the economy on society, democracy and its alternatives, individual rights in the context of the state, the conceptualization of the state itself, and the profound influence of political ideologies, including conservatism, liberalism, anarchism, fascism, and communism, on social relations. [GE, HA, SE, SS]

Ancient and Medieval Philosophy

PHIL 215 5 Credits/Units

5.0 hours of lecture

Explore the philosophical ideas and arguments of ancient and medieval thinkers, covering topics such as metaphysics, epistemology, ethics, political philosophy, and the philosophy of religion. Examine the perspectives of philosophers from diverse backgrounds to gain a comprehensive understanding of the philosophical traditions that emerged during this period and the various ways in which they have influenced contemporary thought. [GE, HA, SE]

Introduction to Modern Philosophy

PHIL 216 5 Credits/Units

5.0 hours of lecture

Explore significant thinkers and foundational ideas from both Western and non-Western traditions spanning the 16th, 17th, 18th, and 19th centuries. Engage with influential texts and ideas to gain insights into how diverse philosophical perspectives shaped the modern intellectual landscape focusing on key topics including the Enlightenment, theories of knowledge, skepticism, principles of identity, ethical frameworks, and the origins and authority of moral law. [GE, HA, SE]

The New Frontiers of Philosophy--20th Century to Today

PHIL 217 5 Credits/Units

5.0 hours of lecture

A comprehensive exploration of major philosophical movements and thinkers from the 20th century to the present day through critical analysis of key texts and contemporary issues. Engage with a diverse range of philosophical perspectives, including Pragmatism, Postmodernism, Latin American Philosophy, and African Philosophy. [GE, HA, SE]

Ethics

PHIL 240 5 Credits/Units

5.0 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. [GE, HA, SE, SS]

Philosophy of Religion

PHIL 251 5 Credits/Units

5.0 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. [GE, HA, SE]

Selected Topics

PHIL 280 1-5 Credits/Units

5.0 hours of lecture

Selected topics in Philosophy. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE, HA, SE]

Special Projects

PHIL 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE, HA, SE]

Ethics In Management

PHIL 420 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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. [GE, HA, SE]

Introduction to Philosophy

PHIL& 101 5 Credits/Units

5.0 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. [GE, HA, SE]

Critical Thinking

PHIL& 115 5 Credits/Units

5.0 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. [GE, HA, SE][PNP]

Symbolic Logic

PHIL& 120 5 Credits/Units

5.0 hours of lecture

Prerequisite: MATH 96 (grade of "C" or higher) or placement into Math level 50.

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. [CP, GE, HA, Q, SE]

PHLEBOTOMY (PHLE)

Phlebotomy Education W/Lab

PHLE 115 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Admission into the program required for enrollment. 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

1.0 hours of lecture / 4.0 hours of lab

Admission into the program required for enrollment. 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

15.0 hours of clinical

Admission into the program required for enrollment. 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. [GE]

Phlebotomy Clinical Seminar

PHLE 198 1 Credit/Unit

1.0 hours of lecture

Admission into the program required for enrollment. 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]

Selected Topics

PHLE 280 1-9 Credits/Units

9.0 hours of lecture

Admission into the program required for enrollment. Selected topics in Phlebotomy. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE]

Selected Topics - Lab

PHLE 281 1-9 Credits/Units

18.0 hours of lab

Admission into the program required for enrollment. Selected topics in Phlebotomy. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE]

Special Projects

PHLE 290 1-5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. Opportunity to plan, organize and complete special projects approved by the department. [GE]

PHYSICAL EDUCATION (PE)

Cardio Conditioning

PE 100 1 Credit/Unit

2.0 hours of lab

Basic group exercise to music, primarily targeting cardiovascular conditioning. [GE, PE, SE][PNP]

Fitness Walking

PE 102 1-2 Credits/Units

4.0 hours of lab

Emphasis on walking programs, including interval training, power walking, and race walking. Walking technique and health benefits also discussed. [GE, PE, SE][PNP]

Speed, Agility, and Quickness

PE 107 1 Credit/Unit

2.0 hours of lab

Focuses on biomechanics of running, development of speed, agility and personal quickness. Learning of drills and enhancement of skills to improve personal performance. [GE, PE, SE][PNP]

Independent Fitness

PE 108 1-2 Credits/Units

4.0 hours of lab

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. [GE, PE, SE] [PNP]

Functional Fitness

PE 111 1 Credit/Unit

2.0 hours of lab

Utilizing functional movement patterns to improve core stabilization, posture, and balance. [GE, PE, SE][PNP]

Strength and Stretch

PE 112 1 Credit/Unit

2.0 hours of lab

Utilizing body weight and portable fitness equipment to improve muscular strength, tone, and flexibility. [GE, PE, SE][PNP]

Total Body Conditioning

PE 113 2 Credits/Units

4.0 hours of lab

Students will use fitness center equipment and a variety of conditioning activities to develop cardiovascular endurance, muscular strength, and flexibility. Course will emphasize how to structure an exercise plan to meet individualized goals. [GE, PE, SE][PNP]

Weight Training-Gen'l I

PE 115 1 Credit/Unit

2.0 hours of lab

Strength development through basic exercise and lift techniques. Beginning theories and techniques in fitness conditioning, body building, and power lifting. [GE, PE, SE]

Weight Training-Power Lifting I

PE 117 2 Credits/Units

4.0 hours of lab

Conditioning class for students interested in strength improvement through heavy resistance training. The Olympic lifts along with numerous power/speed lifts will be performed for personal improvement in various fitness parameters. [GE, PE, SE][PNP]

Cardio Kickboxing-Begin

PE 120 1 Credit/Unit

2.0 hours of lab

Combination of aerobic dance and martial arts, including American Kickboxing and Thai Boxing, in a format that increases cardiovascular endurance, sharpens reflexes and enhances power. [GE, PE, SE]

Yoga

PE 121 1 Credit/Unit

2.0 hours of lab

Introduction to hatha yoga (physical yoga) with an emphasis on postures, breathing and body-mind centering. [GE, PE, SE][PNP]

Pilates-Beg

PE 124 1 Credit/Unit

2.0 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. [GE, PE, SE]

Rock Climbing

PE 125 1 Credit/Unit

2.0 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. [GE, PE, SE][PNP]

Boot Camp-Beginning

PE 129 2 Credits/Units

4.0 hours of lab

Introduction to physical fitness for military purposes; emphasis on basic conditioning and discipline. This course is open to all students. [GE, PE, SE][PNP]

Archery - Beginning

PE 138 1 Credit/Unit

2.0 hours of lab

Introduction and experience of archery including skill development, strategies, rules, safety, and analysis of shooting techniques. [GE, PE, SE]

Basketball

PE 140 1 Credit/Unit

2.0 hours of lab

Ball handling, shooting, passing, offensive and defensive techniques, rules, strategy and competitive play. [GE, PE, SE][PNP]

Bowling

PE 143 1 Credit/Unit

2.0 hours of lab

Techniques, styles of play, rules of courtesy, scoring and competitive games. [GE, PE, SE][PNP]

Fencing-Foil

PE 147 1 Credit/Unit

2.0 hours of lab

Movement of fencing plus defense, offense, rules of bouting, officiating, and competition. [GE, PE, SE][PNP]

Softball

PE 153 1 Credit/Unit

2.0 hours of lab

Skills, rules and team play. [GE, PE, SE][PNP]

Volleyball

PE 158 1 Credit/Unit

2.0 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. [GE, PE, SE] [PNP]

Pickleball - Beginning

PE 160 1 Credit/Unit

2.0 hours of lab

Pickleball is a game similar to tennis played on a badminton sized court. Development of eye-hand coordination along with the skills and proper techniques will be included in the active play of this popular world-wide game. [GE, PE, SE]

Scuba-Beginning

PE 173 2 Credits/Units

1.0 hours of lecture / 2.0 hours of lab

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. [GE, PE, SE]

Beginning Swimming

PE 175 1 Credit/Unit

2.0 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. [GE, PE, SE][PNP]

Swimming-Intermediate

PE 176 1 Credit/Unit

2.0 hours of lab

Continuation of PE 175 for students who need additional instruction and practice to improve and increase their swimming skill and confidence. [GE, PE, SE][PNP]

Swim Conditioning-Beginning

PE 179 1 Credit/Unit

2.0 hours of lab

Emphasizes swimming fitness through lap swimming. Students will participate in a workout designed to address their particular fitness and skill level. [GE, PE, SE][PNP]

Hiking

PE 182 1 Credit/Unit

2.0 hours of lab

Experience hiking off-campus on designated trails. Course emphasizes basic safety and survival skills and practices low-impact hiking methods. [GE, PE, SE][PNP]

Cooperative Work Experience

PE 199 1-5 Credits/Units

15.0 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE, PE, SE][PNP]

Cardio Conditioning-Intermediate

PE 200 1 Credit/Unit

2.0 hours of lab

Prerequisite: PE 100 (grade of "C" or higher)

Intermediate group exercise to music, primarily targeting cardiovascular conditioning. [GE, PE, SE][PNP]

Fitness Walking-Intermediate

PE 202 1-2 Credits/Units

4.0 hours of lab

Prerequisite: PE 102 (grade of "C" or higher)

Intermediate fitness walking with emphasis on walking programs and technique. [GE, PE, SE][PNP]

Speed, Agility, and Quickness

PE 207 1 Credit/Unit

2.0 hours of lab

Prerequisite: PE 107 (grade of "C" or higher)

Additional drills to further advance personal ability in running, quickness, speed. Includes advanced plyometric training techniques. [GE, PE, SE] [PNP]

Independent Fitness - Intermediate

PE 208 1-2 Credits/Units

4.0 hours of lab

Prerequisite: PE 108 (grade of "C" or higher)

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. [GE, PE, SE] [PNP]

Functional Fitness

PE 211 1 Credit/Unit

2.0 hours of lab

Prerequisite: PE 111 (grade of "C" or higher)

Continuation of PE 111. Utilizing functional movement patterns to improve core stabilization, posture, and balance. More advanced techniques introduced. [GE, PE, SE][PNP]

Strength and Stretch-Intermediate

PE 212 1 Credit/Unit

2.0 hours of lab

Prerequisite: PE 112 (grade of "C" or higher)

Continuation of PE 112. Utilizing body weight and portable fitness equipment to improve muscular strength, tone, and flexibility. [GE, PE, SE] [PNP]

Total Body Conditioning-Int

PE 213 2 Credits/Units

4.0 hours of lab

Prerequisite: PE 113 (grade of "C" or higher)

Continuation of individualized conditioning program for developing the various components of fitness. Additional focus on learning principles of fitness to create personalized workouts. [GE, PE, SE][PNP]

Weight Training-General II

PE 215 1 Credit/Unit

2.0 hours of lab

Designed for the student who is interested in a more in-depth approach to advanced weight training exercises, programs, and systems. [GE, PE, SE]

Weight Training-Power Lifting II

PE 217 2 Credits/Units

4.0 hours of lab

Prerequisite: PE 117 (grade of "C" or higher)

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. [GE, PE, SE][PNP]

Cardio Kickboxing-Int

PE 220 1 Credit/Unit

2.0 hours of lab

Prerequisite: PE 120 (grade of "C" or higher)

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. [GE, PE, SE][PNP]

Yoga-Intermediate

PE 221 1 Credit/Unit

2.0 hours of lab

Prerequisite: PE 121 (grade of "C" or higher)

A continuation of Hatha yoga technique. Students will practice more advanced postures and a deeper exploration of body-mind centering. [GE, PE, SE][PNP]

Pilates-Intermediate

PE 224 1 Credit/Unit

2.0 hours of lab

Prerequisite: PE 124 (grade of "C" or higher)

Continuation of Pilates method of conditioning needed to increase core strength and stabilization, improve coordination, balance, postural awareness, and increase muscular flexibility and stamina. [GE, PE, SE][PNP]

Rock Climbing-Intermediate

PE 225 1 Credit/Unit

2.0 hours of lab

Prerequisite: PE 125 (grade of "C" or higher)

Learn advanced rock climbing methods. Boulder technique and Lead Climbing skills will be taught, taking the student beyond the skills learned in PE 125. [GE, PE, SE][PNP]

Boot Camp-Intermediate

PE 229 2 Credits/Units

4.0 hours of lab

Prerequisite: PE 129 (grade of "C" or higher)

Continuation of physical fitness for military purposes; emphasis on basic conditioning, discipline, and leadership. This course is open to all students. [GE, PE, SE][PNP]

Archery - Intermediate

PE 238 1 Credit/Unit

2.0 hours of lab

Prerequisite: PE 138 (grade of "C" or higher).

Introduction and experience of archery including skill development, strategies, rules, safety, and analysis of shooting techniques. Students will engage in a competitive shoot within class to evaluate their skill set. [GE, PE, SE]

Basketball-Intermediate

PE 240 1 Credit/Unit

2.0 hours of lab

Prerequisite: PE 140 (grade of "C" or higher)

Continuation of skills, practice, and competitive play. [GE, PE, SE][PNP]

Bowling-Intermediate

PE 243 1 Credit/Unit

2.0 hours of lab

Prerequisite: PE 143 (grade of "C" or higher)

Advanced instruction in all phases of bowling including league play and competition. [GE, PE, SE][PNP]

Fencing-Foil,Sabre,Epee

PE 246 1 Credit/Unit

2.0 hours of lab

Movements of all three weapons of fencing. Emphasizes defense, offense, rules, officiating and competition. [GE, PE, SE][PNP]

Fencing-Foil Intermediate

PE 247 1 Credit/Unit

2.0 hours of lab

Prerequisite: PE 147 (grade of "C" or higher)

Skill refinement and advanced technique for experienced foil fencers. [GE, PE, SE][PNP]

Volleyball-Intermediate

PE 258 1 Credit/Unit

2.0 hours of lab

Prerequisite: PE 158 (grade of "C" or higher)

Further development of individual skills, team offenses and defenses learned in the beginning level PE 158. [GE, PE, SE][PNP]

Pickleball - Intermediate

PE 260 1 Credit/Unit

2.0 hours of lab

Prerequisite: PE 160 (grade of "C" or higher)

Pickleball is a game similar to tennis played on a badminton sized court. Development of eye-hand coordination along with the skills and proper techniques will be included in the active play of this popular world-wide game. In this second course, competitive games and scoring strategy will be covered. [GE, PE, SE]

Swimming-Stroke Improvement

PE 275 1 Credit/Unit

2.0 hours of lab

Prerequisite: PE 175 (grade of "C" or higher)

Review Red Cross swimming strokes, water survival and safety skills. For the swimmer who is comfortable in deep water and can swim 25 yards. [GE, PE, SE][PNP]

Swim Conditioning-Intermediate

PE 279 1 Credit/Unit

2.0 hours of lab

Prerequisite: PE 179 (grade of "C" or higher)

Continued practice of swimming fitness through lap swimming. Students will participate in a workout designed to address their particular fitness and skill level. [GE, PE, SE][PNP]

Selected Topics

PE 280 1-5 Credits/Units

5.0 hours of lecture

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. Individual topics are listed in the term class schedules. [GE, PE, SE]

Hiking-Intermediate

PE 282 1 Credit/Unit

2.0 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. [GE, PE, SE][PNP]

Special Projects

PE 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

Introduction to Sports Officiating

PE 295 2 Credits/Units

2.0 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. [GE]

PHYSICAL EDUCATION DANCE (PEDNC)

Ballet-Beginning

PEDNC 130 1 Credit/Unit

2.0 hours of lab

Beginning ballet technique including barre and center work. [GE, PE, SE]

Ballroom Dance: Mixed

PEDNC 131 1 Credit/Unit

2.0 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. [GE, PE, SE]

Ballroom Dance: Smooth

PEDNC 132 1 Credit/Unit

2.0 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. [GE, PE, SE]

Ballroom Dance: Latin

PEDNC 133 1 Credit/Unit

2.0 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. [GE, PE, SE]

Swing Dance-Beginning

PEDNC 135 1 Credit/Unit

2.0 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. [GE, PE, SE]

Hip-Hop Dance

PEDNC 137 1 Credit/Unit

2.0 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. [GE, PE, SE]

Tap Dance

PEDNC 138 1 Credit/Unit

2.0 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. [GE, PE, SE]

Zumba

PEDNC 140 1 Credit/Unit

2.0 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. [GE, PE, SE]

Ballet-Intermediate

PEDNC 230 1 Credit/Unit

2.0 hours of lab

Prerequisite: PEDNC 130 (grade of "C" or higher)

Stronger techniques with more advanced steps and combinations including toe. [GE, PE, SE]

Ballroom Dance-Intermediate: Mixed

PEDNC 231 1 Credit/Unit

2.0 hours of lab

Prerequisite: PEDNC 131 (grade of "C" or higher)

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. [GE, PE, SE]

Ballroom Dance-Intermediate: Smooth

PEDNC 232 1 Credit/Unit

2.0 hours of lab

Prerequisite: PEDNC 131 or PEDNC 132 (grade of "C" or higher)

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. [GE, PE, SE]

Ballroom Dance-Intermediate: Latin

PEDNC 233 1 Credit/Unit

2.0 hours of lab

Prerequisite: PEDNC 131 or PEDNC 132 (grade of "C" or higher)

Fundamentals, forms and pattern of ballroom dance. Develop confidence through practice with a variety of partners. Latin dance sections will include: mambo, cha cha, rhumba, samba, and salsa. [GE, PE, SE]

Swing Dance-Intermediate

PEDNC 235 1 Credit/Unit

2.0 hours of lab

Prerequisite: PEDNC 135 (grade of "C" or higher)

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. [GE, PE, SE]

Hip-Hop Dance-Intermediate

PEDNC 237 1 Credit/Unit

2.0 hours of lab

Prerequisite: PEDNC 137 (grade of "C" or higher)

Intermediate study of dance techniques, floor combinations, balance, and longer dance routines of hip hop dance. Develop more confidence and skill through practice. [GE, PE, SE]

Tap Dance-Intermediate

PEDNC 238 1 Credit/Unit

2.0 hours of lab

Prerequisite: PEDNC 138 (grade of "C" or higher)

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. [GE, PE, SE]

Zumba Intermediate

PEDNC 240 1-3 Credits/Units

6.0 hours of lab

Prerequisite: PEDNC 140 (grade of "C" or higher)

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. [GE, PE, SE]

PHYSICAL EDUCATION EXERCISE SCIENCE (PEEXS)

Mental Performance In Sports

PEEXS 293 3 Credits/Units

3.0 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.

[GE, SE][PNP]

Sport In Society

PEEXS 294 3 Credits/Units

3.0 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. [GE, PE, SE][PNP]

Introduction to Sports Officiating

PEEXS 295 2 Credits/Units

2.0 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. [GE]

PHYSICAL EDUCATION MARTIAL ARTS (PEMAR)

T'ai Chi

PEMAR 150 1 Credit/Unit

2.0 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. [GE, PE, SE]

Self Defense

PEMAR 155 1 Credit/Unit

2.0 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. [GE, PE, SE]

T'ai Chi - Intermediate

PEMAR 250 1 Credit/Unit

2.0 hours of lab

Prerequisite: PEMAR 150 (grade of "C" or higher)

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. [GE, PE, SE]

PHYSICAL SCIENCE (PHSC)

General Physical Science

PHSC 101 5 Credits/Units

4.0 hours of lecture / 2.0 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. [GE, NS, NS-LAB, SE]

General Physical Science

PHSC 102 5 Credits/Units

4.0 hours of lecture / 2.0 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. [GE, NS, NS-LAB, SE]

Our Chemical World

PHSC 106 3 Credits/Units

3.0 hours of lecture

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. [GE, NS, SE]

Cooperative Work Experience

PHSC 199 1-3 Credits/Units

9.0 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

Selected Topics

PHSC 280 1-5 Credits/Units

5.0 hours of lecture

Selected topics in Physical Science. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE]

PHYSICS (PHYS/PHYS&)

Physics Calculations

PHYS 91 1 Credit/Unit

1.0 hours of lecture

Prerequisite: College Trigonometry (MATH 102 or MATH 103) grade of "C" or higher, and concurrent enrollment in PHYS& 134, PHYS& 124 and PHYS 91.

Methods of problem-solving in physics.

Physics Calculations

PHYS 92 1 Credit/Unit

1.0 hours of lecture

Prerequisite: PHYS& 134 (grade of "C" or higher) and concurrent enrollment in PHYS& 135, PHYS& 125 and PHYS 92

Methods of problem-solving in physics.

Physics Calculations

PHYS 93 1 Credit/Unit

1.0 hours of lecture

Prerequisite: PHYS& 135 (grade of "C" or higher) and concurrent enrollment in PHYS& 136, PHYS& 126 and PHYS 93

Methods of problem-solving in physics.

Physics Calculations

PHYS 94 1 Credit/Unit

1.0 hours of lecture

Methods of problem-solving in physics.

Physics Calculations

PHYS 95 1 Credit/Unit

1.0 hours of lecture

Prerequisite: PHYS& 241 (grade of "C" or higher) and concurrent enrollment in PHYS& 232, PHYS& 242 and PHYS 95

Methods of problem-solving in physics.

Physics Calculations

PHYS 96 1 Credit/Unit

1.0 hours of lecture

Prerequisite: PHYS& 242 (grade of "C" or higher) and concurrent enrollment in PHYS& 233, PHYS& 243 and PHYS 96

Methods of problem-solving in physics.

Cooperative Work Experience

PHYS 199 1-3 Credits/Units

9.0 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

Special Projects

PHYS 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

Physics Non-Sci Majors

PHYS& 100 4 Credits/Units

4.0 hours of lecture

Prerequisite: MATH 90 (grade of "C" or higher), or placement into Math level 40 and concurrent enrollment in PHYS& 101.

Introduction to basic physics concepts for non-science majors, technical students, or students who desire a PHYS& 121 or 221 preparatory course. [GE, NS, SE]

Physics Lab Non-Sci Majors

PHYS& 101 1 Credit/Unit

3.0 hours of lab

Prerequisite: Concurrent enrollment in PHYS& 100.

Laboratory study of basic physics concepts for non-science majors, technical students, or students who desire a PHYS& 121 or 221 preparatory course. [GE, NS, NS-LAB, SE]

General Physics Lab I

PHYS& 124 1 Credit/Unit

2.0 hours of lab

Prerequisite: College Trigonometry (MATH 102 or MATH 103) grade of "C" or higher, and concurrent enrollment in PHYS& 134, PHYS& 124 and PHYS 91.

Exploration of classical physics topics in mechanics through laboratory experience. [GE, NS, NS-LAB, SE]

General Physics Lab II

PHYS& 125 1 Credit/Unit

2.0 hours of lab

Prerequisite: PHYS& 134 (grade of "C" or higher) and concurrent enrollment in PHYS& 135, PHYS& 125 and PHYS 92

Exploration of classical physics topics in fluids, thermodynamics, and sound through laboratory experience. [GE, NS, NS-LAB, SE]

General Physics Lab III

PHYS& 126 1 Credit/Unit

2.0 hours of lab

Prerequisite: PHYS& 135 (grade of "C" or higher) and concurrent enrollment in PHYS& 136, PHYS& 126 and PHYS 93

Exploration of classical physics topics in electricity and magnetism, optics, and modern physics through laboratory experience. [GE, NS, NS-LAB, SE]

General Physics I

PHYS& 134 4 Credits/Units

4.0 hours of lecture

Prerequisite: College Trigonometry (MATH 102 or MATH 103) grade of "C" or higher, and concurrent enrollment in PHYS& 134, PHYS& 124 and PHYS 91.

First of a three-term sequence, offered in fall and winter quarters.

Physical principles of motion, equilibrium, dynamics, gravity, work energy, momentum, and fluids. Recommended for students in medicine, dentistry, pharmacy, physical therapy, forestry and the life sciences. [GE, NS, SE]

General Physics II

PHYS& 135 4 Credits/Units

4.0 hours of lecture

Prerequisite: PHYS& 134 (grade of "C" or higher) and concurrent enrollment in PHYS& 135, PHYS& 125 and PHYS 92

Second of a three-term sequence beginning with PHYS& 134.

Fundamental physical principles of sound, fluids, heat, thermodynamics, electricity, and magnetism. [GE, NS, SE]

General Physics III

PHYS& 136 4 Credits/Units

4.0 hours of lecture

Prerequisite: PHYS& 135 (grade of "C" or higher) and concurrent enrollment in PHYS& 136, PHYS& 126 and PHYS 93

Third of a three-term sequence beginning with PHYS& 134. Topics in electricity, magnetism, atomic and nuclear physics, and optics. [GE, NS, SE]

Engineering Phys Lab I

PHYS& 231 1 Credit/Unit

2.0 hours of lab

Prerequisite: Concurrent enrollment in, or completion of MATH& 152 (grade of "C" or higher) and concurrent enrollment in PHYS& 231, PHYS& 241 and PHYS 94.

Students will explore classical physics topics in mechanics through laboratory experience. [GE, NS, NS-LAB, SE]

Engineering Phys Lab II

PHYS& 232 1 Credit/Unit

2.0 hours of lab

Prerequisite: PHYS& 241 (grade of "C" or higher) and concurrent enrollment in PHYS& 232, PHYS& 242 and PHYS 95

Students will explore classical physics topics in fluids, thermodynamics, and sound through laboratory experience. [GE, NS, NS-LAB, SE]

Engineering Phys Lab III

PHYS& 233 1 Credit/Unit

2.0 hours of lab

Prerequisite: PHYS& 242 (grade of "C" or higher) and concurrent enrollment in PHYS& 233, PHYS& 243 and PHYS 96

Students will explore classical physics topics in electricity and magnetism, optics, and modern topics through laboratory experience. [GE, NS, NS-LAB, SE]

Engineering Physics I

PHYS& 241 4 Credits/Units

4.0 hours of lecture

Prerequisite: Concurrent enrollment in, or completion of MATH& 152 (grade of "C" or higher) and concurrent enrollment in PHYS& 231, PHYS& 241 and PHYS 94.

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. [GE, NS, SE]

Engineering Physics II

PHYS& 242 4 Credits/Units

4.0 hours of lecture

Prerequisite: PHYS& 241 (grade of "C" or higher) and concurrent enrollment in PHYS& 232, PHYS& 242 and PHYS 95

Physics topics in fluids, heat, thermodynamics, sound, electricity, and magnetism. Second term of a three-term sequence beginning with PHYS& 241. [GE, NS, SE]

Engineering Physics III

PHYS& 243 4 Credits/Units

4.0 hours of lecture

Prerequisite: PHYS& 242 (grade of "C" or higher) and concurrent enrollment in PHYS& 233, PHYS& 243 and PHYS 96

Topics in electricity, magnetism, atomic and nuclear physics, and optics. Third term of a three-term sequence beginning with PHYS& 241. [GE, NS, SE]

POLITICAL SCIENCE (POLS/ POLS&)

American National Government and Politics

POLS 111 5 Credits/Units

5.0 hours of lecture

The institutions, structures, and processes that affect the course of politics and public policy at the national level of American government. [GE, SE, SS]

State and Local Government

POLS 131 5 Credits/Units

5.0 hours of lecture

The institutions, structures, and political processes at the state and local levels of government in our federal system. [GE, SE, SS]

Cooperative Work Experience

POLS 199 1-3 Credits/Units

9.0 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

The Geopolitics of The Middle East

POLS 220 5 Credits/Units

5.0 hours of lecture

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 GEOG 220 and POLS 220. [GE, SE, SS]

The Geopolitics of Africa

POLS 221 5 Credits/Units

5.0 hours of lecture

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 GEOG 221 and POLS 221. [GE, SE, SS]

The Geopolitics of Asia and Oceania

POLS 222 5 Credits/Units

5.0 hours of lecture

Geo-political survey of Asia and Oceania, 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 Asia and Oceania on the rest of the world, as well as examine the impact and influence of the rest of the world on this region. Credit not allowed for both GEOG 222 and POLS 222. [GE, SE, SS]

The Geopolitics of Eurasia

POLS 223 5 Credits/Units

5.0 hours of lecture

Geo-political survey of Europe, Russia 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. Examines the importance and impact of Eurasia on the rest of the world, as well as examine the impact and influence of the rest of the world on Eurasia. Credit not allowed for both GEOG 223 and POLS 223. [GE, SE, SS]

Geopolitics of Latin America and Caribbean

POLS 224 5 Credits/Units

5.0 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. Examines 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. [GE, SE, SS]

Environmental Politics

POLS 231 5 Credits/Units

5.0 hours of lecture

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. Credit not allowed for both ENV 231 and POLS 231. [GE, SE, SS]

Selected Topics

POLS 280 1-5 Credits/Units

5.0 hours of lecture

Selected topics in Political Science. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE, SE]

Special Projects

POLS 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

International Relations

POLS& 203 5 Credits/Units

5.0 hours of lecture

World politics, concepts and theories from the post-World War II period. Processes of power, foreign policy, development and trends in the current international scene analyzed. Conflict and conflict resolution and control. [GE, SE, SS]

PROFESSIONAL BAKING (PBAK)

Artisan Breads

PBAK 110 9 Credits/Units

2.0 hours of lecture / 14.0 hours of lab

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10, eligibility for ENGL 99, and concurrent enrollment in PBAK 110 and PBAK 111.

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. [GE]

Early Morning Product

PBAK 111 5 Credits/Units

2.0 hours of lecture / 6.0 hours of lab

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10, eligibility for ENGL 99, and concurrent enrollment in PBAK 110 and PBAK 111.

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. [GE]

Viennoiserie

PBAK 120 9 Credits/Units

2.0 hours of lecture / 14.0 hours of lab

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10, eligibility for ENGL 99, and concurrent enrollment in PBAK 120 and PBAK 121.

Covers laminated doughs, brioche and sweet doughs. Students will learn various pre-ferments, mixing, fermentation, laminating techniques, make-up 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 and note-taking. [GE]

Cookies, Brownies, Bars and Quick Breads

PBAK 121 5 Credits/Units

2.0 hours of lecture / 6.0 hours of lab

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10, eligibility for ENGL 99, and concurrent enrollment in PBAK 120 and PBAK 121.

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. [GE]

Cakes, Desserts and Tortes

PBAK 130 9 Credits/Units

2.0 hours of lecture / 14.0 hours of lab

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10, eligibility for ENGL 99, and concurrent enrollment in PBAK 130 and PBAK 131.

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. [GE]

Retail Operations and Barista

PBAK 131 5 Credits/Units

2.0 hours of lecture / 6.0 hours of lab

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10, eligibility for ENGL 99, and concurrent enrollment in PBAK 130 and PBAK 131.

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. [GE]

Applied Professional Development

PBAK 200 9 Credits/Units

1.0 hours of lecture / 16.0 hours of lab

Prerequisite: PBAK 110, PBAK 111, PBAK 120, PBAK 121, PBAK 130 and PBAK 131 (grades of "C" or higher).

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. [GE]

Production Baking

PBAK 210 9 Credits/Units

2.0 hours of lecture / 14.0 hours of lab

Prerequisite: PBAK 200 (grade of "C" or higher) and concurrent enrollment in PBAK 225.

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, Viennoiserie, 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. [GE]

Pastry Chef/Restaurant Baking

PBAK 220 9 Credits/Units

2.0 hours of lecture / 14.0 hours of lab

Prerequisite: PBAK 200 (grade of "C" or higher), and concurrent enrollment in PBAK 220 and PBAK 221

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. [GE]

Retail/Merchandising, Inventory/Purchasing

PBAK 221 5 Credits/Units

2.0 hours of lecture / 6.0 hours of lab

Prerequisite: PBAK 200 (grade of "C" or higher), and concurrent enrollment in PBAK 220 and PBAK 221

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. [GE]

Cake Decorating

PBAK 225 5 Credits/Units

2.0 hours of lecture / 6.0 hours of lab

Prerequisite: PBAK 200 (grade of "C" or higher)

Beginning with the basics of cake decoration with progression to fondant and wedding cakes. Flower work, fondant and fondant working tools will be introduced. Additional topics: Customer service; cake planning; order taking; professionalism in the workplace; bakeshop safety and sanitation; equipment use and safety. Cannot receive credit for both PBAK 211 and PBAK 225.

Capstone Project

PBAK 230 6 Credits/Units

1.0 hours of lecture / 10.0 hours of lab

Prerequisite: PBAK 200 (grade of "C" or higher), and concurrent enrollment in PBAK 230 and PBAK 231

Students will have five weeks to prepare and execute a display covering one of the following areas: Viennoiserie, 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. [GE]

Industry Internship

PBAK 231 4 Credits/Units

12.0 hours of clinical

Prerequisite: PBAK 200 (grade of "C" or higher), and concurrent enrollment in PBAK 230 and PBAK 231

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. [GE]

Selected Topics

PBAK 280 1-5 Credits/Units

5.0 hours of lecture

Selected topics in Professional Baking. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules.

Selected Topics - Lab

PBAK 281 1-5 Credits/Units

10.0 hours of lab

Selected topics in Professional Baking. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules.

Special Projects

PBAK 290 1-6 Credits/Units

6.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS (PTCS)

Professional Technical Computational Skills

PTCS 110 5 Credits/Units

5.0 hours of lecture

Prerequisite: CAP 42 (grade of "C" or higher) or placement into Math level 10

Intended for students enrolled in career technical education programs.

It includes topics from algebra, geometry, statistics, and inductive reasoning with an emphasis on applications and measurement. Students will focus on career-specific applications at the end of the course. This course will satisfy the computational requirement for the Certificate of Proficiency, Associate of Applied Science and the Associate of Applied Technology. [CP, GE]

PROFESSIONAL TECHNICAL WRITING (PTWR)

Introduction to Applied Technical Writing

PTWR 135 5 Credits/Units

5.0 hours of lecture

Prerequisite: CAP 90 or ENGL 90 (grade of "C" or higher) or recommending placement through Multiple Measures.

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]

PSYCHOLOGY (PSYC/PSYC&)

The Process of Discovery

PSYC 102 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Introduction to the processes of discovery used in the natural and social sciences. Includes authentic research on factors that contribute to college student success, studied in social, psychological, and physiological contexts. Research topics include hypothesis development, experimental design, literature searches, data analysis, research ethics and human subjects research considerations. Course fulfills COLL 101: College Essentials outcomes including 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, NS, NS-LAB, SE, SS] [PNP]

Psychosocial Issues In Health Care I

PSYC 122 1 Credit/Unit

1.0 hours of lecture

Admission into the program required for enrollment. 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. [GE, SE, SS]

Psychosocial Issues In Health Care II

PSYC 124 2 Credits/Units

2.0 hours of lecture

Admission into the program required for enrollment. 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 symptomatology specific to anxiety, depression, delirium and agitation. [GE, SE, SS]

Cooperative Work Experience

PSYC 199 1-5 Credits/Units

15.0 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

Social Psychology

PSYC 203 5 Credits/Units

5.0 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. [GE, HR, PPI, SE, SS]

Psychosocial Issues In Health Care III

PSYC 253 2 Credits/Units

2.0 hours of lecture

Admission into the program required for enrollment. 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 persons with acute mental issues and/or chronic mental illnesses. [GE, SE, SS]

Selected Topics

PSYC 280 1-3 Credits/Units

3.0 hours of lecture

Prerequisite: PSYC& 100 (grade of "C" or higher)

Selected topics in Psychology. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE, SE]

Special Projects

PSYC 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

General Psychology

PSYC& 100 5 Credits/Units

5.0 hours of lecture

Prerequisite: CAP 90 or ENGL 90 (grade of "C" or higher) or recommending placement through Multiple Measures.

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. [GE, HR, SE, SS] [PNP]

Human Sexuality: A Psychological Approach

PSYC& 180 5 Credits/Units

5.0 hours of lecture

Examine sexuality from scientific and biopsychosocial perspectives. Review historical and contemporary topics regarding human sexuality, including how cultural factors influence sexual attitudes and experiences. Contents include exploration regarding gender, sexuality, identity, sexual behavior, and health across the lifespan. [GE, PPI, SE, SS]

Lifespan Psychology

PSYC& 200 5 Credits/Units

5.0 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. [GE, HR, SE, SS]

Psychological Disorders

PSYC& 220 5 Credits/Units

5.0 hours of lecture

Prerequisite: PSYC& 100, PSYC& 200, SOC& 101, or WGES 101 (grade of "C" or higher)

A broad overview of psychological disorders, including historical concepts of mental health, theoretical frameworks for understanding health vs disorder, the development and limitations of classification systems such as the DSM, and various treatment approaches. Examine the biological, psychological, behavioral, and sociocultural factors that influence mental health, as well as analyze ethical and contemporary approaches to assessment, diagnosis, and treatment. [GE, PPI, SE, SS]

SOCIOLOGY (SOC/SOC&)

Race and Ethnicity In The U.S.

SOC 131 5 Credits/Units

5.0 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. [GE, HR, PPI, SE, SS]

Introduction to Native American Studies

SOC 151 5 Credits/Units

5.0 hours of lecture

An introduction to Indigenous histories, cultures, and contemporary experiences, with an emphasis on the peoples of the Pacific Northwest. Explore themes of sovereignty, resilience, and cultural revitalization while examining the lasting impacts of colonization. Aligns with Clark College's Diversity, Equity, Inclusion, and Respect (DEIR) commitments, Land Acknowledgement, and Since Time Immemorial curriculum, offering a foundation for deeper engagement with Indigenous perspectives locally and globally. [GE, PPI, SE, SS]

World Religions

SOC 161 5 Credits/Units

5.0 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. [GE, HA, SE, SS]

Selected Topics

SOC 180 1-5 Credits/Units

5.0 hours of lecture

Selected topics in Sociology. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE] [PNP]

Cooperative Work Experience

SOC 199 1-5 Credits/Units

15.0 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

Domestic Violence

SOC 230 5 Credits/Units

5.0 hours of lecture

Prerequisite: PSYC& 100, SOC& 101, or WGES 101 (grade of "C" or higher) 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. [GE, PPI, SE, SS]

Criminology and Delinquency

SOC 240 5 Credits/Units

5.0 hours of lecture

Prerequisite: PSYC& 100, SOC& 101, or WGES 101 (grade of "C" or higher) 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. [GE, PPI, SE, SS]

The Family in Cross-Cultural Perspective

SOC 250 5 Credits/Units

5.0 hours of lecture

Prerequisite: ACED 201, ANTH& 206, BASHS 301, PSYC& 100, or SOC& 101 (grade of "C" or higher).

The dynamic experiences of multicultural families (including immigrants) are examined through the lens of diversity and equity in an ever-changing global world. The focus will be on the historical, racial, ethnic, cultural, political, sexual, religious, economic and geographic differences and influences. Students cannot receive credit for both SOC 121 and SOC 250. [GE, HR, SE, SS][PNP]

Selected Topics

SOC 280 1-5 Credits/Units

5.0 hours of lecture

Selected topics in Sociology. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE, SE]

Special Projects

SOC 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

Organizational Behavior

SOC 315 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. 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, SE, SS]

Social Studies for Teachers

SOC 360 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. Rooted in a diverse set of humanities and social sciences, from history and political science to geography and sociology, with a particular focus on training early childhood teachers to reach social concepts that are relevant, historically accurate, culturally responsive, and socially equitable for preschool through grade three. [GE, SE, SS]

Introduction to Sociology

SOC& 101 5 Credits/Units

5.0 hours of lecture

Introduces the sociological perspectives and theories that offer answers to questions about current events and culture: how human interaction, social change, and social institutions intersect and impact each other and the larger world. Examines and reflects upon these social phenomena through the lens of power, privilege, and inequity and the student experience. [GE, HR, PPI, SE, SS]

Social Problems: The Pursuit of Social Justice

SOC& 201 5 Credits/Units

5.0 hours of lecture

Prerequisite: PSYC& 100, SOC& 101, or WGES 101 (grade of "C" or higher)

Study of the magnitude and consequences of social problems in the US from a sociological; power, privilege and inequity; and cross cultural perspective. Examination of solutions 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. [GE, HR, PPI, SE, SS]

SPANISH (SPAN/SPAN&)

Cooperative Work Experience

SPAN 199 1-10 Credits/Units

30.0 hours of clinical

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]

Selected Topics

SPAN 280 1-5 Credits/Units

5.0 hours of lecture

Selected topics in Spanish. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE, SE]

Special Projects

SPAN 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

Spanish I

SPAN& 121 5 Credits/Units

5.0 hours of lecture

Designed for beginning students, with little to no experience, who want to learn Spanish as a second language. Emphasis on listening/speaking skills, with additional practice in reading/writing and basic Spanish grammar. Topics covered: greetings; regular and irregular verbs in present tense; question and response formation; vocabulary about family, friends, studies, hobbies and likes/dislikes. After successful completion, students are encouraged to continue with SPAN& 122. [GE, HA, SE]

Spanish II

SPAN& 122 5 Credits/Units

5.0 hours of lecture

Designed for beginning 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. Students who enroll in this class should already be able to conjugate verbs in the present tense to describe self, likes/dislikes, family, friends, and daily activities. After successful completion, students are encouraged to continue with SPAN& 123. [GE, HA, SE]

Spanish III

SPAN& 123 5 Credits/Units

5.0 hours of lecture

Designed for beginning 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, reading and writing skills. Students who enroll in this class should already be able to converse and write using verbs in the present and simple past tense to describe routines, likes/dislikes, and past activities. This class focuses on how to narrate in the past tense and introduces more complex grammar structures such as the subjunctive mood. After successful completion, students are encouraged to continue with SPAN& 221. [GE, HA, SE]

Spanish IV

SPAN& 221 5 Credits/Units

5.0 hours of lecture

First term of a three-term sequence in intermediate Spanish. Focus on discussion of literature and culture from the Spanish-speaking world. Intensive grammar review with conversation and composition practice. Heritage speakers of Spanish welcome. [GE, HA, SE]

Spanish V

SPAN& 222 5 Credits/Units

5.0 hours of lecture

Second term of a three-term sequence in intermediate Spanish. Focus on discussion of literature and culture from the Spanish-speaking world. Intensive grammar review with conversation and composition practice. Heritage speakers of Spanish welcome. [GE, HA, SE]

Spanish VI

SPAN& 223 5 Credits/Units

5.0 hours of lecture

Final term of a three-term sequence in intermediate Spanish. Focus on discussion of literature and culture from the Spanish-speaking world. Intensive grammar review with conversation and composition practice. Heritage speakers of Spanish welcome. [GE, HA, SE]

SURGICAL TECHNOLOGY (SURG)

Introduction to Surgical Technology

SURG 100 2 Credits/Units

2.0 hours of lecture

Admission into the program required for enrollment. An overview of the Surgical Technologist role within the Operating Room Team. First course in the 2 year program. Expect components of this class to be part of "common knowledge" in future surgery classes. Take a look at hospital and surgical environments; procedural and safety concerns for staff and patients; history of surgery and aseptic techniques. Identify and use the skills needed in the academic setting, as well as the social aspects of the professional person, that will help you be successful in the field of Surgical Technology. [GE]

Surgical Procedures I

SURG 101 5 Credits/Units

5.0 hours of lecture

Admission into the program required for enrollment. An introduction to the knowledge and techniques essential to the surgical technologist in preparation for a surgical procedure. Areas of emphasis will include expertise in preparation/utilization of equipment and supplies, sterilization and disinfection, aseptic techniques, instrumentation, surgical accessories, and duties of the surgical technologist, working as a member of the Surgical Team. [GE]

Central Service Clinical I

SURG 104 1 Credit/Unit

3.0 hours of clinical

Admission into the program required for enrollment. Central Service rotation allows for the opportunity to utilize skills inherent to the CS Technician/Materials Management/Decontamination that skill builds for the Surgical Technologist. [GE]

Surgical Environment

SURG 107 3 Credits/Units

3.0 hours of lecture

Admission into the program required for enrollment. Begin with a review of the Surgical Technologist role from SURG 100 and continue with the Surgical Technologist role within the Surgical Team in the surgical environment. Introduction and preparation for the three (3) quarter Surgical Procedures and two (2) quarter Technical Skills classes. [GE]

Technical Skills Lab I

SURG 111 4 Credits/Units

8.0 hours of lab

Admission into the program required for enrollment. Provides practical application and performance of the skills necessary to participate as a member of the Surgical Team as the Surgical Technologist and as assistant to the circulator and Surgical Technologist in the operating room. Skills practiced will include patient transportations and preparation, equipment and supplies identification and preparation, sterilization and disinfection practices, aseptic techniques, and safety practices in the operating room. [GE]

Surgical Procedures II

SURG 202 6 Credits/Units

6.0 hours of lecture

Admission into the program required for enrollment. A continuation of concepts introduced in SURG 101, with emphasis on advanced concepts of application towards surgical procedures. [GE]

Surgical Procedures III

SURG 203 4 Credits/Units

4.0 hours of lecture

Admission into the program required for enrollment. A continuation of concepts introduced in SURG 202, with emphasis on advanced concepts of application towards surgical procedures. [GE]

Perioperative Care of the Patient

SURG 206 4 Credits/Units

4.0 hours of lecture

Admission into the program required for enrollment. An introduction to the knowledge and skills required for the preoperative, intra-operative and postoperative phases of the surgical patient. Emphasizes understanding the surgical patient's pharmacological, ethical, anesthetic, and wound healing status as well as other related patient needs. [GE]

Technical Skills Lab II

SURG 212 4 Credits/Units

8.0 hours of lab

Admission into the program required for enrollment. Continues with the applications introduced in SURG 111. Duties include patient preparation, equipment and supply preparation, sterilizing practices, and disinfection and aseptic techniques. [GE]

Surgical Seminar

SURG 250 3 Credits/Units

3.0 hours of lecture

Admission into the program required for enrollment. A weekly conference based on discussion from the students, operating room experiences in the form of case studies. In this final quarter of the Surgical Technology Program, "tie" entire student career together with multiple capstone projects, discussion of current operating room events, preparation for the interview and first job experience, as well as preparation for the national exam. [GE]

Operating Room Practicum I

SURG 254 2 Credits/Units

6.0 hours of clinical

Admission into the program required for enrollment. Provides surgical technology students with actual experience in the operating room. In this pre-arranged practicum, learn teamwork, flexibility, organization and economy in time, motion, and materials. Preparation of all supplies and equipment used for surgical procedures in the operating room is included. [GE]

Operating Room Practicum II

SURG 255 5 Credits/Units

15.0 hours of clinical

Admission into the program required for enrollment. Provides Surgical Technology students with actual experience in the operating room. In this pre-arranged practicum, learn teamwork, flexibility, organization and economy in time, motion, and materials. Preparation of all supplies and equipment used for surgical procedures in the operating room is included. First and second scrubbing procedures under the supervision of operating room personnel or instructor are emphasized. [GE]

Operating Room Practicum III

SURG 256 10 Credits/Units

300.0 hours of clinical

Admission into the program required for enrollment. Clinical/Practicum is a pre-arranged, scheduled experience in the operating room for the student surgical technologist. Provides actual experience in surgical procedures; teamwork; flexibility; organization; economy in time, motion and materials; and preparation of all supplies and equipment used in the operating room in preparation for the surgical procedure to be done, under the guidance of a hospital employed preceptor. [GE]

SURVEYING & GEOMATICS (SURV)

Fundamentals of Survey

SURV 102 2 Credits/Units

1.0 hours of lecture / 2.0 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]

Survey Computation

SURV 104 5 Credits/Units

5.0 hours of lecture

Prerequisite: College Trigonometry (MATH 102 or MATH 103) grade of "C" or higher

Basic coordinate geometry, curves and solutions, conversions, statistics and error analysis, traverse calculations, inverting, coordinate positions, and area calculations. [GE]

Field Survey I

SURV 121 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: MATH 103 (grade of "C" or higher), or eligibility for Math Level 80

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

SURV 122 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: SURV 121 (grade of "C" or higher)

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

SURV 123 1 Credit/Unit

1.0 hours of lecture

Prerequisite: Concurrent enrollment in, or completion of SURV 121 (grade of "C" or higher)

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

SURV 125 3 Credits/Units

2.0 hours of lecture / 2.0 hours of lab

Prerequisite: CAP 46 or MATH 92 or PTCS 110 (grade of "C" or higher) or placement into Math level 30

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]

Route Surveying

SURV 163 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: SURV 122 (grade of "C" or higher)

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]

Cooperative Work Experience

SURV 199 1-5 Credits/Units

15.0 hours of clinical

Prerequisite: SURV 121 (grade of "C" or higher)

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

SURV 202 4 Credits/Units

4.0 hours of lecture

Prerequisite: Concurrent enrollment in, or completion of SURV 121 (grade of "C" or higher)

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, subdividing and evidence analysis. Topics include boundary history and boundary surveys, rights in land, junior/senior title rights, retracement of originals 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

SURV 203 3 Credits/Units

3.0 hours of lecture

Prerequisite: SURV 121 (grade of "C" or higher)

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

SURV 223 3 Credits/Units

3.0 hours of lecture

Prerequisite: SURV 121 (grade of "C" or higher)

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 and Platting

SURV 225 3 Credits/Units

3.0 hours of lecture

Prerequisite: SURV 122 (grade of "C" or higher)

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

2.0 hours of lecture / 2.0 hours of lab

Prerequisite: SURV 125 (grade of "C" or higher)

Introduction to ArcGIS. GIS concepts, methodologies, and techniques. [GE]

Introduction to GPS

SURV 253 3 Credits/Units

1.0 hours of lecture / 4.0 hours of lab

Introduction to global positioning tools. Fundamental concepts and use of modern handheld GPS. Includes field work and use of basic GPS software. [GE]

Emerging Technology

SURV 255 3 Credits/Units

1.0 hours of lecture / 4.0 hours of lab

Prerequisite: MATH 103 (grade of "C" or higher), or eligibility for Math Level 80

An overview of the technologies used for gathering and management of spatial data and information including but not limited to the following: terrestrial scanning, mobile lidar, aerial imagery and airborne lidar in the use of modern surveying. [GE SE]

Surveying Workflow Management

SURV 260 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Prerequisite: SURV 122 and SURV 255 (grades of "C" or higher)

Implementation of GIS, 3D Laser scanning, Surveying, GPS, and CAD theory to a practical real-world project. Utilize project planning, scheduling and workflow execution. Create, document, monitor, and improve on the workflow required to complete the project. [GE, SE]

Survey Software Applications

SURV 264 4 Credits/Units

3.0 hours of lecture / 2.0 hours of lab

Prerequisite: SURV 121 (grade of "C" or higher)

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 1-6 Credits/Units

6.0 hours of lecture

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. Individual topics are listed in the term class schedules. [GE]

Special Projects

SURV 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize, and complete special projects approved by the department. [GE]

TUTORING (TUTR)

Tutoring

TUTR 185 1-3 Credits/Units

6.0 hours of lab

Department consent required for enrollment. Introduction to methods and techniques in tutoring. Tutoring training assignments in various disciplines. [GE]

Tutoring-Writing

TUTR 186 1-3 Credits/Units

6.0 hours of lab

Department consent required for enrollment. 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

4.0 hours of lecture / 4.0 hours of lab

Prerequisite: Concurrent enrollment in, or completion of HLTH 120 (grade of "C" or higher) and CAP 42 (grade of "C" or higher), or placement into Math level 10.

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

5.0 hours of lecture

Interpretation of welding blueprints, welding symbols, tolerances and structural shapes. [GE]

Gas Metal Arc Welding

WELD 140 6 Credits/Units

3.0 hours of lecture / 6.0 hours of lab

Prerequisite: WELD 102 (grade of "C" or higher), and concurrent enrollment in WELD 140 and WELD 141
Instructional theory and application of Gas Metal Arc Welding processes on ferrous metals. [GE]

Gas Metal Arc Fabrication

WELD 141 6 Credits/Units

3.0 hours of lecture / 6.0 hours of lab

Prerequisite: WELD 102 (grade of "C" or higher), and concurrent enrollment in WELD 140 and WELD 141
Application of concepts of gas metal arc welding processes on ferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. [GE]

Flux Core Arc Welding

WELD 142 6 Credits/Units

3.0 hours of lecture / 6.0 hours of lab

Prerequisite: WELD 140 and 141 (grades of "C" or higher), and concurrent enrollment in WELD 142 and 143
Instructional theory and application of arc cutting processes/oxyfuel cutting and flux core arc welding processes on ferrous metals. [GE]

Flux Core Arc Fabrication

WELD 143 6 Credits/Units

3.0 hours of lecture / 6.0 hours of lab

Prerequisite: WELD 140 and 141 (grades of "C" or higher), and concurrent enrollment in WELD 142 and 143
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]

Shielded Metal Arc Welding

WELD 144 6 Credits/Units

3.0 hours of lecture / 6.0 hours of lab

Prerequisite: WELD 142 and WELD 143 (grades of "C" or higher), and concurrent enrollment in WELD 144 and WELD 145
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

3.0 hours of lecture / 6.0 hours of lab

Prerequisite: WELD 142 and WELD 143 (grades of "C" or higher), and concurrent enrollment in WELD 144 and WELD 145
Application of concepts of shielded metal arc welding processes on ferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. [GE]

Welding Certification Prep

WELD 156 2 Credits/Units

4.0 hours of lab

Prerequisite: WELD 102 (grade of "C" or higher) and consent of Instructional Unit.

Department consent required for enrollment. Students will use lab time to practice towards a WABO and/or AWS welding certification(s). Weld certification testing is only done in WELD 256. [GE]

Weld Fabrication Projects

WELD 157 2 Credits/Units

4.0 hours of lab

Prerequisite: WELD 102 (grade of "C" or higher) and consent of Instructional Unit.

Department consent required for enrollment. Use the welding lab to design and/or build an approved fabrication project. WELD 157 can be substituted for WELD 156 to satisfy Welding Technology AAT and Welding Technician Certificate of Proficiency requirements.

Cooperative Work Experience

WELD 199 1-5 Credits/Units

15.0 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

Applied Material Science

WELD 200 5 Credits/Units

3.0 hours of lecture / 4.0 hours of lab

Introduction to applied material science for technical professionals. Covers basic theory, application, and advanced manufacturing methods through a combination of lecture and laboratory activities. Topics: material properties, material structure, testing, manufacturing, joining, and material classification and identification for metallic, ceramic, polymeric, and composite materials. [GE]

Gas Tungsten Arc Welding

WELD 240 6 Credits/Units

3.0 hours of lecture / 6.0 hours of lab

Prerequisite: WELD 144 and WELD 145 (grades of "C" or higher), and concurrent enrollment in WELD 240 and WELD 241
Instructional theory and application of arc cutting process/oxyfuel cutting and gas tungsten arc welding processes on ferrous metals. [GE]

Gas Tungsten Arc Fabrication

WELD 241 6 Credits/Units

3.0 hours of lecture / 6.0 hours of lab

Prerequisite: WELD 144 and WELD 145 (grades of "C" or higher), and concurrent enrollment in WELD 240 and WELD 241
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

3.0 hours of lecture / 6.0 hours of lab

Prerequisite: WELD 240 and WELD 241 (grades of "C" or higher), and concurrent enrollment in WELD 242 and 243

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

3.0 hours of lecture / 6.0 hours of lab

Prerequisite: WELD 240 and WELD 241 (grades of "C" or higher), and concurrent enrollment in WELD 242 and 243

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

3.0 hours of lecture / 6.0 hours of lab

Prerequisite: WELD 242 and WELD 243 (grades of "C" or higher), and concurrent enrollment in WELD 244 and WELD 245

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

3.0 hours of lecture / 6.0 hours of lab

Prerequisite: WELD 242 and WELD 243 (grades of "C" or higher), and concurrent enrollment in WELD 244 and WELD 245

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]

Weld Certification Test

WELD 256 1 Credit/Unit

0.8 hours of lecture / 0.6 hours of lab

Prerequisite: WELD 156 or WELD 157 (grade of "C" or higher).

A one day class to test for a WABO and/or AWS welding certification.

Class fee is for one certification attempt as approved by the CWI instructor or department head. Some certifications are eligible for both WABO and AWS certification in one test. Required paperwork and fees will be submitted by the CWI instructor conducting the test after successful completion.

Selected Topics

WELD 280 1-6 Credits/Units

6.0 hours of lecture

Selected topics in Welding. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE]

Selected Topics - Lab

WELD 281 1-6 Credits/Units

12.0 hours of lab

Selected topics in Welding. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE]

Special Projects

WELD 290 1-5 Credits/Units

5.0 hours of lecture

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, GENDER, AND ETHNIC STUDIES (WGES)

Women, Gender, and Power

WGES 101 5 Credits/Units

5.0 hours of lecture

Prerequisite: Concurrent enrollment in, or completion of ENGL& 101 (grade of "C" or higher)

Introduction to key concepts and a diversity of texts and authors that shape the interdisciplinary study of women, gender, and power in the United States. Theories explored focus on the lives and statuses of women and gender diverse people, are connected to personal experience and current events, linking historical and contemporary issues of feminism, gender roles and norms, power, privilege, and inequity. Cannot receive credit for both WS 101 and WGES 101. [GE, HA, HR, PPI, SE, SS]

Women Across Cultures

WGES 201 5 Credits/Units

5.0 hours of lecture

A feminist analysis of the economic, reproductive, political, and religious factors that contribute to women's lower status and power in major world areas today. Through the lens of gender and its intersection with race, class, and sexual orientation, examine some of the similarities and differences in women's lives around the world. Through the contexts of colonialism, globalization, media representation, and migration, study global women's issues by examining how the power of wealthy, industrialized nations affects those in poor or post-colonial nations, as well as systemically non-dominant groups within the U.S. Cannot receive credit for both WS 201 and WGES 201. [GE, HA, SE, SS]

Women, Arts, and Culture

WGES 210 5 Credits/Units

5.0 hours of lecture

Examines how women have been represented in western culture and how female artists, writers, filmmakers, crafters and musicians have responded to such depictions and created their own work. Through a sampling of women's stories, history, art, music, and films, we will consider issues of representation and how they are shaped by the dynamics of gender, race, class, sexuality, ability status, gender identity, and other factors. We will also explore the possibilities of a "women's" culture through an examination of particular historical communities. Cannot receive credit for both WS 210 and WGES 210. [GE, HA, SE, SS]

Race, Class, Gender, and Sexuality

WGES 220 5 Credits/Units

5.0 hours of lecture

Prerequisite: WGES 101 (grade of "C" or higher).

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. Cannot receive credit for both WS 220 and WGES 220. [GE, PPI, SE, SS][PNP]

Racism & White Privilege In The U.S.

WGES 225 3 Credits/Units

3.0 hours of lecture

Critical examination of racism and white privilege in the U.S. analyzing systems of power, privilege and inequity; racial identity; and intercultural competence. Cannot receive credit for both WS 225 and WGES 225. [GE, PPI, SE, SS][PNP]

Selected Topics

WGES 280 1-3 Credits/Units

3.0 hours of lecture

Selected topics in Women's, Gender, and Ethnic Studies. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE, SE]

Special Projects

WGES 290 1-5 Credits/Units

5.0 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

COLLEGE INFORMATION

- History (p. 255)
- Accreditation (p. 255)
- Clark CARES: Collaborate, Assess, Resource, and Engage Students (p. 255)
- College Assessment (p. 256)
- Consumer Information (p. 256)
- Equity in Athletics (p. 256)
- Completion Rates (p. 256)
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- Student Rights and Responsibilities (p. 258)

History

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.

The campus was designated a Bee Campus, USA (<https://www.clark.edu/about/visitors-guide/bee-campus/>) in 2023. The college also offers classes on the campus of Washington State University Vancouver and at a satellite location in east Vancouver at the Columbia Tech Center. The college's non-credit Community and Continuing Education (<https://www.clark.edu/cce/>) program, offers corporate and continuing-education classes. Clark College has collaborated on partnerships with many regional colleges, universities, and technical institutions, allowing students to apply credits earned at Clark toward their bachelor's degrees.

Many of its annual events, like its Jazz Fest and Sakura Festival, are traditions that go back years or even decades.

Accreditation

Institutional Accreditation

Clark College is accredited by the Northwest Commission on Colleges and Universities (NWCCU), an institutional accrediting body recognized by the Council for Higher Education Accreditation and the Secretary of the U.S. Department of Education. For inquiries regarding Clark College's accreditation, please contact the Northwest Commission on Colleges and Universities at 8060 165th Ave N.E., Suite 100, Redmond, WA 98052, by phone at (425) 558-4222, or through the NWCCU website (<https://nwccu.org/>).

For additional information related to accreditation, please visit the college's accreditation website (<https://www.clark.edu/about/governance/public-disclosure-and-records/accreditation/clarkcollege-nwccu-eie-affirmation.pdf>).

Specialized Accreditation

Several Clark College programs hold specialized accreditation, ensuring they meet rigorous industry standards. This designation guarantees that graduates are prepared for licensure and employment while signaling to employers that the curriculum aligns with current professional practices. Programs and their respective accreditors are listed below.

- Addiction Counselor program is accredited by the National Addiction Studies Accreditation Commission.
- Dental Hygiene program is accredited by the Commission on Dental Accreditation.
- Medical Assistant program is accredited by the Commission on Accreditation of Allied Health Education Programs.
- Nursing program is accredited by the Accreditation Commission for Education in Nursing,
- Toyota T-TEN and HiTECC programs are accredited by the Automotive Service Excellence Education Foundation.
- Pharmacy Technician program is accredited by the American Society of Hospital Pharmacists.
- Child & Family Studies program is accredited by the National Accreditation Commission for Early Care and Education Programs.

Clark CARES: Collaborate, Assess, Resource, and Engage Students

The Student CARE process exists to support students as they face a variety of barriers to their academic success and well-being. By collaborating with the reporter and through partnerships, the CARE team will create a plan that can include connecting students to an appropriate college department, communicating an institutional process, or identifying college and/or community resources for assistance.

The college has a CARE Team that may be convened in the CARE process for situations that call for a heightened level of coordination and response. The core membership of this team consists of: Assistant Director of Student Care and Conduct, Dean of Student Engagement, Student Engagement & Community Standards Manager, Counseling, Safety & Security, Disability Services, and Instructional leadership. There may be times where additional campus officials might be involved. The

team meets biweekly and the information shared within this group is considered private. The purpose of sharing CARE reports is to determine how best to coordinate appropriate support to the student. Additional information may be made available by CARE team members' respective offices.

To learn more about Clark CARES team or to **submit a referral** visit the Student CARE Process (clark.edu) page. (<https://www.clark.edu/campus-life/student-support/care-community-standards/care/>)

College Assessment

College Assessment

Outcome assessment is a collaborative process of inquiry regarding student learning outcomes, including our general education competencies (https://www.clark.edu/about/governance/research-planning/outcome_assessment/gened-outcome-competencies-handout.pdf) followed by analysis, reflection, and action. The goal of outcomes assessment is to improve student learning and improve instructional programs.

Programmatic learning outcomes assessment is the process by which your faculty plan for student learning, implement instructional strategies that support learning, collect data on how well students are meeting learning targets, analyze and interpret the evidence of how well students learned, and then use the results to help inform curricular improvement and improve student learning.

Program-level assessment is used to determine how well the program as a whole prepares students to achieve the program learning outcomes and the general education competencies.

General Education Competencies

General Education Competencies are the learning outcomes the Clark community has committed to developing in students of all programs and transfer degrees. The purpose of general Education at Clark College is to empower students to become informed, adaptable, and engaged community members who are prepared to contribute to a more just and equitable society. Through the competencies below, students build a foundation of skills and knowledge to achieve their personal and professional goals. As a student, you may see the below competencies or learning outcomes reflected in your course work. Clark College's goal is to make sure students complete at least one of the below learning outcomes from each of the six competency areas prior to graduating or transferring.

Critical Thinking (CRT) - The process of analyzing information emphasizing logic, reason, and reflection and interpreting creative works.

- Analyze information from multiple perspectives.
- Assess the validity of claims and arguments.
- Formulate well-reasoned arguments supported by evidence.
- Apply creative thinking skills to generate new ideas, solve problems and express themselves.

Communication (COM) - The process of effectively exchanging information, ideas, facts, and perspectives in a variety of contexts, situations, and/or mediums.

- Articulate ideas, facts, and perspectives effectively.
- Adapt communication styles/approaches to different situations and audiences.
- Apply communication skills and concepts to real-world situations.

Information#Literacy (INL) - The process of ethically obtaining, evaluating, using, and creating information.

- Find and use information from many different types of sources using a variety of search methods.
- Determine if information, in any form, is credible and appropriate for their needs.
- Use and create information while respecting intellectual rights and privacy and reflecting on information privilege.

Problem-Solving (PSL) - The process of identifying, analyzing, and addressing problems.

- Accurately define a problem.
- Analyze problems from multiple perspectives.
- Select the most appropriate solution based on established criteria and desired outcomes.

Equity#& Inclusion (EQI) - The process of ensuring equitable opportunities for everyone and promoting the engagement of all individuals.

- Evaluate contemporary challenges related to equity and inclusion.
- Identify historical and systemic barriers that contribute to social inequities.
- Explain how their own biases influence interactions and decision-making.

Civic & Global Consciousness (CGC) - The process of examining issues, civic engagement, and culture, both within and beyond national borders, recognizing the world's interconnectedness.

- Explain global issues, considering various perspectives.
- Assess the global impact of decisions.
- Identify the requirements of responsible civic engagement.

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 (http://www.clark.edu/about/governance/policies-procedures/consumer_information/).

Equity in Athletics

Clark College reports annually to the federal Department of Education (<http://ope.ed.gov/athletics/>) concerning the number of male and female student athletes, support for men's and women's intercollegiate sports, financial aid available for male and female athletes, and related issues. For a copy of the report, please contact the Title IX Compliance Officer, Christina Longo, Baird Hall, Room 102, (360) 992-2057.

Completion Rates

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. Completion rates are published as part of the Student Achievement Dashboard (<https://www.clark.edu/about/governance/public-disclosure-and-records/accreditation/student-achievement.php>) . For help in interpreting these data, contact the Office of Planning & Effectiveness , 360-992-2237.

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.

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, which is scheduled to open in 2017.

Boschma Farms

Construction of the 49,000 square-foot building began June 2023. Clark College took ownership of the building November 2024. The central high-bay area is the heart of the building and home of the large advanced manufacturing learning lab. The building also has classrooms, a student kitchen, collaborative work spaces, a prayer room, several lounges, and more.

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.

Clark College Community and Continuing Education

Located at CTC, Southwest Washington's premier provider of workforce training and non-credit learning, serving more than 10,000 people annually.

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.

Nondiscrimination and Equity

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. These protections apply in all College programs, including Career and Technical Education (CTE) programs.

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 (http://www.clark.edu/about/governance/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. If you have witnessed or experienced a bias-based incident, please report it using our confidential bias-based incident online form. Any person, including Clark College students, faculty, staff, and visitors, who witnesses, becomes aware of, or is subject to bias-based expression should immediately report the incident. 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 (https://nam11.safelinks.protection.outlook.com/?url=https%3A%2F%2Fclark-advocate.symplicity.com%2Fpublic_report%2Findex.php%2Fpid664680&data=05%7C02%7CSSeyller%40clark.edu%7Cfd0b8969ecad4b52bc5708de8c2d4190%7Cf00c04131d6c437c869f4b4d01ab6%7C0%7C0%7C639102323161740092%7CUnknown%7CTWFPbGZsb3d8eyJFbXB0eU1hcGkiOnRydWU%7CIiwiaWF0IjE5MDEwMDAwMCIsIlAiOiJXNzI3ZD%7C0%7C%7C%7C%7Csdata=SPMQvC5HnriCuJ1tqdc1ELEqlmkMrCFZAbzJopZ68Q%3D&reserved=0) is available online at http://www.clark.edu/campus-life/student-support/student_complaint/index.php (http://www.clark.edu/campus-life/student-support/student_complaint/). Hard copies of the complaint form are available at the following locations on campus:

If you have questions or concerns about discrimination, or need a hard copy of the complaint form, please contact:

Title IX and ADA Coordinator (students and employees):

Michelle Jenkins, Director of Labor & Compliance

360-992-2317

mljenkins@clark.edu or hr@clark.edu

Clark College, 1933 Fort Vancouver Way, Vancouver, WA 98661

Section 504 Coordinator (students):

Megan Jasurda, Director of Disability Access Center

360-992-2065

mjasurda@clark.edu or dac@clark.edu

Clark College, 1933 Fort Vancouver Way, Vancouver, WA 98661

Director of Student Equity and Inclusion

Mike Law, Director of Student Equity and Inclusion

360-992-2848

mlaw@clark.edu

Clark College, 1933 Fort Vancouver Way, Vancouver, WA 98661

You may also receive a hard copy of the complaint form from the Diversity Center (Gaiser Hall 214), the Office of Vice President of Student Affairs (Gaiser Hall 204), or the Office of Human Resources (Baird 133).

Notification of Students' Rights Under the Family Educational Rights and Privacy Act

Students and former students have rights to inspect and review their education records within 45 days from making such a request. The right of inspection and review includes: the right to access, with an explanation and interpretation of the record; the right to a copy of the education record when failure to provide a copy of the record would effectively prevent the student from inspecting and reviewing the record. The institution may refuse to provide a copy of a student's education record provided such refusal does not limit access. Limitations exist on students' rights to inspect and review their education records. For example, the institution is not required to permit students to inspect and review the following:

- financial information submitted by parents;
- education records containing information about more than one student (however, the institution must permit access to that part of the records which pertains only to the inquiring student);
- confidential letters and recommendations placed in the student's file before 01/01/75;
- confidential letters and statements of recommendation, placed in the records after 01/01/75, to which the student has waived his or her right to review and that are related to the student's admission, application for employment or job placement, or receipt of honors. Upon a request from a student, he/she will be notified of the names of persons making the recommendations and that such recommendations cannot be used other than for the purposes for which they were intended.

Students may request that their education records be amended if they believe such information is inaccurate, misleading, or in violation of privacy rights. Students must request in writing that the office that maintains those records amend them. Students should identify the part

of the records they want corrected and specify why they believe it is inaccurate, misleading, or in violation of privacy rights.

The registration office will review the request and inform the students in a reasonable amount of time after receiving the request. If the records custodian refuses to amend the record, students have the right to an appeal. The appeal meeting must be held within a reasonable amount of time after the request of the student has been received. The student will be notified, reasonable in advance, of the date, place, and time of the appeal meeting.

Students will be afforded a full and fair opportunity to present evidence relevant to the issue raised. One or more other persons, including an attorney, may accompany the student. The hearing officer/board will make its decision in writing based upon the evidence presented. The decision will include a summary of the evidence presented and the reasons for the decision.

If the result of the appeal process supports the complaint, the education record will be amended according and the student will be so informed. If the decision is not to amend the education record students have the right to place in the education record a statement commenting on the challenged information and/or stating the reasons for disagreement with the decision. This statement will be maintained as part of the education record as long as the contested portion of the record is maintained, and whenever a copy of the education record is sent to any party, the student's statement will be included.

If a parent or eligible student feels that the institution has not fully honored his/her privacy rights under FERPA, a written complaint may be filed with:

Family Compliance Office
U.S. Department of Education
400 Maryland Ave. SW
Washington, DC 20202-4605.

The Family Compliance Office investigates each timely complaint to determine whether the educational agency or institution has failed to comply with the provisions of FERPA. A timely complaint is defined as an allegation that is submitted within 180 days of the date of the alleged violation or of the date that the complainant knew or reasonably should have known of the alleged violation.

Copies of the complete FERPA policy may be obtained at Enrollment Services. For additional information please see Policies and Procedures (https://www.clark.edu/about/governance/policies-procedures/consumer_information/ferpa/) and FERPA for Students (https://www.clark.edu/about/governance/policies-procedures/consumer_information/ferpa/ferpa-students.php) websites for additional information.

Student Rights and Responsibilities

Clark College provides the utmost quality in education and services to both its community and students. Upon admission to Clark College, students commit to adhering to the expected standards of responsible behavior within the college community. Clark College expects all students to behave consistent with the high standards of scholarship and conduct set by the college.

Clark College requires that all students adhere to the elevated standards of scholarship and conduct established by the institution. These standards of conduct are designed to align with Clark College's educational objectives and offer students a comprehensive overview of their rights and responsibilities. Information about student rights,

responsibilities, and the Code of Student Conduct can be accessed at:
[http://www.clark.edu/clark-and-community/about/policies-procedures/
student_code.php](http://www.clark.edu/clark-and-community/about/policies-procedures/student_code.php)

DEGREE & CERTIFICATE REQUIREMENTS

- General Information (p. 260)
- Bachelor Degrees Overview (p. 261)
- Transfer Degrees Overview (p. 263)
- Transfer Degree Distribution List (p. 265)
- Career and Technical Overview (p. 269)
- Career and Technical Degrees and Certificates Distribution List (p. 270)
- Credit Hours and Credit Load (p. 273)

General Information

Degrees & Certificates

Clark College awards eight (8) degrees and three certificates:

- Associate in Arts (AA) degree, for completion of a program of study for transfer to a baccalaureate institution;
- Associate in Arts Direct Transfer Agreement (AA-DTA, DTA/MRP) degree, for completion of a program of study for transfer to a baccalaureate institution;
- Associate in Science (AS, AST1, AST2) degree, for completion of a program of study in the sciences in preparation for transfer to a baccalaureate institution;
- Associate in Fine Arts (AFA) degree, for completion of a program in fine arts in preparation for transfer to a baccalaureate institution;
- Associate of Applied Science (AAS) degree, for completion of a program of study in an occupational program;
- Associate of Applied Technology (AAT) degree, for completion of a program of study in an occupational program;
- Bachelor of Applied Science (BAS) degree, to increase the educational pathways for career-technical associate graduates;
- Bachelor of Science (BS) degree, to increase the educational pathways for career-technical or transfer associate graduates;
- Certificate of Proficiency (CP), for completion of specialized occupational training;
- Certificate of Achievement (CA), for completion of specialized occupational training;
- Certificate of Completion (CC), for completion of specialized occupational training.

Academic Residency Requirements and Restrictions

Refer to the following information for specific requirements and restrictions for each type of program. Note that transfer credit and test credit that was earned at another institution does not count toward the academic residency requirement.

- Bachelor Degree: A minimum of thirty (30) credits/units, 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/units, 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/units, 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/units, pre-college or college-level, must be completed at Clark College at any time to meet Academic Residency.
- Certificate of Completion: A minimum of ten (10) credits/units, pre-college or college-level, must be completed at Clark College at any time to meet Academic Residency.

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 total credits required for the program; recognizes all credit/unit 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 Subplans

Clark College offers three types of subplans. Subplans allow for specialization within a program. Some subplans are transcribed on student transcripts and some are not.

Academic Concentration

- Academic concentrations consist of 15 to 30 credits/units (on average) of coursework applicable to transfer degree requirements, and the concentration must be earned concurrently with a transfer degree. Students will not be able to earn a concentration separately from its associated degree.
- Academic concentrations are transcribed on student transcripts.
- Academic concentrations must have some tangible transfer benefit for students (e.g., MOU or articulation agreement with specific transfer institutions).
- Academic concentrations must include one or more concentration-specific learning outcomes that are regularly assessed.
- Students are limited to one academic concentration per program (plan code).

Academic Emphasis

- Academic emphases are designed to expose students to a subject matter/discipline and represent "suggested classes" or a "possible sequence" of classes.
- Academic emphases are not transcribed on student transcripts but can be informally used to reference a breadth of work in an area.
- Academic emphases are informed by Guided Pathways Maps and not driven by transferability, community partnerships or articulation agreements. They aim to support the student experience and provide exposure to a wider breadth of coursework in an "area".

Academic Option

- Academic options are available to career-technical programs only.
- Academic options represent a grouping of classes within a focus area and are transcribed on student transcripts.

- Programs that offer multiple academic options (focus areas) can require that students select a specific option and complete the grouping of classes outlined as part of a degree path.
- Students are limited to one academic option per program (plan code).

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 Honors

To be eligible for academic honors, students must have a minimum GPA of 3.40. Academic honors are posted on student transcripts. Students participating in commencement ceremonies will receive recognition at the celebration based on their academic honors on record at the end of Winter term. If their honor status changes once final grades are posted, adjustments will be made to the student record. Following are the specific academic honors requirements by program type.

Transfer Degrees

Honors for the Associate in Arts (AA) degree, the Associate in Science – Transfer (AS) degree, the Bachelor of Applied Science (BAS) degree, and the Bachelor of Science (BS) degree are based on the cumulative college-level GPA. Students in these degree programs will earn the designation of “with honors” for a cumulative college-level GPA of 3.40 to 3.89 and the designation of “with high honors” for a cumulative college-level GPA of 3.90 or higher.

Career-Technical Degrees

Honors for the Associate of Applied Science (AAS) degree and Associate of Applied Technology (AAT) degree are based on the cumulative GPA. Students in these programs will earn the designation of “with honors” for a cumulative GPA of 3.40 to 3.89 and the designation of “with high honors” for a cumulative GPA of 3.90 or higher.

Career-Technical Certificates

Honors for the Certificates of Proficiency (CP) programs are based on the cumulative GPA. Other types of certificates are not eligible for academic honors. Students in the CP programs will be granted the designation of “with merit” for a cumulative GPA of 3.40 or higher.

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.

Code	General Education Requirement
CA	Written Communication Skills (AAS and CP only)
CP	Computational Skills
CT	Written Communication Skills (AAT only)
GE	General Elective
HA	Humanities Academic (A list)
HB	Humanities Performance (B list)

HE	Health
HPE	Health & Physical Education
HR	Human Relations
NS	Natural Sciences
NS-Lab	Natural Science with Lab
OC	Oral Communications
PE	Physical Education Activity
PPI	Power, Privilege and Inequity
Q	Quantitative/Symbolic Reasoning
SE	Specified Elective
SS	Social Sciences
WC	Written Communication Skills (Transfer only)

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.

Bachelor Degrees Overview

Degree Options

- Bachelor of Applied Science (BAS)
- Bachelor of Science (BS)

General Degree Requirements

Except for the Bachelor of Applied Science (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/units
- Complete a minimum of sixty (60) upper division (300- or 400-level) credits/units
- Maintain a minimum cumulative college-level grade point average (GPA) of 2.00 or higher
- Earn a grade of D (1.0) or higher in each course taken at Clark College, unless otherwise specified. A grade of D- (0.7) or lower will not satisfy degree requirements. Many programs require higher grades, such as C (2.0), for each course in the program. Students are recommended to check with their program for specific requirements.
- Complete a minimum of thirty (30) credits/units minimum at Clark College to meet the Academic Residency requirement

General Degree Credit/Unit Restrictions

- Academic Credit for Prior Learning (ACPL): No more than forty-five (45) credits/units of ACPL can be applied to a Bachelor’s degree.

This includes any combination of credits/units earned through test credit (Advanced Placement, International Baccalaureate, Cambridge International), course challenges, or certification crosswalks.

- College Level Examination Program (CLEP): Students may request up to fifteen (15) CLEP credits/units to be applied to a Bachelor's degree.
- Cooperative Work Experience: No more than fifteen (15) credits/units may be applied to a degree.
- Pass/Fail Grading Option: Forty-five (45) credits/units maximum in courses with Pass/Fail grading option can apply toward the degree.
- Special Projects: No more than fifteen (15) credits/units of Special Projects coursework will be allowed toward a Bachelor's degree unless specifically allowed by the program.
- CTE Dual Credit (formerly Tech/Prep): CTE Dual Credit courses that are part of a transfer degree program and fall into the restricted area on the Direct Transfer Agreement (DTA) degree are limited to 15 credits/units.
- A student may be up to one (1) unit/credit short within an individual distribution area as long as at least sixty (60) distribution area credits/units are satisfied.
- Credit by Subject Area: Ten (10) credits/units maximum from any single subject area can be used to fulfill Humanities, Social Sciences and Natural Sciences distribution requirements.
- World Language: Five (5) credits/units 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 (PE) Activity: Three (3) credits/units maximum in PE activity can apply toward a transfer degree.

General BAS and BS Degree Requirements

1. Students must earn a cumulative college-level grade point average (GPA) of at least 2.00, as calculated by the degree-awarding institution. Please refer to specific programs for additional GPA requirements.
2. General education courses will include courses earned at either the associate degree and/or bachelor's degree level, based on the total required 180 credits/units.

Basic Requirements (15 credits/units)

Communication Skills (10 credits/units)

Must include at least two communication courses to include a minimum of one English composition course; e.g. ENGL&101. Remaining credits/units may be fulfilled by an additional composition course, designated writing-intensive course, or basic speaking skills course (e.g. speech, rhetoric, or debate).

Quantitative/Symbolic Reasoning Skills (5 credits/units)

- Five (5) credits/units 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;

- Five (5) credits/units 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 (35 credits/units)

Humanities (5 credits/units)

A maximum of five (5) credits/units of List B (performance) Humanities coursework can be applied. A maximum of five (5) credits/units of 100-level world language can be applied.

Social Science (5 credits/units)

Natural Sciences with lab component (5 credits/units)

At least five (5) credits/units in physical, biological and/or earth sciences. Must include at least one laboratory course.

Additional General Education Courses (20 credits/units)

An additional 20 credits of 300/400 level distribution coursework or electives from the ICRC Handbook generally transferable list of courses. Course designations that can apply: [HA, HB, NS, OC, PPI, Q, SE, SS, WC].

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 for 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 credits/units based on the upper-division tuition schedule.

Refer to specific program requirements for further information.

General Information on the Transfer of Courses and Grades

The grades assigned in transferable courses by the sending institution will not be altered by the receiving institution. They also are not used in calculating students' Clark College grade point average (GPA). Courses completed with a grade of D or above will normally be accepted in transfer to Clark College or to another institution. Courses completed with a grade of D- will not apply toward completion of a Bachelor of Applied Science (BAS) or Bachelor of Science (BS) degree at Clark College.

Students who have earned a baccalaureate degree from an institution accredited by one of the following agencies will have met the general education requirements (basic and distribution areas) for a baccalaureate degree from a Washington State community or technical college. Students must still complete program-specific general education degree requirements if not otherwise satisfied.

- Accrediting Commission for Community and Junior Colleges, Western Association of Schools and Colleges (ACCJC)
- Higher Learning Commission (HLC)
- Middle States Commission on Secondary Schools (MSA-CES)
- Northwest Commission on Colleges and Universities (NWCCU)
- Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)
- Middle States Commission on Higher Education (MSCHE)
- New England Commission of Higher Education (NECHE)
- WASC Senior College and University Commission (WSCUC)

Transfer Degrees Overview

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/units.
- Maintain a minimum cumulative college-level grade point average (GPA) of 2.00 or higher.
- Earn a grade of D (1.0) or higher in each course taken at Clark College. A grade of D- (0.7) or lower will not satisfy degree requirements. Many programs require higher grades, such as C (2.0), for each course in the program. Students are recommended to check with their program for specific requirements.
- Complete a minimum of thirty (30) credits/units minimum at Clark College to meet the Academic Residency requirement.
- Complete at least sixty (60) General Education credits/units.

General Transfer Degree Credit/Unit Restrictions

- Academic Credit for Prior Learning (ACPL): No more than forty-five (45) credits/units of ACPL can be applied to a transfer degree. This includes any combination of credits/units earned through test credit (Advanced Placement, International Baccalaureate, Cambridge International), course challenges, or certification crosswalks.
- College Level Examination Program (CLEP): Students may request up to fifteen (15) CLEP credits/units to be applied to a transfer degree.
- Cooperative Work Experience: No more than fifteen (15) credits/units may be applied to a transfer degree.
- Pass/Fail Grading Option: Forty-Five (45) credits/units maximum in courses with Pass/Fail grading option can apply toward a transfer degree.
- Special Projects: No more than fifteen (15) credits/units of Special Projects coursework will be allowed to apply towards transfer degree requirements unless specifically allowed by the program.
- CTE Dual Credit (formerly Tech/Prep): CTE Dual Credit courses that are part of a transfer degree program and fall into the restricted area on the Direct Transfer Agreement (DTA) degree are limited to 15 credits/units.
- A student may be up to one (1) unit/credit short within an individual distribution area as long as at least sixty (60) distribution area credits/units are satisfied.
- Credit by Subject Area: Ten (10) credits/units maximum from any single subject area can be used to fulfill Humanities, Social Sciences and Natural Sciences distribution requirements.
- World Language: Five (5) credits/units 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 (PE) Activity: Three (3) credits/units maximum in PE activity can apply toward a transfer degree.

General Information on the Transfer of Grades

The grades assigned in transferable courses by the sending institution will not be altered by the receiving institution. They also are not used in calculating students' Clark College grade point average (GPA). Courses

completed with a grade of D or above will normally be accepted in transfer to Clark College or to another institution. Courses completed with a grade of D- will not apply toward completion of a transfer degree at Clark College.

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 baccalaureate institution. There are exceptions; please check with the baccalaureate institution for additional information. Most students transferring with the AA degree will be granted junior standing upon entry to the baccalaureate institution.

The standard AA 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 Credit/Unit Restrictions

- A single 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 the Oral Communication, College 101, and Power, Privilege and Inequity requirements, which are Clark College local degree requirements. When meeting these requirements, the same course can be applied to the degree requirement and to the distribution area.
- Excess credits/units 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 students better prepare for transfer, community and technical colleges and baccalaureate institutions are working together to create transfer associate degrees outlining the appropriate courses for students to be well-prepared to enter their chosen major upon transfer. The Major Related Program (MRP) degrees follow the Direct Transfer Agreement (DTA) format of the Associate in Arts (AA) degree. The DTA/MRP pathway is applicable to students planning to prepare for specific majors at various universities in Washington State. Clark College offers the following AA-DTA/MRP degrees:

- Biology
- Business
- Math Education
- Music

- Nursing
- Pre-Nursing

AA - DTA/MRP General Education Requirements

The Major Related Program (MRP) degrees listed above have slightly different graduation requirements than other Clark College transfer degrees because the curriculum was created via an articulation agreement between Washington community and technical colleges and baccalaureate institutions. Most notably, DTA/MRP degrees differ from the general Associate in Arts (AA) degree in the following ways:

- Health and Physical Education [HE,PE,HPE] is not required;
- College Preparation (COLL 101 (<https://catalog.clark.edu/search/?P=COLL%20101>)) is not required;
- Oral Communication [OC] is not required;
- Power, Privilege and Inequity [PPI] is not required;
- Social Sciences [SS] may be completed with two (2) subject areas;
- Specific coursework is identified and required for program completion.

Clark College students are encouraged to take Health and Physical Education [HE,PE,HPE], College 101 [COLL], Power, Privilege and Inequity [PPI], 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 baccalaureate 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 at the baccalaureate institution. While coursework in General Education is included, additional coursework in these areas will be required at the baccalaureate 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 (DTA), so students need to be aware of requirements at the baccalaureate institution. Currently, Clark College offers two (2) AFA degrees: Graphic Design and Studio Arts. Please contact the Art Department for advising information.

AFA General Education Requirements

Written Communication Skills [WC] 5 credits/units

To fulfill the communication skills requirement for the AFA degree, students must complete ENGL& 101 (<https://catalog.clark.edu/search/?P=ENGL%26%20101>) for five (5) credits/units. Students who complete ENGL& 101 (<https://catalog.clark.edu/search/?P=ENGL%26%20101>) or its equivalent at less than five (5) credits/units 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 transfer degree distribution requirements.

Quantitative Skills/Symbolic Reasoning Skills [Q] 5 credits/units

To fulfill the quantitative skills requirement for the AFA degree, students must complete five (5) credits/units of college-level mathematics.

Health & Physical Education [HE, HPE, PE] 3 credits/units

To fulfill the Health and Physical Education requirement for the AFA degree, students must complete either: a) two (2) qualifying credits/units of Health and one (1) credit/unit of any college-level Physical Education [PE] activity course, or b) HPE 220 (<https://catalog.clark.edu/search/?P=HPE%20220>), HPE 258 (<https://catalog.clark.edu/search/?P=HPE%20258>), or HPE 266 (<https://catalog.clark.edu/search/?P=HPE%20266>).

Humanities [HA] 5 credits/units

To fulfill the Humanities requirement for the AFA degree, students must complete five (5) credits/units of coursework from the Humanities [HA] transfer degree distribution list. Courses must be List A courses and in a subject area other than Art. The course completed cannot be part of the AFA major requirements.

Social Sciences [SS] 5 credits/units

To fulfill the Social Sciences requirement for the AFA degree, students must complete five (5) credits/units of coursework from the Social Sciences [SS] transfer degree distribution list. The course completed cannot be part of the AFA major requirements.

Natural Sciences [NS/NS-Lab] 5 credits/units

To fulfill the Natural Sciences requirement for the AFA degree, students must complete five (5) credits/units of coursework from the Natural Sciences transfer degree distribution list. The course completed must include a lab. The course completed cannot be part of the AFA major requirements.

Major Area Requirements

The remaining required courses for the program are determined by the major department and should total a minimum of 90 credits/units in combination with the requirements listed above.

Associate in Science – Transfer (AST)

The Associate in Science-Transfer (AST) degrees are designed for students planning to transfer to a baccalaureate institution to pursue a bachelor's degree program in science and/or engineering. The AST degree programs focus on coursework specific to the intended major at the baccalaureate institution. While coursework in General Education is included, additional coursework in these areas will be required at the baccalaureate 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 baccalaureate programs in:

- Biological Sciences
- Chemistry
- Environmental/Resources Sciences
- Geology

Associate in Science – Track 2 (AST2)

The AST2 degree track is for students intending to transfer into baccalaureate programs in:

AST2 - Concentration Options

- Clean/Renewable Energy
- Engineering
- Physics

AST2 – MRP Options

- Bioengineering and Chemical Engineering
- Computer and Electrical Engineering
- Mechanical/Civil/Aeronautical/Industrial/Materials Science Engineering

“Washington 45” – List of One Year Transfer Courses

The list of courses in the “Washington 45” does not replace the Direct Transfer Agreement (DTA), Associate in Science Tracks I and II (AST1 and AST2) or any Major Related Program (MRP) agreement, nor does it guarantee admission to a baccalaureate institution. A student who completes courses selected from the general education categories listed below at a public community, technical, or baccalaureate college or university in Washington State will be able to transfer and apply a maximum of forty-five (45) credits/units toward general education requirement(s) at any other public and most private higher education institutions in the state¹. For transfer purposes, a student must have a minimum grade of C (2.0) or higher 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. The list of “Washington 45” general education courses (not all offered at Clark College) can be found on the State Board of Community and Technical Colleges website (<https://www.sbctc.edu/colleges-staff/programs-services/transfer/washington-45>).

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.

Transfer Degree Distribution List

Transfer Degree Distribution List

Communication [WC, OC]

10 credits/units

Please refer to specific degree for details regarding specified communication requirements.

Quantitative Skills/Symbolic Reasoning [Q]

5 credits/units

Please refer to specific degree for details regarding specified quantitative skills requirements. If none are listed, please select from the following list:

Code	Title	Credits/ Units
MATH 103	College Trigonometry	5
MATH 104	Finite Math with Support	5

MATH 105	Finite Mathematics	5
MATH 110	College Algebra With Support	5
MATH 111	College Algebra	5
MATH 122	Math for Elementary Teachers	5
MATH 123	Math for Elementary Teachers	5
MATH 124	Math for Elementary Teachers	5
MATH 140	Calculus for Life Sciences	6
MATH 147	Statistics II	3
MATH 215	Linear Algebra	5
MATH 221	Differential Equations	5
MATH& 107	Math In Society	5
MATH& 146	Introduction to Stats	5
MATH& 148	Business Calculus	5
MATH& 151	Calculus I	5
MATH& 152	Calculus II	5
MATH& 153	Calculus III	5
MATH& 254	Calculus IV	5
PHIL& 120	Symbolic Logic	5

Health & Physical Education [HE, PE, HPE]

3 credits/units

Option One

Code	Title	Credits/ Units
Complete two (2) credits/units of Health from the list below AND one (1) credit/unit of any college-level PE activity course.		2
HLTH 100	Food and Your Health	
HLTH 101	Health for Adult Living	
HLTH 103		
HLTH 108	Happiness and Your Health	
HLTH 206	Human Sexuality and Your Health	
HLTH 207	Women’s Health	
HLTH 210	Health and Social Justice	
HLTH 212		
PE activity (PE, PEDNC, PEMAR)		1
Total Credits/Units		3

Option Two

Code	Title	Credits/ Units
Select from one of the following:		3
HPE 220	Occupational Wellness	
HPE 240	Wilderness Health and Safety	
HPE 258	Fitness-Wellness	
HPE 266	Mind Body Health	

Humanities [HA (academics), HB (performance)]

15 credits/units

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.

Department	HA	HB		
American Sign Language	ASL 125		Music	MUSC 116, MUSC 117, MUSC 118, MUSC 125, MUSC 127, MUSC 135
	ASL& 121, ASL& 122, ASL& 123, ASL& 221, ASL& 222, ASL& 223			MUSC 101, MUSC 110, MUSC 115, MUSC 137, MUSC 138, MUSC 139, MUSC 150, MUSC 151, MUSC 152, MUSC 153, MUSC 154, MUSC 155, MUSC 170, MUSC 171, MUSC 172, MUSC 173, MUSC 174, MUSC 175, MUSC 180, MUSC 181, MUSC 182, MUSC 183, MUSC 184, MUSC 185, MUSC 186, MUSC 195, MUSC 196, MUSC 197, MUSC 201, MUSC 202, MUSC 210, MUSC 237, MUSC 238, MUSC 239, MUSC 250, MUSC 251, MUSC 252, MUSC 253, MUSC 254, MUSC 255, MUSC 270, MUSC 271, MUSC 272, MUSC 273, MUSC 274, MUSC 275, MUSC 280, MUSC 281, MUSC 282, MUSC 283, MUSC 284, MUSC 285, MUSC 290, MUSC 295, MUSC 296, MUSC 297
Art	ART 118, ART 131, ART 172, ART 220, ART 221, ART 222, ART 223, ART 225, ART 250, ART 272	ART 101, ART 103, ART 104, ART 105, ART 110, ART 117, ART 120, ART 121, ART 122, ART 123, ART 124, ART 125, ART 170, 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		MUSC& 104, MUSC& 141, MUSC& 142, MUSC& 143, MUSC& 231, MUSC& 232, MUSC& 233
	ART& 100			
Communication Studies	CMST 103, CMST 105			
	CMST& 102, CMST& 210, CMST& 220, CMST& 230, CMST& 240			
Drama	DRMA 154, DRMA 254	DRMA 140, DRMA 141, DRMA 150, DRMA 152, DRMA 250		
	DRMA& 101			MUSC& 121, MUSC& 122, MUSC& 123, MUSC& 221, MUSC& 222, MUSC& 223
English	ENGL 112, ENGL 133, ENGL 142, ENGL 143, ENGL 145, ENGL 150, ENGL 156, ENGL 175, ENGL 176, ENGL 240, ENGL 242, ENGL 243, ENGL 247, ENGL 248, ENGL 267, ENGL 271, ENGL 272, ENGL 273	ENGL 121, ENGL 125, ENGL 126, ENGL 127, ENGL 128, ENGL 275, ENGL 276, ENGL 277		All MUSCA courses
	ENGL& 113, ENGL& 114, ENGL& 228, ENGL& 244, ENGL& 245, ENGL& 246, ENGL& 254, ENGL& 255, ENGL& 256		Philosophy	PHIL 110, PHIL 215, PHIL 216, PHIL 217, PHIL 240, PHIL 251, PHIL 420 ¹
				PHIL& 101, PHIL& 115, PHIL& 120
			Sociology	SOC 161
			Spanish	SPAN& 121, SPAN& 122, SPAN& 123, SPAN& 221, SPAN& 222, SPAN& 223
Japanese	JAPN& 121, JAPN& 122, JAPN& 123, JAPN& 221, JAPN& 222, JAPN& 223		Women's Gender and Ethnic Studies	WGES 101, WGES 201, WGES 210

¹ Selective entry course, admission into the program required.

Power, Privilege, and Inequity [PPI]

3 credits/units

Power, Privilege and Inequity required course fulfill the PPI requirement within an existing distribution area. Check course description for further distribution information.

Code	Title	Credits/ Units
ART 250	Women Artists Through History	5
ART 272	Graphic Design History	5
CMST& 102	Intro to Mass Media	5
CMST& 240	Intercultural Communication	5
EDUC& 240	Diversity in Education	5
ENGL 175	Introduction to LGBTQ Studies	5
ENGL 176	Nature and the Humanities	5
ENGL 240	Literature By Women	5
ENGL 243	Queer Literature	5
ENGL 247	Latiné Literature in Context	5
ENGL 248	Asian American & Native Hawaiian/Pacific Islander Literature	5
ENGL 267	Black/African American Literature	5
ENGL& 244	American Literature I: Haunted America	5
ENGL& 245	American Literature II: Landscapes, Migration, and Imaginary Homelands	5
ENGL& 246	American Literature III: Liberation Stories	5
GEOG 205	Physical Geography	5
GEOG 260	Maps and Geospatial Technology: A Critical Introduction	5
HLTH 206	Human Sexuality and Your Health	3
HLTH 207	Women's Health	3
HLTH 210	Health and Social Justice	3
PSYC 203	Social Psychology	5
PSYC& 180	Human Sexuality: A Psychological Approach	5
PSYC& 220	Psychological Disorders	5
SOC 131	Race and Ethnicity In The U.S.	5
SOC 151	Introduction to Native American Studies	5
SOC 230	Domestic Violence	5
SOC 240	Criminology and Delinquency	5
SOC& 101	Introduction to Sociology	5
SOC& 201	Social Problems: The Pursuit of Social Justice	5
WGES 101	Women, Gender, and Power	5
WGES 220	Race, Class, Gender, and Sexuality	5
WGES 225	Racism & White Privilege In The U.S.	3

Social Sciences [SS]

15 credits/units

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.

Department	Courses
Addiction Counseling	ACED 101
Anthropology	ANTH& 204, ANTH& 206, ANTH& 215
Communication Studies	CMST& 230

Economics	ECON 101, ECON 110, ECON 120, ECON 405 ¹
	ECON& 201, ECON& 202
English	ENGL 175
Environmental Science	ENVS 231
Geography	GEOG 205, GEOG 220, GEOG 221, GEOG 222, GEOG 223, GEOG 224, GEOG 260
	GEOG& 100, GEOG& 102, GEOG& 200, GEOG& 207
History	HIST 231, HIST 251, HIST 252, HIST 275
	HIST& 126, HIST& 127, HIST& 128, HIST& 146, HIST& 147, HIST& 148, HIST& 214 HIST& 215, HIST& 219
Philosophy	PHIL 110, PHIL 240
Political Science	POLS 111, POLS 131, POLS 220, POLS 221, POLS 222, POLS 223, POLS 224, POLS 231
	POLS& 203
Psychology	PSYC 102, PSYC 122 ¹ , PSYC 124 ¹ , PSYC 203, PSYC 253 ¹
	PSYC& 100, PSYC& 180, PSYC& 200, PSYC& 220
Sociology	SOC 131, SOC 151, SOC 161, SOC 230, SOC 240, SOC 250, SOC 315 ¹ , SOC 360
	SOC& 101, SOC& 201
Women's Gender and Ethnic Studies	WGES 101, WGES 201, WGES 210, WGES 220, WGES 225

¹ Selective entry course, admission into the program required.

Natural Sciences [NS-Lab, NS (non-lab)]

15 credits/units

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.

Department	Lab Course	Non-Lab Course
Anthropology	ANTH& 215	ANTH& 245
Astronomy	ASTR& 101	

Biology	BIOL 101, BIOL 102, BIOL 105, BIOL 106, BIOL 150, BIOL 208, BIOL 224	BIOL 139, BIOL 140, BIOL 141, BIOL 142, BIOL 145, BIOL 167, BIOL 180
	BIOL& 100, BIOL& 160, BIOL& 175, BIOL& 221, BIOL& 222, BIOL& 223, BIOL& 241, BIOL& 242, BIOL& 251, BIOL& 252, BIOL& 253, BIOL& 260	
Chemistry	CHEM 106	CHEM& 105, CHEM& 141, CHEM& 142, CHEM& 143, CHEM& 241, CHEM& 242, CHEM& 243
	CHEM& 110, CHEM& 121, CHEM& 131, CHEM& 151, CHEM& 152, CHEM& 153, CHEM& 251, CHEM& 252, CHEM& 253	
Engineering	ENGR& 104	
Environmental Science	ENVS 109, ENVS 200, ENVS 201, ENVS 208, ENVS 218, ENVS 430 ¹	ENVS 202
	ENVS& 101	
Geography		GEOG 205
Geology	GEOL 102, GEOL 218	GEOL 109
	GEOL& 101, GEOL& 103	
Meteorology	METR 101	
Nutrition		NUTR 139 ¹ , NUTR 240 ¹
		NUTR& 101
Oceanography	OCEA& 101	
Physical Science	PHSC 101, PHSC 102	PHSC 106
Physics	PHYS& 101, PHYS& 124, PHYS& 125, PHYS& 126, PHYS& 231, PHYS& 232, PHYS& 233	PHYS& 100, PHYS& 134, PHYS& 135, PHYS& 136, PHYS& 241, PHYS& 242, PHYS& 243
Psychology	PSYC 102	

¹ Selective entry course, admission into the program required.

Elective Requirements

Complete a total of twenty-seven (27) credits/units from courses numbered 100 and above. The two areas of electives are listed below.

Specified Electives [SE]

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). A maximum of two (2) credits/units in PE activity can apply toward this area.

Approved courses that apply: [HA, HB, HE, HPE, NS, NS-Lab, OC, PPI, Q, SE, SS, WC] – 12 credits/units minimum.

Department	Courses
Accounting	ACCT& 201, ACCT& 202, ACCT& 203 only
Addiction Counseling	ACED 101 only
American Sign Language	
Anthropology	
Art	
Astronomy	
Biology	
Business	BUS 211, BUS& 101, BUS& 201 only
Chemistry	
Communication Studies	Excluding CMST 280
Computer Science & Engineering	CSE 101, CSE 120, CSE 121, CSE 215, CSE 222, CSE 223, CSE 224 only
Computer Technology	CTEC 121, CTEC 122 only
Drama	
Early Childhood Education	ECED& 105, ECED& 120 only
Economics	
Education	EDUC& 150, EDUC& 240 only
Engineering	
English	
Environmental Science	
Geography	
Geology	
Health	Excluding HLTH 120, HLTH 123, HLTH 124
Health & Physical Education	Excluding HPE 280, HPE 290
History	
Japanese	
Mathematics	
Meteorology	
Music and Applied Instrument	
Nutrition	
Philosophy	
Physical Education ¹	
Physical Science	
Physics	
Political Science	
Psychology	
Sociology	
Spanish	
Women's Gender and Ethnic Studies	

¹ A maximum of two (2) credits/units in PE activity can apply toward this area.

General Electives [GE]

A maximum of fifteen (15) credits/units of general electives can apply. Courses must be 100-level or higher. Physical Education activity credits/units are limited to a maximum of three (3) credits/units regardless of distribution area in the DTA degree. Coursework in FLPC cannot apply.

- 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/units that will meet general education requirements.
- Disciplines are sometimes called "subjects" or "subject matter areas" and designated by a prefix (i.e., PHIL for Philosophy and POLS for Political Science).

Career and Technical Overview 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 (AAS) and Associate in Applied Technology (AAT) degree programs are not designed to guarantee transfer to a baccalaureate institution, some institutions may accept technical coursework for students in certain areas of study. Students should contact an advisor and/or the baccalaureate institution for additional information.

General Career and Technical Degree/ Certificate Requirements

Complete a minimum number of credits/units in the specified curriculum:

- Associate Degree: Ninety (90) credits/units 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/unit requirement. Most occupational programs require more than fifty-nine (59) credits/units 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/unit requirement. All AAT degree programs require at least seventy-five (75) credits/units of major-related requirements.
- Certificate of Proficiency (CP): Forty-five (45) credits/units minimum
- Certificate of Achievement (CA): Twenty (20) credits/units minimum
- Certificate of Completion (CC): 19 credits/units maximum
- Maintain a minimum cumulative grade point average (GPA) of 2.00 or higher
- Earn a grade of C (2.0) or higher in each Major Area Requirement and specifically listed course, unless otherwise noted, for all courses taken at Clark College. A grade of D- (0.7) or higher will only satisfy General Education requirements that are not specifically listed courses.

Meet academic residency requirements as follows:

- Associate Degree: Thirty (30) credits/units minimum must be completed at Clark College.
- Certificate of Proficiency: Fifteen (15) credits/units minimum must be completed at Clark College.
- Certificate of Achievement: Ten (10) credits/units minimum must be completed at Clark College.
- Certificate of Completion: Ten (10) credits/units minimum must be completed at Clark College.

General Career and Technical Degree/ Certificate Credit/Unit Restrictions

- Academic Credit for Prior Learning (ACPL): A maximum of sixty (60) credits/units of ACPL can be applied to a Career and Technical degree/certificate. This includes any combination of credits/units earned through test credit (Advanced Placement, International Baccalaureate, Cambridge International), course challenges, or certification crosswalks.
- College Level Examination Program (CLEP): Students may request up to fifteen (15) CLEP credits/units to be applied to a Career and Technical degree/certificate.
- Cooperative Work Experience: No more than fifteen (15) credits/units may be applied to a Career and Technical degree/certificate.
- Pass/Fail Grading Option: Sixty (60) credits/units maximum in courses with Pass/Fail grading option for a Career and Technical degree/certificate.
- Special Projects: No more than fifteen (15) credits/units in Special Projects will be allowed to meet degree or certificate requirements unless specifically outlined by the program.
- CTE Dual Credit (formerly Tech/Prep): CTE Dual Credit courses that apply toward a career and technical degree or certificate have no limit on the number of credits/units that can be applied.
- For Associate in Applied Science (AAS) degrees, General Education courses can satisfy up to two (2) distribution areas in the General Education area of the degree.

Certificate of Completion (CC)

The Certificate of Completion (CC) is designed for students who wish to gain entry-level occupational skills or for those who wish to upgrade their skills in a short period of time. CCs typically consist of three (3) to four (4) courses, requiring nineteen (19) or less credits/units. Students must maintain a cumulative grade point average (GPA) of 2.00 or higher. Students are required to complete a minimum of ten (10) credits/units at Clark College to meet the Academic Residency requirement. CCs are posted to students' official transcripts automatically upon completion of the specified requirements; students do not need to apply for graduation to be awarded.

Certificate of Achievement (CA)

The Certificate of Achievement (CA) is designed for students who wish to receive specialized occupational training requiring less than forty-five (45) credits/units, but at least twenty (20) credits/units. Students must maintain a cumulative grade point average (GPA) of 2.00 or higher. Students are required to complete a minimum of ten (10) credits/units at Clark College to meet the Academic Residency requirement. CAs requiring six courses or fewer are posted to students' official transcripts automatically upon completion of the specified requirements; students do not need to apply for graduation to be awarded.

Certificate of Proficiency (CP)

The Certificate of Proficiency (CP) is designed for students who wish to receive specialized occupational training requiring at least forty-five (45) credits. Students must maintain a cumulative grade point average (GPA) of 2.00 or higher. Students are required to complete a minimum of fifteen (15) credits/units at Clark College to meet the Academic Residency requirement.

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)
General Education Requirements

Note: Some specific requirements of a program may also meet the General Education requirements.

Communication Skills [CA, CT]

Department	AAS - 6 credits/ units minimum (CA)	AAT - 5 credits/ units minimum (CT)	CP - 3 credits/ units minimum (CA)
Business	BUS 107, BUS 211	BUS 107, BUS 211	BUS 107, BUS 211
Communication Studies	CMST& 210 ¹ , CMST& 220 ¹ , CMST& 230 ¹	CMST& 210 ¹ , CMST& 220 ¹ , CMST& 230 ¹	
English	ENGL 99 ²	ENGL& 101, ENGL& 102, ENGL& 235	ENGL 99 ²
	ENGL& 101, ENGL& 102, ENGL& 235		ENGL& 101, ENGL& 102, ENGL& 235
Professional Technical Writing	PTWR 135	PTWR 135	PTWR 135

¹ Communication Studies courses cannot be counted toward the first three (3) credits/units of Communication Skills [CA, CT].

² ENGL 99 MUST be taken with corequisite ENGL& 101

Note: Pharmacy Technician students may meet the Communication Skills requirement by achieving the following:

Placement into ENGL& 101.

Health & Physical Education [HE, HPE, PE] - 3 credits/ units

Select three credits/units from either Option One or Option Two:

Code	Title	Credits/ Units
Option One		
Select two credits/units from the following:		2
HLTH 100	Food and Your Health	
HLTH 101	Health for Adult Living	
HLTH 103		
HLTH 108	Happiness and Your Health	
HLTH 206	Human Sexuality and Your Health	
HLTH 207	Women's Health	
HLTH 210	Health and Social Justice	
HLTH 212		
Select one from the following:		1
College-level Physical Activity course (PE, PEDNC, PEMAR)		
Option Two		
Select one from the following:		3
HPE 220	Occupational Wellness	
HPE 240	Wilderness Health and Safety	
HPE 258	Fitness-Wellness	
HPE 266	Mind Body Health	

Computational Skills [CP]

Department	AAS - 3 credits/ units minimum	AAT - 5 credits/ units minimum	CP - 3 credits/ units minimum
Allied Health	AH 261 ¹	AH 261 ¹	AH 261 ¹
Business	BUS 102, BUS 130	BUS 102, BUS 130	BUS 102, BUS 130
Computer Technology	CTEC 121	CTEC 121	CTEC 121
Mathematics	All MATH/ MATH& courses numbered 30 or higher EXCEPT MATH 199 or MATH 290	All MATH/ MATH& courses numbered 100 or higher EXCEPT MATH 199 or MATH 290	All MATH/ MATH& courses numbered 030 or higher EXCEPT MATH 199 or MATH 290
Medical Assisting	MA 103 ¹	MA 103 ¹	MA 103 ¹
Philosophy	PHIL& 120	PHIL& 120	PHIL& 120
Professional Technical Computer Skills	PTCS 110	PTCS 110	PTCS 110

¹ Selective entry course, admission into the program required.

Human Relations [HR]

Department	AAS - 3 credits/ units minimum	AAT - 5 credits/ units minimum	CP - 3 credits/ units minimum
Addiction	ACED 101,	ACED 101,	ACED 101,
Counseling	ACED 201	ACED 201	ACED 201
Advanced Manufacturing	AM 101	AM 101	AM 101
Automotive	AUTO 140 ¹ , AUTO 180 ¹	AUTO 140 ¹ , AUTO 180 ¹	AUTO 140 ¹ , AUTO 180 ¹

Business	BUS 148	BUS 148	BUS 148
	BUS& 101	BUS& 101	BUS& 101
Communication	CMST 103	CMST 103	CMST 103
	CMST& 102, CMST& 210, CMST& 230	CMST& 102, CMST& 210, CMST& 230	CMST& 102, CMST& 210, CMST& 230
College	COLL 101	COLL 101	COLL 101
Computer Technology	CTEC 104, CTEC 165	CTEC 104, CTEC 165	CTEC 104, CTEC 165
Education	EDUC& 150	EDUC& 150	EDUC& 150
Health Information Management	HIM 206 ¹	HIM 206 ¹	HIM 206 ¹
Management	MGMT 101, MGMT 103, MGMT 106, MGMT 110, MGMT 112, MGMT 120, MGMT 128, MGMT 132	MGMT 101, MGMT 103, MGMT 106, MGMT 110, MGMT 112, MGMT 120, MGMT 128, MGMT 132	MGMT 101, MGMT 103, MGMT 106, MGMT 110, MGMT 112, MGMT 120, MGMT 128, MGMT 132
Medical Assisting	MA 104 ¹ , MA 114 ¹ , MA 222 ¹	MA 104 ¹ , MA 114 ¹ , MA 222 ¹	MA 104 ¹ , MA 114 ¹ , MA 222 ¹
Psychology	PSYC 203	PSYC 203	PSYC 203
	PSYC& 100, PSYC& 200	PSYC& 100, PSYC& 200	PSYC& 100, PSYC& 200
Sociology	SOC 131, SOC 250	SOC 131, SOC 250	SOC 131, SOC 250
	SOC& 101, SOC& 201	SOC& 101, SOC& 201	SOC& 101, SOC& 201
Women's Gender and Ethnic Studies	WGES 101	WGES 101	WGES 101

¹ Selective entry course, admission into the program required.

Humanities [HA, HB] - AAS - 3 credits/units minimum

Department	HA	HB
American Sign Language	ASL 125	
	ASL& 121, ASL& 122, ASL& 123, ASL& 221, ASL& 222, ASL& 223	

Art	ART 118, ART 131, ART 172, ART 220, ART 221, ART 222, ART 223, ART 225, ART 250, ART 272	ART 101, ART 103, ART 104, ART 105, ART 110, ART 117, ART 120, ART 121, ART 122, ART 123, ART 124, ART 125, ART 170, 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& 100	
Communication Studies	CMST 103, CMST 105	
	CMST& 102, CMST& 210, CMST& 220, CMST& 230, CMST& 240	
Drama	DRMA 154, DRMA 254	DRMA 140, DRMA 141, DRMA 150, DRMA 152, DRMA 250
	DRMA& 101	
English	ENGL 112 ¹ , ENGL 133, ENGL 142, ENGL 143, ENGL 145, ENGL 150, ENGL 156, ENGL 175, ENGL 176, ENGL 240, ENGL 242, ENGL 243, ENGL 247, ENGL 248, ENGL 267, ENGL 271, ENGL 272, ENGL 273 ¹	ENGL 121, ENGL 125, ENGL 126, ENGL 127, ENGL 128, ENGL 275, ENGL 276, ENGL 277
	ENGL& 113, ENGL& 114, ENGL& 228, ENGL& 244, ENGL& 245, ENGL& 246, ENGL& 254, ENGL& 255, ENGL& 256	
Japanese	JAPN& 121, JAPN& 122, JAPN& 123, JAPN& 221, JAPN& 222, JAPN& 223	

Music	MUSC 116, MUSC 117, MUSC 118, MUSC 125, MUSC 127, MUSC 135	MUSC 101, MUSC 110, MUSC 115, MUSC 137, MUSC 138, MUSC 139, MUSC 150, MUSC 151, MUSC 152, MUSC 153, MUSC 154, MUSC 155, MUSC 170, MUSC 171, MUSC 172, MUSC 173, MUSC 174, MUSC 175, MUSC 180, MUSC 181, MUSC 182, MUSC 183, MUSC 184, MUSC 185, MUSC 186, MUSC 195, MUSC 196, MUSC 197, MUSC 201, MUSC 202, MUSC 210, MUSC 237, MUSC 238, MUSC 239, MUSC 250, MUSC 251, MUSC 252, MUSC 253, MUSC 254, MUSC 255, MUSC 270, MUSC 271, MUSC 272, MUSC 273, MUSC 274, MUSC 275, MUSC 280, MUSC 281, MUSC 282, MUSC 283, MUSC 284, MUSC 285, MUSC 290, MUSC 295, MUSC 296, MUSC 297
	MUSC& 104, MUSC& 141, MUSC& 142, MUSC& 143, MUSC& 231, MUSC& 232, MUSC& 233	
		MUSC& 121, MUSC& 122, MUSC& 123, MUSC& 221, MUSC& 222, MUSC& 223
		All MUSCA courses
Philosophy	PHIL 110, PHIL 215, PHIL 216, PHIL 217, PHIL 240, PHIL 251, PHIL 280, PHIL 420 ¹	
	PHIL& 101, PHIL& 115, PHIL& 120	
Sociology	SOC 161	
Spanish	SPAN& 121, SPAN& 122, SPAN& 123, SPAN& 221, SPAN& 222, SPAN& 223	
Women's Gender and Ethnic Studies	WGES 101, WGES 201, WGES 210	

¹ Selective entry course, admission into the program required.**Social Sciences [SS] - AAS - 3 credits/units minimum**

Department	Courses
Addiction Counseling	ACED 101
Anthropology	ANTH& 204, ANTH& 206, ANTH& 215
Communication Studies	CMST& 230
Economics	ECON 101, ECON 110, ECON 120, ECON 405 ¹
	ECON& 201, ECON& 202
English	ENGL 175
Environmental Science	ENVS 231
Geography	GEOG 205, GEOG 220, GEOG 221, GEOG 222, GEOG 223, GEOG 224, GEOG 260
	GEOG& 100, GEOG& 102, GEOG& 200, GEOG& 207
History	HIST 231, HIST 251, HIST 252, HIST 275
	HIST& 126, HIST& 127, HIST& 128, HIST& 146, HIST& 147, HIST& 148, HIST& 214, HIST& 215, HIST& 219
Philosophy	PHIL 110, PHIL 240
Political Science	POLS 111, POLS 131, POLS 220, POLS 221, POLS 222, POLS 223, POLS 224, POLS 231
	POLS& 203
Psychology	PSYC 102, PSYC 122 ¹ , PSYC 124 ¹ , PSYC 203, PSYC 253 ¹
	PSYC& 100, PSYC& 180, PSYC& 200, PSYC& 220
Sociology	SOC 131, SOC 151, SOC 161, SOC 230, SOC 240, SOC 250, SOC 315 ¹ , SOC 360
	SOC& 101, SOC& 201
Women's Gender and Ethnic Studies	WGES 101, WGES 201, WGES 210, WGES 220, WGES 225

¹ Selective entry course, admission into the program required.**Natural Sciences [NS-Lab/NS] - AAS - 3 credits/units minimum**

Department	Lab Course	Non-Lab Course
Anthropology	ANTH& 215	ANTH& 245
Astronomy	ASTR& 101	

Biology	BIOL& 100, BIOL& 160, BIOL& 175, BIOL& 221, BIOL& 222, BIOL& 223, BIOL& 241, BIOL& 242, BIOL& 251, BIOL& 252, BIOL& 253, BIOL& 260	BIOL 139, BIOL 140, BIOL 141, BIOL 142, BIOL 145, BIOL 167, BIOL 180
	BIOL 101, BIOL 102, BIOL 105, BIOL 106, BIOL 150, BIOL 208, BIOL 224	
Chemistry	CHEM 106	CHEM& 105, CHEM& 141, CHEM& 142, CHEM& 143, CHEM& 241, CHEM& 242, CHEM& 243
	CHEM& 110, CHEM& 121, CHEM& 131, CHEM& 151, CHEM& 152, CHEM& 153, CHEM& 251, CHEM& 252, CHEM& 253	
Engineering	ENGR& 104	
Environmental Science	ENVS 109, ENVS 200, ENVS 201, ENVS 208, ENVS 218, ENVS 430 ¹	ENVS 202
	ENVS& 101	
Geography		GEOG 205
Geology	GEOL 102, GEOL 218	GEOL 109
	GEOL& 101, GEOL& 103	
Meteorology	METR 101	
Nutrition		NUTR 139 ¹ , NUTR 240 ¹
		NUTR& 101
Oceanography	OCEA& 101	
Physical Science	PHSC 101, PHSC 102	PHSC 106
Physics	PHYS& 101, PHYS& 124, PHYS& 125, PHYS& 126, PHYS& 231, PHYS& 232, PHYS& 233	PHYS& 100, PHYS& 134, PHYS& 135, PHYS& 136, PHYS& 241, PHYS& 242, PHYS& 243
Psychology	PSYC 102	

¹ Selective entry course, admission into the program required.

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, seminars, 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:

Contact hours in online, hybrid and competency-based classes may vary from more traditional face-to-face classes. Students should demonstrate equivalent learning outcomes regardless of instructional modality.

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.

Remote classes

Online classes consist entirely of online elements with a set time for digital interaction and/or engagement. Some remote 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/units offered in a remote course is based on equivalency of learning outcomes of face-to-face modality.

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/units 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/units 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/Units 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/units 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.

DIRECTORIES AND ACADEMIC CALENDAR

- Phone Directory (p. 275)
- Academic Calendar (p. 275)

Phone Directory

Alphabetical Quick Dial Phone List: <http://www.clark.edu/directories/quick-dial/index.php> (<http://www.clark.edu/directories/quick-dial/>)

Employee Directory: <https://www.clark.edu/directories/employee-search.php>

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

<https://www.clark.edu/enroll/registration/academic-calendar.php>

ENROLLMENT, AID AND COLLEGE LIFE

- Academic Standards Policy (p. 276)
- Advising (p. 276)
- Career Services (p. 276)
- College Life (p. 277)
- Credential Evaluations (p. 283)
- Enrollment Services (p. 284)
- eLearning (p. 287)
- Financial Aid (p. 287)
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- Special Instructional Programs and Locations (p. 299)
- Student Orientation (p. 299)
- Student Success Programs (p. 300)
- Veteran and Military (p. 300)

Academic Standards Policy

725.000 Academic Standards

The College shall develop and enforce academic standards for all credit students. The primary purpose of academic standards is to quickly identify and alert students with low academic achievement and provide them with assistance in improving their academic performance through support services. In some cases, students who fail to make satisfactory progress will not be allowed to enroll at the college.

725.001 ACADEMIC CONCERN, INTERVENTION AND DISMISSAL

Refer to the current Clark College Catalog for the policy on Academic Standards Procedures.

Academic Concern

A student whose quarterly grade point average (GPA) falls below 2.0 for the first time will be placed on Academic Concern. The student will receive information about campus support services and resources, and encouraged to meet with a designated staff member.

Academic Intervention

A student whose quarterly GPA falls below 2.0 for the second time will be placed on Academic Intervention. The student will be required to attend a workshop or to meet with a designated staff member to create an academic success plan.

One-Quarter Academic Dismissal

A student who has previously been placed on Academic Concern and Academic Intervention whose quarterly and cumulative GPAs fall below 2.0 will be dismissed from the college for one quarter.

- Students placed on One-Quarter Academic Dismissal may appeal to the Academic Standards Committee for immediate reinstatement.
- If appeal is unsuccessful, or the student chooses not to appeal, he or she may not attend the college for one quarter. To return from

dismissal in a subsequent quarter, the student must meet with a designated staff member.

Four-Quarter Academic Dismissal

A student who has previously been placed on Academic Concern, Academic Intervention and One-Quarter Academic Dismissal whose quarterly and cumulative GPAs remain below 2.0 will be dismissed from the college for four quarters.

- Students may not appeal Four-Quarter Academic Dismissal.
- To return from dismissal in a subsequent quarter, the student must meet with a designated staff member.

Notification

Students placed on Academic Concern, Intervention or Dismissal will receive an e-mail notification following end-of-quarter grade processing.

Advising

360-992-2345

www.clark.edu/advising (<http://www.clark.edu/enroll/advising-services/>)

Mission of Academic Advising:

Grounded in equity, Advising Services partners with students to co-create individualized academic plans that align with their personal and career goals. We provide holistic and inclusive support that promotes learning and student success.

Academic Advising support for students include:

- Scheduled one-on-one academic advising appointments both in-person and virtual on topics such as:
- Co-developing educational plans
- Unofficial review of transcripts
- Assist with funding appeals and financial resources
- Transfer planning to four-year institutions and specialized programs
- Update and declare major
- Understanding program requirements
- Understanding college policies and procedures
- Class selections
 - Drop-in opportunities for quick questions both in-person and virtual.
 - Workshops for understanding degree requirements and transfer pathways.
 - Transfer advising.
 - Running Start advising.
- Supportive connections and referrals to resources and departments across camp

Career Services

360-992-2902

Careerservices@clark.edu

<http://www.clark.edu/enroll/careers/index.php>

Online job and internship database: Penguin Jobs

Career Services provides the resources and strategies for choosing a college major; developing career plans; finding and preparing for jobs,

internships, and volunteer opportunities, and making successful career transitions. Career Services staff provide support through one-on-one meetings, group meetings, classroom visits, and workshops. Services are free and open to students, alumni, and community members.

Resources and support for students, alumni, and community members:

- Guidance with identifying interests to explore career options or select a program of study, including career assessments.
- Information about employment outlooks, labor trends, wages, and job preparation.
- Resources to explore education programs, transfer schools and scholarship information.
- Strong Interest Inventory, SuperStrong, and Myers-Briggs Type Indicator assessments, including a career report and 90-minute small group interpretation of results.
- An online job and internship database, Penguin Jobs, located on the Career Services website: www.clark.edu/cc/penguinjobs.
- Institutional hire job referrals for on- and off-campus student employment opportunities.
- Assistance with resume writing, cover letters, and interviewing skills.
- Job- and career-related workshops and resources.

Employer services:

- Free advertisement of job and internship opportunities through Penguin Jobs.
- Free on-campus recruiting table.
- Career engagement events.

College Life Archer Gallery

360-992-2246

Archer Gallery has been exhibiting fine art in Southwest Washington since 1978, consistently presenting an impressive list of artists and exhibits. Featuring both established and emerging talents, the cultural, social, and ethnic diversity of the region is expressed in the exhibition schedule. While the gallery exhibits works by national artists, the main focus is on Northwest and Washington artists. Artist talks, workshops, and other engagement events accompany each exhibition.

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> (<http://www.clarkpenguins.com/>)

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 over 30 (thirty) community

colleges located in Idaho, Oregon, Washington, and British Columbia. Clark sponsors intercollegiate teams for women in volleyball, 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

bookstore@clark.edu

www.clarkbookstore.com (<http://www.clarkbookstore.com>)

The Clark College Bookstore, owned and operated by the College, is located in Gaiser Hall and provides home delivery, free in-store pickup, a CONTACT US service link, Clark College Theatre and College event tickets (https://www.clarkbookstore.com/site_theatre.asp), and helpful information, conveniently from the store website. All required text materials are available to order from the store site only. The store vigorously maintains the lowest possible price for required course materials adopted by Clark Professors.

Shop in store for Clark logo apparel, gifts and spirit gear, grab & go food, candy, and beverages, organizational, class, and study supplies, gift cards, test and reference items, and much more.

Personal services, also available in store, include Clark student IDs (http://www.clark.edu/campus-life/student_ID.php), C-Tran bus passes (http://www.clark.edu/campus-life/student_ID.php), faxing, notary public, special orders, USPS stamps, all Non-Required text shopping, and a friendly and helpful staff. 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

360-992-2701

events@clark.edu

The majority of campus bulletin boards are used for college or departmental information only. There is one Community board located in Penguin Union Building that is for general information. Student-to-student announcements and other materials must be dated and posted for a period not to exceed two weeks. Signs or posters may not be placed on glass, painted, or metal surfaces. Materials placed improperly will be removed by college personnel.

Child and Family Services

360-992-2393

<https://www.clark.edu/about/visitors-guide/community-services/cfs/>

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. Childcare and early education services with family support options are available to Clark College students, faculty, staff, and the local community. As the early childhood education lab school we pride ourselves on providing high quality care and education. Childcare services are available for children twelve (12) months through five (5) years of age; during the summer care is offered to children ages six (6) to ten (10). Contact the program for more information or to arrange a tour. Services are available from 7:30 a.m. through 5:00 p.m. Monday – Friday.

Event Services

360-992-2701

www.clark.edu/about/event_services/contact.php (https://www.clark.edu/about/event_services/contact.php)

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 Services office.

Student Life

360-992-2441

<http://www.clark.edu/campus-life/student-life/index.php> (<http://www.clark.edu/campus-life/student-life/>)

Facebook: Clark College Student Life

Instagram: clarkstudents

Penguin Union Building 160

The Office of Student Life supports clubs and programs, as well as a wide variety of special activities, cultural events and intercollegiate athletic programs.

Student Life services and resources include:

- The Associated Students of Clark College (ASCC) Student Government
- The Activities Programming Board (APB)
- Events and activities including Welcome Week, Involvement Fair, and Spring Fest – see our online events calendar (<https://www.clark.edu/about/calendars/events.php>) for more information
- Clubs, programs, committees, and other student leadership and involvement opportunities
- 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

<http://www.clark.edu/campus-life/student-life/clubs/index.php> (<http://www.clark.edu/campus-life/student-life/clubs/>)

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 many options 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)

http://www.clark.edu/campus-life/student-life/ascc/ascc_student_government.php

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)

<http://www.clark.edu/campus-life/student-life/ascc/activities-programming-board.php>

APB is charged with the creation of a comprehensive events calendar to include awareness, cultural, educational, family, and social events for Clark students. Hosting many events throughout the year, including the annual Spring Fest 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 (<https://www.clark.edu/about/calendars/events.php>).

Student Publications

The Iceberg Comic Anthology

Instagram: clark.iceberg

The Iceberg is an annual anthology of comics featuring writing and art produced by Clark students and alumni. This program supports student leaders, the creation of the annual publication, and an event to showcase the final production. For more information about how to get involved, contact the faculty advisers: Grant Hottle ghottle@clark.edu or Toby Peterson tpeterson@clark.edu

Phoenix

<http://clarkphoenix.com/>

Phoenix, Clark College's literary and arts journal 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 two-dimensional or three-dimensional original artwork to be considered for the publication. Under the direction of an Art faculty advisor, staff members practice budgeting, marketing, curating and layout skills. Students enrolled in the Art department's publication production course, volunteer student staff

members, and paid student staff positions participate in the process of producing the journal. For more information, contact: phoenix@clark.edu.

The Swift

<https://www.clark.edu/academics/programs/dept/english/swift.php>

The Swift: Clark College Literary Journal is dedicated to publishing skillful and inventive creative writing by Clark students, alumni, and staff. The journal is student-run and supported by faculty and staff from the Art and English Departments. Students enrolled in English 277 start the production of the journal each Fall Quarter. An editorial staff of literary students continue production work during Winter Quarter with the publication and distribution of the annual journal occurring Spring Quarter each year.

The Swift accepts submissions from the Clark College community, including students, faculty, staff, and alumni. For submission guidelines and timelines contact theswift@clark.edu.

For more information about how to get involved as a staff member, contact the faculty adviser: Dawn Knopf, Director of The Swift at dknopf@clark.edu.

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 (AA4), Rm. 116
- Scarpelli Hall (SHL), Rm. 135
- STEM Building (SBG), Rm. 252

Wireless Network Access

Students may use personal computers and mobile devices to access the Internet and online services available through the Clark College website using the college wireless network. Wireless access is available in most college facilities. A network account is required to use the wireless network.

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 (call or text)

chc@clark.edu

<https://www.clark.edu/campus-life/student-support/counseling/>

Located in the Health Sciences Building, the Counseling and Health Center provides mental health counseling and medical services that are quickly and easily accessible on campus. Counselors provide free, confidential short-term, group and individual counseling to support student wellness and academic success. They also provide workshops on different topics to support student wellbeing. An advanced medical 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. The Counseling and Health Center also offers students a sensory room and chill-out space for students that need a quiet place to unwind and decompress. The CHC also offers private lactation spaces for students to use during class terms..

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, four (4) 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, diet analysis, and personalized preventive education. Free screenings are available by appointment.

Disability Access Center (DAC)

360-992-2314 – Voice 360-991-0901 – Video Phone

dac@clark.edu

www.clark.edu/DAC (<https://www.clark.edu/dac/>)

Clark College and the Disability Access Center (DAC) assist students with disabilities in pursuing their educational goals. Clark College is committed to ensure its programs and services are accessible and inclusive for students with disabilities. Through DAC, students with disabilities can request accommodations to ensure equal access and discuss their concerns regarding barriers encountered. DAC will primarily focus on approving and providing, in partnership with faculty, student disability accommodations for classes. Early contact with DAC is beneficial for students with disabilities. We recommend starting our Steps as soon as you register for classes. Check out the DAC Steps for Requesting Accommodations (<https://catalog.clark.edu/enrollment-aid-college-life/college-life/>: https://www.clark.edu/campus-life/student-support/disability_support/access_procedure.php).

Emergency Procedures

www.clark.edu/emergency (<http://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](http://www.clark.edu/) (<http://www.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 (https://www.clark.edu/its/documentation-and-resources/students/rave_emergency_notification_system.php). The college also has made the RAVE Guardian mobile safety smartphone application available to all students and employees. To connect with the Guardian app, please text the word “Guardian” to 67283 to be guided to the download process. 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

http://www.clark.edu/campus-life/student-life/fitness_center/index.php
(http://www.clark.edu/campus-life/student-life/fitness_center/)

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:

- Currently enrolled part and full-time Clark College students (not eligible for annual pass) and students returning in fall quarter
- Clark employees, their spouses and children sixteen (16) years old and older, including emeritus faculty and their spouses
- 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

<http://www.clark.edu/campus-life/student-life/dining/index.php> (<http://www.clark.edu/campus-life/student-life/dining/>)

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
- Grab & Go Salads, Sandwiches and more 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.

Housing

Campus housing is not available. While the college does provide a housing website (<https://www.clark.edu/campus-life/student-life/housing.php>) and referral bulletin board, located in central Gaiser Hall, it does not assume the responsibility for screening rentals. International

Programs works with international students to secure off-campus housing for them. Please contact International Programs for details.

Library

360-992-2151

<http://library.clark.edu/>

Clark College Libraries provide the Clark community with information resources in a wide variety of formats as well as equipment available for checkout. We also provide learning environments for individual or group study in our open spaces and study rooms. Library faculty offer a variety of instruction sessions, research assistance, and workshops. On the library website (<https://library.clark.edu/>), Clark College students, faculty, and staff have 24/7 access to thousands of resources including eBooks and full-text journals through our online catalog and more than 75 electronic databases. Through Summit (<https://library.clark.edu/content/summit>), students and employees can also request resources from over 35 college and university libraries throughout Washington, Oregon, and Idaho for pickup at Clark College. All are encouraged to ask librarians for assistance using our wide range of in-print and online resources.

Please visit the library website (<https://library.clark.edu/>) or call 360-992-2151 for our hours of service and further library information.

MESA Program

360-992-2024

mesa@clark.edu

<http://www.clark.edu/academics/programs/dept/mesa/> (<http://www.clark.edu/academics/programs/dept/mesa/>)

WA MESA Mission

We empower students by providing them with a community that supports their pathways to higher education in STEM, through mentorships, academic programs, and interactive workshops.

WA MESA Vision

Student populations in Washington State have the educational support and tools to create innovative solutions as they become the next leaders in STEM.

Resources available to students include: a dedicated study center, academic and transfer support, scholarship and internship opportunities, career and professional development workshops, university and industry visits, networking and mentoring opportunities, and a lending library offering access to textbooks, laptops, calculators, and other supplies.

Office of People and Culture

360-992-2292

<https://www.clark.edu/campus-life/student-support/diversity-and-equity/>

The function of the Office of People and Culture 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 People and Culture 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 and activities 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> (<http://www.clark.edu/about/governance/public-disclosure-and-records/adminProcedures/500/530/>)

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.

Free C-TRAN Education Opportunity Pass

To encourage and enable transit ridership, C-TRAN extends the Education Opportunity Pass (EOP) to include Clark College students. The C-TRAN Bus Pass can be obtained quarterly in the Clark College Bookstore. Current quarter registration and a valid Clark College Student ID are required to obtain a quarterly C-Tran EOP. The EOP is valid in Clark County only.

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 C-TRAN EOP program can be obtained from:

- For STUDENTS, contact the Bookstore Department in Gaiser Hall.
- For EMPLOYEES, contact the Security/Safety Department in Gaiser Hall.

Security/Safety Department

360-992-2133

<http://www.clark.edu/campus-life/student-support/security/index.php> (<http://www.clark.edu/campus-life/student-support/security/>)

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 full and part-time non-sworn officers and support staff with an officer reachable 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 and works cooperatively with the emergency response agencies (police, fire & EMS) in emergency, dangerous or volatile situations, and/or in criminal investigations. The 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. They can also provide informational and directional assistance; security escorts across campus; crime prevention advice; and other general assistance to students, staff, faculty and guests of the college. In compliance with all reporting requirements, 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

<https://www.clark.edu/welcome-center/student-ambassadors.php>

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 student discounts can be found at: <https://studentdiscountlist.org/washington-wa-student-discount-list-restaurant-retail-grocery-travel/>

Student ID Cards

Clark College Student ID cards may be obtained in the Clark College Bookstore. Current registration and valid photo ID are required to obtain a Clark College Student ID. (NOTE: Being on a course waitlist 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 discounts at many local businesses. Student ID cards are required by C-Tran in order to obtain the free student C-TRAN BackPASS.

Tutoring Services

www.clark.edu/cc/tutoring (<http://www.clark.edu/cc/tutoring>)

Tutoring Services is designed to provide individualized attention that facilitates student learning and academic success. Our friendly, supportive, and encouraging tutors assist with most classes offered at Clark College as well as study and organization skills and technology support. Tutors will help you develop skills and confidence to become a stronger, more independent learner. Tutoring services are **FREE** to all registered Clark College students.

Language & Writing Center

360-992-2253

<https://www.clark.edu/campus-life/student-support/tutoring/lwc.php>

Located in Hawkins Hall, room 102 or via Zoom. Writing tutors can assist 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, whether you are just starting to generate ideas for an assignment or have a completed draft. Although tutors do not edit or proofread, they will help you determine what your tendencies are concerning grammar errors, explain general concepts, and offer strategies for becoming a more effective writer. Tutors can also help with MLA, APA, and other formatting styles.

Language students can meet with a tutor for conversation practice and assistance with written and oral assignments in English, Japanese, Spanish, and American Sign Language. All services are available on a drop-in or appointment basis, in-person or via Zoom.

Speech & Presentation Lab

360-992-2253

<https://www.clark.edu/campus-life/student-support/tutoring/lwc.php>

Located in Hawkins Hall, room 101 (enter and sign-in through HKH 102). Visit the Speech & Presentation Lab where you can practice, time, record, and get feedback and support on your speeches and presentations. Tutors are available for various communications classes and can help you refine your speech or presentation to make sure you are submitting your best work.

The lab is also available for conversation hours for students to learn and practice conversational English. Student Resource Workshops are also offered throughout the term for student preparation and success.

Science, Technology, Engineering, & Math Center

360-992-2694

<https://www.clark.edu/campus-life/student-support/tutoring/stem.php>

Located in Bauer Hall, room 102 or via Zoom. Tutors provide assistance with all levels of math, chemistry, physics, biology, engineering, and other STEM subjects. Help is available on a drop-in or appointment basis, in person or via Zoom.

Accounting, Business, & Technology Center

360-992-2445

<https://www.clark.edu/campus-life/student-support/tutoring/accounting.php>

Located in Applied Arts 4 (AA4), room 106. Assistance is available for most accounting and business courses. As well as assistance with

student technology support needs for various college tech used such as Canvas, Gmail, Google, Office Suite, and more. Support is available via Zoom or in-person, no appointment is needed.

Online Tutoring

<http://www.clark.edu/campus-life/student-support/tutoring/etutoring.php>

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 Live Chat (synchronous) or eQuestions (asynchronous) in various subjects, including physics, chemistry, biology, math, calculus, statistics, Spanish, accounting, and more.

The easiest way to access eTutoring is to log in directly from Canvas. Just click on the eTutoring link on the left-hand side of your Canvas course shell. No additional log-in steps are necessary.

Please Contact Tutoring Services (tutoring@clark.edu) if you have questions or need assistance.

Tutoring Services Workshops & Events

<https://www.clark.edu/campus-life/student-support/tutoring/events.php>

Tutoring Services provides an array of Student Resource Workshops and events each quarter. Learn about the quarterly Snack & Study held each quarter (except summer) the week prior to finals week to help students finish final projects and papers and prep for their finals. You can also find out about Student Resource Workshops that are offered on a variety of topics designed to assist students with navigating college, organization, study skills, test prep/review, and more!

Veterans Center for Excellence

360-992-2073

vetresources@clark.edu

<http://www.clark.edu/campus-life/student-support/vrc/index.php>
(<http://www.clark.edu/campus-life/student-support/vrc/>)

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

The Credential Evaluations department assists students seeking an evaluation of their progress towards completion of a degree or certificate at Clark College. Evaluators 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 does, visit the Credential Evaluations webpage (<https://www.clark.edu/enroll/credential-evaluation/>) or call 360-992-2805.

Academic Standards Petition

Students who believe an error has been made or who want to request an exception to established degree or certificate requirements should contact Credential Evaluations to inquire about an Academic Standards Petition.

Catalog Lifespan

- Students may complete their degree(s) or certificate(s) using the requirements outlined in any catalog published during their attendance at Clark College.
- No catalog is valid for more than four (4) years.
- Students who are not enrolled at Clark College for two (2) or more calendar years are required to complete the program requirements of the catalog in effect when they re-enroll.

Diplomas

Diploma Distribution

- Diplomas are typically processed four to six (4-6) weeks after the end of the term in which the student completes their program requirements.
- Students will be contacted via text message and email by Parchment, Clark College's transcript and diploma servicer, to create an account and access a digital copy of their diploma.
- Printed diplomas will be mailed by Parchment in the following weeks.

Updating Contact Information

Students should verify that their phone number, email address, and mailing address are correct in ctcLink to ensure timely delivery and communications.

Diploma Reprint Requests

Diploma reprints may be requested through the Parchment website (a fee may apply).

Graduation Application

To receive their degree or certificate after completing all requirements, students must submit a graduation application. Below are important details to help navigate the process.

When to Apply

Clark College recommends that students submit their graduation application one term before they plan to complete all of their program

requirements. Early submission helps ensure the degree or certificate is awarded without delay.

Priority Deadline

The priority deadline for graduation applications is the last day of the term in which the student plans to finish their degree or certificate requirements. Applications submitted by the priority deadline will be processed in the order received, and the degree or certificate will be awarded in the term of completion.

Non-Priority Period

Applications received after the priority deadline will still be accepted and will be processed in the order they are received, but awarding may be delayed.

Academic Credit for Prior Learning (ACPL)

Academic Credit for Prior Learning (ACPL), as defined by the Washington State Legislature (RCW 28B.77.230), recognizes the knowledge and skills gained through:

- Work and life experience
- Military training and experience
- Formal and informal education and training from in-state and out-of-state institutions, including foreign institutions.

ACPL can help students complete their programs sooner by evaluating their prior learning for college credit.

Assessment Methods

Students may be assessed through any of the following methods to determine whether required learning outcomes have been met:

- Tests
- Written assignments
- Oral interviews
- Projects
- Portfolios
- Performances
- Other methods determined by Clark College faculty

Credit Limitations

There are limits on the number of ACPL credits that can be awarded for each degree/certificate type at Clark College. For more information, see: Career Technical Programs Overview (<https://catalog.clark.edu/degree-certificate-requirements/cte-overview/>) or Transfer Programs Overview (<https://catalog.clark.edu/degree-certificate-requirements/transfer-overview/>).

ACPL Options

Clark College, in accordance with the State Board for Community and Technical College guidelines, recognizes the following four categories of ACPL. More information about each type of ACPL and related policies and procedures can be found on the Credential Evaluations webpage (<https://www.clark.edu/enroll/credential-evaluation/>).

- Credit by Testing: Advanced Placement (AP), International Baccalaureate (IB), CLEP, and Cambridge International (CI) exams
- Course Challenges: Written, oral, or practical exams created by Clark College faculty
- Extra-Institutional Learning and Military Experience: Military transcripts or third-party certifications evaluated by Clark College faculty/staff

- Prior Experiential Learning: Portfolios or projects evaluated by Clark College faculty

Graduation Ceremony

Commencement Ceremony Participation

- The June commencement ceremony is for students completing degrees or certificates during the current academic year.
- Students completing their degree or certificate in the summer term may participate in the ceremony of the previous academic year.
- Participation is encouraged but not required.
- Students must submit their Graduation Application and Cap and Gown Order Form by the deadline to be eligible.
- Ceremony participation does not guarantee degree or certificate completion.

Caps & Gowns

- The Cap and Gown Order Form is available to students online once they have submitted their Graduation Application.
- Details on pricing and deadlines for cap and gown orders is available on the Commencement webpage (<https://www.clark.edu/campus-life/arts-events/commencement/>).
- For students who have received honors, honors regalia is available in the bookstore at the time they pick up their cap and gown order.
- 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

Clark College accepts credits from institutions accredited by the following accrediting bodies:

- Accrediting Commission for Community and Junior Colleges (ACCJC)
- Higher Learning Commission (HLC)
- Middle States Commission on Higher Education (MSCHE)
- Middle States Commission on Secondary Schools (MSA-CESS)
- New England Commission of Higher Education (NECHE)
- Northwest Commission on Colleges and Universities (NWCCU)
- Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)
- WASC Senior College and University Commission (WSCUC)
- Western Association of Schools and Colleges (WASC)

Domestic Institution Transfer Policy

- Students who have attended other recognized accredited institutions can transfer credit to Clark College to meet course prerequisites and program requirements. Dental Hygiene and Nursing students **MUST** provide all transfer institution transcripts during the application process.
- All transfer coursework, including courses earned as part of prior degrees, will be evaluated on a course-by-course basis for transferability to Clark College. Official copies of transcripts are required for evaluation. Transcripts are considered official if sent directly from the prior institution or delivered in the original sealed envelope.
- Once transcripts from other institutions are received, they become part of a student's permanent educational record and cannot be released by Clark College.

- Course descriptions and/or syllabi may be requested to complete evaluations in some instances. It is the student's responsibility to obtain course and catalog information from the prior institution and provide them to Clark College.
- Although there is no limit on the number of credits that can transfer into Clark College, students must meet the Academic Residency requirements for their program.

International Institution Transfer Policy

- Students with credits from international institutions may submit their academic records for transfer credit consideration. The amount of credit awarded will vary based on the individual record of the student.
- 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 (NACES). A current list of members is available online on the NACES website (<http://www.naces.org/>). The costs of agency services are the responsibility of the student. Clark College recommends that students request a **course-by-course** evaluation in order to receive as much direct transfer credit as possible.
- Clark College does not recognize English coursework completed in countries outside of the United States, with the exception of English-speaking countries and provinces.

Distribution Reciprocity

Clark College participates in the Washington State Community and Technical College Inter-College Reciprocity Policy (Distribution Reciprocity). This policy allows certain transfer courses to meet specific program requirements (e.g. Communication Skills) at Clark, even if there is no direct equivalent.

Eligibility Criteria

1. Student has met the sending institution's residency credit requirement and meets Clark College's policy on continuous enrollment (the enrollment pattern needed to complete under the catalog requirements at entrance).
2. Student has met the entire Communication Skills, Quantitative Skills, or Distribution Requirement of a transfer program, according to the sending institution's program criteria.
3. Student has maintained a cumulative college-level grade-point average (GPA) of 2.0 or higher at the sending institution.

Students who believe they qualify for the Distribution Reciprocity agreement should contact Credential Evaluations for assistance.

Enrollment Services

360-992-2107

All students intending to enroll at Clark College are required to submit an application for admission. Application for admission is available on the Clark College website at <https://www.clark.edu/getstarted/>

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. 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.

If a student intends to use previously earned credits/units 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.

Returning Student Admission

Students who are returning to Clark College after an absence of four (4) or more terms must reapply for admission. If a student has attended another college since their last enrollment at Clark College and wants to apply those credits/units 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 allows high school juniors and seniors to earn college credits/units while completing their high school education - saving students money while advancing their education. Students are able to attend college, at minimal cost, while still living at home as a high school student.

Students are able to select courses that challenge them academically and provide real-world applications. Many students earn their associate's degree and leave prepared to start a career or transfer to a four-year institution to pursue their bachelor's degree. Students must complete an application for admission and meet requirements of the Running Start program. Visit www.clark.edu/runningstart (http://www.clark.edu/enroll/admissions/running_start/) for additional 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)

<https://www.clark.edu/enroll/admissions/exceptions.php>

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, permanent resident, refugees, or non-immigrant resident 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 minimum of 12 months prior to the beginning of the term, and has taken actions to declare Washington as their state of permanent residence.
- **Washington Non-Resident Waiver:** A person who meets the qualifications of citizenship and who has been living in the state of Washington for more than one day prior to the beginning of the term.
- **Non-Resident:** A person who resides outside of the state of Washington and does not qualify for the Oregon Border Waiver; a person who does not submit the required documents for the Washington Residency Reclassification Application, Washington Non-Resident Waiver, Oregon Border Waiver or Oregon Border Opportunity Waiver.
- **Non-Resident Refugee:** A person who holds Refugee-Parolee status and has established a domicile in Washington before the first day of the term.
- **Non-Citizen:** A person who does not meet the qualifications of citizenship, regardless of their length of time domiciled in the state of Washington.
- **Oregon Border Waiver:** A person who meets the qualifications of citizenship and who has been living in one of the 13 qualifying Oregon border counties for a minimum of 90 days prior to the beginning of the term.
- **Oregon Border Opportunity Waiver (HB1474):** A person who meets the qualifications of citizenship, was living in a qualifying Oregon border county for at least 90 days immediately prior to moving to

Washington state, has been living in Washington for less than 12 months, and has taken all steps to declare Washington as their state of permanent residence.

- Qualifying Oregon Border Counties: Columbia, Gilliam, Hood River, Multnomah, Clatsop, Clackamas, Morrow, Sherman, Umatilla, Union, Walla, Wasco, or Washington.

Applying for Residency Reclassification

Students are granted residency classification based on the information provided on the initial admissions application. Applicants who are not U.S. citizens or those who believe they are not coded appropriately can seek reclassification consideration by showing supporting documentation at Enrollment Services. All residency reclassification requests 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 show these documents to an Enrollment Services staff members. 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 April 2022, Washington state law 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 be eligible to sign this affidavit, you must:

- Earn a high school diploma, GED®, or diploma equivalent from anywhere in the United States before your first term at the college determining residency, and
- Maintain a primary residency in Washington for at least 12 consecutive months immediately before your first term at the college determining residency. The Washington residence must be for purposes other than college. If you take any courses at another Washington college during the prior 12 months, you cannot have taken more than six credits/units in any given term. If you exceed that limit you must prove that you have a Washington residence for non-college reason.

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

- Washington state provides a 25% discount for tuition at public colleges and universities for all veterans. The veteran must provide a DD214 to the Veterans Center of Excellence to qualify.
- The Washington state 100% tuition waiver allows a 100% totally and permanently disabled (as awarded by the Veterans Administration), veterans spouse or child to be granted 100% tuition and a small book stipend to attend Washington State schools such as Clark College. Requirements for eligibility as well as a link to the RCW (Washington Law) that governs this waiver.
 - Disabled veteran must be a resident of Washington state
 - The child must be a resident of Washington state
 - <https://app.leg.wa.gov/rcw/default.aspx?cite=28B.15.621>

- To qualify for this waiver please provide the following to veterans@clark.edu :
 - Veterans valid WA state issued ID or Driver's License or bill in veterans name with WA state address to verify residency
 - Students valid WA state issued ID or Driver's License or bill in students name with WA state address to verify residency
 - Complete and return attached 100% waiver application
 - Provide a copy of the Veterans 100% disability award letter from the VA.
 - Provide a copy of the Veteran's DD-214

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 waivers are listed below, under the departments that serve them.

- Enrollment Services
 - Clark College employee
 - Classified state employee or Washington Public Higher Education employee
 - Senior Waiver
 - 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/units
 - Dislocated forest products workers or their unemployed spouses
 - Wrongfully convicted individual, their children and stepchildren
 - Running Start
- Veterans Center of Excellence
 - Military personnel

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. 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/enroll/admissions/assessment/>) for more information on available placement and retesting options.

High School+

360-992-2741

Begun in 2015, High School+ is a program that helps students earn their high school diplomas in a more timely and convenient way than was previously available. The High School+ 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+ program will need to apply for admission, submit their high school transcripts, take the intake test, and meet with an advisor prior to beginning their classes.

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 <https://GED.com/> (<https://ged.com/>). The GED® test must still be taken in person at an official GED® testing center.

eLearning

eLearning@clark.edu

<https://www.clark.edu/academics/eLearning/>

eLearning at Clark College offers opportunities to achieve your course requirements, degrees, certificates, or program completion in a variety of modalities including web-enhanced, hybrid, and fully online. eLearning offers scheduling flexibility and convenience for today's busy life styles. eLearning courses maintain the same quality and outcomes as traditional on-campus classes and require the same time commitment to the coursework. To take eLearning or traditional classes at Clark College, you must first complete the admissions (<https://www.clark.edu/enroll/admissions/>) process.

Financial Aid

360-992-2153

<http://www.clark.edu/enroll/paying-for-college/financial-aid/index.php>
(<http://www.clark.edu/enroll/paying-for-college/financial-aid/>)

The Financial Aid Office increases opportunities for both access and success by helping students seek, obtain, and make the best use of all financial resources.

Financial Aid Eligibility

All students are encouraged to apply for financial aid by completing the Free Application for Federal Student Aid (FAFSA). In general, students must meet the following criteria to be eligible for federal student aid:

- Be a regularly admitted student to Clark College (not Running Start),
- Completed a high school diploma or GED,
- Be a U.S. citizen or eligible non-citizen,
- Not owe an overpayment on a federal grant,
- Not be in default on a federal student loan,
- Be enrolled in an eligible degree or certificate program,
- Maintain satisfactory academic progress

Washington Application for State Financial Aid (WASFA)

Students who cannot complete the FAFSA due to citizenship status, defaulted loans, or federal grant overpayments can apply for state financial aid by completing the Washington Application for State Financial Aid (WASFA). To be eligible for state financial aid students must:

- Have a high school diploma or GED,
- Not be in default on a state loan,
- Not owe a repayment on a state grant,
- Be enrolled in an eligible degree or certificate program,
- Maintain satisfactory academic progress,
- Be a Washington State resident (<https://wsac.wa.gov/student-residency>)

Additionally, if selected, students must submit all requirements needed for verification. Students must meet all requirements for federal and state aid.

Application Process

Students can start the annual application process by completing either the Free Application for Federal Student Aid (FAFSA (<http://www.fafsa.gov/>)) or the Washington State Application for State Financial Aid (WASFA (<https://wasfa.regenteducation.net/>)). The FAFSA/WASFA is used to determine which types of financial aid a student may be eligible to receive.

The Financial Aid Office may request additional information to complete a student's application after receiving the FAFSA or WASFA. Information needed will be requested through the student's "To Do" list in ctcLink Self-Service and communicated by email using the preferred email address. Students are encouraged to complete all required information by each term's priority processing date to avoid delays in receiving their financial aid offer.

Types of Financial Aid Available

Financial aid includes grants, tuition waivers, student employment, scholarships, and student loans.

- Grants and tuition waivers are need-based forms of aid that generally do not have to be repaid,
- Student employment is available to help students pay for school through paid employment,
- Loans are a form of aid available that must be repaid with interest upon graduation, leaving school, or dropping below 6 credits/units per term

Federal Pell Grant

The Federal Pell Grant is awarded based on financial need to undergraduate students. The initial award amount is based on the Student Aid Index (SAI) and assumed full-time enrollment (12+ credits/units). Eligibility is limited to a lifetime maximum of 18 full-time terms.

Federal Supplemental Educational Opportunity Grant (FSEOG)

FSEOG is awarded based on financial need to students with an SAI of 0 or lower who are eligible to receive a Pell Grant. The award is not prorated for less than full-time enrollment; however, students must enroll in a minimum of six credits/units per term to receive FSEOG.

Washington College Grant (WCG)

The initial WCG award is based on assumed full-time enrollment (12+ credits/units) for all terms, including summer. The award is prorated for less than full-time enrollment; however, a minimum of three credits/units is required to qualify for the award. Eligibility is limited to a lifetime maximum of 18 full-time terms. Students completing the WASFA for state aid only must meet all requirements for state financial aid.

College Bound Scholarship (CBS)

The CBS scholarship is available to students who signed up for the program in the seventh or eighth grade and graduated from a Washington high school or completed a GED without any felony convictions. Eligible students must enroll in college no later than the fall term, which is one academic year following graduation from high school.

The initial award is based on assumed full-time enrollment (12+ credits/units) for all terms. The award is prorated for less than full-time enrollment; however, a minimum of three credits/units is required to qualify for the award. Eligibility is limited to a lifetime maximum of 18 full-time terms. Students completing the WASFA for state aid only must meet all requirements for state financial aid.

Passport to College Promise

Passport to College Promise is a state grant program available to former foster youth or students who experienced unaccompanied homelessness. To qualify, students must complete the FAFSA or WASFA, meet Washington State residency requirements, and enroll in at least six credits/units each term.

Clark College Grants and Waivers

Clark College reserves a percentage of tuition revenue and offers these funds to students who are Washington State residents or eligible for in-state tuition in the form of institutional grants and tuition waivers. Grants offered are based on need. The award is not prorated based on enrollment intensity; however, a minimum of three credits/units is required.

Waivers offered may only be awarded to reduce the cost of tuition and cannot be applied toward fees or refunded directly to students. Tuition

waivers are not prorated based on enrollment intensity, and there is no minimum credit level.

Work-Study

Work-Study offers are awarded based on need. Funds are earned through employment on and off campus. Students must be enrolled in six or more credits/units per term.

Offers are automatically awarded to students for fall, winter, and spring terms. Students who are interested in work study for the summer term should complete an Award Adjustment Form (<https://www.clark.edu/enroll/paying-for-college/financial-aid/forms.php>) to request funds for summer. Visit the Work-Study (<https://www.clark.edu/enroll/paying-for-college/wstudy.php>) page for more information.

Federal Direct Loans

Federal Direct Loans are a form of financial aid that must be repaid with interest. There are two types of Direct Loans:

- Direct Subsidized Student Loan: Awarded based on need to undergraduate students. The Department of Education pays interest while students are enrolled in school in at least six credits/units. Payments are automatically deferred while students are enrolled in at least six credits/units.
- Direct Unsubsidized Student Loan: Non-need-based loan available to undergraduate and graduate students. The student is responsible for interest while in school. Payments are automatically deferred while students are enrolled in at least six credits/units.

The award is prorated for less than full-time enrollment; however, a minimum of six credits/units is required to qualify for the award. Students must meet all requirements for Title IV eligibility. The initial award amount is an offer after evaluating eligibility for need-based aid. Students who are interested in borrowing their Direct Loan offer can get started by:

- Accepting all or a portion of their loan offer,
- Complete a Master Promissory Note (<https://studentaid.gov/mpn/>),
- Complete Entrance Counseling (<https://studentaid.gov/entrance-counseling/>) (required for first-time borrowers only)

Award Offers

Students are notified by email with a financial aid offer when their application is processed. The initial aid offer is based on the assumption that students will enroll in 12+ credits/units each term, which is considered full-time. Students may still be eligible for aid at a lower enrollment intensity, although Federal Direct Loans and some grant aid will be prorated based on the student's enrollment intensity.

Students who plan to enroll less than full-time (12 credits/units) will need to complete an Enrollment Change Form (<https://www.clark.edu/enroll/paying-for-college/financial-aid/forms.php>) to confirm their enrollment intensity and request that their aid be adjusted to their planned enrollment intensity before disbursement of funds.

Financial Aid Disbursement and Tuition Deadlines

Tuition deadlines for each term are published on the College's website (https://www.clark.edu/enroll/registration/tuition-fees/tuition_payment_process.php). Students who have been awarded

financial aid funds will have a tuition hold placed on their account to prevent a drop for non-payment until funds can be disbursed to pay charges.

Financial aid grants, tuition waivers, and loan funds that have been accepted will be automatically used to pay outstanding tuition and fees approximately 1-2 business days before the first day of classes. Please allow additional time for processing and disbursement for the summer term.

Any credit balance of financial aid funds remaining after payment of tuition and fees will be refunded to students. Clark College partners with BM Technologies to deliver financial aid credit balance refunds. Funds are sent to BM Technologies, which then issues a refund based on the selected disbursement option. Additional information can be found online at: <https://www.firstcarolinabank.com/disbursements/how-it-works>

For questions regarding refund of payments prior to disbursement and tuition balances, please contact the Cashier's Office (https://www.clark.edu/enroll/registration/tuition-fees/cashiers_office.php).

Financial Aid Census Date and Repayment Policy

The Financial Aid Office uses an "enrollment lock" date for Federal Pell Grant, Washington College Grant, Washington Bridge Grant, College Bound Scholarship, and Passport to College Promise funds. The "lock" date is also known as the "census date."

The census date is the 10th business day of the term, except in summer, when it is the 8th business day. Through this date, college policy allows students to drop classes without a grade of "W." Tuition refunds may also be issued for courses dropped in accordance with the Clark College Refund Policy (http://www.clark.edu/enroll/registration/refund_policies.php).

Schedule changes made through the census date may have different impacts. Factors to consider include whether aid from the grant programs locked at census have already been disbursed, and whether classes were added or dropped.

Adding Classes

Financial aid funds are increased for enrollment intensity changes from adding eligible courses through the census day. Additional funds awarded are applied toward payment of charges for classes added, and any remaining balance is refunded through BM Technologies.

Dropping Classes

Financial aid funds are reduced for enrollment intensity changes resulting from dropping eligible classes through the 10th day. This will result in repayment owed to Clark College and/or the state aid program(s), depending on the funding type received.

Complete Withdrawals

Repayment of federal sources of aid is subject to the Clark College Return of Title IV Repayment Policy (https://www.clark.edu/enroll/paying-for-college/documents/Return_of_Title4_Policy.pdf) requirements and based on the number of days attended within the term.

Late Starting and/or Early Ending Classes

Classes that start after the census date and/or end before the last day of the term are considered module courses. Eligible module classes are included in the enrollment intensity at the time of disbursement as long as the student was enrolled in the course(s) by the census date. Students who withdraw from a module class on or before the scheduled course start date are considered to have not commenced attendance and will require an enrollment intensity review. A reduction of eligibility will result if the student did not commence attendance in the enrollment intensity funded.

Late Enrollment

Clark College may allow enrollment in classes after the census date on a case-by-case basis with instructor permission. Late enrollments may result in a funding adjustment.

The complete Financial Aid Census Date and Repayment Policy (https://www.clark.edu/enroll/paying-for-college/documents/CC_Refund_Repayment_Policy.pdf) is available online. Students are encouraged to visit the Financial Aid Office to ask about the impact of dropping classes before making changes to their schedule.

Financial Aid Satisfactory Academic Progress

Students must meet Financial Aid Satisfactory Academic Progress (SAP) Policy (<https://www.clark.edu/enrollhttps://www.clark.edu/enroll/paying-for-college/documents/SatisfactoryAcademicProgressPolicy.pdf>) requirements to remain eligible for federal, state, and institutional financial aid. SAP is evaluated annually when the financial aid application is reviewed, and at the end of each payment period (term) the student is enrolled. Students are notified via email if SAP conditions are not met. All terms of attendance, including those in which financial aid was not received, are used in determining SAP status.

There are three standards to the SAP Policy that are evaluated at the end of each term:

I. Grade Point Average (GPA) requirement is to establish and maintain a minimum 2.0 cumulative GPA (C grade average). 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 maintain a minimum 2.0 cumulative GPA at the end of their sixth term or an automatic suspension will occur. Courses with an S (Satisfactory), U (Unsatisfactory), I (Incomplete), and W (Withdrawal) do not have an impact on GPA. An S (Satisfactory) grade is equivalent to 2.0. For repeated coursework, only the highest grade achieved will count in the GPA calculation.

II. Pace of Progression is calculated by dividing the cumulative earned by the cumulative attempted credits. When this calculation falls below 67%, a student is no longer on pace to graduate on time. Pace of progression that is 66.6% or higher will be rounded to 67%. Whether or not aid was received, all program credits, including transfer and remedial credits, will be taken into consideration. Courses with grades of F (Failed), I (Incomplete), U (Unsatisfactory), W (Withdrawal), Y (In Progress) and repeated courses are included in the calculation of attempted credits. Only the highest grade achieved will count as attempted and earned credit for repeated courses. Courses approved on Set-Aside Petitions will count as attempted credits. Non-graded coursework and (*) grades are excluded from pace of progression for credit/unit-bearing classes. Program changes do not affect pace of progression.

III. Maximum Timeframe is measured to ensure students are taking required courses to complete their certificate or degree. Program progression must be reviewed when students reaches 150% of the length of program. Financial aid recipients 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. All credits, regardless of whether they were taken while on financial aid, including credits removed with an approved Set-Aside Petition are used in calculating maximum timeframe. Transfer credits accepted for use towards the current certificate or degree are also included. Repeated credits are counted as attempted towards maximum timeframe. Transitional support coursework that is attempted and results in an asterisk (*) grade such as ABE, GED, ESL, ENL, and some CAP coursework, and all remedial coursework that are labeled under 100 level are excluded from the maximum timeframe calculation. Program changes do not affect maximum timeframe.

Additional Maximum Timeframe Information

Maximum credit/unit warning notifications will be issued when a student has attempted between 125% and 149.99% of the credits required for their declared program. Once a student has attempted 150% of the credits/units required for their declared program, financial aid will be suspended.

Financial Aid Warning

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

Students on Warning are eligible to receive financial aid the next term of attendance, but are in jeopardy of losing their financial aid eligibility. If all SAP requirements are not met at the end of the next term of attendance, financial aid will be suspended. Warning status will be cleared if all SAP requirements are met at the end of the next term of attendance.

Financial Aid Suspension

Students will be placed on financial aid suspension if:

- On Financial Aid Warning/Probation and
- Cumulative GPA falls below 2.0 at the end the term and/or
- Pace of progression is less than 67% and/or
- Cumulative GPA falls below a 2.0 at the end of the 6th term of attendance and beyond
- 150% Maximum Timeframe is reached
- Conditions of their Academic Plan have not been met

Students on financial aid suspension are not eligible for future financial aid including grants, work-study, and loans. Financial Aid Suspension remains in place until the student has an approved appeal or has met the reinstatement criteria (See Regaining Financial Aid Eligibility).

Financial Aid Probation

If the Financial Aid Committee approves a student's appeal, financial aid will be reactivated on a probationary status. Students on Probation are eligible to receive financial aid.

Probation status will be cleared if all SAP requirements are met at the end of the next term of attendance. If all SAP requirements are not, a

Financial Aid Suspension will occur (see Financial Aid Warning section for details).

If it is mathematically impossible to meet all SAP requirements by the end of the next term of attendance, the Financial Aid Committee may approve an appeal on an Academic Plan, allowing for an extended Probationary period. If at any time while on an academic plan, the student does not achieve progress towards meeting the pace, term enrollment, and GPA requirements, or other conditions set by the Committee, a Financial Aid Suspension will occur (see Financial Aid Warning section for details).

Appeals

Students have the option to submit an appeal to address financial aid suspension for not meeting any combination of the SAP elements. Appeals must be submitted by the priority processing date listed on the Financial Aid (<https://www.clark.edu/enroll/paying-for-college/financial-aid/maintain-aid/>) website (<https://www.clark.edu/enroll/paying-for-college/financial-aid/maintain-aid/>) in order to be considered for federal (Pell Grant, subsidized/unsubsidized loans, etc.) financial aid for that term and include all required documentation listed under the appeal type. Incomplete appeals will not be considered.

Appeals are reviewed by an Appeals Committee, which consists of financial aid representatives. The Committee's decision is final and cannot be appealed further. If the appeal is approved, the student will be placed on a probationary status. The Committee has the authority to restrict students to specific academic conditions including but not limited to enrolling in a certain number of credits and/or specific coursework, meeting with a Student Success Coach, or earning a specific term GPA, etc. Students are notified of their decision through email.

If approved, aid is reactivated based on available funding at the time the appeal is approved and may not reflect the original aid offer. An approved appeal does not negate any repayment owed to the financial aid programs or Clark College.

The Financial Aid Office does not guarantee that an appeal submitted will result in approval. The student is responsible for paying any and all costs of attendance while awaiting an appeal outcome. The Financial Aid Office allows for the following appeals:

- Satisfactory Academic Progress (SAP) Appeal (<https://www.clark.edu/enroll/paying-for-college/documents/22-23-SAP-Appeal.pdf>)
- Maximum Timeframe Appeal (<https://www.clark.edu/enroll/paying-for-college/documents/22-23-MAX-Appeal.pdf>)
- Maximum Timeframe and SAP Suspension (MAX/SAP) Appeal (<https://www.clark.edu/enroll/paying-for-college/documents/sap-max-appeal.pdf>)

Students are limited to two (2) SAP appeals at Clark College. The Maximum Timeframe Appeal and Change of Records SAP Review are excluded from this limit. Students who submit a subsequent appeal for the same circumstance will not be considered.

Change of Records SAP Review

SAP is evaluated both annually and at the end of each term. SAP can be re-evaluated for a grade or program change that occurs. Students may notify the Financial Aid Office of a grade or program change by

submitting a Change of Records SAP Review Form and will be notified of any changes via email.

- Change of Records SAP Appeal (<https://www.clark.edu/enroll/paying-for-college/documents/22-23-Change-of-Records-SAP-Appeal.pdf>)

Reinstatement Criteria

If a student chooses not to appeal or has exhausted the two (2) appeal limit they may be eligible for reinstatement when they have satisfied the following conditions:

1. Earn a cumulative GPA of 2.0 or higher, and
2. Have a pace of progression of 67% or higher, and
3. Have not reached the Maximum Timeframe for their program.

In the reinstatement term, receiving grades of F (Failed), I (Incomplete), U (Unsatisfactory), W (Withdrawal), Y (In Progress), and repeating courses may hinder eligibility for financial aid reinstatement and could increase the number of credits/units required to reinstate.

When the reinstatement criteria are met, aid is reactivated based on available funding and may not reflect the original aid offer. Meeting reinstatement criteria does not negate any repayment owed to the financial aid programs or Clark College.

Financial Aid Limitations

- FLPC, ESL, IELP, and most CAP classes are not eligible for financial aid. Only CAP 46 and 90 are eligible for financial aid.
- Repeating Courses: Once credit/unit is earned, financial aid can only fund one additional attempt of a course.
- Financial aid can fund up to 45 credits/units of remedial coursework.
- Repayment obligations cannot be appealed.
- Lifetime eligibility limits cannot be appealed

This Satisfactory Academic Progress Policy is subject to change at any time due to federal regulations and/or requirements established by the Financial Aid Office.

Clark College Return of Title IV (R2T4) Funds Policy

Financial aid funds are awarded assuming students will attend Clark College for the entire term. If a student withdraws, the Financial Aid Office is required to calculate the amount of Federal Student Aid, also known as Title IV funds, earned and return the unearned part of the aid disbursed for the term.

There are two scenarios where a student is considered withdrawn, which will result in a Return of Title IV calculation: official and unofficial withdrawals.

- Official Withdrawal: When the student officially withdraws from classes through Enrollment Services (<https://www.clark.edu/enroll/registration/manage-enrollment/>),
- Unofficial Withdrawal: When the student stops attending classes before the end of the term and does not complete official withdrawal procedures

Calculating the Return of Title IV Funds

The Financial Aid Office follows a federal formula approved by Congress to calculate the amount of funds earned and the amount of funds that must be returned. This includes:

1. Establishing the date of withdrawal, calculating the number of days in the term and the number of days the student was enrolled
2. Using the number of days attended, calculating the percentage of Title IV funds earned and the amount of Title IV funds that were not earned
3. Determine the total amount of Title IV aid that must be returned to the Department of Education and allocate the return, in order of priority, as established by Congress

Returning of Unearned Funds

The Financial Aid Office will revise the financial aid awards to return unearned funds, in order to the Department of Education. Students will be notified by email of the Return of Title IV calculation detailing the amount disbursed and the amount earned from each aid program. Students who earned less than the amount disbursed will owe outstanding charges to the college. Separate billing statements will be sent by Clark College Accounting Services.

Official withdrawals may result in tuition refunds based on the Clark College Refund Policy. Refunds issued as a result of the withdrawal will be applied toward the student's debt owed by Clark College Accounting Services.

Post-Withdrawal Disbursements

Occasionally, a student may withdraw before all the aid they were eligible for was disbursed. If the Financial Aid Office determines the student earned more aid than was disbursed, the student may be eligible for a disbursement of funds after the withdrawal. This is considered a post-withdrawal disbursement.

Post-withdrawal disbursements of eligible grant funds will automatically be made to the student account to pay outstanding institutional charges such as tuition and fees. Any remaining credit balance will be refunded directly to the student through BM Technologies. Students who are eligible for post-withdrawal disbursement of loan funds will be notified by email of their eligibility with a deadline to claim available funds.

The complete Return of Title IV Policy (https://www.clark.edu/enroll/paying-for-college/documents/Return_of_Title4_Policy.pdf) is available online. Students are encouraged to visit the Financial Aid Office to ask about the impact of withdrawing from classes before making changes to their schedule.

Other Educational Resources Available

Scholarships

360-992-2582

<http://www.clark.edu/enroll/paying-for-college/scholarships/index.php>
(<http://www.clark.edu/enroll/paying-for-college/scholarships/>)

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 specific eligibility criteria, such as maintaining a certain grade point average (GPA) or enrollment intensity to qualify for funds awarded. Students should refer to the scholarship award

letter they received from the Foundation for the conditions of their award. The scholarship application is separate from the application for financial aid.

Generally, scholarship applications are available between January through April, and funds are awarded for the following academic year.

Workforce Education Services

360-992-2729

Workforce Education Services (WES) administers a variety of programs that are designed to support students who are seeking certificates and degree programs with an employment goal, as well as students enrolled in Transitional Studies programs. Eligibility, including eligible degree types, varies and is dependent on individual program requirements.

Students may receive assistance with tuition, fees, and books as well as help in accessing other supports, including public benefits, by completing the Workforce Education Services Application online at: <https://apps.clark.edu/WESapplication>.

Basic Food Employment and Training (BFET)

360-992-2321 or 360-992-2721

The BFET program provides support to students in Washington State who are receiving federal Basic Food benefits (SNAP), are not receiving TANF, and are enrolled in approved educational pathways with clear career goals. Eligible pathways include professional/technical programs, transfer degrees, certificate programs, ESL, HS+, and CAP.

Students who qualify may receive financial assistance for tuition, books, supplies, mandatory fees, licensing and certification costs, and more. Participation in BFET may also help students access subsidized childcare through Working Connections Childcare and fulfill the 20-hour per week work requirement for SNAP in certain populations. The program offers a range of support services designed to help students succeed in their educational and career journeys.

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 submit a FAFSA/WASFA, 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). Eligible students must live in Washington State and be enrolled in an approved program. Approved programs include professional/technical programs and transfer programs, as well as high school completion and ESL coursework. 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.

Agency Benefits

360-992-2286

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 that fund these student expenses.

Veteran Education Resources

Eligible veterans and dependents must request certification each term for approved degree and certificate programs. Only courses required for the program and on the student's degree worksheet will be funded. Audited courses are not eligible. Students are required to make satisfactory academic progress as defined by Clark College and are required to contact the Veterans Center of Excellence prior to making any schedule changes. Visit the VCOE website for more information. <https://www.clark.edu/campus-life/student-support/vrc/> (<https://www.clark.edu/campus-life/student-support/vrc/>)

GI Bill® and Veteran Readiness and Employment (VR&E) students who have submitted or are in the process of submitting their certificate of eligibility to Clark's School Certifying Official 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.

Clark College attempts to limit student enrollment to 85% veteran enrollment per program 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 so, but will not be eligible for VA payment of tuition and fees. The Code of Federal Regulations (38 CFR 21.4201) states the 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% of the students enrolled in the course are having all or part of their tuition and fees paid to or for them by Clark College or the VA.

Students whose parent was a member of the U.S. armed forces and died because of military service performed in Iraq or Afghanistan after 9/11, or was a public safety officer who died in the line of duty, may qualify for additional Federal Pell Grant funds. Eligibility for additional funds may be considered if the student was under the age of 24 or enrolled in college at the time of the parent's death. Students should contact the Financial Aid Office if they believe they may qualify.

Military Tuition Assistance

To activate your tuition assistance authorization, follow these steps (you may have already completed some or all of these):

- Apply for college admission/ activate Clark student email account
- Complete assessment testing

- Submit transcripts from prior colleges you have attended
- Meet with an Academic Advisor to develop an Education Plan
- Submit Education Plan to the military base contact
- Register in required classes based on your Education Plan
- Submit a copy of your Education Plan and approved Tuition Assistance authorization to ddaniel@clark.edu

Important Notes:

- Your Tuition Assistance Authorization will not cover college fees. Some fees are embedded in the Tuition Rate Schedule: <https://www.clark.edu/enroll/registration/tuition-fees/index.php>. After you send your TA authorization, a calculation of the costs that you will be responsible for paying, along with the due date and payment information, will be issued.
- If your service branch denies payment of the authorized TA funds due to grades, non-attendance, or any other situation, you will be responsible for the costs and must make payment to Clark College. Failure to pay these costs will restrict further enrollment and access to academic records.
- If you change your major, you must provide a revised Education plan to your military base contact and myself
- Please notify me of your enrollment every term and your intent with utilizing tuition assistance. Please ensure that you are notifying me prior to the tuition due date to ensure that I have placed a protective hold on your account so that you are not dropped for non-payment.

You must submit a Graduation Application one term before completing your certificate or degree requirements and notify me of your anticipated graduation date. <https://www.clark.edu/enroll/credential-evaluation/graduation-application.pdf>

Additionally, Clark College, in partnership with the Department of Defense, wants you to be an informed consumer. We invite you to review the following websites to learn more about Clark College and the services available to you.

Prospective Student Resources:

- College Scorecard (<http://collegecost.ed.gov/scorecard/>)

A resource to assist prospective students and their families in evaluating options in selecting a school.

- College Navigator

A tool that provides consistent information about tuition, fees, retention, graduation, and loan default rates by college.

- Paying for College

A resource that explains federal student loans and repayment options.

- Financial Aid Shopping Sheet

A standardized award letter that students and their families use to compare financial aid by institution.

- Clark College Student Support Services

Disability Access Center (DAC) (<https://www.clark.edu/dac/>) (formerly Disability Support Services (DSS))

Qualified persons with disabilities can receive accommodation to ensure equal access.

- Financial Aid Resources & Application

Apply for Federal financial aid and find additional resources available to support education costs.

- Advising, program/degree planning, Credentials/graduation application

Academic Advisors are available to map education plans and provide college transfer information.

- Job Search Assistance (<http://www.clark.edu/enroll/careers/job-search/>)

Explore career options; find employment opportunities, co-op, and internships.

Clark College signs the Department of Defense (DOD) Voluntary Education Partnership Memorandum of Understanding (MOU) and conforms to Executive Order 13607, April 27, 2012, establishing Principles of Excellence for Educational Institutions Servicing Service Members, Veteran Spouses, and family members. Credit for military experience may be granted toward general elective and specific vocational program coursework. Potential students 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/unit recommendations are based on the American Council of Education (ACE) guidelines for military training. Students may receive credit for prior learning for some military training—refer to the Credit for Prior Learning policy section of this catalog.

The College's School Certifying Officials' contact information is listed below:

Cliff Mathews
cmathews ([@clark.edu](https://catalog.clark.edu/enrollment-aid-college-life/financial-aid/cmathews@clark.edu))@clark.edu (egonzalez-roman@clark.edu)

Registration

360-992-2183

For more detailed information regarding enrollment for new, continuing or transfer students please see the website at <http://www.clark.edu/enroll/registration/index.php> (<http://www.clark.edu/enroll/registration/>).

- Specific information on dates, deadlines, and hours of service can be found on the Clark College website at www.clark.edu/current (<http://www.clark.edu/current>).
- Priority registration access is given to eligible veterans. 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.
- Continuing student access to enroll is based on a number on a number of factors. Participation in specific programs and number of credits/units earned are among the factors utilized to determine access.

Course Formats

Students may register for courses in several different formats including web-enhanced, hybrid, remote and online. See Clark College eLearning for more details on what each format requires.

Registration Policies

Credit/Unit Maximum

Students may register online or in person for 0-20 credits/units. Students who wish to add excess credits/units (i.e., 21 or more) must make an appointment and obtain permission from an advisor to register over the credit/unit maximum.

Late Registration Policy

Beginning the third (3rd) day of the term, instructor permission is required to enroll into any regular starting class.

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 (<https://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.

Dropping a Class and/or Withdrawal from the College

Students who find it necessary to withdraw from classes must do so formally. The withdrawal process can be completed online using ctcLink or in person using a Change of Registration form at the Enrollment Services Office. The dates and deadlines for dropping and/or withdrawing from classes are available at www.clark.edu/enroll/registration/academic-calendar.php (<http://www.clark.edu/enroll/registration/academic-calendar.php>).

- A class officially dropped before the 10th business day of the term will not appear on your transcript.
- Beginning the 11th business day and through the day prior to the last day of term, classes formally dropped will post to your transcript with a withdrawal grade of "W."
- No withdrawals will be accepted after the day before the last official day of classes.
- For classes with unusual start and end dates, no withdrawals will be accepted after 80% of the class meetings have occurred.

- One-day classes: If you believe that extenuating circumstances justify a withdrawal after the class met, you may submit a Petition for Exception to the Withdrawal Policy Form at the Enrollment Services Office. An instructor signature will be required to verify that you did not attend the class. Requests for exceptions to the Withdrawal Policy for one-day classes will be accepted up to 10 business days after the class has met. If approved, a student will receive a withdrawal grade of "W." Refunds for one-day courses are available if the student withdraws prior to the first class session.

Administrative Withdrawal

Under guidance of the Registrar, students who meet the circumstances as stated in the Procedure for Administrative Withdrawal Request may request a withdrawal. This process is not intended to be used for students who fail to meet the established withdrawal deadlines. Extenuating circumstances for consideration must be:

- verifiable error on the part of a Clark College employee
- miscommunication on the part of a Clark College employee that prevented a student from taking appropriate action
- documentable misinformation about Clark College policies or procedures
- sudden medical emergency or death of an immediate family member that physically prevented a student from withdrawing during the established withdrawal guidelines

Students may contact the Enrollment Services Office at enroll@clark.edu (enroll@clark.edu?subject=Withdrawal) for more information about an Administrative Withdrawal or join the Enrollment Services virtual Zoom (<https://www.clark.edu/directories/remote-contacts.php>) for assistance.

Deadline exceptions and refunds may be granted on the student's behalf or by student request in the event of a natural disaster, catastrophe or other event outside of the control of the college and the student that prevents completion of scheduled coursework. If such an incident occurs the college will contact affected students to provide additional information, tuition refunds or other applicable resolutions

Auditing a Class

Students may enroll in courses on an audit basis with instructor permission and upon payment of regular tuition and fees. Students who audit a course are exempt from examinations and do not receive college credit; however, the instructor may require reasonable attendance and class participation.

To change from credit to audit, or audit to credit, students must submit a Registration Form (<https://www.clark.edu/enroll/registration/forms.php>) to the Enrollment Services Office (<https://www.clark.edu/enroll/registration/>) with photo ID. Such changes may be made only with the written consent of the instructor and must be processed by the end of the 10th day of the quarter (8th day summer). After the 10th (or 8th) day of the quarter, students may audit classes with permission from the course instructor and the appropriate instructional dean.

Student Attendance Status

Clark College considers students enrolled in twelve (12) or more credits/units 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

GI Bill® Attendance Status for Fall, Winter and Spring Terms

Attendance Status	Credit/Unit Hours Per Term
Full-time student	12 credit/unit hours
Three-quarter-time student	9-11 credit/unit hours
Half-time student	6-8 credit/unit hours

GI Bill® Attendance Status for Summer Term

Attendance Status	Credit/Unit Hours Per Term
Full-time student	8 credit/unit hours
Three-quarter-time student	6-7 credit/unit hours
Half-time student	4-5 credit/unit hours
Less than half-time	3 credits/units or less

Post 9/11 GI Bill® Student Attendance Status

Post 9/11 GI Bill® calculated at Rate of Pursuit. Students must be enrolled in at least 7 (seven) credits/units to receive their expected BAH.

- 12 (twelve) credits/units or more is considered full-time training for Post 9/11 GI Bill® for Fall, Winter, and Spring terms. (7 (seven) or more credits/units is required for BAH payment)
- 8 (eight) credits/units or more is considered full-time training for Post 9/11 GI Bill® during Summer term only. (5 (five) or more credits/units is required for BAH payment)

Absence

Students are expected to attend classes in which they are enrolled. Attendance 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 Center of Excellence for more 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. Contact information may be updated in ctcLink. Offices that should be informed include Enrollment Services and Financial Aid.

Tuition and Fees

The first tuition due date is three weeks before the term begins. Tuition is due on a weekly basis after that:

- Students can verify the amount of tuition and the due date by viewing their schedule and other information in ctcLink.
- Students who enroll 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 enroll after the 10th day of the term (8th day of summer term) 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 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/unit 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/unit 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 at www.clarkbookstore.com (<https://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 and other college services, will be withheld for failure to meet financial obligations.

Refund Policy

A student who officially withdraws using ctcLink or 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.

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

BEdA for CAP and ESL Coursework

BGB Grading Basis is used whether or not the class is graded. The BGB Grading Basis does not require actual grading. This grading basis will exclude the enrollment from Financial Aid Pace and Satisfactory Academic Progress calculations. This grading basis allows a grade to be applied and for the student to view the grade and units in Student Self-Service. The grade points and credits/units associated to the BGB grading basis will not factor into any college-level calculation.

Grade Legend

Clark College uses the grading symbols listed below. The grades A, B, C, and D may include pluses (+) and minuses (-).

Letter Grade	Grade Point
A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D+	1.3
D	1.0
D-	0.7
F	0.0

I	Incomplete
N	Audit
S	Satisfactory (credit/unit only, no grade points)
U	Unsatisfactory (no credit/unit, no grade points)
W	Official Withdrawal

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/unit classes may obtain grade information approximately eight (8) business days after the end of each term.

Students may access grades by logging into MyClark@ctcLink, select the Academic Records tile and choose either "View Grades" or "View Unofficial Transcripts."

Grade Point Average (GPA)

Grade points are calculated by multiplying the number of credit/unit 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/units attempted in courses that received a letter grade.

Credit/Unit Hrs Attempted	Grade	Grade Points Earned
5	B+ = 3.3	16.5
3	C = 2.0	6.0
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/units attempted in the courses that received a letter grade.

As of Summer 2021, most Basic Education for Adult (ESL, CAP and CCAP) courses are graded, however the credits/units and GPA will not be reported on the transcript.

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.

The incomplete grade remains on the student's transcript for 90 (ninety) days, or until the student completes the required work and the instructor submits an amended grade to the Enrollment Services office. If the instructor does not submit an amended grade within 90 (ninety) days,

the 'I' grade will revert to 'F' for a letter graded course or 'U' for a Pass/No Pass course.

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/>)

Pass/No Pass

Students may request to enroll in approved courses on a Pass/No Pass (PNP) basis. Please see the class schedule to see which specific courses can only be graded Pass/No Pass. Classes eligible for Pass/No Pass are indicated by the [PNP] under the class description. No more than sixty (60) credits/units 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 Repeat Course Rule.

Students who repeat a class should submit to the Enrollment Services (enroll@clark.edu?subject=Repeating%20a%20Course) office a Notification of Repeated Class Request form (<https://www.clark.edu/enroll/registration/documents/repeated-class-request.pdf>).

- The course repeat policy applies to courses that are taken at Clark College.
- A course may be repeated only twice (defined as two repeats in addition to original enrollment) unless otherwise specified in the college catalog. The "W" (Withdraw) grade IS included as a repeated course attempt.
- The highest grades awarded will be used in computing the Clark College GPA.
- Each grade received will remain on the student's transcript; a repeat notation will be posted to the transcript for these courses.
- Courses must be repeated for a letter grade unless the course is offered only as pass/no pass.
- The course repeat process DOES NOT apply to grade symbols N and Y.
- Students who plan to transfer to another institution, should be aware that their GPAs might be recomputed by that institution; repeated courses will be received in accordance with the institution's own requirements and policies.
- To repeat a course, students must re-register and pay all necessary tuition and fees.

Students receiving financial aid or veterans' benefits, or those participating in athletics, should consult those offices prior to repeating a course. Benefits or eligibility may be reduced or lost due to course repetition.

Exceptions to the Repeat Course Rule include:

- **Extenuation Circumstances**-Students with extenuating circumstances may receive permission to enroll in a course for a fourth attempt; only the highest graded attempt will be factored into the GPA.
- **Variable Credit Courses** - A student may enroll in a variable credit course as many times as necessary to complete the entire curriculum and maximum credit value of the course.
- **Repeatable courses** - These courses have content variation; therefore, enrollment is allowed multiple times. These courses are noted as repeatable in the Course Catalog.

Setting Aside Past Record

Qualified students may request to set aside a previous substandard academic record if they feel it does not reflect their true ability at Clark College. Only the Clark College record can be set aside; the college cannot set aside records from other colleges.

Setting aside does not expunge the previous record, but places a "set aside" or "grade forgiveness" notation on the student's transcript, marking the term from which the college will calculate a GPA for determining probation, eligibility, or honors at graduation. Students may not count set aside credits to fulfill requirements for graduation nor remove credits that had been used to fulfill requirements for graduation. Students should understand that the record to be set aside includes all courses taken before the term 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 cumulative GPA at Clark College for these credits.
- The work to be set aside is at least one (1) year old.

Submit a completed Set-Aside Past Record Petition Form (<https://www.clark.edu/enroll/registration/documents/set-aside-past-record-petition.pdf>) with photo ID to Enrollment Services office at enroll@clark.edu (enroll@clark.edu?subject=Setting%20Aside%20Past%20Record).

Caution: Although Clark College makes provisions for setting aside past records, students should not assume that other colleges to which they transfer will compute the GPA in the same manner. 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 their instructor. Grade changes are made at the discretion of the instructor. The grade change must be submitted directly to Enrollment Services Office by the instructor. Grade changes and corrections made for veterans and financial aid recipients must also be reported to the Veterans Center of Excellence 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

A student who believes they received an incorrect grade for a class should contact the instructor (<https://www.clark.edu/directories/employee-search.php>) of the class. Grade changes are made at the

discretion of the instructor. A grade change must be submitted to Enrollment Services by the instructor. Grade changes and corrections made for veterans and financial aid recipients must also be reported to the Veterans Center of Excellence 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.

An academic appeal refers to a claim by a student that a specific grade assigned to the student by the 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 student must file a written complaint within ninety (90) calendar days after termination of the course. The appropriate instructional dean or supervisor may suspend this rule only under exceptional circumstances such as extended illness, sabbatical leave, or absence of one or both parties involved in the complaint. Grade appeal process forms are available through instructional deans' offices or the Office of Instruction.

Students having complaints relative to academic performance evaluation should first meet with their instructor to discuss their grade before beginning this process. If the complaint is not resolved, the student may proceed to Step 1.

- **Step 1:** The student completes the grade appeal form. (https://www.clark.edu/enroll/registration/transcripts_grades/grade-change-academic-appeal.docx) Additional pages may be attached, if necessary. The student will make an appointment with the appropriate division chair, department head, or supervisor. The division chair/department head/supervisor will receive the original grade appeal form and any supporting documentation prior to the meeting. The division chair/department head/supervisor must notify the student within fifteen (15) working days of the resolution after the meeting with the student. If the student is not satisfied with the resolution, the student may proceed to Step 2.
- **Step 2:** The student will provide a written statement describing the nature of the appeal to the instructional dean. A meeting will then be scheduled with the student, the instructional dean, and the instructor to discuss the appeal. The instructor will receive a copy of the student's written material prior to the meeting. A decision by the dean will be made within fifteen (15) working days of the meeting. The decision by the dean will be final and cannot be appealed further.

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's name, major field of study, enrollment status, dates of attendance, participation in recognized sports, degrees and certificates earned, term degrees and certificates awarded, and honors. The college will assign all students a ctcLink

Student Success Programs

360-992-2901

studentsuccess@clark.edu

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, online learners, adult learners, and other student populations. 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 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 Academic Retention Concern (<https://www.clark.edu/campus-life/student-support/student-success/arc-info-page.php>) (ARC) and Academic Standards Policy and Procedure (https://www.clark.edu/about/governance/policies-procedures/academic_standards/)
- Assistance to struggling students with locating appropriate academic resources and making informed enrollment decisions.
- Help students navigate and access appropriate support resources and strategies that meet their unique needs, including Student Success Coaching, Tutoring, Academic Advising, Student Resource Workshops, and others.
- Support for students returning to the college following academic dismissal (goal setting, resource connection, next term).
- Training and support for students, staff, and faculty on the Academic Standards Policy (ASP).

Veteran and Military

Veterans Center of Excellence

Penguin Union Building (PUB) 015

Phone: 360-992-2073

Email: veterans@clark.edu

Website: <http://www.clark.edu/campus-life/student-support/vrc>

The Veterans Center of Excellence connects veterans, military, and military dependents with each other as well as college and community resources. Our veteran staff and VA work study students provide a welcoming environment for students to thrive academically and personally. The center itself is a large and it features a study room with computers and printers; snacks and drinks for refueling; and a lounge area for hanging out with a large screen TV, textbook lending library, piano, board games, Wi-Fi, and an air hockey table. Students are encouraged to visit and use VCOE services

- Learning about and navigating VA educational benefits
- Advocating for military, veteran, and military dependent students
- Offering fun and community building through events such as Crafternoons, Coffee and conversations, soup Day, Hot Tea Day, Halloween costume contest, and more

- Tutoring services in the VCOE
- Certifying class enrollments to VA
- Connecting with college resources such as Disability Services, Workforce Education Services, Worker Retraining, Penguin Pantry, and more
- Connecting with community resources such as CMAC, Clark County Veterans Advisory Committee, Washing Department of Veterans Affairs, VA healthcare services, and more
- Offering customized workshops covering personal finance, creating great LinkedIn pages, nailing the job interview, and more

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 person or entities engaged in any student recruiting or admissions activities, or in making decision regarding the award of student financial assistance.

VA Education Programs

Veterans Readiness and Employment (formerly Vocational-Rehabilitation) (Chapter 31)

- Veterans must apply for this program and get accepted by the VA.
- Once accepted, student veterans are assigned a VA counselor who helps students develop their training plan to acquire skills so they can seek employment after completing their program.
- Benefits include housing allowance (paid to student), book and class materials payment, and tuition and fee payment to the college. Email veterans@clark.edu for more information.

Post 9/11 GI Bill® (Chapter 33)

- Earned by veterans through military service: benefits may range from 30% to 100% based upon service completion.
- 36 month maximum for benefits;
- Benefits include a book allowance, housing allowance (paid to student), and tuition and fee payment (paid to school). More information about housing allowance rates can be found at va.gov.

Email veterans@clark.edu for more information.

Dependents Educational Assistance Program (Chapter 35)

- Dependents (spouse and eligible children) of VA-rated 100% totally and permanently disabled veterans are eligible
- Up to 48 months of benefits
- Benefits- monthly stipend paid to student (see va.gov for stipend rates)
- Benefits expire when children reach age 26, unless the benefits are received after August 18, 2023. After that date, benefits do not expire.
- Spousal benefits expire 10 years after the date of veteran death or veteran received VA 100% disability rating. Email veterans@clark.edu for more information.

Chapter 1606 Reserve educational benefits

- Active members of the Reserve with minimum 6-year commitment after 6-30-1985
- Maximum number of months- 36 months
- Can only use these benefits while serving on Selective Reserve
- Payments are made to the student

Clark Academic Programs Eligible for VA Educational Benefits

The Emergency Medical Technician program is not eligible for VA educational benefits, but all other Clark academic (for credit) program are eligible for VA educational benefits. non-credit courses and programs offered through the Office of Continuing and Community Education are not eligible for VA educational benefits.

VA definitions for the attendance status of students using VA educational benefits:

Fall, Winter, and Spring Terms

Attendance Status = Credits Per Term

- Full-time student = 12 credits
- Three-quarter-time student = 9 - 11 credits
- Half-time student = 8 credits

Summer Term

Attendance Status = Credits Per Term

- Full-time student = 8 credits
- Three-quarter-time student = 6 - 7 credits
- Half-time student = 4 - 5 credits
- Less than half-time student = 3 credits

The attendance status of student determines the level of educational benefits paid by the VA.

Dropping a Class

Holds are placed on all veteran and military students after their enrollments are certified to the VA to prevent them from dropping a class. The VA regulations require students who drop a class after the free add/drop period (first week of class) to reimburse the VA for the tuition and fees for the class and the amount of monthly housing allowance paid to the student after the class was dropped. Students need to contact the Veterans Center of Excellence to discuss the financial ramifications of dropping a class before they drop the class. Email veterans@clark.edu for more information or call 360-992-2073.

Withdrawing from all classes

Occasionally, students have personal issues that require them to withdraw from all classes after the free add/drop period (first week of class). When this occurs, students should contact the Veterans Center of Excellence for guidance. Email veterans@clark.edu for more information or call 360-992-2073.

Tuition and Fees

If VA educational benefits do not cover all tuition and fee charges, students using VA benefits are responsible for paying the remainder. The veteran 25% tuition waiver cannot be used with VA benefits to cover that cost.

Veterans Tuition Waiver

The state of Washington offers a 25% tuition waiver for all veterans who are not using VA educational benefits and who have an Honorable Discharge for the military. Students submit a copy of their DD214 to the Veterans Center of Excellence to have the waiver applied to their account. Email veterans@clark.edu for more information.

100% Tuition Waiver for Dependents of 100% Disabled Veterans or those who died as a result of their military service

The state of Washington offers a 100% tuition waiver to the dependents (spouse and children) of veterans who died as a result of military service or who have a VA disability rating of 100%. Students must submit required documents and fill out a 100% tuition waiver application to qualify for this waiver. (RCW link <https://app.leg.wa.gov/rcw/default.aspx?cite=26b.15.621>)

Here are the documents that must be submitted to determine eligibility-

1. Disabled veteran must be a resident of Washington state
2. Child must be a resident of Washington state
3. Required documentation must be submitted to the Veterans Center of Excellence for processing:
 - a. Official death certificate of veteran or military member killed in the line of duty
 - b. A copy of the veteran's 100% disability award letter from the VA
 - c. Veteran's valid WA state issued ID or driver's license in veteran's name with WA state address to verify residency
 - d. Student's valid WA state issued ID or driver's license in veteran's name with WA state address to verify residency
 - e. Birth certificate or marriage license
 - f. Completed 100% waiver application
 - g. A copy of the veteran's DD-214

Email veterans@clark.edu for more information.

Military Tuition Assistance (TA)

Clark College participates with the US Department of Defense's tuition assistance program for active duty military personnel. Active duty military stationed in the state of Washington, as well as their spouses and dependents, qualify as residents for tuition purposes. To qualify for in-state tuition, military members and their dependents present a copy of the military ID card when registering for classes.

Here are the steps for using Tuition Assistance at Clark:

- Apply for college admission and activate Clark student email account
- Contact VCOE for more information (veterans@clark.edu)
- Complete assessment testing unless you are a transfer student or attended another college
- Submit transcripts from prior colleges you have attended
- Meet with an Academic Advisor to develop an Education Plan
- Submit Education Plan to military base contact
- Register in required classes based on your Education Plan.
- Submit a copy of your Education Plan and approved Tuition Assistance authorization to the Clark College Business Office, email businessoffice@clark.edu for more information.

Important Notes:

- Your Tuition Assistance Authorization will not cover college fees. Some fees are embedded in the Tuition Rate Schedule: <https://www.clark.edu/enroll/registration/tuition-fees/index.php> (<https://www.clark.edu/enroll/registration/tuition-fees/>) After you send your TA authorization, the Business Office will calculate the costs that you will be responsible to pay along with the due date and payment information.

- If your service branch denies payment of the authorized TA funds due to grades, non-attendance or any other situation, you will be responsible for the costs and must make payment to Clark College. Failure to pay these costs will restrict further enrollment and access to academic records.
- If you change your major, you must provide a revised Education plan to your military base contact and the Business Office
- Please notify the Business Office of your enrollment every quarter and your intent with utilizing tuition assistance. Please ensure that you are notifying the Business Office prior to the tuition due date to ensure that there is a protective hold placed on your account so that you are not dropped for non-payment. Please follow this link for tuition due dates: https://www.clark.edu/enroll/registration/tuition-fees/tuition_payment_process.php
- You must submit a Graduation Application one quarter before completing your certificate or degree requirements and notify the Business Office of your anticipated graduation date. <https://www.clark.edu/enroll/credential-evaluation/graduation-application.pdf>

Guard and Reserve

Resident Status- Washington National Guard members, as well as their spouses and dependents, qualify for resident tuition as long as they are domiciled in Washington.

Guard and Reservists can use Military Tuition Assistance to help defray the cost of their education. Washington National Guard members also qualify for the Washington National Guard scholarship. Please contact the VCOE (veterans@clark.edu or 503-992-2073 or stop by) for more information..

Absences

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. Students should inform their instructor and submit documentation (orders) well before the absence and make a plan to make up missed work. Email veterans@clark.edu for information.

Credit for Military Coursework and Experience

The Veterans Administration requires all veteran students to submit **official** JST or CCAF transcripts to the college for review and awarding credit to students.

Military Coursework

Clark College awards academic credits for military training and experience in compliance with State of Washington law. (RCW28B.10.057). Credits are awarded based on American Council on Education (ACE) credit recommendations, in consultation with academic department faculty. Academic credit awarded for military experience is limited to 25% of total credits required for degree/certificate completion.

Military training applicable to the student's degree or certificate requirements is awarded. The veteran must be enrolled in Clark College and successfully completed a military training course or program that is:

- Recommended for credit by a national higher education association that recommends credit for military training programs (such as ACE)

- Included in the individual's military transcript issued by any branch of the armed services

- Substantially equivalent to any course or program offered by Clark college.

Student veterans must consult with an academic advisor to apply military credits to their degree plan.

The Credential Evaluations Department evaluates all military credits after the transcripts are received. First, they evaluate the transcript for reading, English, and Mathematics placement and general education credits earned. Next, they forward technical class information including course description and any ACE credit recommendations to appropriate program faculty to determine course equivalency. Finally, they post specific course credit awards to the student's transcript.

If specific course equivalents do not exist, elective credit (non-specific equivalent) is awarded when possible. Both specific and non-specific equivalents must be applicable toward the student veteran's program of study.

Once the credit is posted to the student's record the student is notified and provided instructions on how to view awarded credits.

If a student changes their degree plan or program of study, the student must contact the Credential Evaluations Office so awarded credit may be reevaluated, since the awarded credit must be appropriate for their new degree plan/program of study.

- 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

Credit for Military Experience

Clark College grants academic credit through a process known as credit for prior learning. Students need to follow the process for awarding credit for prior learning to earn credit for military experience.

Prospective Student Resources:

College Scorecard - <http://collegecost.ed.gov/scorecard/>

College Navigator - <http://nces.ed.gov/collegenavigator/> - A tool that provides consistent information about tuition, fees, retention, graduation, and loan default rates by college.

Paying for College - <http://www.consumerfinance.gov/paying-for-college/>
- A resource that explains federal student loans and repayment options.

Financial aid Shopping Sheet - <http://www2.ed.gov/policy/highered/guid/aid-offer/index.html> (<http://www2.ed.gov/policy/highered/guid/aid-offer/index.html>)

offer/) - A standardized award letter students and their families use to compare financial aid by institution.

Clark College Student Support Services

Disability Access Center (DAC) - <https://www.clark.edu/dac/> (<https://www.clark.edu/dac/>) (<https://www.clark.edu/dac/>) - Qualified persons with disabilities can receive accommodation to assure equal access.

Financial Aid Resources & Application - <http://www.clark.edu/enroll/paying-for-college/index.php> (<http://www.clark.edu/enroll/paying-for-college/>) - Apply for Federal financial aid and find additional resources available to support education costs.

Advising, program/degree planning, Credentials/graduation application - <http://www.clark.edu/enroll/advising-services/index.php> - Academic Advisors are available to map education plans and provide college transfer information.

Job Search Assistance - <http://www.clark.edu/enroll/careers/job-search/index.php> (<http://www.clark.edu/enroll/careers/job-search/>) - Explore career options, find employment opportunities, co-op, and internships.

Additional Resources

Other Financial Resources Available

FAFSA - The Federal Pell Grant is awarded based on financial need to undergraduate students including veteran students. Veterans transitioning from the military or full-time jobs into full-time student status may need to file a "Change in Circumstances Form" with the Clark College Financial Aid office. See the Financial Aid section and website for more information.

State of Washington Opportunity Grant - The Opportunity Grant program serves low-income students who are pursuing professional/technical programs that lead to high-wage, high demand jobs. See the Financial Section of this catalog or the website.

Scholarships - 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. (<http://www.clark.edu/enroll/paying-for-college/scholarships/>)

Clark College Financial Resources

Workforce Education Services (WES)

Workforce Education Services (WES) administers a variety of programs that are designed to support students who are seeking certificates and degree programs with an employment goal, including veterans. Eligibility, including eligible degree types, vary and are dependent on individual program requirements. Fill out the WES application to find out if you are eligible, <https://apps.clark.edu/WESapplication>.

Worker Retraining Program (WRT)

The Worker Retraining program serves students discharged from the military within the previous 4 years, and are pursuing career technical programs. Eligible students must live in Washington State and be enrolled in an approved program. Email veterans@clark.edu for more information. <https://www.sbctc.edu/paying-for-college/worker-retraining-student>

Basic Food Employment and Training (BFET)

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. Email veterans@clark.edu for more information. <https://www.dshs.wa.gov/esa/community-partnership-program-community-services-offices-csd-office-refugee-and-immigration-assistance-manuals/basic-food-employment-and-training-bfet>

FACULTY AND ADMINISTRATION

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Board of Trustees

The Clark College Board of Trustees consists of five members who are appointed by the Governor of Washington. Members serve a five-year term and must live in the college's service district. The Board seeks to ensure the quality and relevance of college programs and provide stewardship of public resources. In this role, the Board is responsible for strategic planning; development and approval of college policies; and approval and oversight of the operating budget.

The Board of Trustees generally meets on the fourth Wednesday of the month.

Members and Meeting information (<https://www.clark.edu/about/governance/leadership/board/>)

Executive Cabinet

<https://www.clark.edu/about/governance/leadership/>

Administration

A

Michael Angelo (2024)
Academic Advisor
B.A. Denison University
M.Ed. Ohio University

Julie Austad (2021)
Dean of Clark Libraries and Academic Success Services
B.A. Linfield College
M.L.S. Emporia State University

B

Rachael Boyd (2024)
Associate Director of Records
B.B.A. Southern Adventist University

William (Terry) Brown (2024)
Vice President of Instruction
B.S. University of Florida
M.A. University of Delaware
Ph.D. University of Delaware

Margit Brumbaugh (2016)
Nursing Clinical Placement Manager
B.A. University of Washington
M.Ed. Concordia University

Cathleen "Cath" Busha (2016)
Dean of Student Engagement

B.S. Millersville University
M.S.W. Arizona State University

Jay Busher (2021)
Environmental Health and Safety Manager
B.A. Warner Pacific University

Evelyn Buschur (2021)
Advanced Medical Practitioner
B.S. University of Maine
N.D. National University of Natural Medicine

C

Michael Caldwell (2024)
Career Advisor
B.S. Portland State University
M.A. Evergreen State College

Aaron Campbell (2023)
Associate Director of Career & Student Success
B.A. University of Vermont
M.A. Lewis & Clark College

Ann Campbell (2022)
Director of Community, Continuing Education and Customized Training
B.S. University of Oregon

Christy Campbell (2014)
Assistant Director of Business Services
B.S. Washington State University

April Cannon (2017)
Academic Advisor
B.S. Oregon State University
M.A. Eastern Michigan University

Maureen Chan-Hefflin (2023)
Director of Communications
B.A., M.P.A. Washington State University

Jessica Cisneros-Flores (2025)
Academic Advisor
B.A. Denison University
A.A. Clark College
B.A. Washington State University

Kimberley Coles (2024)
Title III Project Manager
B.A. University of California, San Diego
M.A. American University
Ph.D. University of California, Irvine

D

Adele Dandeneau (2024)
Risk Manager
A.A. & A.A.S. Clark College
B.S. Washington State University

Ashley Davis (2024)
Accommodation and Retention Specialist
A.A. Clark College

Amanda Do (2024)
Admissions Recruiter

B.A. Western Washington University
M.A.T. Western Governors University

Julie Donovan (20134)
Director of Grant Development
B.A. Lewis & Clark College
M.P.H., M.S.W. Portland State University

Kevin Damore (2018)
Director of Marketing
B.S. Northern Arizona University

Carl Douglas (2021)
Director of Center of Excellence - Semiconductor and Electronics
Manufacturing
AAST Clark College
B.S. University of Phoenix

E

Lindsey Earl (2023)
Academic Advisor
B.S. Walla Walla University
M.A. Gonzaga University

Dr. Karin Edwards
B.A. State University of New York
M.A. State University of New York
Ed.D. Johnson and Wales University

F

Darci Feider (2021)
Senior Executive to the President

Wendé Fisher (2015)
Academic Advisor
A.A.S. Clark College
B.A. Washington State University
M.S. Oregon State University

Byron Ford (2024)
Title III Project Manager
B.A. Western Washington University
M.Ed. Western Washington University

Ronniesha Ford-Spears (2023)
Enrollment System Analyst
B.S. Humboldt State University

Traneesa Frazier (2019)
Executive Assistant to the Vice President of Administrative Services
A.A. Los Angeles Harbor Community College
B.S. Warner Pacific College

G

Glendi Gaddis (2021)
Associate Dean of Financial Aid
B.A. Whitworth University

Marcy Gilchrist (2017)
Academic Advisor
B.A. Central Washington University

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

Erin Guidarelli (2023)
Certified Athletic Trainer
B.S. Humboldt State University
M.S. Pacific University

Das Gupta (2020)
Director of Information Technology - Client Services
B.B.A. Walsh College

H

Trisha Haakonstad (2019)
Lead Career Advisor
B.A. University of San Diego
M.S. Portland State University

Degundrea Harris (2019)
Administrative Secretary of Special Projects
A.A. Clark College
B.S. Warner Pacific

Jessica Hash (2022)
Academic Advisor
A.A. Clark College
B.A. Washington State University
M.Ed. Eastern Washington University

Bradford Hawkins (2022)
Assistant Athletic Director
B.A. Washington State University

Scot Headley (2023)
Dean of Business and Health Sciences
B.A. Colorado State University
M.Ed. Colorado State University
Ph.D. Ohio State University

Andrew Hillger (2023)
ITS Project Manager
.A. Lower Columbia College
B.S. Western Governors University

J

Kate Jacky (2015)
Associate Director of Financial Aid
B.A. Washington State University

Megan Jasurda (2015)
Director of Disability Support Services & ADA Compliance Officer
B.A. University of Wisconsin
M.Ed. Portland State University

Joseph Jenkins (2016)
Academic Advisor
A.A. Clark College
B.A. Washington State University

M.S. Portland State University

Rhianna Johnson (2021)

Director of Guided Pathways and Partnerships
M.S. Portland State University

K

Tanya Kerr (2017)

Internal Controls Business Analyst
B.A. University of Washington

Alexandra Kison (2022)

Workforce and Student Engagement Navigator
B.S. Eastern Washington University

Monica L. Knowles (1998)

Bookstore and Production Printing Manager
A.A. Brooks College

Theo Koupelis (2023)

Dean of WPTE and STEM
B.S. – Aristotle University, Thessaloniki, Greece
M.A. – University of Rochester
Ph.D. – University of Rochester

L

Román Lara Alvarado (2023)

Director of MESA Program
B.A. Washington State University

Donna Larson (2022)

Associate Director of the Veteran Center of Excellence
B.S.A. Rhode Island College
M.S. Troy State University
Ph.D. Texas Tech University

Michael Law (2022)

Director of Student Equity and Inclusion
A.A. Spoon River Community College
B.A. University of Illinois
M.A. Loyola University - Chicago

Chris Layfield (2025)

Director of Security & Safety
B.S. Oklahoma State University

Stephanie Leeper (2024)

Career Connected Curriculum Liaison
B.A. Washington State University

Laura LeMasters (2019)

Director of Athletics
B.A. Washington State University
M.A. California State University - Long Beach

Troy Lester (2021)

Grounds Manager
MBA Marylhurst University

Yanmeng (Maggie) Li (2023)

International Admissions Manager
B.A. Nanchang Hangkong University

Yingcong Li (2020)

Research Associate

B.S. Portland State University

Nicola Lippetti (2024)

Academic Advisor
B.A. University of Nevada, Las Vegas
M.A. Pepperdine University

Kimberly Love (2022)

Associate Director of Nursing Outcomes, Inclusion and Support
B.S. Warner Pacific University
M.Ed. City of University of Seattle
RN, Foothills School of Nursing, Calgary AB

M

Caitlin Malvar (2024)

Basic Needs Navigator
B.A. Northern Arizona University
M.Ed. Northern Arizona University

Cecelia Martin (2023)

Associate Vice President of Planning and Effectiveness
B.S. University of South Alabama
M.A. University of South Alabama
Ed.D. University of South Alabama

Sherri Meadors (2016)

Payroll Manager
A.A. Clark College

Emily Meoz (2022)

Associate Dean of Advising, Career, and Student Success
B.A. University of Washington
M.A., Ed. California Polytechnic State University

Rebecca Miller (2026)

Assistant Director of Business Services
B.S. University of Oregon

Alyssa Montminy (2019)

Director of Employee Equity, Outreach and Engagement
B.S. University of Oregon
M. Ed. Oregon State University

N

Vanessa Neal (2023)

Vice President of People and Culture
B.A. University of New Mexico
M.A. University of Denver

O

Jennifer Obbard (2017)

Associate Dean of Health Science
B.S.N., M.N. Oregon Health Sciences University

Melissa Olsen (2025)

Academic Advisor
M.A. Washington State University

Sue Orchard (2026)

Vice President of Student Affairs
Psy.D. Pacific University

Shelley Ostermiller (2018)

Associate Dean of Enrollment Services & Registrar
A.A. Clark College
B.A. Washington State University, Vancouver
M.S. Warner Pacific College

Eriko Otsuka (2012)

Senior Manager of IT App Dev. & Data Services/Sr. Software Engineer
B.S., M.S. Washington State University, Vancouver

P**April Pereira (2024)**

Director of Special Projects
B.A. Keene State College
MCRP University of Oregon

B.A. Keene State College
MCRP University of Oregon

Bryan Pettis (2022)

Custodial Services Manager
A.A. Climate Control Institute
B.S. University of Phoenix
M.B.A. Baker University

Lindsey Pierce (2024)

Associate Registrar of Enrollment Services
B.A. Portland State University
M.A. Seattle University

Gaby Posteuca (2023)

Admissions Recruiter
A.A. Mt. Hood Community College

R**Rocio Rodriguez (2021)**

Executive Assistant to the Vice President of Instruction
B.A. University of Texas - Brownsville
M.A. Concordia University- Portland

Don Romesburg (2026)

Dean of Social Sciences and Fine Arts
M.A. University of Colorado
Ph.D. University of California, Berkeley

Nicole Rogers-Marcum (2018)

Director of Instructional Finance and Operational Support
B.S. Western Oregon University
M.B.A. Washington State University

S**Chris Samuels (2022)**

Director of Facilities
B.A. University of Oregon

Sabra Sand (2014)

Vice President of Operations
B.A. Washington State University

Thao Schmidt (2022)

Director of Talent Acquisition and Compensation
A.A. Clark College

B.A. Washington State University

Sara Seyller (2014)

Instructional Operations Analyst
B.A., M.P.A. Washington State University

Jody Shulnak (2019)

Director of International Programs
B.S. Northern Arizona University
M.S. Portland State University

Grace Spadaro (2022)

Academic Advisor
B.A. California Lutheran University
M.Ed. University of Vermont

Heidi Summers (2018)

Dean of BEECH
B.S. Oregon State University
M.A. Ed. Virginia Tech

T**Julie F. Taylor (2005)**

Senior Administrative Assistant

Kevin Thomas (2019)

Director of Workforce Education Services
B.A. Washington State University

Cole Timpone (2022)

Admissions Recruiter
M.A. University of St. Andrews

Mona Tiniakoff (2024)

Executive Assistant to the Vice President of People and Culture
A.A. Clark College

Tasaday Turner (2015)

Associate Director of Advising and Student Success
A.A.S. Clark College
B.A. Washington State University
M.S. Portland State University

W**Vanessa Watkins (2015)**

Director of Entry Services
B.S. Oregon State University
M.S. Portland State University

Christi Williams (2022)

Associate Director of Student Care, Conduct and Complaints & CARE
B.S. Portland State University
M.S.W. Portland State University
M.Ed. Grand Canyon University

Carley Willis (2018)

Academic Advisor
B.S.W. George Fox University
M.S.E. Capella University

Y**Feddiena "Feddie" Young (2022)**

Research Associate-Institutional Effectiveness

A.A. Clark College
B.A. Central Washington University

Faculty

A

Lisa Aepfelbacher (2011)
Nursing
B.S.N. Boston University
M.S. Case Western Reserve University

Mohammed "Giga" Alqeeq (2022)^{T-T}
Cybersecurity
B.A. Clark College
A.T.A. Everett Community College
CSIE, CSAE, CNSP, CNVP, CSAP, CASP+, PenTest+, CySA+, Sec+, MCSD, MCSA, MCP, 2xMS, 5xMTA

Kathryn Anastasi (2020)
Library
B.S. Macalester College
M.L.S. Queens College, City University of New York

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 A. Atkinson (2015)
Economics
B.A. Marist
M.S. Portland State University
Ed.D. Washington State University

B

Angie Bailey (2009)
Nursing
B.S.N., M.N., D.N.P. Washington State University

Karl L. Bailey (2006)
Chemistry
B.S. California Polytechnic State University
Ph.D. University of California, Davis

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

Christina "Tina" Colby Barsotti (1992)
Engineering

B.S., M.S. Washington State University

Rheannin Becke (2016)
Career and Academic Preparation
M.S. Marquette University
M.A. University of Alaska Southeast

Andrea Berg (2024)^{T-T}
Library
B.A. Whitman College
M.L.I.S. University of Washington

Maxwell Borg (2024)^{T-T}
Nursing
M.S.N. Western Governors University
B.S.N. Florida Gulf Coast University

Gene Biby (2011)
Drama
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

Sarah Blanchette (2023)^{T-T}
Addiction Counseling Education
B.A.S., A.A. Science College of the Redwoods
B.A. University of California Davis
M.S.W. Eastern Washington University

Mark E. Bolke (2000)
Biology
B.S., M.S. Portland State University

Glenna Bondy (2015)
Dental Hygiene
A.A.S. Clark College
B.S. Eastern Washington University
M.Ed. Concordia University

Halina Brant-Zawadzki (2022)^{T-T}
Nursing
BS Lewis and Clark College
BSN, MSN University of Portland
PhD University of Washington

Amy Bratton (2017)
Communication Studies
B.A. University of Memphis
M.S. Portland State University

Kimbree Brown (2024)^{T-T}
Psychology
Ph.D. University of Oregon

Lisa Bullard (2025)^{T-T}
English
B.A. The Evergreen State College
M.A. Montana State University

C

Bryna Campbell (2025)^{T-T}

Art
B.A. Truman State University
M.A. American University
Ph.D. Washington University

Jennifer Campbell (2024)^{T-T}

Communication Studies
A.A. Clark College
B.S., M.S. Portland State University

Paul A. Casillas (1990)

Mathematics
A.B. 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

Carlos J. Castro (2006)

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

Valerie S. Cline (2011)

Nursing
A.D.N. Clark College
B.S.N. Washington State University, Vancouver
M.S.N. Walden University
EdD-ABD Northcentral University
EdS Northcentral 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

Lisa E. Conway (2003)

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., PhD. Washington State University

Meghan Crozier (2021)^{T-T}

Early Childhood Education
B.A. North Park University
M.A. Aurora University

William T. Cushwa (1995)

Biology
B.S. Virginia Polytechnic Institute and State University
M.S., Ph.D. University of California, Davis

D

Jill C. Darley-Vanis (2006)

English
B.A. Oregon State University
M.A. Portland State University

Allison Davidson (2025)^{T-T}

Biology and Microbiology
B.A. Mount Allison University
M.S. Memorial University of Newfoundland

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

Tanya Diaz-Kozlowski (2020)

Women Studies
B.S. The University of Wisconsin Parkside
M.S. Eastern Illinois University
Ph.D. The University of Illinois at Urbana Champaign

Marylynne Diggs (1998)

English
B.A. University of Alabama

M.A., Ph.D. University of Oregon

Alison Dolder (2017)
Baking and Pastry Arts
A.A.S. Clark College
Certified Executive Pastry Chef
ServSafe Certified

Elizabeth Donley (2011)
English
B.A. DePaul University
M.A., M.F.A. Chapman University

E

Allen "Mark" Eddinger (2018)^{T,T}
Mathematics
B.S. DeVry Institute of Technology
M.S. Western Washington University

Kevin Edwards (2023)^{T,T}
Technical Services and Systems Librarian
M.L.I.S., M.F.A. University of Washington
B.A. Southern Oregon University

Bruce Elgort (2020)
Computer Technology
B.S. Stevens Institute of Technology
M.S. New York University Tandon School of Engineering

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., MEd. Indiana University

F

Jay Fancher (2022)
Anthropology
B.A. Humboldt State University
Ph.D. Washington State University

Nadine L. Fattaleh (2002)
Chemistry
B.A. Scripps College
M.S. Carnegie Mellon University

Melissa Favara (2018)^{T,T}
English
B.A. Western Michigan University
M.A. The Pennsylvania State University

Heidi Fay (2009)
Pharmacy
CP, A.A. Clark College

Caron Ford (2015)

Transitional Studies
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)^{T,T}
Transitional Studies
B.A. University of Michigan
M.A. University of Arizona

Jenny Fredrickson (2025)^{T,T}
Nursing
A.A., Clark College,
B.A. Brigham Young University,
M.A. Western Governors University

Robert "Earl" Frederick (2017)
Culinary
A.A.S. Johnson & Wales University
B.S. Warner Pacific College

Jacob Funk (2016)
Music
B.S. John Brown University
M.M. University of British Columbia
D.M.A. University of Missouri - Kansas City

G

Sara L. Gallow (1999)
English as a Second Language
B.A. Michigan State University
M.A. Ball State University

Dimpy Gill (2026)^{T,T}
Computer Science
M.S. Seattle University

Deena M. Godwin (2008)
Communication Studies
B.A. Dana College
M.S. South Dakota State University

Zachary M. Grant (2006)
Library
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

Gothard C. Grey (2004)
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

Aaron Guerra (2017)
 Culinary
 A.O.S. Le Cordon Bleu Culinary College

H

Marilyn Hale (2010)
 Transitional Studies
 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

Douglas Harris (2018)^{T-T}
 Music
 B.A. University of Florida
 M.M., D.A. University of Northern Colorado

William Hausinger (2018)
 Welding
 GTAW, GMAW, FCAW-G, FCAW-S, SMAW, SAW Certifications

Melanie Hendry (2019)
 Baking

Rebecca Herman (2015)
 Dental Hygiene
 A.S. Clark College
 B.S., M.Ed. Concordia University

Alejandra Herring (2020)
 Business Technology
 A.A. Clark College

Courtney Hoover (2024)^{T-T}
 Bachelor of Teacher Education
 B.A.S., M.A. California State University

Grant N. Hottle (2013)
 Art
 B.F.A. University of Oklahoma
 M.F.A. University of Oregon

Garrett L. Hoyt (2013)
 Health and Physical Education
 B.S. Brigham Young University
 M.S. Colorado State University

Carol C. Hsu (2010)
 Engineering
 B.S., M.S. The University of Texas, Austin

Dwight W. Hughes (2003)

Network Technology
 B.S. Northern Arizona University
 M.A. University of Phoenix
 Certifications in A+, Network+, MCP, CCAI, CCNA

J

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., Ph.D. University of Phoenix

Tina Jenkins (2023)^{T-T}
 Mechatronics
 A.A., A.A.T, A.A.T Clark College
 B.S. Eastern Washington University

Elizabeth Jochim (2022)^{T-T}
 Allied Health
 MSN Grand Canyon University
 BSN Seattle University
 BS St. Martin's University

Andrew B. Johnson (2013)
 Business and Technology
 B.A. George Fox University
 M.A. University of Phoenix

Brandon Johnson (2022)^{T-T}
 Automotive
 A.S.E. Master Automotive Technician
 A.A.S. Universal Technical Institute

Catherine E. Johnston (2007)
 English as a Second Language
 B.A. DePaul University
 M.A. University of San Francisco

K

Yusufu Kamara (2015)
 Economics
 B.S. University of Sierra Leone
 M.A., Ph.D. University of Kansas

Mark L. Keats (2020)^{T-T}
 English
 A.A. Howard Community College
 B.A., M.F.A. University of Maryland-College Park
 Ph.D. Texas Tech University

Sally J. Keely (1996)
 Mathematics
 B.S., M.S. Portland State University

Darcy Kennedy (2019)
 Chemistry
 M.S. University of Washington

Izad Khormaei (2003)

Computer Science and 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

Sarah Kuzera (2017)

Medical Assisting
A.S., B.S., Everest College
M.B.A., Bryan University
Ed.D. Capella University

Jesse Kysar (2020)

Engineering
B.S., M.S., Washington State University

L**Molly Lampros** (2022)^T

Communication Studies
M.A. Pacific University
B.A., M.A. Portland State University

Teresa Lashchuk (2022)^T

Nursing
BSN, MSN Washington State University
A.A. Palomar College

Chad Laughlin (2024)^T

Welding
A.A. Clark College

Bo Li (2023)^T

Nursing B.S.N. Nanchang University
M.S.N. Nanchang University
D.N.P. Jacksonville University
Higher Education Teaching Certificate Harvard University

Julie Lemmond (2016)

Business Administration
B.S., M.B.A. Marylhurst University

Josephine "Josie" Lesage (2022)^T

Environmental Sciences
B.S. University of California, Santa Barbara
M.A., Ph.D. University of California, Santa Cruz

Xiunu "Sophie" Lin (2016)

Physics
B.S. Xiamen University
Ph.D. University of Kentucky

Mackenzie Loyet (2021)

Biology
B.A. Knox College

M.A., M.S. Indiana University Bloomington

Dianne Lucia (2022)

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
B.S. Eastern Washington University
M.Ed. Concordia University

Nicholas Luisi (2019)

Nursing
A.A.S. Raritan Valley Community College
BSN Drexel University
MSN Capella 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 Bondarenko (2019)

Health Information Management
B.S. University of Washington

M**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

Helen Martin (2007)

Business
B.A.S. Clark College
M.B.A. Georgia State University
Doctorandus, Leiden 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)
Transitional 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
Certified Welding Educator
Certified Welding Inspector
Journeyman Ironworker

Christopher E. Milner (2007)
Mathematics
B.S. University of Puget Sound
M.S. Oregon State University

John J. Mitchell (2004)
Mathematics
B.Sc., M.Sc. University College Dublin

April E. Mixon (2005)
Chemistry
B.S. Shippensburg University
M.S. Oregon State University

Brian Miyake (2022)^{T-T}
Surveying and Geomatics
B.A. University of Wyoming

Victor Morales (2022)^{T-T}
Philosophy
B.A. California State University, Northridge
M.A. California State University, Los Angeles
M.A., Ph.D. University of California, Riverside

Marisol Moreno Ortiz (2020)
Library
B.A. Oregon State University
M.A. Portland State University
M.L.I.S. Louisiana State University

Jesse Morse (2022)
English
B.A. Oberlin College
M.F.A. Naropa University
Ph.D. University of Denver

Nicole Mottier (2023)^{T-T}
History

B.A. University of Illinois
M.A. University of Oxford
Doctorate, University of Chicago

N

Laura Nagel (2015)
Library
B.A. Pacific Lutheran University
M.A. University of Wisconsin - Madison

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

Julian Nelson (2005)
English
B.A., M.A. San Francisco State University
Ph.D. University of California, Davis

Dannie Nordisen (2025)^{T-T}
Automotive
ASE Certification

Nancy E. Novak (2002)
English as a Second Language
B.A. Dartmouth College
Ed.M. Oregon State University
TESL Seattle University School of TESL

O

Michiyo Okuhara (2010)
Japanese
A.A. Seisen Women's Junior College
A.A. Clackamas Community College
B.S., M.E. Portland State University

Thomas Olsen (2020)
Digital Media Arts
B.S. University of Oregon
Certificate Film Program, NW Film Center
M.F.A. Chapman University

P

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

M.F.A. Texas University

Valentina Pishchchanskaya-Cayanan (2019)
Counseling
B.A., M.S. University of Nevada Las Vegas

Joseph R. Pitkin (2000)
English
B.A. Utah State University
M.A. New Mexico State University
M.S. Washington State University

R

Heather Reynolds (2021)^{T-T}
Nursing
BSN University of Washington
MSN Western Governors University

Jim Reynolds (2024)^{T-T}
Allied Health - Surgical Technology
B.A. North Central University
M.S. Colorado Technical University

Janine Rieck (2022)^{T-T}
Health Information Management
A.A.S. Central Oregon Community College
B.S., M.S. University of Cincinnati

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
M.A. Portland State University

Rafael Rodriguez, D.M.A. (2025)^{T-T}
Music
B.A. United States Naval Academy
M.M. San Diego State University
M.Ed. National University
D.M.A. University of Colorado Boulder

Michelle Roth (2016)
English as a Second Language
B.A. Reed College
M.A.T. University of Washington

Bevyn Rowland (2011)
Counseling/Human Development
B. A. University of Portland
M.A., PsyD. Pacific University

Jeff Rush (2023)^{T-T}
Diesel Technology
Ford Senior Master Technician
ASE Master Automotive Technician L1
ASE Master Diesel Technician 2
ASE MAsTer Equipment Technician
A.A.S., MHCC, Mount Hood Community College

S. Layne Russell (2006)

Business
B.A. University of Memphis
J.D. College of William and Mary, Marshall Wythe School of Law

S

Katherine D. Sadler (2005)
History
B.A. Portland State University
M.A., Ph.D. University of California, Los Angeles

Benjamin Saunders (2024)^{T-T}
Mechatronics
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Foundation

Staff List (<https://clarkcollegefoundation.org/who-we-are/staff/>)

CORRECTIONS

- Catalog Corrections (p. 316)
- Course Corrections (p. 316)
- Degrees and Certificate Corrections (p. 316)

Catalog Corrections

Course Corrections

CSBS (<https://catalog.clark.edu/course-descriptions/csbs/>)

- New subject code created for upper division 300 and 400 level courses in the BS Computer Science program

CSE (<https://catalog.clark.edu/course-descriptions/cse/>)

- Subject code updated to **CSBS** for all 300 and 400 level courses

CTEC (<https://catalog.clark.edu/course-descriptions/ctec/>)

- **CTEC 134**: updated description (removed reference to a Microsoft certification)
- **CTEC 135**: updated description (removed reference to a Microsoft certification)

ENVS (<https://catalog.clark.edu/course-descriptions/envs/>)

- **ENVS 430**: included NS-Lab distribution at end of description

NTEC (<https://catalog.clark.edu/course-descriptions/ntec/>)

- **NTEC 222**: updated requisite course to the new course equivalent NTEC 121
- **NTEC 231**: updated requisite course to the new course equivalent NTEC 121

Degrees and Certificate Corrections

Computer Science (BS)(Plan Code: CSAC SBS) (<https://catalog.clark.edu/academic-plans/computer-science-bs/computer-science-bs.html>)

Subject code updated to **CSBS** for all 300 and 400 level courses

CATALOG ARCHIVES

- 2025-2026 Catalog (<https://catalog.clark.edu/archives/2025-2026/>)
- 2024-2025 Catalog (<https://catalog.clark.edu/archives/2024-2025/>)
- 2023-2024 Catalog (<https://catalog.clark.edu/archives/2023-2024/>)
- 2022-2023 Catalog (<https://catalog.clark.edu/archives/2022-2023/>)
- 2021-2022 Catalog (https://catalog.clark.edu/archives/2021-2022_Catalog_.pdf)
- 2020-2021 Catalog (<https://catalog.clark.edu/archives/2020-2021/>)

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