

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>		5
ENGL& 101	English Composition I	
<i>Quantitative Skills</i>		10
MATH& 151	Calculus I ¹	
MATH& 152	Calculus II	
<i>Health & Physical Education</i>		3
Course Options (https://catalog.clark.edu/degree-certificate-requirements/transfer-degree-distribution-list/#health-physical-education)		
<i>Humanities & Social Sciences</i> ²		15
Course Options (https://catalog.clark.edu/degree-certificate-requirements/transfer-degree-distribution-list/#humanities)		
Pre-Major Program Requirements		45-50
CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	
CHEM& 142 & CHEM& 152	General Chemistry II and General Chemistry Laboratory II	
CHEM& 143 & CHEM& 153	General Chemistry III and General Chemistry Laboratory III	
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	
Science Electives		
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	
Other Electives		
Select one from the following:		5
ENGL& 102	English Composition II	
ENGL& 235	Technical Writing	
MATH 111	College Algebra	
MATH 221	Differential Equations	
MATH& 254	Calculus IV	

Foreign Language ³

Total Credits/Units **93-98**

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

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://programmmap.clark.edu/academics> (<https://programmmap.clark.edu/academics/>)