

CHEMISTRY (SECONDARY EDUCATION) - BACHELOR OF ARTS

A Suggested Plan of Study for Students

This roadmap assumes student placement in MATH 1511G Calculus and Analytic Geometry I and ENGL 1110G Composition I. The contents and order of this roadmap may vary depending on initial student placement in mathematics and English. It is only a suggested plan of study for students and is not intended as a contract. Course availability may vary from fall to spring semester and may be subject to modification or change.

First Year

Semester 1		Credits
ENGL 1110G or ENGL 1110H	Composition I ¹ or Composition I Honors	4
MATH 1511G or MATH 1511H	Calculus and Analytic Geometry I ¹ or Calculus and Analytic Geometry I Honors	4
CHEM 1215G or CHEM 1216	General Chemistry I Lecture and Laboratory for STEM Majors or General Chemistry I Lecture and Laboratory for CHEM Majors	4
CHEM 2111	Explorations in Chemistry and Biochemistry	1
Area IV: Social and Behavioral Science Course ²		3
Credits		16

Semester 2		Credits
ENGL 2210G or ENGL 2210H	Professional and Technical Communication ¹ or Professional and Technical Communication	3
MATH 1521G or MATH 1521H	Calculus and Analytic Geometry II ¹ or Calculus and Analytic Geometry II Honors	4
CHEM 1225G or CHEM 1216	General Chemistry II Lecture and Laboratory for STEM Majors or General Chemistry I Lecture and Laboratory for CHEM Majors	4
Area V: Humanities Course ²		3
Elective Course		3
Credits		17

Second Year

Semester 1		Credits
COMM 1115G or HNRS 2175G	Introduction to Communication or Introduction to Communication Honors	3
CHEM 313	Organic Chemistry I ¹	3
CHEM 371	Analytical Chemistry ¹	4
Select one of the following:		4
PHYS 2110 & 2110L	Mechanics and Experimental Mechanics ¹	
PHYS 1230G & PHYS 1230L	Algebra-Based Physics I and Algebra-Based Physics I Lab ¹	
PHYS 2230G & PHYS 2230L	General Physics for Life Science I and Laboratory to General Physics for Life Science I	
PHYS 1310G & PHYS 1310L	Calculus -Based Physics I and Calculus -Based Physics I Lab	

SPED 3105	Introduction to Special Education in a Diverse Society	3
Credits		17
Semester 2		
CHEM 314 & CHEM 315	Organic Chemistry II and Organic Chemistry Laboratory ¹	5
Select one of the following:		4
PHYS 2140 & 2140L	Electricity and Magnetism and Electricity & Magnetism Laboratory ¹	
PHYS 1240G & PHYS 1240L	Algebra-Based Physics II and Algebra-Based Physics II Lab ¹	
PHYS 2240G & PHYS 2240L	General Physics for Life Science II and Laboratory to General Physics for Life Science II ¹	
PHYS 1320G & PHYS 1320L	Calculus -Based Physics II and Calculus -Based Physics II Lab ¹	
Elective Course		3
Area VI: Creative and Fine Arts Course ²		3
Credits		15

Third Year

Semester 1		Credits
CHEM 430	Physical Chemistry: Thermodynamics, Kinetics, Quantum Chemistry, and Spectroscopy	3
VWW: Viewing a Wider World Course ³		3
EDUC 3120	Multicultural Education	3
EDUC 3997	Secondary Field Experience	3
Elective Course		3
Credits		15

Semester 2		Credits
CHEM Upper-Division Elective Course ¹		3
Elective Course		12
Choose one from the following: ⁴		
CHEM 456	Inorganic Structure and Bonding	
CHEM 472	Advanced Integrated Instrumental Analysis and Protein Biochemistry Laboratory	
Credits		15

Fourth Year

Semester 1		Credits
EDUC 4410	Teaching Science at the Middle and High School Level	3
READ 4330	Content Area Literacy	3
Elective Course		3
Choose one from the following: ⁴		
CHEM 471	Advanced Integrated Inorganic and Physical Chemistry Laboratory (if CHEM 456 or CHEM 472 was not completed in the previous term)	
Elective Course (3 credits)		
Credits		12

Semester 2		Credits
CHEM 443	Senior Seminar	1
EDUC 4820	Secondary Student Teaching	9
EDUC 4821	Middle and High School Student Teaching Seminar	3
Credits		13
Total Credits		120

¹ These courses may have prerequisites and/or co-requisites, and it is the students responsibility for checking and fulfilling all those requirements.

² See the General Education (<https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/>) section of the catalog for a full list of courses.

³ See the Viewing a Wider World (<https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext>) section of the catalog for a full list of courses.

⁴ Selection course option - Departmental requirement includes a choice of one of the following: CHEM 456 Inorganic Structure and Bonding, CHEM 471 Advanced Integrated Inorganic and Physical Chemistry Laboratory, or CHEM 472 Advanced Integrated Instrumental Analysis and Protein Biochemistry Laboratory. If the student wishes to now take the CHEM offerings in the specific term they should add an elective course for 3 credits, however, the student must complete at least one of the above courses.