

SECONDARY EDUCATION: SCIENCE, BS

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Biology

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
SMED 1012	Inquiry Approaches to Teaching	2
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
MATH 1813	Preparation for Calculus (Q)	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
Hours		16
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
3 hours (DH)		3
CHEM 1314	Chemistry I (LN)	4
BIOL 1604	Animal Biology	4
POLS 1113	American Government	3
Hours		17
Sophomore		
Fall		
CHEM 1515	Chemistry II (LN)	5
PBIO 1404	Plant Biology (LN)	4
3 Hour General Education H (H)		3
SPED 3202	Educating Exceptional Learners	2
MICR 2123	Introduction to Microbiology	3
EDHS 3111	Preparing for Your Future Career	1
Hours		18
Spring		
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
MICR 2132	Introduction to Microbiology Laboratory	2
SMED 3013	Knowing and Learning in K-12 Education	3
3 Hours General Education (S)		3
CHEM 3013	Survey of Organic Chemistry	3
Hours		15
Junior		
Fall		
MICR 3033	Cell and Molecular Biology	3
CIED 3313	Field Experience in the Secondary Schools	3
3 Hours General Education (G)		3

BIOL 3023	General Genetics	3
STAT 2013 or STAT 4013	Elementary Statistics (Q) or Statistical Methods I (Q)	3
Hours		15
Spring		
BIOL 4133	Evolution	3
SMED 4611	Authentic Research in the Science Classroom	1
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach	3
BIOL 3203	Physiology	3
BIOL 3201	Physiology Lab	1
4 hours Elective		4
Hours		15
Senior		
Fall		
BIOL 3034	General Ecology	4
3 hours upper division PBIO		3
CIED 4724	Classroom Management in the Multicultural PK-12/ Secondary School	4
SMED 4713	Teaching and Learning Science in the Secondary School	3
2 hours Elective		2
Hours		16
Spring		
CIED 4720	Internship in the Secondary Classroom	8
Hours		8
Total Hours		120

Chemistry

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
SMED 1012	Inquiry Approaches to Teaching	2
CHEM 1314	Chemistry I (LN)	4
MATH 2144	Calculus I (Q)	4
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
Hours		17
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
CHEM 1515	Chemistry II (LN)	5
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
3 Hours General Education (DH)		3
Hours		15
Sophomore		
Fall		
CHEM 3053	Organic Chemistry I	3
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
POLS 1113	American Government	3
2 Hours Elective		2
3 Hours Course Designated (H)		3
EDHS 3111	Preparing for Your Future Career	1
Hours		16

Spring		
PHYS 1214 or PHYS 2114	College Physics II (LN) or University Physics II (LN)	4
CHEM 3153	Organic Chemistry II	3
SMED 3013	Knowing and Learning in K-12 Education	3
CHEM 3112	Organic Chemistry Laboratory	2
3 Hours General Education (S)		3
SPED 3202	Educating Exceptional Learners	2
Hours		17
Junior		
Fall		
CHEM 2113	Principles of Analytical Chemistry	3
CHEM 2122	Quantitative Analysis Laboratory	2
CHEM 4990	Undergraduate Research in Chemistry	1
CIED 3313	Field Experience in the Secondary Schools	3
3 Hours General Education (G)		3
3 Hours Elective		3
Hours		15
Spring		
CHEM 3353 or CHEM 3363	Descriptive Inorganic Chemistry or Bioinorganic Chemistry	3
CHEM 3413	Physical Chemistry Applications	3
CHEM 4990	Undergraduate Research in Chemistry	1
SMED 4611	Authentic Research in the Science Classroom	1
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach	3
5 Hours Elective		5
Hours		16
Senior		
Fall		
BIOC 3653	Survey of Biochemistry	3
STAT 4013 or STAT 2013	Statistical Methods I (Q) or Elementary Statistics (Q)	3
SMED 4713	Teaching and Learning Science in the Secondary School	3
3 Hour Elective		3
CIED 4724	Classroom Management in the Multicultural PK-12/ Secondary School	4
Hours		16
Spring		
CIED 4720	Internship in the Secondary Classroom	8
Hours		8
Total Hours		120

Physics

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
SMED 1012	Inquiry Approaches to Teaching	2
CHEM 1314	Chemistry I (LN)	4
MATH 2144	Calculus I (Q)	4
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
Hours		17
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
PHYS 2014	University Physics I (LN)	4

CHEM 1515	Chemistry II (LN)	5
MATH 2153	Calculus II (Q)	3
Hours		15
Sophomore		
Fall		
PHYS 2114	University Physics II (LN)	4
MATH 2163	Calculus III	3
POLS 1113	American Government	3
3 Hours (DH)		3
EDHS 3111	Preparing for Your Future Career	1
Hours		14
Spring		
MATH 2233	Differential Equations	3
4 Hours Elective		4
SMED 3013	Knowing and Learning in K-12 Education	3
3 Hours Course Designated (S)		3
BIOL 1113	Introductory Biology (N)	3
BIOL 1111	Introductory Biology Laboratory (LN)	1
Hours		17
Junior		
Fall		
PHYS 3013	Mechanics I	3
PHYS 3323	Modern Laboratory Methods I	3
3 Hours (G)		3
3 Hours Elective		3
CIED 3313	Field Experience in the Secondary Schools	3
Hours		15
Spring		
PHYS 3623	Modern Laboratory Methods II	3
SMED 4611	Authentic Research in the Science Classroom	1
PHYS 3513	Mathematical Physics	3
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach	3
3 Hours General Education (H)		3
4 Hours Elective		4
Hours		17
Senior		
Fall		
PHYS 3713	Fundamentals of Modern Physics	3
CIED 4724	Classroom Management in the Multicultural PK-12/ Secondary School	4
STAT 4013	Statistical Methods I (Q)	3
SMED 4713	Teaching and Learning Science in the Secondary School	3
4 Hours Electives		4
Hours		17
Spring		
CIED 4720	Internship in the Secondary Classroom	8
Hours		8
Total Hours		120

Earth Science

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
SMED 1012	Inquiry Approaches to Teaching	2
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
GEOL 1214 or GEOL 1114	Introductory Geological Processes (LN) or Physical Geology (LN)	4

MATH 2144	Calculus I (Q)	4
Hours		15
Spring		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
CHEM 1314	Chemistry I (LN)	4
GEOL 1224	Evolution of the Earth (LN)	4
ASTR 1023	Stars, Galaxies, Universe (N)	3
SPED 3202	Educating Exceptional Learners	2
Hours		16
Sophomore		
Fall		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
CHEM 1515	Chemistry II (LN)	5
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
GEOL 3044	Rocks and Minerals	4
EDHS 3111	Preparing for Your Future Career	1
Hours		16
Spring		
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
SMED 3013	Knowing and Learning in K-12 Education	3
3 hour DH		3
POLS 1113	American Government	3
GEOL 3034	Principles of Stratigraphy and Sedimentology	4
Hours		17
Junior		
Fall		
GEOL 3014	Structural Geology	4
GEOL 2773	Introduction to Planetary Geology (N)	3
CIED 3313	Field Experience in the Secondary Schools	3
3 Hours Course Designated (G)		3
3 Hours (H)		3
Hours		16
Spring		
SMED 4611	Authentic Research in the Science Classroom	1
GEOL 3503	Environmental Geology (N)	3
GEOG 3023	Climatology (N)	3
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach	3
3 Hours General Education (S)		3
4 hours Elective		4
Hours		17
Senior		
Fall		
GEOL 4503	Introduction to Oceanography (N)	3
SMED 4713	Teaching and Learning Science in the Secondary School	3
CIED 4724	Classroom Management in the Multicultural PK-12/ Secondary School	4
2 Hours Elective		2
STAT 2013 or STAT 4013	Elementary Statistics (Q) or Statistical Methods I (Q)	3
Hours		15
Spring		
CIED 4720	Internship in the Secondary Classroom	8
Hours		8
Total Hours		120

Zoology

Course	Title	Hours
Freshman		
Fall		
UNIV 1111	First Year Seminar	1
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
SMED 1012	Inquiry Approaches to Teaching	2
BIOL 1113 & BIOL 1111 or BIOL 1114	Introductory Biology (N) or Introductory Biology (LN)	4
MATH 1813	Preparation for Calculus (Q)	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
Hours		16
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
3 credits DH		3
CHEM 1314	Chemistry I (LN)	4
BIOL 1604	Animal Biology	4
POLS 1113	American Government	3
Hours		17
Sophomore		
Fall		
CHEM 1515	Chemistry II (LN)	5
PBIO 1404	Plant Biology (LN)	4
3 Hours Course Designated (H)		3
STAT 2013	Elementary Statistics (Q)	3
SPED 3202	Educating Exceptional Learners	2
EDHS 3111	Preparing for Your Future Career	1
Hours		18
Spring		
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
BIOL 3104	Invertebrate Zoology	4
SMED 3013	Knowing and Learning in K-12 Education	3
3 Hours General Education (S)		3
CHEM 3013	Survey of Organic Chemistry	3
Hours		17
Junior		
Fall		
MICR 3033	Cell and Molecular Biology	3
3 Hours Elective		3
BIOL 3114	Vertebrate Morphology	4
CIED 3313	Field Experience in the Secondary Schools	3
3 Hours General Education (G)		3
Hours		16
Spring		
BIOL 3203	Physiology	3
BIOL 3201	Physiology Lab	1
SMED 4611	Authentic Research in the Science Classroom	1
BIOL 3023	General Genetics	3
3 hours Elective		3
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach	3
Hours		14
Senior		
Fall		
BIOL 3034	General Ecology	4

SMED 4713	Teaching and Learning Science in the Secondary School	3
BIOL 4133	Evolution	3
CIED 4724	Classroom Management in the Multicultural PK-12/ Secondary School	4
Hours		14
Spring		
CIED 4720	Internship in the Secondary Classroom	8
Hours		8
Total Hours		120