

SECONDARY EDUCATION (SECONDARY EDUCATION GENERAL SCIENCE) - BACHELOR OF SCIENCE IN EDUCATION

General education and professional education requirements are similar for all degree programs in the College of Health, Education, and Social Transformation. Students should meet with an advisor to plan appropriate general education courses for a secondary education major. The programs below are labeled as Concentrations in the catalog and on student transcripts but are also recognized as "Teaching Fields" for the Teacher Education Program. Students should meet with the College of HEST Educational Support and Resource Center for degree progress.

Students must complete all University degree requirements, which include: General Education requirements, Viewing a Wider World requirements, and elective credits to total at least 121 credits with 48 credits in courses numbered 300 or above. Developmental coursework will not count towards the degree requirements and/or elective credits, but it may be needed in order to take the necessary English and Mathematics coursework.

All students wishing to complete a degree in Secondary Education must apply to the Teacher Education Program. Additional information on the application process can be obtained from the College of HEST Educational Support and Resource Center or the **departmental website**. A 2.75 minimum GPA is required for admission to the Teacher Education Program and graduation. Students must pass all TEP prerequisites/co-requisites with a C- or better grade.

Prefix	Title	Credits
General Education		
<i>Area I: Communications</i>		
<i>English Composition - Level 1</i>		
ENGL 1110G	Composition I (English Composition - Level 1) ¹	4
or ENGL 1110H	Composition I Honors	
<i>English Composition - Level 2</i>		
Choose one from the following: ¹		3
ENGL 2130G	Advanced Composition	
ENGL 2215G	Advanced Technical and Professional Communication	
ENGL 2221G	Writing in the Humanities and Social Science	
<i>Oral Communication</i>		
Choose one from the following:		3
COMM 1115G	Introduction to Communication	
COMM 1130G	Public Speaking	
ACOM 1130G	Effective Leadership and Communication in Agriculture	
HNRS 2175G	Introduction to Communication Honors	
<i>Area II: Mathematics</i>		
MATH 1220G	College Algebra ^{1,2}	3-4
or MATH 1250G	Trigonometry & Pre-Calculus	
<i>Area III/IV: Laboratory Sciences and Social/Behavioral Sciences</i>		

BIOL 2610G & BIOL 2610L	Principles of Biology: Biodiversity, Ecology, and Evolution and Principles of Biology: Biodiversity, Ecology, and Evolution Laboratory	4
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM Majors	4
CEPY 1120G	Human Growth and Behavior	3
<i>Area V: Humanities</i>		
Choose one from the following		3
HIST 1110G	United States History I	
HIST 1120G	United States History II	
HIST 1130G	World History I	
HIST 1140G	World History II	
HIST 1150G	Western Civilization I	
HIST 1160G	Western Civilization II	
HIST 2245G	Islamic Civilizations to 1800	
HIST 2250G	East Asia to 1600	
HIST 2251G	East Asia since 1600	
<i>Area VI: Creative and Fine Arts</i>		
Choose one from the following: ³		3
ARTH 1115G	Orientation in Art	
DANC 1110G	Dance Appreciation	
MUSC 1110G	Music Appreciation: Jazz	
MUSC 1130G	Music Appreciation: Western Music	
THEA 1110G	Introduction to Theatre	
<i>General Education Elective</i>		
Choose one additional Creative and Fine Arts course from above		3
Viewing A Wider World		
LIBR 311V	Information Literacy	3
Choose a science-focused VWW from the list below (3 credits) ⁴		
EPWS 380V	Science & Society	
AGRO 303V	Genetics and Society	
ASTR 301V	Revolutionary Ideas in Astronomy	
ASTR 305V	The Search for Life in the Universe	
ASTR 308V	Into the Final Frontier	
ASTR 330V	Planetary Exploration	
GEOL 305V	Fossils and the Evolution of Life	
GEOL 335V	Earthquakes, Volcanoes, Hurricanes, and Floods: The Role of Natural Hazards in Civ Past and Present	
PHYS 303V	Energy and Society in the New Millennium	
PHYS 305V	The Search for Water in the Solar System	
CHME 395V	Brewing Science and Society	
HNRS 306V	Science, Ethics and Society	
Departmental/College Requirements		
<i>Education Core Courses</i>		
EDUC 1185	Introduction to Secondary Education and Youth ^{1,5}	3
EDUC 3120	Multicultural Education ¹	3
SPED 3105	Introduction to Special Education in a Diverse Society ¹	3
EDLT 3110	Integrating Technology with Teaching ¹	3
EDUC 3997	Secondary Field Experience ^{1,5}	3
BLED 3120	Sheltered English Instruction for the ESL Classroom (spring only) ⁶	3
EDUC 4510	Data Literacy and Assessment (spring only) ⁶	3
EDUC 4520	Contemporary Issues in Education ^{5,6}	3

EDUC 4410	Teaching Science at the Middle and High School Level (fall only) ^{5,6}	3
READ 4330	Content Area Literacy (fall only) ⁶	3
SPED 4150	Secondary Curriculum, Methods, and Materials for Special Education in a Diverse Society (fall only) ⁶	3
<i>Student Teaching</i>		
EDUC 4820	Secondary Student Teaching ⁷	9
EDUC 4821	Middle and High School Student Teaching Seminar ⁷	3
<i>General Science Concentration/Teaching Field Courses</i>		
BIOL 2110G & BIOL 2110L	Principles of Biology: Cellular and Molecular Biology and Principles of Biology: Cellular and Molecular Biology Laboratory	4
CHEM 1225G	General Chemistry II Lecture and Laboratory for STEM Majors	4
Choose one from the following:		4
PHYS 1230G & PHYS 1230L	Algebra-Based Physics I and Algebra-Based Physics I Lab	
PHYS 2110 & 2110L	Mechanics and Experimental Mechanics	
PHYS 1310G & PHYS 1310L	Calculus -Based Physics I and Calculus -Based Physics I Lab	
PHYS 2230G & PHYS 2230L	General Physics for Life Science I and Laboratory to General Physics for Life Science I	
Choose one from the following:		4
PHYS 1240G & PHYS 1240L	Algebra-Based Physics II and Algebra-Based Physics II Lab ¹	
PHYS 2140 & 2140L	Electricity and Magnetism and Electricity & Magnetism Laboratory	
PHYS 1320G & PHYS 1320L	Calculus -Based Physics II and Calculus -Based Physics II Lab	
PHYS 2240G & PHYS 2240L	General Physics for Life Science II and Laboratory to General Physics for Life Science II	
EDUC 4530	Computational Thinking in STEM Education (spring only) ⁶	3
Science-focused upper division electives with a prefix of: BIOL, CHEM, and/or PHYS (9 credits)		9
Second Language: (not required)		
Non-Departmental Requirements		
Choose one from the following:		3-4
MATH 1430G	Applications of Calculus I	
MATH 1511G or MATH 1511H	Calculus and Analytic Geometry I or Calculus and Analytic Geometry I Honors	
MATH 1521G or MATH 1521H	Calculus and Analytic Geometry II or Calculus and Analytic Geometry II Honors	
MATH 2350G	Statistical Methods	
A ST 311	Statistical Applications	
GEOG 1120G or GEOG 1130G	World Regional Geography or Human Geography	3
Choose an additional Area IV from the following		3
ANTH 1140G	Introduction to Cultural Anthropology	
ANTH 1115G	Introduction to Anthropology	
ANTH 1160G	World Archaeology	
SOCI 1110G	Introduction to Sociology	
SOCI 2310G	Contemporary Social Problems	

Electives, to bring the total credits to 121	0
Total Credits	118-120

- ¹ Courses are prerequisites/co-requisites for Teacher Education Program (TEP)
- ² MATH 1220G College Algebra or MATH 1250G Trigonometry & Pre-Calculus is required for the degree but students may need to take any prerequisites needed to enter MATH 1220G or MATH 1250G first.
- ³ See the program description for a full list of courses.
- ⁴ These selected VWW courses count towards the science teaching field.
- ⁵ Courses require Field Experience
- ⁶ Courses require admission to the TEP
- ⁷ Courses require to admission to TEP and STEP.

A Suggested Plan of Study for Students

This roadmap assumes student placement in MATH 1220G College Algebra 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		Credits
Semester 1		
ENGL 1110G or ENGL 1110H	Composition I ¹ or Composition I Honors	4
CEPY 1120G	Human Growth and Behavior	3
MATH 1220G	College Algebra ¹	3
BIOL 2610G & BIOL 2610L	Principles of Biology: Biodiversity, Ecology, and Evolution and Principles of Biology: Biodiversity, Ecology, and Evolution Laboratory ¹	4
Students who need to enroll in 15 credits for Financial Aid purposes will need to take additional electives		
Credits		14
Semester 2		
COMM 1115G or HNRS 2175G	Introduction to Communication or Introduction to Communication Honors	3
MATH 1430G	Applications of Calculus I ¹	3
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM Majors ¹	4
EDUC 1185	Introduction to Secondary Education and Youth	3
GEOG 1120G or GEOG 1130G	World Regional Geography or Human Geography	3
Credits		16
Second Year		
Semester 1		
BIOL 2110G & BIOL 2110L	Principles of Biology: Cellular and Molecular Biology and Principles of Biology: Cellular and Molecular Biology Laboratory ¹	4
ENGL 2221G	Writing in the Humanities and Social Science ¹	3
Area V: Any "G" Course with a HIST Prefix ²		3
Area VI: Creative and Fine Arts Course ²		3
Area IV: Social/Behavioral Science Course ²		3
Credits		16

² See the program description for a full list of courses.

Semester 2		
CHEM 1225G	General Chemistry II Lecture and Laboratory for STEM Majors ¹	4
EDUC 3120	Multicultural Education	3
SPED 3105	Introduction to Special Education in a Diverse Society	3
Science-focused VWW		3
Area VI: Creative and Fine Arts Course ²		3
Credits		16

Third Year

Semester 1

APPLY TO TEACHER EDUCATION PROGRAM (TEP)

LIBR 311V	Information Literacy	3
EDLT 3110	Integrating Technology with Teaching	3
EDUC 3997	Secondary Field Experience (Fall Only)	3
PHYS 2230G & PHYS 2230L	General Physics for Life Science I and Laboratory to General Physics for Life Science I	4
Science-focused upper division elective with prefix: BIOL, CHEM, and/or PHYS		3
Credits		16

Semester 2

BLED 3120	Sheltered English Instruction for the ESL Classroom (Spring only) ¹	3
EDUC 4510	Data Literacy and Assessment (Spring Only) ¹	3
EDUC 4520	Contemporary Issues in Education (Spring Only) ¹	3
EDUC 4530	Computational Thinking in STEM Education (Spring Only) ¹	3
PHYS 2240G & PHYS 2240L	General Physics for Life Science II and Laboratory to General Physics for Life Science II ¹	4
Credits		16

Fourth Year

Semester 1

SUBMIT STEP PACKET

READ 4330	Content Area Literacy (Fall Only) ¹	3
EDUC 4410	Teaching Science at the Middle and High School Level (Fall Only) ¹	3
SPED 4150	Secondary Curriculum, Methods, and Materials for Special Education in a Diverse Society (Fall only) ¹	3
Science-focused upper division elective with prefix: BIOL, CHEM, and/or PHYS		3
Science-focused upper division elective with prefix: BIOL, CHEM, and/or PHYS		3
Credits		15

Semester 2

EDUC 4820	Secondary Student Teaching ¹	9
EDUC 4821	Middle and High School Student Teaching Seminar ¹	3
Credits		12
Total Credits		121

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