

# SCHOOL OF EDUCATION

## Life Sciences Education

Certification in Life Sciences Education is for grades 7-12. In addition to completing the General and Liberal Education Core requirements, students in this program complete a major in Biology designed for certification candidates and complete the required education courses listed below.

In addition to the required education courses listed below, students must meet with both the education advisor and their science major advisor to select courses. This dual advising system is critical to ensuring that they are meeting all of the relevant content certification standards within the content major.

### Total field hours prior to student teaching 105 hours

ED487 Secondary Student Teaching Seminar

ED492 Student Teaching 16 weeks

### Specific Testing for Certification

- Basic Academic Skills Assessment (BASA) and Subject Area Testing in Life Science

### Biology Education Track

BI101-102 Biology I and II (laboratory) (counts toward GLE core) 8 credits

BI211 Genetics (laboratory) 4 credits

BI319 Cellular Biology (laboratory) 4 credits or

BI325 Microbiology (laboratory) 4 credits

BI215 Biology and Health Sciences Seminar 3 credits

BI218 Ecology or 4 credits

BI241 Evolutionary Biology (laboratory) 4 credits

CH101 General Chemistry I (laboratory) 4 credits

CH102 General Chemistry II (laboratory) 4 credits

Two semesters of Math at the MT151 level or above 6-8 credits

(First semester counts as core requirement, second semester counts towards major)

BI460 Internship in Biology or

BI480 Senior Seminar in Biology/Health Sciences or

BI481 Invited Senior Research 3 credits

Note: Students wishing to complete the Secondary Teacher Certification may substitute ED487 Secondary Student Teaching Seminar (1 credit), and ED492 Secondary Student Teaching (14 credits), for Biology Seminar and Biology Thesis.

### Recommended Curriculum Guide – Life Sciences

First Year					
Fall Semester		Credits	Spring Semester		Credits
ED105	Educational Psychology	3	ED112	Teaching and Learning in a Democratic Society	3
_____	Primary Major	3	_____	Primary Major	3
_____	Primary Major	3	MT151 MT260	GLE Mathematics Elective	3
GLE101	First-Year Inquiry Seminar	3	_____	GLE Social Science	3

GLE110	First-Year Composition	3	_____	GLE Humanities	3
	Total	15		Total	15
<b>Second Year</b>					
<b>Fall Semester</b>		<b>Credits</b>	<b>Spring Semester</b>		<b>Credits</b>
ED224	Design and Management of the Learning Environment	3	ED350	Teaching Literacy Across the curriculum	3
_____	Primary Major	3	_____	Primary Major	3
_____	Primary Major	3	_____	Primary Major	3
_____	GLE Natural Science	4	_____	GLE Natural Science	4
_____	GLE Social Science	3	GLE230	Second-Year Composition	3
	Total	16		Total	16
<b>Third Year</b>					
<b>Fall Semester</b>		<b>Credits</b>	<b>Spring Semester</b>		<b>Credits</b>
ED308	Introduction to Assessment	3	ED312	Understanding and Teaching Exceptional Learners	3
_____	Primary Major	3	ED314	Scientific Inquiry and Teaching Methods	3
_____	Primary Major	3	_____	Primary Major	3
_____	GLE Art and Design	3	_____	Primary Major	3
_____	GLE Humanities	3	_____	GLE Art and Design	3
	Total	15		Total	15
<b>Fourth Year</b>					
<b>Fall Semester</b>		<b>Credits</b>	<b>Spring Semester</b>		<b>Credits</b>
ED360	Best Practices in a Secondary Context	3	ED492	Secondary Student Teaching	14
_____	Primary Major	3	ED487	Secondary Student Teaching Seminar	1
_____	Primary Major	3			

_____	GLE Humanities	3			Total	15
	Total	12			<b>Total Credits:</b>	<b>120</b>

### M.Ed./Teacher Certification in Life Sciences Education (Grades 7-12)

#### Required Education Courses

	Course	Field Hours	Credits	M.Ed. w/Cert	M.Ed. Only	Cert. Only
ED501	Graduate Teacher Education Program Orientation		2	X	X	-
ED506	Educational Psychology		3	X	X	X
ED505	Teaching and Learning in a Democratic Society		3	X	X	X
ED510	Design and Management of the Learning Environment	30	3	X	X	X
ED508	Introduction to Assessment		3	X	X	X
ED519	Scientific Inquiry and Teaching Methods	15	3	X	X	X
ED509	Understanding and Teaching Exceptional Learners	15	3	X	X	X
ED516	Teaching Literacy across the Curriculum	15	3	X	X	X
ED526	Best Practices in Secondary Contexts	30	3	X	X	X
ED578	Action Research in the Classroom (required for Certification)		3	X	X	X
	Elective 1- ED/SOE elective *		3	X	X	X

Elective 2- ED/SOE elective*			3	X	X	X
ED532A	Student Teaching/ Seminar for Middle/ Secondary Certification		3	X	-	X
ED532B	Student Teaching/ Seminar for Middle/ Secondary Certification		3	X	-	X
ED574	Student Teaching Seminar (to be taken with ED532 A&B)		1	X	-	X
ED585	Student Research Capstone		1	-	X	-
<b>Total Credits</b>				<b>42</b>	<b>36</b>	<b>40</b>