

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.

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 | | 3 | X | X | X |

| | | | | | | |
|-------------------------------|---|--|---|-----------|-----------|-----------|
| | (required for Certification) | | | | | |
| 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 | - |
| | Total Credits | | | 42 | 36 | 40 |

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 | | | | | |
|----------------------|---|----------------|------------------------|---|----------------|
| <i>Fall Semester</i> | | <i>Credits</i> | <i>Spring Semester</i> | | <i>Credits</i> |
| 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 |
| Second Year | | | | | |
| <i>Fall Semester</i> | | <i>Credits</i> | <i>Spring Semester</i> | | <i>Credits</i> |
| 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 |
| Third Year | | | | | |
| <i>Fall Semester</i> | | <i>Credits</i> | <i>Spring Semester</i> | | <i>Credits</i> |
| 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 |
| Fourth Year | | | | | |
| <i>Fall Semester</i> | | <i>Credits</i> | <i>Spring Semester</i> | | <i>Credits</i> |
| 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 | | Total Credits: | 120 |
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