

BIOLOGY - ECOLOGY/FIELD REQUIREMENTS (BSE)

Licensure

| Code | Title | Units |
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| Licensure Requirements - 41 units | | |
| SPECED 205 | INTRODUCTION TO SPECIAL EDUCATION | 3 |
| BIOLOGY 257 | INTRODUCTION TO ECOLOGY | 3 |
| Foundations Block: 9 | | |
| EDFOUND 212 | EDUCATIONAL PSYCHOLOGY | |
| EDFOUND 243 | FOUNDATIONS OF EDUCATION IN A PLURALISTIC SOCIETY | |
| EDFNDPRC 210 | INTRODUCTION TO EDUCATION AND TEACHING | |
| EDFOUND 425 | MEASUREMENT AND EVALUATION IN THE SECONDARY SCHOOL | 3 |
| SECNDED 466 | LITERACY IN THE DISCIPLINES | 3 |
| SECNDED 429 | METHODS OF TEACHING SCIENCE | 3 |
| CIFLD 492 | FIELD STUDY | 3 |
| Select one of the following Directed Teaching groups: 14 | | |
| Group A | | |
| CIFLD 402 | DIRECTED TEACHING - ALTERNATIVE PLACEMENT MIDDLE SCHOOL (2 units) | |
| CIFLD 414 | DIRECTED TEACHING-SECONDARY (12 units) | |
| Group B | | |
| CIFLD 404 | DIRECTED TEACHING - ALTERNATIVE PLACEMENT SECONDARY SCHOOL (2 units) | |
| CIFLD 412 | DIRECTED TEACHING-MIDDLE SCHOOL (12 units) | |
| Total Units | | 41 |

Major

| Code | Title | Units |
|--------------------------------------|---|-------|
| Major Requirements - 40 units | | |
| BIOLOGY 141 | INTRODUCTORY BIOLOGY I | 5 |
| BIOLOGY 142 | INTRODUCTORY BIOLOGY II | 5 |
| BIOLOGY 251 | INTRODUCTION TO GENETICS | 4 |
| BIOLOGY 253 | INTRODUCTION TO CELL BIOLOGY | 3 |
| BIOLOGY 254 | BIOTECHNOLOGY LABORATORY METHODS I | 2 |
| BIOLOGY 257 | INTRODUCTION TO ECOLOGY | 3 |
| BIOLOGY 258 | FIELD EXPERIENCE | 2 |
| BIOLOGY 353 | PLANT TAXONOMY | 4 |
| BIOLOGY 446 | ORGANIC EVOLUTION | 4 |
| BIOLOGY 457 | GENERAL ECOLOGY | 4 |
| BIOLOGY 390 | BIOLOGY COLLOQUIUM | 0.5 |
| BIOLOGY 400 | SENIOR BIOLOGY COLLOQUIUM | 0.5 |
| BIOLOGY 498R | INDEPENDENT STUDY - UNDERGRADUATE RESEARCH (select at least one unit) | 1 |

The following are strongly recommended:

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|---|--|--------------|
| BIOLOGY 311 | MICROBIOLOGY | |
| BIOLOGY 340 | COMPARATIVE VERTEBRATE ANATOMY | |
| Select additional units of Biology numbered above 300, except BIOLOGY 303, to total 40 units in the major | | 1-12 |
| Total Units | | 42 |
| Unique and Writing Requirements - 21-26 | | |
| BIOLOGY 200 | WRITING IN BIOLOGY | 3 |
| or ENGLISH 372 | TECHNICAL AND SCIENTIFIC WRITING | |
| CHEM 102 | GENERAL CHEMISTRY I (GL) | 5 |
| CHEM 104 | GENERAL CHEMISTRY II (GL) | 5 |
| One additional Chemistry course numbered above 200 | | |
| Select one of the following: | | 3-5 |
| MATH 152 | PRECALCULUS (GM) | |
| MATH 243 | SHORT CALCULUS | |
| MATH 250 | APPLIED CALCULUS SURVEY FOR BUSINESS AND SOCIAL SCIENCES | |
| PSYCH 215 | BASIC STATISTICAL METHODS | 3 |
| or BIOLOGY 303 | BIOSTATISTICS | |
| One of the following are strongly recommended: | | |
| PHYSCS 140 & PHYSCS 141 | PRINCIPLES OF PHYSICS I (GL) and PRINCIPLES OF PHYSICS II (GL) | |
| PHYSCS 180 & PHYSCS 181 | PHYSICS FOR SCIENTISTS AND ENGINEERS I (GL) and PHYSICS FOR SCIENTISTS AND ENGINEERS II (GL) | |
| Total Units | | 21-26 |

An approved minor is required for this major.