

**Catalog Year 2018-2019**

B.A., Biology

Concentration: Natural History

A Major Academic Plan (MAP) is one way to complete a degree in a set number of semesters. The *example* below is an efficient strategy only. Actual plans for individual students will vary based on advisor recommendations and academic needs. Official Program Requirements including Major, General Education, Elective, and university requirements (see pg.2) are based on Catalog Year.

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| **Course Subject and Title** | **Cr.**  | **Min.** **Grade** | **\*GE,** **UU or UM** | **\*\*Sem. Offered** | **Prerequisite** | **Co Requisite** |
| Semester One |
| GE Objective 1: ENGL 1101 English Composition | 3 | C- | GE | F, S, SU | Appropriate placement score |  |
| GE Objective 3: MATH 1160  or MATH 1153 Statistics | 3 |  | GE | F, S, SU | MATH 1143 or equivalentMath 1108 or equivalent  |  |
| GE Objective 5: BIOL 1101, 1101L Biology I & Lab | 4 |  | GE | F, S, SU | MATH 1108 | MATH 1108 |
| Free Electives | 5 |  |  |  |  |  |
|  Total | 15 |  |  |  |  |  |
| Semester Two |
| GE Objective 1: ENGL 1102 Critical Reading and Writing | 3 | C- | GE | F, S, SU | ENGL 1101 or equivalent |  |
| BIOL 1102 & 1102L Biology II & Lab | 4 |  |  | F, S | BIOL 1101 |  |
| GE Objective 4: | 3 |  | GE | F, S, SU |  |  |
| GE Objective 6: | 3 |  | GE | F, S, SU |  |  |
| Free Electives | 2 |  |  |  |  |  |
|  Total | 15 |  |  |  |  |  |
| Semester Three |
| BIOL 2209 & 2209L General Ecology & Lab | 4 |  |  | F, S | BIOL 1101 & 1101L and BIOL 1102 & 1102L |  |
| GE Objective 5: CHEM 1111 & 1111L General Chemistry & Lab | 5 |  | GE | F, S, SU | MATH 1143 or 1147 or equivalent |  |
| GE Objective 2: COMM 1101 Principles of Speech | 3 |  | GE | F, S, SU |  |  |
| Free Electives | 3 |  |  |  |  |  |
|  Total | 15 |  |  |  |  |  |
| Semester Four |  |  |  |  |  |  |
| BIOL 2206 & 2207 Cell Biology & Lab | 4 |  |  | F, S | BIOL 1101, 1102, CHEM 1111 &1111L | CHEM 1112, 1112L |
| Plant Biology course | 3 - 4 |  |  |  |  |  |
| GE Objective 4: | 3 |  | GE | F, S, SU |  |  |
| CHEM 1112 & 1112L General Chemistry II | 4 |  |  | F, S, SU | CHEM 1111 & 1111L and MATH 1143 or 1147  |  |
| Free Electives | 0 - 1 |  |  |  |  |  |
|  Total | 15 |  |  |  |  |  |
| Semester Five |  |  |  |  |  |  |
| BIOL 3358 Genetics | 3 |  | UM | F, S | BIOL 2206 or 2235 |  |
| Biology Electives | 3 |  |  |  |  |  |
| Biology Electives | 3 |  |  |  |  |  |
| Animal Biology (Upper Division)  | 3 - 4 |  | UM |  |  |  |
| Upper Division Free Electives | 0 - 1 |  | UU |  |  |  |
| Free Electives | 3 |  |  |  |  |  |
|  Total | 16 |  |  |  |  |  |
| Semester Six |  |  |  |  |  |  |
| BIOL 4417 Organic Evolution | 3 |  | UM | F, S | BIOL 3358 & 2209 |  |
| Animal Biology (Upper Division) | 4 |  | UM |  |  |  |
| BIOL 4491 Seminar | 1 |  |  | F, S, SU | Senior standing, or permission of department |  |
| Upper Division Free Electives | 6 |  | UU |  |  |  |
| Free Electives | 1 |  |  |  |  |  |
|  Total | 15 |  |  |  |  |  |
| Semester Seven |  |  |  |  |  |  |
| Plant Biology course (Upper Division) | 4 |  | UM |  |  |  |
| Biology Electives | 2 - 4 |  |  |  |  |  |
| GE Objective 6: | 3 |  | GE | F, S, SU |  |  |
| GE Objective 9: | 3 |  | GE | F, S, SU |  |  |
| Free Electives  | 1 - 3 |  |  |  |  |  |
|  Total  | 15 |  |  |  |  |  |
| Semester Eight |   |  |  |  |  |  |
| BIOL 4492 Seminar | 1 |  | UM | F, S, SU | Senior standing or permission of department |  |
| GE Objective 7 or 8 | 3 |  | GE | F, S, SU |  |  |
| Upper Division Free Electives | 11 |  |  UU |  |  |  |
|  Total  | 15 |  |  |  |  |  |
| \*GE=General Education Objective, UU=Upper Division University, UM= Upper Division Major\*\*See Course Schedule section of Course Policies page in the e-catalog (or input F, S, Su, etc.)  |

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| **2018-2019 Major Requirements** | **CR** | **GENERAL EDUCATION OBJECTIVES****Satisfy Objectives 1,2,3,4,5,6 (7 or 8) and 9** | **36 cr. min** |
| **MAJOR REQUIREMENTS** | 46-50 | 1. Written English (6 cr. min) ENGL 1101 | 3 |
| **Core Requirements** | **24** |  ENGL 1102 | 3 |
| BIOL 1101 & 1101L Biology I & Lab (4 credits counted in Objective 5) | 2. Spoken English (3 cr. min) COMM 1101 | 3 |
| BIOL 1102 & 1102L Biology II & Lab | 4 | 3. Mathematics (3 cr. min) MATH 1160 or 1153 | 3 |
| BIOL 2206, 2207 Cell Biology & Lab | 4 | 4. Humanities, Fine Arts, Foreign Lang. **(2 courses; 2 categories; 6 cr. min)** |
| BIOL 2209 & 2209L General Ecology & Lab | 4 |  |  |
| BIOL 3358 Genetics | 3 |  |  |
| BIOL 4417 Organic Evolution | 3 | 5. Natural Sciences **(2 lectures-different course prefixes, 1 lab; 7 cr. min)** |
| BIOL 4491/4492 Seminars | 2 | BIOL 1101 & 1101L Biology I & Lab | 4 |
|  |  | CHEM 1111 & 1111L General Chemistry I & Lab | 5 |
| MATH 1160 Applied Calculus or MATH 1153 (3 credits counted in Objective 3) |  |  |
| CHEM 1111 & 1111L General Chemistry I & Lab (5 credits counted in Objective 5) | 6. Behavioral and Social Science **(2 courses-different prefixes; 6 cr. min)** |
| CHEM 1112 & 1112L General Chemistry II & Lab | 4 |  |  |
|  |  |  |  |
| **Diversity, Ecology, Evolution Courses** |  | One Course from EITHER Objective 7 OR 8 **(1course; 3 cr. min)** |
|  |  | 7. Critical Thinking |  |
| **Animal Biology (2 courses)**  | **7 - 8** | 8. Information Literacy  |
| BIOL 4441 & 4441L Mammology & Lab | 4 | 9. Cultural Diversity **(1 course; 3 cr. min)** |
| BIOL 3304 & 3304L Comparative Vertebrate Morph & Phys & Lab | 5 |  |  |
| BIOL 3310 & 3310L Invertebrate Zoology & Lab | 4 | General Education Elective to reach 36 cr. min. **(if necessary)** |
| BIOL 4423 General Parasitology  | 3 |   |  |
| BIOL 4427 & 4427L Ichthyology & Lab | 4 |  Total GE | 39 |
| BIOL 4438 Ornithology  | 4 | Undergraduate Catalog and GE Objectives by [Catalog Year](https://www.isu.edu/advising/academic-support/general-education/)  |
| BIOL 4459 & 4459L Fish Ecology & Lab | 4 |
| BIOL 4462 & 4462L Freshwater Ecology & Lab | 4 |  |  |
| BIOL 4426 & 4426L Herpetology & Lab | 4 | **MAP Credit Summary** | **CR** |
| BIOL 4431 & 4431L General Entomology & Lab | 4 | Major  | 46-50 |
| BIOL 4495 Animal Behavior | 4 | General Education  | 39 |
|  |  | Free Electives to reach 120 credits | 31-35 |
| **Plant Biology (2 courses)** | **7 - 8** |  TOTAL | 120 |
| BIOL 2213 Fall Flora | 2 |  |
| BIOL 2214 Spring Flora | 2 |
| BIOL 4412 & 4412L Systematic Botany | 4 | **Graduation Requirement Minimum Credit Checklist** | **Confirmed** |
| BIOL 4404 & 4404L Plant Physiology^ | 4 | Minimum 36 cr. General Education Objectives (15 cr. AAS) |  Yes |
| BIOL 4405 & 4405 L Plant Form Function and Lab | 4 | Minimum 16 cr. Upper Division in Major (0 cr. Associate) |  | Yes |
| BIOL 4408 & 4408L Plant Ecology^ | 4 | Minimum 36 cr. Upper Division Overall (0 cr. Associate) |  | Yes |
| BIOL 4442 Plant-Animal Interactions | 3 | Minimum of 120 cr. Total (60 cr. Associate) |  | Yes |
| **Biology Electives (3 courses)** | **8 - 10** |  |  |
| Consult with Biology advisor for appropriate Biology electives. |  |  |  |
| **Suggested Supporting Courses from Other Departments** | ***MAP Completion Status (for internal use only)*** |
| GEOL 1100, Dynamic Earth; GEOL 1101 Physical Geology; |  | *Date* |
| HIST/MUSE 4411 Introduction to Museum Studies;  | *Department:*  |  |
| PE 3386 Outdoor Leadership; PE 4440 Survey of Outdoor Education Lit.; | *CAA or COT:* | 3.23.2018 sf jh |
| PE 4445 Methods of Teaching Outdoor Activities and Practicum | *Registrar:*  |  |
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| **Advising Notes** |
| ^ includes optional 1-credit lab |

 Form Revised 1.24.2018