

Catalog Year 2017-2018

B.S. Earth and Environmental Systems

Environmental Systems Track

A Major Academic Plan (MAP) illustrates one way to complete a degree in a recommended number of semesters. Below is an example of an efficient and recommended plan, but actual plans will vary by individual student needs. Program requirements are based on Catalog Year. See page two for a detailed summary of Major, General Education, Elective, and university requirements.

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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 5: GEOL 1100 Dynamic Earth (lecture only)  **OR**  GEOL 1101 Physical Geology (lecture only) | 3 | | C- | GE | F, S, ASu |  |  | | | | |
| GE Objective 5: GEOL 1110 Physical Geol for Scientists Lab | 1 | |  | GE | F, S | GEOL 1100 or GEOL 1101 |  | | | | |
| GE Objective 3: Either MATH 1170 (or 1160) | 4 or 3 | | C- | GE | F, S, Su | MATH 1147 or equivalent or appropriate score (or MATH 1143 ) | | | | |  |
| BIOL 1101 and BIOL 11101 L General Biology I | 4 | |  |  | F, S, Su | MATH 1108 or appropriate score | | (MATH 1108) | | | |
| Free Electives | 0 or 1 | |  |  |  |  | |  | | | |
| Total | 15 | |  |  |  |  |  | | | | |
| Semester Two | | | | | | | | | | | |
| GE Objective 1: ENGL 1102 Critical Reading and Writing | 3 | | C- | GE | F,S | ENGL 1101 or equivalent |  | | | | |
| BIOL 1102 Biology and BIOL 1102L II | 4 | |  |  | F, S | BIOL 1101 |  | | | | |
| GE Objective 5: CHEM 1111 and 1111L General Chemistry I | 5 | |  | GE | F, S, Su | MATH 1143 or equivalent | |  | | | |
| GE Objective 4 | 3 | |  | GE | F, S, Su |  |  | | | | |
| Total | 15 | |  |  |  |  |  | | | | |
| Semester Three | | | | | | | | | | | |
| GEOL 3306 Environmental Geology | 3 | |  | UM | F | GEOL 1100 or 1101 |  | | | | |
| GEOL 4403 Principles of GIS | 3 | |  | UM | F, S |  | GEOL 4403L | | | | |
| BIOL 2209/L General Ecology | 4 | |  |  | F, S | BIOL 1101 and BIOL 1102 | BIOL 2209L | | | | |
| CHEM 1112 and 1112L General Chemistry II | 4 | |  |  | F, S | CHEM 1111 and 1111L; | | | |  | |
| Free Electives | 1 | |  |  |  |  |  | | | | |
| Total | 15 | |  |  |  |  |  | | | | |
| Semester Four |  | |  |  |  |  |  | | | | |
| GEOL 3315 Evolution of the Earth's Surface | 4 | |  | UM | S | GEOL 1100 or 1101; GEOL 1110 | | |  | | |
| PHYS 1111/1113 or PHYS 2211/2213 | 4 | |  |  | F/ F, S | MATH 1143 or equivalent or MATH 1175 | | |  | | |
| GE Objective 2: COMM 1101 Principles of Speech | 3 | |  | GE | F, S |  |  | | | | |
| GE Objective 6: | 3 | |  | GE | F,S, Su |  |  | | | | |
| Free Electives | 1 | |  |  | F, S, Su |  |  | | | | |
| Total | 15 | |  |  |  |  |  | | | | |
| Semester Five |  | |  |  |  |  |  | | | | |
| SET A course | 4 | |  | UM | F,S, Su | See catalog |  | | | | |
| SET B course | 4 | |  | UM | F,S, Su | See catalog |  | | | | |
| GE Objective 7: | 3 | |  | GE | F,S, Su |  |  | | | | |
| MATH 3350 Statistical Methods | 3 | |  | UM | F, S | MATH 1160 or MATH 1170 |  | | | | |
| Free Electives | 1 | |  |  |  |  |  | | | | |
| Total | 15 | |  |  |  |  |  | | | | |
| Semester Six |  | |  |  |  |  |  | | | | |
| GEOL 4416 Global Environmental Change | 3 | |  | UM | AS | BIOL 2209, GEOL 3306 |  | | | | |
| SET A Course | 4 | |  | UM | F,S, Su | See catalog |  | | | | |
| SET B course | 3 or 4 | |  | UM | F,S, Su | See catalog |  | | | | |
| GE Objective 6 | 3 | |  | GE | F,S, Su |  |  | | | | |
| Free Electives | 1 or 2 | |  |  | F,S, Su |  |  | | | | |
| Total | 15 | |  |  |  |  |  | | | | |
| Summer GEOL 4451 Field Methods Environ. Science | 3 | |  | UM | Su |  |  | | | | |
| Semester Seven |  | |  |  |  |  |  | | | | |
| SET C course | 2 or 3 | |  | UM |  | See catalog |  | | | | |
| GE Objective 4 | 3 | |  | GE | F,S, Su |  |  | | | | |
| GE Objective 9 | 3 | |  | GE | F,S, Su |  |  | | | | |
| Free Electives | 6 or 7 | |  |  | F,S, Su | See catalog |  | | | | |
| Total | 15 | |  |  |  |  |  | | | | |
| Semester Eight |  | |  |  |  |  |  | | | | |
| GEOL 4492 Earth and Environmental Systems Seminar | 1 | |  | UM | S | Junior or senior standing |  | | | | |
| Set D course | 2 or 3 | |  | UM | F,S, Su | See catalog |  | | | | |
| Free Electives | 8 or 9 | |  |  |  |  |  | | | | |
| Total | 12 | |  |  |  |  |  | | | | |
| \*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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| **2017-2018 Major Requirements** | **CR** | **2017-2018 GENERAL EDUCATION OBJECTIVES**  **Satisfy Objectives 1,2,3,4,5,6 (7 or 8) and 9** | | | | **36 cr. min** | |
| **MAJOR REQUIREMENTS** | **60 - 64** | 1. Written English (6 cr. min) ENGL 1101 | | | | 3 | |
| Either GEOL 1100 OR GEOL 1101 (3 credits counted in Objective 5) | | ENGL 1102 | | | | 3 | |
| GEOL 1110 Physical Geology for Scientists Lab | 1 | 2. Spoken English (3 cr. min) COMM 1101 | | | | 3 | |
| GEOL 3306 Environmental Geology | 3 | 3. Mathematics (3 cr. min) MATH 1160 or MATH 1170 | | | | 3 or 4 | |
| GEOL 3315 Evolution of the Earth's Service | 4 | 4. Humanities, Fine Arts, Foreign Lang. **(2 courses; 2 categories; 6 cr. min)** | | | | | |
| GEOL 4403 Principles of GIS | 3 |  | | | |  | |
| GEOL 4416 Global Environmental Change | 3 |  | | | |  | |
| GEOL 4492 Earth and Environmental Systems Seminar | 1 | 5. Natural Sciences **(2 lectures-different course prefixes, 1 lab; 7 cr. min)** | | | | | |
| GEOL 4451 Field Methods in Env Sci (summer only) | 3 | Either GEOL 1100 OR GEOL 1101 | | | | 3 | |
| BIOL 1101 and 1101L Biology I and Lab | 4 | CHEM 1111 and 1111L General Chemistry I | | | | 5 | |
| BIOL 1102 and 1102L Biology II and Lab | 4 |  | | | |  | |
| BIOL 2209 and 2209L General Ecology and Lab | 4 | 6. Behavioral and Social Science **(2 courses-different prefixes; 6 cr. min)** | | | | | |
| CHEM 1111 and 1111L General Chemistry I (5 credits counted in Objective 5) | |  | | | |  | |
| CHEM 1112 and 1112L General Chemistry II | 4 |  | | | |  | |
| Either PHYS 1111 and PHYS 1113 General Physics I and Lab  OR PHYS 2211 and PHYS 2213 Engineering Physics I and Lab  (PHYS 2211 requires MATHB 1175 – 4 cr) | 4 or 5 | One Course from EITHER Objective 7 OR 8 **(1course; 3 cr. min)** | | | | | |
| Either MATH 1160 or 1170 (3 or 4 cr counted in Objective 3) | | 7. Critical Thinking GEOL 1107 Real Monsters recommended | | | |  | |
| MATH 3350 Statistical Methods | 3 | 8. Information Literacy | | | |
| **SET A - choose 2 courses** | **7 or 8** | 9. Cultural Diversity **(1 course; 3 cr. min)** | | | | | |
| GEOL 4402 Geomorphology and lab; GEOL 4430 Principles of Hydrogeology  GEOL 4417 & 4417L Geomorphology and Lab; other approved courses | |  | | | |  | |
| General Education Elective to reach 36 cr. min. **(if necessary)** | | | | | |
| **SET B - choose 2 courses** | **8** |  | | | |  | |
| BIOL 4416 and Lab Population Ecology; BIOL 4462 and Lab Freshwater Ecology  BIOL 4489 Field Ecology; GEOL 4490 Ecosystem Ecology and Global Changes | | **Total GE** | | | | **38 or 39** | |
| GE Objectives - Catalog Requirements:  [2017-2018 General Education Requirements (PDF)](https://www.isu.edu/media/libraries/central-academic-advising/pdf-files/gened-requirements/2017-2018-General-Education-Requirements.pdf) | | | | | |
| **SET C - choose 1 course not used previously used** | **2 or 3** |
| GEOL 4410 Science in Am. Society ; HIST 4430 Global Environmental History; POLS 4455 Environmental Politics & Policy; |  |  | | | | | |
| **SET D – Select an elective course not used for any other requirement** | **2 or 3** |
| HIST 4432 US Environmental History; POLS 4466 Public Lands Policy;  ANTH 4402 Ecological Anthropology; ECON 3352 Environmental Economics; PHIL 4455 Environmental Ethics; SOC 3335 Population and Environment;  GEOL 4410 Science in American Society; GEOL/HIST 4471 Historical Geography of Idaho; HIST 4430 Global Environmental History; POLS 4455 Environmental Politics & Policy; | |
| **MAP Credit Summary** | | | | **CR** | |
| Major | | | | 60 - 64 | |
| General Education | | | | 38 or 39 | |
|  |  | Free Electives to reach 120 credits | | | | 18 - 22 | |
|  |  | TOTAL | | | | 120 | |
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|  |  | **Graduation Requirement Minimum Credit Checklist** | | | **Confirmed** | | |
|  |  | Minimum 36 cr. General Education Objectives (15 cr. AAS) | | | yes | | |
|  |  | Minimum 16 cr. Upper Division in Major (0 cr. Associate) | | |  | | yes |
|  |  | Minimum 36 cr. Upper Division Overall (0 cr. Associate) | | |  | | yes |
|  |  | Minimum of 120 cr. Total (60 cr. Associate) | | |  | | yes |
|  |  |  | |  | | | |
| **Advising Notes** | | ***MAP Completion Status (for internal use only)*** | | | | | |
| Recommended Electives: | |  | *Date* | | | | |
| ENGL 3307 Prof and Technical Writing | | *Department:* | 10.26.2017 mmc | | | | |
| BIOL 3316 Biometry Lab | | *CAA or COT:* | CAA10.2.2017 jh | | | | |
|  | | *Registrar:* |  | | | | |
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Form Revised 4.14.2017