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| **Catalog Year 2022-2023**B.S., Earth & Environmental SystemsEnvironmental Systems Track | ***(For internal use only)***[ ]  *No change*[ ]  *UCC proposal* |

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 Writing and Rhetoric I | 3 | C- | GE | F, S, Su | Appropriate placement score |  |
| GE Objective 3: MATH 1147 Pre-calc (or MATH 1143 and 1144) | 5 | C- | GE | F, S, Su | Appropriate Placement Score |  |
| GE Objective 5: BIOL 1101 & BIOL 1101L General Biology I | 4 |  | GE | F, S, Su | MATH 1108/appropriate score | MATH 1108/score, BIOL 1101L |
| GE Objective 7/8: Recommended GEOL 1107 Real Monsters | 3 |  | GE | F, S |  |  |
|  Total | 15 |  |  |  |  |  |
| Semester Two |
| GE Objective 1: ENGL 1102 Writing and Rhetoric II | 3 | C- | GE | F, S, Su | ENGL 1101 or equivalent |  |
| GE Objective 5: CHEM 1111 and 1111L General Chemistry I | 5 |  | GE | F, S, Su | MATH 1143 or 1147  | CHEM 1111L |
| BIOL 1102 & BIOL 1102L General Biology II | 4 |  |  | F, S | BIOL 1101 | BIOL 1102L |
| GE Objective 4 | 3 |  | GE | F, S, Su |  |  |
|  Total | 15 |  |  |  |  |  |
| Semester Three |
| GE Objective 2: COMM 1101 Principles of Speech | 3 |  | GE | F, S, Su |  |  |
| GEOL 2204 Fluid Earth | 4 |  |  | F |  |  |
| GEOL 3392 Geosciences Career Seminar | 1 |  |  | F |  |  |
| GE Objective 6 | 3 |  | GE | F, S, Su |  |  |
| MATH 1170 Calculus | 4 |  |  | F, S, Su | MATH 1143 and 1144 or 1147 |  |
|  Total | 15 |  |  |  |  |  |
| Semester Four |  |  |  |  |  |  |
| GEOL 2205 Solid Earth | 4 |  |  | S |  |  |
| BIOL 2209 and BIOL 2209L General Ecology and Lab | 4 |  |  | F, S | BIOL 1101 and BIOL 1102 | BIOL 2209L |
| CHEM 1112 and 1112L Gen Chemistry II | 4 |  |  | F, S, Su | CEM 1111 and 1111L, MATH 1143 or 1147 | CHEM 1112L |
| GE Objective 6 | 3 |  | GE | F, S, Su |  |  |
|  Total | 15 |  |  |  |  |  |
| Semester Five |  |  |  |  |  |  |
| GEOL 4403 and GEOL 4403 Lab Principles of GIS | 3 |  | UM | F, S |  | GEOL 4403L |
| Group A: Select one course | 3-4 |  | UM | F, S | See Undergraduate Catalog |  |
| Free Elective | 6 |  |  | F, S, Su |  |  |
| MATH 3350 Statistical Methods | 3 |  | UM | F, S | MATH 1160 of MATH 1170 |  |
|  Total | 15-16 |  |  |  |  |  |
| Semester Six |  |  |  |  |  |  |
| GEOL 3315 Evolution of Earth’s Surface | 4 |  | UM | S | GEOL 2205 |  |
| Group B: Select one course | 3 |  | UM | F, S | See Undergraduate Catalog |  |
| Upper Division Elective | 3 |  | UU | F, S, Su |  |  |
| GE Objective 4 | 3 |  | GE | F, S, Su |  |  |
| Free Elective | 3 |  |  | F, S, Su |  |  |
|  Total | 16 |  |  |  |  |  |
| Semester Seven |  |  |  |  |  |  |
| Group A: Select one course | 3-4 |  | UM | F, S | See Undergraduate Catalog |  |
| Free Elective | 4-5 |  |  | F, S, Su |  |  |
| Upper Division Elective | 3 |  | UU | F, S, Su |  |  |
| GE Objective 9 | 3 |  | GE | F, S, Su |  |  |
|  Total | 13-15 |  |  |  |  |  |
| Semester Eight |  |  |  |  |  |  |
| GEOL 4492 Earth and Environmental Systems Seminar | 1 |  | UM | S | Junior or senior standing |  |
| Department approved Upper Division Elective | 3 |  | UM | F, S |  |  |
| Upper Division Elective | 3-5 |  | UU | F, S, Su |  |  |
| Free Elective | 3 |  |  | F, S, Su |  |  |
|  Total | 10-12 |  |  |  |  |  |
| Semester Nine (Summer) |  |  |  |  |  |  |
| GEOL 4451 Field Methods in Environmental Sciences | 3 |  | UM | D | Instructor Permission |  |
|  Total | 3 |  |  |  |  |  |
| \*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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|  BS, Earth & Environmental Systems, Environmental Systems Track Page 2  |
| **2022-2023 Major Requirements** | **CR** | **GENERAL EDUCATION OBJECTIVES****Satisfy Objectives 1,2,3,4,5,6 (7 or 8) and 9** | **36 cr. min** |
| **MAJOR REQUIREMENTS** | **51-54** | 1. Written English (6 cr. min) ENGL 1101 | 3 |
| **Core Courses** | **25** |  ENGL 1102 | 3 |
| GEOL 2204 Fluid Earth | 4 | 2. Oral Communication (3 cr. min) COMM 1101 | 3 |
| GEOL 2205 Solid Earth | 4 | 3. Mathematics (3 cr. min) MATH 1147 | 5 |
| GEOL 3392 Geosciences Career Seminar | 1 | 4. Humanities, Fine Arts, Foreign Lang. **(2 courses; 2 categories; 6 cr. min)** |
| GEOL 3315 Evolution of the Earth’s Surface | 4 |  |  |
| GEOL 4403 Principles of Geographic Information Systems | 3 |  |  |
| GEOL 4492 Earth and Environmental Systems Seminar | 1 | 5. Natural Sciences **(2 lectures-different course prefixes, 1 lab; 7 cr. min)** |
| BIOL 1101 & BIOL 1101L General Biology I and Lab (included in General Ed) | BIOL 1101 and BIOL 1101 Lab | 4 |
| BIOL 1102 & BIOL 1102L General Biology II and Lab | 4 | 4 | 5 |
| BIOL 2209 and BIOL 2209L General Ecology and Lab | 4 |  |  |
| CHEM 1111 & 1111L General Chemistry I and Lab (included in General Ed) | 6. Behavioral and Social Science **(2 courses-different prefixes; 6 cr. min)** |
| MATH 1147 (or MATH 1143 & 1144) Pre-Calculus (included in General Ed) |  |  |
|  |  |  |
| **Environmental Systems Track** | One Course from EITHER Objective 7 OR 8 **(1 course; 3 cr. min)** |
| CHEM 1112 and 1112L Gen Chemistry II | 4 | 7. Critical Thinking | GEOL 1107 Real Monsters Recommended | 3 |
| GEOL 4451 Field Methods in Environmental Sciences | 3 | 8. Information Literacy  |
| MATH 1160 Survey of Calculus or MATH 1170 Calculus I  | 3-4 | 9. Cultural Diversity **(1 course; 3 cr. min)** |
| MATH 3350 Statistical Methods | 3 |  |  |
| **Group A: Select Two from the following\*** | **7-8** | General Education Elective to reach 36 cr. min. **(if necessary)** |
| GEOL 4402 Geomorphology | 4 |   |  |
| GEOL 4429 Watershed Hydrology | 4 |  |  |
| GEOL 4430 Principles of Hydrogeology  | 3 |  Total GE | 41 |
| GEOL 4417 Intro to Soils and Critical Zone Processes | 4 | Undergraduate Catalog and GE Objectives by [Catalog Year](https://www.isu.edu/advising/academic-support/general-education/)  *http://coursecat.isu.edu/undergraduate/programs/*  |
| **Group B: Select One from the following\*** | **4** |
| BIOL 4462 and 4462L Freshwater Ecology and Lab | 4 |  |  |
| BIOL 4489 Field Ecology | 4 | **MAP Credit Summary** | **CR** |
| GEOL 4490 Ecosystem Ecology and Global Changes | 4 | Major  | 51-54 |
| **Select One Approved Elective\*** | **2-3** | General Education  | 41 |
| GEOL 3310 Geologic Field Methods | 3 | Upper Division Free Electives to reach 36 credits | 9-11 |
| GEOL 4410 Science in American Society | 2 | Free Electives to reach 120 credits | 16-17 |
| GEOL/HIST 4471 Historical Geography of Idaho | 3 |  TOTAL | 120 |
| GLBL 3379 Environment and Geography | 3 |  |
| GLBL 4466 Cultural Geography | 3 | **Graduation Requirement Minimum Credit Checklist** | **Confirmed** |
| GLBL 4480 International Parks and Protected Areas | 3 | Minimum 36 cr. General Education Objectives (15 cr. AAS) | x |
| HIST 4430 Global Environmental History | 3 | Minimum 15 cr. Upper Division in Major (0 cr. Associate) | x |
| HIST 4432 US Environmental History  | 3 | Minimum 36 cr. Upper Division Overall (0 cr. Associate) |  | x |
| PHIL 4455 Environmental Ethics | 3 | Minimum of 120 cr. Total (60 cr. Associate) |  | x |
| POLS 4455 Environmental Politics and Policy | 3 |  |
| SOC 4435 Environmental Sociology | 3 | ***MAP Completion Status (for internal use only)*** |
|  |  |  | *Date* |
| \*Or other Approved Courses |  |  |  |
| **Advising Notes** | *OAA or COT:* | 7/14/2022 vs |
| **Additional Recommended courses:** |  |  |
| ENGL 3307 Professional and Technical Writing | **Complete College American Momentum Year****Math and English course in first year-Specific GE MATH course identified****9 credits in the Major area in first year****15 credits each semester (or 30 in academic year)****Milestone courses** |
| Students who are considering graduate studies in a Geosciences field should consider also taking BIOL 3316 Biometry Laboratory, PHYS 1111 General Physics I with PHYS 1113 General Physics I Laboratory or PHYS 1111 General Physics I with PHYS 2213 Engineering Physics I Laboratory. |

 Form Revised 9.10.2019