

BACHELOR OF ARTS OPTION IN ENVIRONMENTAL INTERPRETATION

SUBMITTED BY

THE UNIVERSITY OF MONTANA-WESTERN**Objectives and Needs**

1. *Centrality to or enhancement of the institution's approved mission and institutional objectives to be achieved by the addition of this program.*
 - a. The objective of this proposal is to meet the growing need in the tourism and outdoor therapy industries for qualified naturalists, interpreters and outdoor educators. The University of Montana-Western has offered a successful related area (focused study within an existing option area) to meet this need for ten (10) years, and now proposes to elevate this related area to the option level. The intellectual basis for the degree is a strong foundation in the field-based natural sciences in combination with courses that focus on communicating and engaging the public in understanding how the natural world works.
 - b. Western's mission has always been centered on the education of future educators, especially at the undergraduate level. This proposal is consistent with this mission since students are preparing for careers in an industry with the primary focus of educating the public about the natural environment. The university's mission statement strongly supports "education through experiential learning that combines theory and practice." Western's unique setting in one of the best natural laboratories in the country, in combination with our unique Experience One scheduling model allows us to offer a significant portion of this program through field-and-project-based curricula designed to provide students with real-world experiences that cannot be duplicated in classroom-based curricula. In addition, the program requirement for an internship allows students to (1) gain first-hand experience in the industry and (2) make contacts with potential employers that will enhance their potential for employment upon graduation. As a result, this proposal meets the university's mission of "education through experiential learning that combines theory and practice", as well as the Board of Regents' goals and objectives "To be responsive to market, employment, and economic development needs of the State and nation."
 - c. All classes will be taught in traditional classroom/lab and field-based settings. No additional telecommunications methods are proposed at this time.
 - d. No other degrees are affected by the proposal. The proposed course of study for the Option with the suggested related areas are shown below: *[Note: all courses included in the proposed Option are currently being taught at UMW. No new courses are proposed at this time.]*

New or Revised Catalog Description**GENERAL EDUCATION REQUIREMENTS (32)**

Students in this option should take BIO 112, GEOL 150 and either Math 131 or Math 232 as their Gen Ed science and math requirements

OPTION: ENVIRONMENTAL INTERPRETATION (42)

BIO	270	Conservation Biology	4
BIO	351	Systematic Botany	4
ENVS	260	Wildlands Skills	4

ENVS	269	Map, Compass, & GPS	2
ENVS	329	Natural Resource Issues	4
ENVS	372	Our Wildland Heritage	4
ENVS	480	Environmental Interpretation	4
GEOL	150	Environmental Geology	4
GEOL	226	Geology of the American West	4
PHYS	239	Physical Meteorology	4
PHYS	240	Astronomy	4
ENVS	400	Internship	4-12

Integrative Electives (8-16 credits; a max of six lower division, min of 1/2 must be outside the related area)

SUGGESTED RELATED AREAS: CHOOSE AT LEAST ONE

BIOLOGICAL NATURALIST (28)

BIO	111	Biology I	4
BIO	153	Survey of MT Wildlife & Habitats	4
BIO	477	Ecology	4
ENVS	452	Environmental Education	4
MATH	232	Statistics	4

Two of the following courses:

BIO	222	Invasive Species	4
BIO	273	Entomology	4
BIO	473	Ornithology	4
BIO	475	Mammalogy	4
BIO	479	Vertebrate Zoology	4

GEOLOGICAL NATURALIST (28)

ENVS	348	Soil Science	4
ENVS	452	Environmental Education	4
GEOL	226	Rocks, Minerals and Resources	4
GEOL	330	Structure and Tectonics	4
GEOL	378	Surficial Processes	4
GEOL	432	Depositional Environments	4

One of the following courses:

ENVS	441	Sustainable Resource Management	4
GEOL	409	Geology Seminar	4
GEOL	480	Hydrogeology	4

PRE-PROFESSIONAL FISH AND WILDLIFE ENFORCEMENT (28)

BIO	111	Biology I	4
BIO	153	Survey of MT Wildlife and Habitats	4
BIO	473	Ornithology	4
BIO	475	Mammalogy	4
BIO	477	Ecology	4
MATH	232	Statistics	4

One of the following courses:

BIO	222	Invasive Species	4
ENVS	441	Natural Resource Management	4

ELECTIVES (18)

Total Credits = 120

2. *Need for the program.*

- a. An informal survey of Environmental Science program students indicates that approximately 40% of our students indicate an interest in an option tailored specifically for careers in environmental interpretation and outdoor education. The existing related area has been well subscribed in the past, demonstrating that the option will attract students.
- b. An informal survey of tourism and recreation businesses shows a growing need for outdoor educators to serve this expanding industry. We have established a number of contacts in the outdoor tourism and therapy industries (including the Professional Guide Institute), which allows us to place our students in internships and jobs. Placement through the existing related area in wildlands interpretation has been 100% for those students seeking employment in the field.
- c. This degree option is particularly well suited for Montana students (by far the bulk of the UMW student population) because of their interest in the outdoors and their desire to find employment in Montana. The tourism industry is the second largest industry in this state, and it is growing every year. As a result, the need for interpreters, naturalists and outdoor educators (especially in the wildlands therapy industry) has also grown, providing options for Montana students to stay in state and expand the local economy.
- d. This expanded offering would further UMW's strong reputation as the place for prospective students to pursue a field-based, undergraduate education in the natural sciences. Our Environmental Science program has consistently attracted about 10% of the total student population at UMW. There is little doubt that the Environmental Interpretation program will be equally successful and attract new students to the campus.

3. *New courses the program will add to the curriculum and the course requirements for the degree.*

- a. No new courses or resources are required to start this new Option area. Furthermore, based on the anticipated number of majors the degree will attract, no additional sections of the existing courses will be necessary at this time.

Adequacy, Accreditation and Assessment Issues

1. *Adequacy of present faculty, facilities, equipment and library holdings in support of the program.*

- a. The current faculty, facilities, equipment or specific library holdings should prove adequate to start this program. Since we have been offering this program as a related area for many years, the resources necessary for elevation of the program to the level of an option are well understood and will not require expansion.

2. *Needs for special accreditation.*

- a. No special accreditation is required for the University System.

3. *Assessment plan.*

- a. Prior to graduation, students will be assessed based on performance in academic classes and skills learned in applied classes (such as the wildlands skills courses and

internships). Once graduates are at place in the workforce, additional assessments via surveys of employer satisfaction will be pursued.

Impact on Faculty, Facilities, Costs, Students and Other Departments and Campuses

1. Additional faculty requirements.

- a. No additional faculty will be hired at this time. If student numbers grow as anticipated, one new faculty hire may be needed in year three of the program.

2. Impact on facilities.

- a. Present library and computer resources are adequate for this program.
- b. No additional telecommunications courses are anticipated.

3. Costs estimated over a five-year period.

- a. As this proposal is for additional Option area only, the costs are anticipated to be small. Additional resources will be needed only if the anticipated student growth occurs in the program, requiring some increases in hardware (e.g., additional GPS units) and one additional faculty position.

4. Impact on enrollment.

- a. Anticipated student enrollment in this Option area is projected over the next ten years to exceed 5% of the total student population of the campus. There will be no special requirements or enrollment limits associated with this Option area. No critical mass of students enrolled in this Option area is mandatory for its existence as all classes are currently being taught.

5. Relationship to other programs on campus.

- a. This program is strongly tied to the program in Environmental Science and the Professional Guide Institute. In addition, future collaborations can be established with our growing Equine Studies programs, our Business programs and our History, Philosophy and Social Sciences programs.

6. Relationship to other institutions.

- a. This program will prepare undergraduate students well for entrance into existing graduate programs at UM-Missoula and MSU-Bozeman in Geography, Environmental Studies, Environmental Law and others.

Process Leading to Submission of Proposal

This proposal has evolved over the years. It began as a related area in the Environmental Science Option at UMW, which was started as a collaborative effort between faculty in the Environmental Science Department, the Professional Guide Institute and the wilderness therapy industry in order to meet the needs of the outdoor education industry. The proposed elevation of the degree to Option status allows the program to now be specifically tailored for students pursuing a career in the expanding outdoor education industry and continues to be designed in collaboration with industry and state and federal agencies who employ students with this type of educational background. The proposal has passed through the on-campus curricular proposal process at UMW with high marks.