ACADEMIC REQUEST FORM (LEVEL I AND II) (4/16)

Please attach/submit additional documents as needed to fully complete each section of the form. Deadlines and instructions can be found on the Office of the Provost's curriculum website.

Proposals for a NEW degree or center require notification in advance of this proposal. See the Office of the Provost's curriculum website for information.

I. DEPARTMENT / PROGRAM

Teaching and Learning, Environmental Studies

II. SUMMARY OF CHANGE REQUESTED

Adding a Certificate in Environmental Education

III. ENDORSEMENTS AND APPROVALS

Requestor: Fletcher Brown

Signature ______________________ Date 9/16/16

Phone/Email: 243-5287, Fletcher.Brown@mso.umt.edu

Program Chair: T+L: Andrea Lawrence

Signature ______________________ Date 9/16/16

Other Affected Programs:

EYST DIRECTOR: Len Broberg

Signature ______________________ Date 9/16/16

Dean:

Signature ______________________ Date 9/16/16

Graduate School Dean (If Graduate Level)

Signature ______________________ Date 9/16/16

Library Dean (Req. for #11 below only)

Signature ______________________ Date 9/16/16

☐ Resources included in the proposal are sufficient to adequately support the new program's library needs.

Provost:

Signature ______________________ Date 9/27/16

IV. TYPE OF PROPOSAL

Any additional required forms are listed after each type of proposal and must accompany this form.
Proposals for a new degree or center require notification in advance of this proposal. See the Office of the Provost’s curriculum website for information and instructions.

Level I Proposals:

- 1a. Placing a program into moratorium ([Program Termination Form])
- 1b. Withdrawing a program from moratorium
- 2. Adding, retitling, terminating or revising a campus certificate of 29 credits or fewer
- 3. Adding a BAS/AA/AS Area of Study
- 4. Offering an existing program via distance or online delivery
- 5. Retitling an existing postsecondary educational program
- 6. Terminating an existing postsecondary educational program ([Program Termination Form])
- 7. Consolidating existing postsecondary educational programs ([BOR Curriculum Proposal Form])
- 8. Adding a new minor where there is a major or option in a major ([BOR Curriculum Proposal Form])
- 9. Revising a program substantially (e.g. changing program focus) ([BOR Curriculum Proposal Form])
- 10. Adding a temporary Certificate or AAS Degree Program Approval limited to 2 years

Level II Proposals:

- 11. Establishing a new postsecondary educational program ([Curriculum Proposal and Reviewed Intent to Plan Form])
- 12. Exceeding the 120 credit maximum for baccalaureate degrees Exception to policy 301.11
- 13. Forming a college, division, school, department, institute, bureau, center, station, laboratory or similar unit ([Curriculum Proposal or Center/Institute Proposal and Reviewed Intent to Plan Form])
- 14. Eliminating or consolidating a college, division, school, department, institute, bureau, center, station, laboratory or similar unit.
- 15. Retitling a college, division, school, department, institute, bureau, center, station, laboratory or similar unit.

V. CIP CODE (CLASSIFICATION OF INSTRUCTIONAL PROGRAMS)

The BOR requires a CIP Code (Classification of Instructional Programs) for tracking and reporting of degrees. Use the CIP Code website to identify the most applicable code: 13.1338

VI. METHOD OF DELIVERY

Will more than 50% of the proposed program be delivered via online or distance methods?
- Yes ☐ No ☐

VII. CATALOG LANGUAGE

Attach the current or proposed catalog language with any changes clearly identified. Attach the current or proposed catalog language with any changes clearly identified. See attached Doc

The Environmental Education Certificate is a 12-credit, post-baccalaureate professional development program designed for those seeking the skills and knowledge to successfully implement environmental education programs and curriculum. The certificate is grounded in the North American Association for Environmental Education’s Guidelines for the Preparation and Professional Development of Environmental Educators and administered by the College of Education and Human Sciences and the Environmental Studies Program. The Certificate can be completed as an emphasis in a Master Degree in Environmental Studies or the Department of Teaching and Learning. The goals of the Environmental Education Certification Program are to increase environmental literacy, provide practice in
environmental education teaching methods and foster community leadership. The program enhances the ability of educators and organizations to provide quality programs and resources, benefitting local communities while investing in the future of our local and global communities.

VIII. JUSTIFICATION

Provide enough information that someone without specialized knowledge can make an informed decision.

1) Provide a description of the program/center/institute.

The following proposal would establish a graduate level 12-credit certification in Environmental Education for the departments of Teaching and Learning and the Environmental Studies Program at the University of Montana. It would be offered as an option in both the Department of the Teaching and Learning in Education and the Environmental Studies program in Arts and Sciences as part of the Masters degree programs. The core course sequence uses existing courses offered through EVST and Teaching and Learning, which align with the accreditation guidelines through the North American Association of Environmental Education (NAAEE). No new resources are required for the certificate and it would involve service and field experiences with existing schools and local environmental organizations including the Montana Natural History Center and Ecology Project International. In the full application form a detailed description of the courses, field experiences, and internships will be described. In addition an outline of how these courses and experiences meet national standards and guidelines will be provided along with the summative and formative assessment strategies that will be instituted for both candidate certification and program accreditation from NAAEE.

2) Describe the need for the program/center/institute. Specifically, how the program/center/institute meets current student and workforce demands. (List of sources is provided as an addendum).

The field of Environmental/Conservation/Sustainable Education has been consistently popular and growing in both the formal and nonformal sector. In the formal K-12 school settings now 36% of the states either have required Environmental Education (EE) state standards or have specific learning outcomes in the statewide curriculum. The degree to which teachers have the training and skills to implement these standards and guidelines are highly variable. More and more teachers and schools are requesting access to curriculum and training in the field due to inadequate preparation or a response to ongoing environmental problems and how to address these in the school setting. In response to these needs at the national level the National Association of Environmental Education has developed extensive resources, standards for programs, curriculum, certification and accreditation processes for Colleges and Universities to follow that train Environmental Education professionals. States have also responded to these needs including Montana who has instituted several state initiatives from OPI including the Green Ribbon School program and the creation of a state level SMART School Challenge recognizing and promoting Environmental Education. Local efforts to address the need for more EE are varied and abundant. Two examples among many are over 30 teachers having been trained through the Forests For Every Classroom EE initiative and four Elementary schools developing and integrating gardens where students learn basic principles about local foods and sustainability.

While the formal school setting is growing with regard to the interest and need for EE, the nonformal sectors (nonprofit organizations, nature centers and other environmental focused agencies) are increasingly seeing that along with trying to solve environmental problems it is vitally important to have educational programs that try and promote sustainable behaviors regarding their environmental focus.
This has produced an increased need for organizations to higher Environmental Educators to develop programs that can be implemented with schools and the general public. Examples of these mostly inclusion-based efforts being offered locally and nationally include the Visiting Naturalist Program through the Montana Natural History Center, conservation biology courses being offered through Ecology Project International and a plethora of programs offered through the Water Education Network grades K-12 to list a few.

On campus Environmental Education courses and training has been offered to some degree for over 40 years. Conservation Education course work has been required to be offered for those that get certified through the Montana University system that was mandated by the state constitution since 1970. In the Environmental Studies Program graduate students requested EE be offered as an option starting in the early 1990’s and since then there have been a consistent flow of students with a focus in this area. Significant programs and organizations have been the products of EE-focused graduate students in the program including the creation of local nonprofits like Ecology Project International, Northwest Connections, and the visiting Naturalist program at the Montana Natural History Center.

With the growing need and interest in EE blossoming world-wide, the North American Association of Environmental Education (NAAEE) has established both certification and accreditation guidelines to help guide the field in professional development. Certification in Environmental Education through NAAEE has been established aimed primarily at Nonformal Educators and is offered through a handful of states through their state affiliates. Many state affiliates (Including the Montana Environmental Education Association) have not taken on the task of certification due to the time and cost of administering it. In response Institutions of Higher Education have begun to offer their own certificates with most choosing to follow the NAAEE guidelines. Still, national-wide 50% of the Higher Education Institutions offer one or no Environmental Education courses and less then 3% offer three or more courses in a formal scope and sequence.

This certification would provide a specific set of skills and knowledge that are aligned with national training guidelines in the field and tailored to the unique setting and strengths of the University of Montana. This certification would provide a unique opportunity for local, regional, national and international students to complete the certification reflecting the core and unique values of the University of Montana along with being recognized formally for the training and skills in this profession.

3) Describe how the program/center/institute fits with the institutional mission, strategic plan, and existing institutional program array.

Both the University mission and the proposed EE certificate aim to be unique programs that integrates across colleges with an interdisciplinary emphasis. Additionally, core values where the certificate and University align include the development of strong leaders through training participants to engage in community and schools using problem solving and sustainability. Core to the strategic planning of the University is the threads of sustainability and the environment that this certification clearly reflects and builds on. At the department level there is strong administration and faculty support for this proposal. The certification clearly aligns with the mission and vision of the Environmental Studies Program which both aim to have students acquire the skills and awareness to promote positive social change and improve the environment and communities of Montana and the world. In the School of Education and Department of Teaching and Learning the certification also aligns with promoting individuals to be a part of a community of lifelong learners, guided by respect for knowledge, human dignity and ethical behavior. The certification is all about the basic principles of “changing minds and changing lives” that guide the department of Teaching and Learning. More importantly the certification complements existing graduate options in the Teaching and Learning graduate program including students enrolled in the Early Childhood, International Baccalaureate and certification focused majors. NAAEE has established along with the general EE Professional Development guidelines mentioned above a set of
guidelines for Early Childhood Educators. By completing this scope and sequence student meet the EE Early Childhood competencies providing students with an additional certification. The IB program emphasizes interdisciplinary studies which EE models and blends well with students studying in that area. And as more and more states mandate EE standards, this certificate will be valuable for pre and in-service teachers making them more competent and competitive in the hiring process.

4) How does the proposed program/center/institute fit within the MUS system?

There is no other Environmental Education Certificate offered in the MUS system. The second article added to the Montana code which oversees the University systems in the state specifically states that the main campuses of the University of Montana and Montana State University must offer conservation environmental-based education in preservice teacher training that involves service and action. See Montana Code below:

Article IX, the Montana Code Annotated 2005

20-25-104. Supplementary conservation education in university system.

(1) To supplement the broad conservation program in the elementary and secondary schools, the units of the university system shall make available to all students in teacher preparatory courses basic instruction in conservation education.

(2) The units at Bozeman and Missoula shall include instruction in conservation in their community or public service programs.

History: En. 75-8803 by Sec. 59, Ch. 2, L. 1971; R.C.M. 1947, 75-8803.

This certification meets and extends these requirements providing a model for other state, regional and national Institutions of Higher Education to follow to address the ever growing need for trained and competent professional in the field of Environmental Education.

5) Program Details

A. Provide a detailed description of the proposed certificate. Where possible, present the information in the form intended to appear in the catalog or other publications. NOTE: In the case of two-year degree programs and certificates of applied science, the curriculum should include enough detail to determine if the characteristics set out in Regents’ Policy 301.12 have been met.

Four courses are proposed to satisfy the certificate program. Each of the four courses align with the North American Association of Environmental Education Guidelines for the Preparation and Professional Development of Environmental Educators. The four existing course are listed below:

   This course provides students with an overview of a variety of effective curricula and models within Environmental Education, along with field trips and projects that will apply coursework to a real Environmental Education setting. Examples of projects completed in the past include developing an in-service workshop in environmental education for the Forestry Department involving ecosystem management, developing an educational trunk for the local Natural History Center, or the development of an interpretive trails and curriculum for K-12 student groups.
2. Supervision and Teaching Environmental Ed/Environmental Ed Curriculum/Program Development & Assessment (ENST/C&I 548): 3 credits, offered spring (prerequisite: ENST 521 or C&I 521)

This course is aimed at environmental educators who will be responsible for developing and assessing curriculum and programming in formal and non-formal EE settings. Through discussions, applied research, and presentations, students will build knowledge and skills in curriculum development and assessment. Projects will include a formative curriculum evaluation and an opportunity to develop a curriculum, material, or program for an organization or school.


This course is designed to provide students with texts, discussion, and practice of various instructional strategies. Students will experience direct teaching in both the traditional and non-traditional classroom settings. Students will teach in groups of two with one student teaching while the other evaluates and/or videotapes the student. Each student will complete a minimum of three formal teaching experiences, complete a self-evaluation for each teaching experience, evaluate three other students teaching abilities, and present one of their teaching experiences to the class. In addition to teaching, students will be asked to complete two reviews of environmental education curriculum of their choosing.

4. Supervised Internships (ENST 590) 3 credits, offered Spring and Fall – Student work in school and/or nonprofit settings developing skills in program management, budget development and administration.

Admission Process involves the following: 1) Successful admission into a Masters degree programs in Teaching and Learning or Environmental Studies. 2) Completion of an interview based on previous professional experiences, educational background, GPA and professional goals.

Completion Requirements: The following requirements must be completed to receive the certificate in Environmental Education. Completion of the 12-credit certificate sequence having a grade of B or better in all course work. In addition, a written reflective essay must be completed and submitted that addresses how the candidate met the NAAEE Guideline criteria aligned with each course, field experiences and internship. This will be followed by an exit interview and based on the essay and interview candidate performance on each strand and element will be evaluated as unacceptable, acceptable and target level criteria established in the guidelines. To receive the certificate students must score at the acceptable or target level on all elements.

B. Describe the planned implementation of the proposed program, including estimates of numbers of students at each stage.

Currently all courses and experiences are being offered. Once the certificate is approved, it will be advertised as an option for students to complete as part of their degree in the graduate program in Environmental Studies and the Department of Teaching and Learning.

6) Resources

No new resources will be needed for the Environmental Education Certificate. The coordination of the certificate
award is through the Environmental Education specialist in the department of Teaching and Learning and Environmental Studies.

7) Assessment

How will the success of the program be measured?

End of the spring semester of each academic year, the following data will be collected and shared with department chairs and college administration; number of applicants, number of candidates admitted, awarded certifications, performance scores and exit survey. Based on data collected, modifications to program structure and function will be made to enhance the certificate quality.

IX. SUBMISSION

Submit a hard copy of this form with all required signatures to the Office of the Provost. Please also submit an electronic copy of this Word document, along with all other required BOR forms (in Word) to jasmine.ink.laine@msn.com.

- After approval by the Provost, the proposal will be submitted to the Faculty Senate Office.
- After approval by the appropriate Curriculum Committee (ASCRC or Graduate Council), the full Faculty Senate must approve the proposal.
- Upon Faculty Senate approval, the Office of the Provost will submit the proposal to OCHE for the next possible OCHE/BOR meeting.
  - Note that BOR and internal UM deadlines require submission quite in advance of the BOR meeting.
- The Office of the Provost will notify the proposer once the change has been approved by OCHE/BOR.
Selected Reference Links

(A complete list can be provided upon request)

Environmental Education in the United States: A Survey of Preservice Teacher Education Programs

Rosalyn McKeown-Ice (2000) Environmental Education in the United States:
A Survey of Preservice Teacher Education Programs, The Journal of Environmental Education, 32:1, 4-11, DOI: 10.1080/00958960009598666
To link to this article: http://www.tandfonline.com/doi/abs/10.1080/00958960009598666

The Global Expansion of Environmental Education in Universities

Author(s): David John Frank, Karen Jeong Robinson, Jared Olesen, Comparative Education Review, Vol. 55, No. 4 November, 2011, pp. 546-573
Published by: The University of Chicago Press
http://www.jstor.org/stable/10.1086/661253

National Overview: State Level EE Legislation/Policy

http://www.lundee.org/campaigns/nclb/brief5b.htm

Back to School Surge for Environmental Education Curriculum: Materials in demand...

http://www.cairecycle.ca.gov/NewsRoom/2015/08Aug/15.htm

Guidelines for the Preparation and Professional Development of Environmental Educators

http://resources.spaces3.com/5e156799-5cd9-406e-835d-748ce277e1c1.pdf

Early Childhood Environmental Education Programs Guidelines for Excellence
http://resources.spaces3.com/91e3c06-2076-4e26-880d-2332e87b5caf.pdf

Montana Smart Schools Challenge
http://governor.mt.gov/Home/SmartSchools/Challenges
## Environmental Education Certificate Curriculum and Alignment Standards

| Course/Element       | 1.1 | 1.2 | 1.3 | 2.1 | 2.2 | 2.3 | 2.4 | 2.5 | 2.6 | 3.1 | 3.2 | 3.3 | 4.1 | 4.2 | 4.3 | 5.1 | 5.2 | 5.3 | 5.4 | 6.1 | 6.2 | 6.3 | 7.1 | 7.2 | 7.3 | 7.4 |
|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Foundation EE 521   | X   | X   | X   | X   | X   | X   | X   | X   |     |     |     |     |     | X   | X   | X   |     |     |     |     |     |     |     |     |     |
| Teaching EE 525     |     |     |     |     |     |     |     |     | X   | X   | X   | X   | X   | X   |     |     |     |     |     |     |     |     |     |     |     |
| Supervision Tch EE 548 |     |     |     |     |     |     |     |     | X   | X   | X   | X   | X   | X   |     |     | X   |     |     |     |     |     |     |     |
| EVST 590            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | X   | X   |

### Standards Overview

- **STANDARD 1.** Nature of Environmental Education and Environmental Literacy.
- **STANDARD 2.** Environmental Literacy of Candidates
- **STANDARD 3.** Learning Theories and Knowledge of Learners
- **STANDARD 4.** Curriculum: Standards and Integration.
- **STANDARD 5.** Instructional Planning and Practice
- **STANDARD 6.** Assessment
- **STANDARD 7.** Professional Growth in Environmental Education