



UNIVERSITY OF WASHINGTON

OFFICE OF THE PRESIDENT

Mark A. Emmert, President

July 13, 2007

Dean B. Bruce Bare
College of Forest Resources
Box 352100

Dear Bruce:

Based upon the recommendations of the Faculty Council on Academic Standards, the Faculty Council on Tri-Campus Policy has recommended approval of an option in Sustainable Forest Management within the existing major in Environmental Science and Resource Management. A copy of the proposal is attached.

I am writing to inform you that the College of Forest Resources is authorized to offer this option beginning autumn quarter 2007 and thereafter.

The new requirements should be incorporated in printed statements and in individual department websites as soon as possible. The *General Catalog* website will be updated accordingly by the Registrar's Office.

Sincerely yours,

Mark A. Emmert
President

Enclosure

cc: Michelle Trudeau (with enclosure)
Mr. Robert Corbett (with enclosure)
Dr. Deborah H. Wiegand (with enclosure)
Todd Mildon, J.D. (with enclosure ESRM-20070402B)



UNIVERSITY OF WASHINGTON
**CREATING AND CHANGING UNDERGRADUATE
 ACADEMIC PROGRAMS**

OFFICE USE ONLY
 Control #
 ESKM-2070402 D

After college/school review, send a signed original and 8 copies to FCAS, Box 355850.

APR 5 2

For information about when and how to use this form: <http://depts.washington.edu/uwcr/1503instructions.pdf>

| | | |
|------------------------------------|----------------------------------|---------------------------|
| College <i>Forest Resources</i> | Department or Unit <i>n/a</i> | Date <i>2 Apr 2007</i> |
|------------------------------------|----------------------------------|---------------------------|

New Programs

- Leading to a Bachelor of _____ in _____ degree.
- Leading to a Bachelor of _____ degree with a major in _____.
- Leading to a _____ Option within the existing major in _____.
- Leading to a minor in _____.

Changes to Existing Programs

- New Admission Requirements for the Major in _____ within the Bachelor of _____.
- Revised Admission Requirements for the Major in _____ within the Bachelor of _____.
- Revised Program Requirements for the Major in _____ within the Bachelor of _____.
- Revised Requirements for the Option in Landsc Ecol & Cn within the major in Environmental Science & Res Mgmt.
- Revised Requirements for the Minor in _____.

Other Changes

- Change name of program from _____ to _____.
- New or Revised Continuation Policy for _____.
- Eliminate program in _____.

Proposed Effective Date:

Quarter: Autumn Winter Spring Summer Year: 20 07

| | | |
|---|--|--|
| Contact Person <i>Michelle Trudeau</i> | Contact's Phone <i>206 — 616 — 1533</i> | Contact's Email <i>michtru@u.washington.edu</i> |
|---|--|--|

EXPLANATION OF AND RATIONALE FOR PROPOSED CHANGE

For new programs, please include any relevant supporting documentation such as student learning outcomes, projected enrollments, letters of support and departmental handouts. (Use additional pages if necessary).

Students with an interest in the conservation and management of ecological systems at multiple spatial scales may be interested in taking the Landscape Ecology and Conservation option. Landscape ecology is an integrated approach to studying the interaction of physical, biological, and social processes on ecological systems at a wide range of spatial scales. The Landscape Ecology and Conservation option focuses on applied aspects of landscape ecology that create, sustain, and alter biological diversity and integrity. Many of the major drivers of ecological change operate at relatively coarse spatial scales. Climate change, land-use practices, invasive species, emerging diseases and pathogens, and pollution operate at local, regional, and global scales to affect ecological systems. The option offers students postgraduate opportunities in conservation, land-use planning, natural resource management, and ecological research. Some examples of the types of groups that have interests in landscape ecology include Environmental NGO's (e.g., The Nature Conservancy, The World Wildlife Fund), local land trusts, timber and mining companies, state wildlife and natural resource agencies, the US Forest Service, the US Fish and Wildlife Service, the US Bureau of Land Management, The US Environmental Protection Agency, environmental consulting firms, and county planning offices. The option will also prepare students for graduate work in ecology, conservation biology, natural resources, and land-use planning.

CATALOG COPY

Catalogue Copy as currently written. Include only sections/paragraphs that would be changed if your request is approved. Please cross out or otherwise highlight any deletions.

New option.

PROPOSED CATALOG COPY

Reflecting requested changes (Include exact wording as you wish it to be shown in the printed catalog. Please underline or otherwise highlight any additions. If needed, attach a separate, expanded version of the changes that might appear in department publications)

All requirements of ESRM will remain the same except:

Restricted Electives (35 credits): 300- or 400-level courses from within the College of Forest Resources. 15 of the 35 credits must be at the 400 level. To receive the Landscape Ecology and Conservation Option in Environmental Science and Resource Management (32 credits minimum) students must complete: ESRM 350; ESRM 425; ESRM 427; ESRM 430; ESRM 441; ESRM 465; ESRM 470.

(See also attached option proposal from our curriculum committee.)

SIGNATURES (required)

Chair/Program Director

Orman Buckley

Date

4/4/07

Dean

B. B. Bruce

Date

4/4/07

College Committee

Stephen D. Went

Date

3 April 2007

Faculty Council on Academic Standards

George Zilber *Pod Trempyus* *George Zilber*

Date

4/13/07

6/15/07



ESRM Option Proposal in Landscape Ecology and Conservation

1. Proposed Option Title

Landscape Ecology and Conservation

2. Brief rationale for the option

Students with an interest in the conservation and management of ecological systems at multiple spatial scales may be interested in taking the Landscape Ecology and Conservation option. Landscape ecology is an integrated approach to studying the interaction of physical, biological, and social processes on ecological systems at a wide range of spatial scales. The Landscape Ecology and Conservation option focuses on applied aspects of landscape ecology that create, sustain, and alter biological diversity and integrity. Many of the major drivers of ecological change operate at relatively coarse spatial scales. Climate change, land-use practices, invasive species, emerging diseases and pathogens, and pollution operate at local, regional, and global scales to affect ecological systems. The option offers students postgraduate opportunities in conservation, land-use planning, natural resource management, and ecological research. Some examples of the types of groups that have interests in landscape ecology include Environmental NGO's (e.g., The Nature Conservancy, The World Wildlife Fund), local land trusts, timber and mining companies, state wildlife and natural resource agencies, the US Forest Service, the US Fish and Wildlife Service, the US Bureau of Land Management, The US Environmental Protection Agency, environmental consulting firms, and county planning offices. The option will also prepare students for graduate work in ecology, conservation biology, natural resources, and land-use planning.

3. Faculty Lead/Advisor

Josh Lawler

4. Affiliated Faculty and roles of each

All affiliated faculty will contribute to the option through teaching of the required and or elective courses listed below. In addition, each member will potentially serve as an advisor to students wishing to complete senior theses. Each year two or more faculty will also organize and conduct the capstone seminar course (see capstone description below).

| | |
|---------------------|--|
| Jon Bakker | Restoration Ecology, Disturbance Ecology |
| Gordon Bradley | Land-use Planning, Conservation Planning |
| Jerry Franklin | Landscape Ecology, Forest Management, Forest Ecology |
| John Marzluff | Landscape Ecology, Animal Behavior, Wildlife Ecology |
| Monika Moskal | Remote Sensing, Physical Geography, Spatial Analysis |
| David Peterson | Fire Ecology, Climate Change, Mountain Ecology |
| Christian Torgersen | Landscape Ecology, Aquatic Ecology, Remote Sensing |
| Kristiina Vogt | Ecosystem management, Conservation |

5. Specific ESRM courses required for the option. Required courses (32 credits)

ESRM 350 Wildlife Biology and Conservation (5)

ESRM 425 Ecosystem Management (5)

- ESRM 427 Integrated Management of Forest Landscapes in a Changing World (3)
- ESRM 430 Aerial Photos/Remote Sensing Natural Resources (3)
- ESRM 441 Landscape Ecology (5)
- ESRM 459 Wildlife Conservation in NW Ecosystems (3)
- ESRM 465 Economics of Conservation (3)
- ESRM 470 Natural Resource Policy and Planning (5)

Additional Suggested Electives

- BIOL 356 Foundations in Ecology (3)
- BIOL 470 Biogeography (4)
- BIOL 472 Community Ecology (4)
- BIOL 476 Conservation Biology (5)
- ESRM 315 Natural Resource Issues: Old-Growth and Forest Management (5)
- ESRM 328 Forestry-Fisheries Interactions (4)
- ESRM 415 Biology, Ecology, and Management of Plant Invasions (5)
- ESRM 420 Wildland Fire Management (5)
- ESRM 426 Wildland Hydrology (4)
- ESRM 450 Wildlife Ecology and Conservation (5)
- GEOG 205 Introduction to the Physical Sciences and the Environment (5)
- HSTAA 221 Environmental History of the U.S.
- PHIL 243 Introduction to Environmental Ethics (5)
- PHIL 417 Advanced Topics in Environmental Philosophy (5)
- QSCI 210 Introduction to Environmental Modeling (5)

6. Identify when each required course will be taught and by whom.

Instructors and Terms

- | | |
|-----------------------------------|--|
| ESRM 350 Manuwal, W | ESRM 441 Lawler, W |
| ESRM 425 Franklin, A | ESRM 459 Marzluff, Manuwal, Moskal, Sp |
| ESRM 427 Franklin, Sp | ESRM 465 Perez-Garcia, Sp |
| ESRM 430 Moskal and Schreuder, Sp | ESRM 470 Bradley and Ryan, A |

7. Describe how the required capstone experience will be designed and administered.

The capstone experience will consist of two options. The first option is to complete a senior thesis on a topic mutually agreed upon by the student and a chosen faculty thesis advisor. The thesis option allows a student to take an in-depth look at a specific aspect of landscape ecology, conservation, or management. The second option will be a special seminar course in which students develop a conservation plan for a region or a specific piece of land. In conjunction with a state agency, land-trust, NGO, or a private landowner, the affiliated faculty will select an area in which students will develop a conservation or management plan. The planning process may include any of the following steps depending on the goals and the scope of the project.

- | | |
|----------------------------------|--------------------------------------|
| Collecting spatial data | Developing a database |
| Processing spatial data | Spatial analyses |
| Surveying stakeholders | Optimization analyses |
| Taking a biological inventory | Develop alternative management plans |
| Identifying conservation targets | Impact assessments |

Risk assessments
Population modeling

Cost estimation

The seminar will involve group discussions, field trips, and computer-lab sessions. The nature of the seminar will vary from year to year depending on the specific project undertaken. For example, a regional planning project might involve more discussion and lab time and the development of a site-specific forest management plan might involve several field trips and meetings with local stakeholders. Each year, two or more affiliated faculty will be responsible for developing and executing the capstone seminar. This responsibility will rotate through the affiliated faculty. All affiliated faculty will potentially serve as thesis advisors for students selecting the thesis option.

8. Suggested review and evaluation criteria for the option

The review and evaluation of the option will involve student surveys, faculty evaluations, and an annual meeting of the affiliated faculty. The surveys and evaluations will be used to gage the utility of the required and suggested courses, the value of the capstone experience, and to gather any useful suggestions for making changes in the option. As the option matures, the annual meeting and evaluation will be reduced to a biannual meeting.

Environmental Science and Resource Management

Option in Landscape Ecology and Conservation (ESRM-20070402D)

Tri-Campus Review Comments:

Comment by David Fluharty made 4/23/2007 10:33:27 PM

This seems like a very positive direction for Forest Sciences. It would help to know what this program displaces. The course sequencing is not spelled out but that allows flexibility.

While it may not be essential for the evaluation, it would be useful to know what employment track this degree would position students to follow and how this degree would feed into further academic studies should they be indicated.

UNIVERSITY CAMPUSES UNDERGRADUATE PROGRAM REVIEW PROCEDURES**

CHECKLIST

Title of Proposal: Undergraduate option in Landscape Ecology and
Conservation (ESRM-20070402D)

Proposed by (unit name): Forest Resources

Originating Campus:

UW, Seattle

UW, Bothell

UW, Tacoma

I. Phase I. Developed Proposal Review (to be completed by Originating Campus' Academic Program Review body)

A. Review Completed by: FCAS

Chaired by: George Dillon

04/13/07 Date proposal received by originating campus's review body

04/13/07 Date proposal sent to University Registrar

04/16/07 Date proposal posted & email sent to standard notification list

06/08/07 Date of originating campus's curriculum body approval

(Note: this date must be 15 business days or more following date of posting)

B. 1 Number of comments received. Attach the comments and a summary of the consideration and responses thereof : (1-2 paragraphs)

II. Phase II. Final Proposal Review (to be completed by FCTCP)

A. Review Completed by:

FCTCP subcommittee

FCTCP full council

Chaired by: M. Killien

6/15/07 Date request for review received from University Registrar

7/9/07 Date of FCTCP report

B. Review

YES NO

- Was notice of proposal posted on UW Website for 15 business days?
 Was notice of proposal sent to standard mailing list 15 business days in advance of academic program review?
 Were comments received by academic program review body?
 Was response to comments appropriate? (explain, if necessary)
 Was final proposal reviewed by FCTCP within 14 days of receipt?
 Was there adherence to the University Campuses Undergraduate Program Review Process? (explain, if necessary)

Summary:

FCTCP notes that the comments made by Professor Fluharty were not addressed; we would benefit from understanding FCAS's criteria for deciding that comments are "not germane or answered in the original form".

We note that typically FCAS or originating units request that the originating unit point out specifically where the issues were addressed in the original proposal or provide some rationale, and wonder why a different procedure followed in these proposals. We recommend that the originating unit be asked to provide a response to the comments and that those comments be forwarded with the proposal for final approval.

C. Recommendation

- Forward for final approval
 Forward to Provost because of University issues (Explain)
 Return to campus council because of insufficient review (Explain).

**Endorsed by Faculty Senate Executive Committee, 1/10/05, modified 1/31/06; These procedures apply to new undergraduate degrees, majors, minors (and certificates) and substantive changes to same