



# UNIVERSITY OF WASHINGTON

OFFICE OF THE PRESIDENT

*Mark A. Emmert, President*

June 6, 2008

Dean Ana Mari Cauce  
College of Arts and Sciences  
Box 353765

Dear Ana Mari:

Based on the recommendation of the Faculty Council on Academic Standards, the Faculty Council on Tri-Campus Policy has recommended approval of an option in Ecology, Evolution, and Conservation and the elimination of the options in Ecology and Evolution and Environment and Conservation within the Bachelor of Science degree in Biology. A copy of the change is attached.

I am writing to inform you that the Department of Biology is authorized to specify these requirements beginning spring quarter 2008.

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: Dr. Bette Nicotri (with enclosure)  
Mr. Robert Corbett (with enclosure)  
Dr. Deborah H. Wiegand (with enclosure)  
Todd Mildon, J.D. (with enclosure BIOL-20071127)



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

JAN 30 2008

OFFICE USE ONLY  
 Control # BIOL-20071127

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

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

College Arts & Sciences	Department or Unit Biology	Date 11/27/07
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**New Programs**

- Leading to a Bachelor of \_\_\_\_\_ in \_\_\_\_\_ degree.
- Leading to a Bachelor of \_\_\_\_\_ degree with a major in \_\_\_\_\_
- Leading to a Ecology, Evo, Con Option within the existing major in Biology
- 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 \_\_\_\_\_ within the major in \_\_\_\_\_
- Revised Requirements for the Minor in \_\_\_\_\_

**Other Changes**

- Change name of program from \_\_\_\_\_ to \_\_\_\_\_
- New or Revised Continuation Policy for \_\_\_\_\_
- Eliminate program in Ecology & Evolution; Environment & Conservation options in Biology

Proposed Effective Date:

Quarter:  Autumn  Winter  Spring  Summer Year: 20\_08

Contact Person Bette Nicotri	Contact's Phone 206_ 543 _ 9621	Contact's Email nicotri@u.washington.edu
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**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).

Two similar options currently exist for students pursuing a B.S. in Biology: Option 1--Ecology & Evolution, Option 2--Environment & Conservation. (Several additional options are not considered here as they will remain unchanged.) These two options serve relatively small numbers of students (~40 each as of Autumn 2007) within a large major (~980 students altogether). Having two such closely related options has caused some confusion for both students who have trouble deciding between them and for advisers. Therefore, we propose to combine them into a slightly more flexible option called Ecology, Evolution, & Conservation that will serve all students in these current options, as well as some General Biology students who want to pursue coursework that combined elements of both ecology, evolution and conservation biology.

We have attached the handout developed to explain the new option to students, detailing it's requirements.

**CATALOG COPY**

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

The Department of Biology offers the following programs of study:

- The Bachelor of Arts degree with a major in biology.
- The Bachelor of Science degree with a major in biology. Students choose one of the following options: ~~ecology, evolution, and conservation~~

The Bachelor of Science options are:

- ~~1. Ecology and Evolution: Emphasizes ecological and evolutionary processes and relationships of those processes to systematics and biogeography of organisms. For students who wish to pursue graduate studies or seek employment in the fields of theoretical and applied ecology, evolutionary systematics, biogeography, and mathematical biology.~~
- ~~2. Environment and Conservation: Addresses conservation and restoration aspects of species, populations, and ecosystems, as well as related areas of law and environmental policy. While this is the most interdisciplinary program, it does require the same supporting and foundation courses in science as the other options.~~

**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)

The Department of Biology offers the following programs of study:

- The Bachelor of Arts degree with a major in biology.
- The Bachelor of Science degree with a major in biology. Students choose one of the following options: ~~ecology, evolution, and conservation~~ *self*

The Bachelor of Science options are as follows:

1. Ecology, evolution, and conservation. Emphasizes ecological and evolutionary processes and conservation biology. Relates these areas to systematics, the distribution and abundance of organisms, and to environmental policy. This option prepares students for graduate studies in ecology and evolution, professional schools that seek individuals with strong system-level approaches to problem solving, and careers in natural resources and conservation.
2. ...

**SIGNATURES (required)**

Chair/Program Director	<i>Thomas Dwyer</i>	Date	12/7/07
Dean	<i>Robert C. Stacey</i>	Date	JAN 28 2008
College Committee	<i>[Signature]</i>	Date	JAN 28 2008
Faculty Council on Academic Standards	<i>Sean Wilb</i>	Date	3-7-08

UoW 1503 (12/05) REVERSE

*Sean Wilb (Post Incauzer)*

5-16-08

RESET FORM

**BACHELOR OF SCIENCE IN BIOLOGY**  
**MAJOR IN ECOLOGY, EVOLUTION, AND CONSERVATION**

**\*\*\* Effective Spring 2008\*\*\***

The *Ecology, Evolution and Conservation* major is for students interested in the origins, maintenance, or conservation of biological diversity. Coursework emphasizes ecological and evolutionary theory and relates them to systematics, the distribution and abundance of organisms, and to environmental policy. This option prepares students for graduate studies in ecology and evolution, professional schools that seek candidates with strong system-level approaches to problem solving, and careers in natural resources and conservation. A strong quantitative background is emphasized, and courses serve to develop skills in data collection, analysis, and communication. Electives include Biology courses such as Marine Ecology, Field Ecology, Molecular Evolution, Conservation Biology, and Natural History courses. They also include Population Genetics and selected courses from other natural science departments such as Program on the Environment, the College of Forest Resources, and the College of Ocean and Fisheries Sciences.

Each major requires a common core of supporting course work that includes: Chemistry, Mathematics, Physics (BS Degree), and Introductory Biology courses. Each major also requires one genetics course, one breadth course and one biodiversity course. The remaining credits are selected from 300-400 level advanced electives. In addition to these degree requirements, the College of Arts and Sciences requires basic skills in five areas of study: English Composition, Foreign Language, Quantitative and Symbolic Reasoning, Writing, and Areas of Knowledge. See the UW catalog, your Student Planner, or consult an adviser for detailed information.

**Admission Requirements.** There are minimum admission requirements as noted below, but admission is non-competitive and all students who meet the stated requirements are admitted to the major. To declare the major students should bring their student file to the Biology Advising Office in 318 Hitchcock Hall and complete a change of major form with an adviser.

1. • Completion of BIOL 180 *or* 201 with a grade of 2.5 or better.  
    *Or*, completion of BIOL 180, 200, 220 *or* 201, 202, 203 with a cumulative GPA of 2.0 or better for the series.  
    • Completion of two quarters of general chemistry – CHEM 142, 152 or equivalent.
2. All major coursework completed thus far must have a cumulative GPA of 2.0 or better. This includes any introductory Biology, Chemistry, Mathematics and Quantitative Science as well as any other courses applicable to the major.

**Advising.** Advising is on a walk-in, first-come, first-served basis, Mon.–Fri. **9:00-12:00** and **1:00-3:30**. Academic advisers will also attempt to answer simple questions by phone or email, and can be contacted as follows:

<b>Academic Advisers</b>	<b>Telephone</b>	<b>Email</b>	<b>Biology Undergraduate Office</b>
Jason Patterson	(206) 543-7767	patterj@u.washington.edu	318 Hitchcock Hall, Box 355320
Andra Crosby	(206) 616-8147	acroz@u.washington.edu	University of Washington
Tom Freng	(206) 616-3982	tfreng@u.washington.edu	Seattle, WA 98195-5320
Janet Germeraad	(206) 543-6647	janetjg@u.washington.edu	Office Phone 206-543-9120

**Visit the Biology website for dept. info, scholarships, research, etc.:** <http://depts.washington.edu/biology/>

### **Departmental Honors in Biology**

If you are looking for an extra challenge and opportunity while completing your Biology Degree you may want to consider doing Departmental Honors. Students may request invitation into the Department of Biology Honors program once they have achieved junior status (complete 90 credits), completed their introductory chemistry and biology sequences, and have declared a Biology Major.

General Requirements for completing Departmental Honors include:

- UW Cumulative GPA: 3.3
- Major Cumulative GPA: 3.4
- Complete two courses in the major elective requirements for Honors Credit.
- Complete two approved Seminars
- Complete a research proposal for 9 credits of Undergraduate Research

- Present your research work at the Undergraduate Research Symposium or other approved venue. *See an Adviser for more details.*

**Major Requirements.** A minimum of 90 credits to be distributed as follows:

**I. SUPPORTING COURSES IN CHEMISTRY, PHYSICS, AND MATHEMATICS:**

<b>Chemistry</b> (choose one option):			(15(2)7)
1.	CHEM 120,220,221	(5,5,5)	
2.	CHEM 142, 152 (5,5) and CHEM 223, 224*	(4,4)	
3.	CHEM 142, 152, 162* (5,5,6) and CHEM 237, 238, 239*	(4,4,3)	
*CHEM 162 is a prerequisite for CHEM 237. CHEM 224 or CHEM 239 is a prerequisite for BIOC 440			
<b>Physics</b> (choose one option):			(8-10)
1.	PHYS 114, 115	(4,4)	Algebra based physics
2.	PHYS 121, 122	(5,5)	Analysis based physics
<b>Mathematics</b> (choose one option):			(10)
1.	MATH 124, 125	(5,5)	Calculus with Analytic Geometry
2.	MATH 144, 145	(5,5)	Calculus for Life Sciences
3.	QSCI 291, 292	(5,5)	Analysis for Biologists (May not be used for the Bio Chem 440 Series)
4.	QSCI 381 or STAT 311 and QSCI 482 (5,5)		
A third quarter of calculus or a course in Probability and Statistics is strongly recommended.			

**II. INTRODUCTORY BIOLOGY:**

BIOL 180, 200, 220 (5,5,5)* or BIOL 201, 202, 203 (5,5,5) *CHEM 152 or 220 is a prerequisite for BIOL 180.			(15)
A grade of 1.5 in each course is required to progress to the next in the Biology 180 series.			

**III. GENETICS REQUIREMENT:**

Select one of the following 2 courses:			(5)
GENOME	371	(5)	Introduction to Genetics
BIOL/FISH	340	(5)	Genetics and Molecular Ecology

**IV. LAB, RESIDENCY AND 400 LEVEL BIOLOGY REQUIREMENTS**

- A minimum of 15 credits must be 400 level **BIOLOGY courses**.
- A minimum of 15 credits of 300 and 400 level Advanced Electives must be taken at University of Washington-Seattle.
- At least two laboratory courses, chosen from any course marked with an "L", must be taken. A minimum of four credits of BIOL 499 (or other approved undergrad research) can substitute for one laboratory.
- Students are encouraged to take two relevant Foundation courses (354 Evolution; 356 Ecology), however **no more** than 6 credits of 300 level Foundation courses (350, 354, 355, 356) may be applied toward Advanced Electives.

**V. BREADTH REQUIREMENT:** Biologists often concentrate on **one level of biological organization**, but it is important to know something about the broader sweep of biological topics that can be studied, so that information at one level can be fit into the 'big picture' of what is known at other levels. To broaden your perspective, you are required to take at least one biologically based course that provides breadth.

Select one of the following courses:

BIOL	350	(3)	Foundations in Physiology	(3)
BIOL	355	(3)	Foundations in Cell & Molecular Biology	
BIOL	404	(3)	Animal Physiology: Cellular Aspects	
BIOL	410L/418	(5/3)	Biological Clocks and Rhythms	
BIOL	416	(3)	Molecular Genetics of Plant Development	
BIOL	425	(3)	Advanced Plant Physiology and Development	
BIOL	427	(4)	Biomechanics	
BIOL	429	(4)	Models in Biology	
BIOL	465	(3)	Comparative Endocrinology <sup>1,5</sup>	
GENOME/	411	(5)	Gene Action	
MICROM				
MICROM	301	(3)	General Microbiology	
MICROM	410	(3)	Fundamentals of General Microbiology I	

**VI. NATURAL HISTORY/BIODIVERSITY:** Natural History is the study of the characteristics, life cycles, and biological background of some taxonomic group. Biodiversity deals with a whole suite of organisms that inhabits a particular environment. (*A lab taken for the Natural History Biodiversity requirement may count for one of the two required labs but the credits do not count as Advanced Biology Electives unless the lab credits are a separate class*)

Select one course:

(3)

BIOL	222	(3)	Natural History of Puget Sound Country
BIOL/FISH	311L	(3/5)	Biology of Fishes
BIOL	317L	(5)	Plant Identification and Classification <sup>6</sup>
BIOL	330L	(5)	Natural History of Marine Invertebrates
BIOL	331	(3)	Landscape Plant Recognition
BIOL	397L	(5)	Preparing Avian Research Specimens
BIOL	430L	(5)	Marine Zoology (FHL)
BIOL	432L	(9)	Marine Invertebrate Zoology (FHL)
BIOL	433L	(5)	Marine Ecology
BIOL	434L	(5)	Invertebrate Zoology
BIOL	440L	(5)	General Mycology
BIOL	441L	(5)	Morphology and Anatomy of Land Plants
BIOL	442L	(5)	Mushrooms and Related Fungi
BIOL	443L	(5)	Natural History of Mammals
BIOL	444L	(5)	Natural History of Birds
BIOL	445L	(5)	Marine Botany (FHL)
BIOL	446L	(5)	Biology of Algae
BIOL/ESS	450L/478	(5)	Vertebrate Paleontology
BIOL/ESS	451L	(5)	Invertebrate Paleontology
BIOL	452L	(5)	Vertebrate Zoology
BIOL	453L	(5)	Comparative Vertebrate Anatomy
BIOL	454/455L	(3/2)	Entomology/Entomology Lab
BIOL	456L	(5)	Vegetation of Western Washington
ESRM	435/436L	(3/2)	Forest Entomology
ESRM	452L	(3)	Field Ornithology
ESRM	453	(3)	Biology and Conservation of Mammals <sup>6</sup>
ESRM	456	(3)	Biology and Conservation of Birds <sup>6</sup>
FISH	450L	(3/5)	Salmonid Behavior and Life History
FISH	475L	(5)	Marine Mammalogy

**VII. ADVANCED BIOLOGY ELECTIVES:**

(31)

Within these 31 credits, students must select one Conservation, one Evolution and Systematics, and one Ecology course.

**Note:** many of the courses listed below have pre-requisite courses; in planning your course selection, be sure to include the necessary pre-requisite courses!

<b>1. Conservation - Select one course:</b>			
BIOL	476L	(5)	Conservation Biology <sup>6</sup>
BIOL	477	(3)	Marine Conservation
ESRM	350	(5)	Wildlife Biology and Conservation
ENVIR/	379	(5)	Environmental Sociology
ESRM			
ESRM	453	(3)	Biology and Conservation of Mammals <sup>6</sup>
ESRM	456	(3)	Biology and Conservation of Birds <sup>6</sup>
<b>2. Ecology - Select one course:</b>			
BIOL	330L	(5)	Natural History of Marine Invertebrates
BIOL	409	(5)	Sociobiology
BIOL	423	(3)	Marine Physiological Ecology
BIOL	433L	(5)	Marine Ecology
BIOL	448	(3)	Marine Algal Ecology
BIOL	471L	(5)	Plant Ecology
BIOL	472	(4)	Community Ecology

BIOL	473/474L	(3/5)	Limnology & Lab
BIOL	476L	(5)	Conservation Biology <sup>4</sup>
BIOL	477	(3)	Marine Conservation
BIOL	480L	(4)	Field Ecology
BIOL	481L	(5)	Experimental Evolutionary Ecology
<b>3. Evolution and Systematics – Select one course:</b>			
BIOL	317L	(5)	Plant Identification and Classification
BIOL/ GENOME	414	(5)	Molecular Evolution
BIOL	415	(3)	Evolution and Development
BIOL/ESS 452	450L	(4)	Vertebrate Paleontology
BIOL/ESS	451	(4)	Invertebrate Paleontology
BIOL	470	(4)	Biogeography
GENOME	453	(4)	Genetics of Evolutionary Process
<b>Electives- Remaining courses to total 31 elective credits may be selected from the lists above and the Natural History/Biodiversity list.</b>			
<b>Other 300 or 400 Biology courses may be used by petition (see a Biology adviser). <i>Continued on the next page</i></b>			
BIOL	354	(3)	Foundations in Evolution and Systematics
BIOL	356	(3)	Foundations in Ecology
BIOL	390	(1)	Undergraduate Internship Seminar
BIOL	399	(3-5)	Biology Internship Program
BIOL/PSYCH	406	(4)	Insect Behavior
BIOL	410L/418	(5/3)	Biological Clocks and Rhythms
BIOL/ESRM	424/478L	(3)	Plant Eco-Physiology
BIOL	425	(3)	Advanced Plant Physiology and Development
BIOL	453	(3)	Comparative Anatomy of Vertebrates
BIOL/PSYCH	458/414	(4)	Behavioral Genetics
BIOL	462	(3)	Advanced Animal Physiology <sup>1</sup>
BIOL	463L	(3)	Advanced Animal Physiology Lab <sup>1</sup>
BIOL	465	(3)	Comparative Endocrinology <sup>1</sup>
BIOL	466L	(2)	Comparative Endocrinology Lab <sup>1</sup>
BIOL	467	(3)	Comparative Animal Reproduction <sup>1</sup>
BIOL	468L	(3)	Comparative Animal Reproduction Lab <sup>1</sup>
BIOL	475	(3)	Animal Migration
BIOL	478	(3-9)	Topics in Sustainable Fisheries
BIOL	482	(2-5)	Advanced Experimental Evolutionary Ecology
BIOL	484	(1-3)	Sr. Seminar in Evolution and Systematics
BIOL	486	(1-3)	Sr. Seminar in Ecology
BIOL	487	(1-3)	Sr. Seminar in Conservation Biology
BIOL	489	(1-3)	Sr. Seminar in Plant Biology
BIOL	491	(1-2)	Special Topics for Biology Teachers
BIOL	492	(2)	Teaching Biology
BIOL	496	(5)	Peer TAs in Biology
BIOL	499	(4)	Independent Research
ANTH	458	(5)	Ethnobiology
ANTH	488	(5)	Agroecology
ATMS	211	(5)	Climate and Climate Change <sup>2</sup>
ATMS	321	(3)	Physical Climatology <sup>2</sup>
BIO A	387	(5)	Ecological Perspectives on Environmental Stress, Adaptation, & Health
BIOA	473	(5)	Biological Adaptability of Human Populations
BIOA	477	(3)	Evolutionary Perspectives on Sex & Gender Roles
BIOA	482	(5)	Human Population Genetics
BIOA	486	(3)	Primate Socioecology
ENV H	405	(3)	Toxic Chemicals and Human Health
ENV H	430	(3-5)	Methods in Environmental Sampling and Analysis
ENVIR/POL S	384	(5)	Global Environmental Politics
ENVIR/ANTH	459	(5)	Culture, Ecology and Politics
ESRM	250	(5)	Intro to Geographic Info. Systems in Forest Resources <sup>3</sup>
ESRM	435	(3)	Forest Entomology
ESRM	452	(3)	Field Ornithology
ESRM	458	(5)	Management of Endangered, Threatened, and Sensitive Species
ESRM	459	(3)	Wildlife Conservation in NW Ecosystems

ESRM	465	(3)	Economics of Conservation
ESRM	470	(5)	Natural Resource Policy and Planning
ESRM	472	(5)	Wetland Ecology Management
ESRM	473	(5)	Principles of Ecological Restoration
ESRM	475	(5)	Wetland Ecology Management
ESRM	477	(5)	Wetland Restoration
ESRM	411L	(4)	Forest Soil Microbiology
ESRM	436L	(2)	Forest Entomology Lab
ESRM	441L	(5)	Landscape Ecology
ESS	201	(5)	The Earth System and Climate
ESS	210	(5)	Physical Geology <sup>5</sup>
ESS	211	(5)	Physical Processes of the Earth <sup>5</sup>
ESS	315	(5)	Environmental Earth Science
FISH	323	(5)	Conservation and Mgmt. of Aquatic Resources
FISH	428	(5)	Restoration of Fish Communities & Habitats
FISH	430	(3-5)	Biological Problems of Water Pollution
FISH	434	(3/5)	Ecological Effects of Waste Water
FISH	439	(1-3)	Attaining a Sustainable Society
FISH	444	(5)	Conservation Genetics
FISH	447	(3)	Watershed Ecology and Management
FISH	453	(3)	Spatial Information Technologies in Ecosystem Science <sup>3</sup>
FISH	454	(3)	Aquatic Wildlife Ecology
FISH	455	(3-5)	Fish and Wildlife Toxicology
FISH	456	(4)	Fund. of Fish Population Dynamics/Management
FISH	480	(3)	Marine Resource Conservation & Management
FISH	434L	(3/5)	Ecological Effects of Waste Water
FISH	444L	(5)	Conservation Genetics
FISH/MICROM	490	(3-5)	Aquatic Microbiology
GEOG	460	(5)	Geographic Information Systems Analysis
GEOG	480	(5)	Environmental Geography, Climate & Health
MICROM	435	(3)	Microbial Ecology
POL S	383	(5)	Environmental Politics & Policy in the US
PSYCH	416	(5)	Animal Communication
PSYCH	418	(5)	Primate Social Behavior
PSYCH	419L	(5-10)	Behavioral Studies of Zoo Animals
QSCI	477	(5)	Quantitative Wildlife Assessment
QSCI	483	(5)	Statistical Inference in Applied Research
QSCI	486	(3)	Experimental Design

<sup>1</sup> Labs are separate from lecture and not required. When taken, combination counts as one course.

<sup>2</sup> Only 1 of ATMS 211 or 321 counts toward the major.

<sup>3</sup> Only 1 of ESRM 250/FISH 453 counts toward the major.

<sup>4</sup> Only 1 of BIOL 444, ESRM 456, or ZOOI. 464 counts toward the major.

<sup>5</sup> Only one of ESS 210 or 211 counts toward the major.

<sup>6</sup> May only count towards NH/Biodiversity QR Conservation requirement

#### Notes:

- **Many of the elective courses have pre-requisite courses; in planning your course selection, be sure to include the necessary pre-requisites!**
- **Undergraduate Research:** Ten credits is the maximum number of Undergraduate Research credits that can be used as Upper Division Electives. Any 499 credit other than BIOL may be approved; however it will require a Research Approval Form. Four of these 10 credits may be used to fulfill one of the 2 lab requirements provided a minimum of 4 credits are completed on the same project.
- Courses listed in more than one category can only count for one requirement.

(FHL) = indicates course taught at Friday Harbor Labs.



# INTERDEPARTMENTAL

May 7, 2008

To: UW Curriculum Office  
Box 355850

From: Biology Curriculum Committee  
Dee Boersma, Chair  
Box 351800

Re: Response to comments on our proposed Ecology, Evolution, and Conservation Biology major

We would like to respond to the posted comments concerning our proposed merger of two of our majors into one new one, entitled Ecology, Evolution and Conservation Biology:

1. John Mittler generally likes the proposal but suggests that BIOL 354 and 356 be required courses. These were initially required several years ago. The Biology Department performed an exhaustive review of the four 300-level 'core courses' (BIOL 350, 354, 355, 356) a year ago and concluded that they should NOT be required because this did not work well for our undergraduates. Because of the large demand it created, we could not provide enough spaces in a timely manner to accommodate all students needing these courses, and backlogs were beginning to show up. Furthermore, many of our faculty (and students) strongly prefer that students move directly into more specialized 400-level courses without going through a 300-level course first, so that they can fit in more of these advanced courses. Many undergrads benefit more from this approach than from requiring all of them to go through a 300-level course first, though that remains an option for those that choose it. The purposefully somewhat 'diffuse' nature of the major allows for greater flexibility, so that students can go in a number of different directions, as their interests carry them.

2. We understand and agree with Erica Cline's comment about the importance of statistics. This is a concern that many of our faculty share and one of our goals for next year is to examine how requiring statistics might affect all of our degrees. There is a high probability that we will be moving in this direction for all, or at least many, of our degrees in the near future, but we want to take the time to systematically consider the best way to do this and its impact rather than adding that requirement into this one degree now.

3. We are a bit confused by John Marzluff's objection to a new conservation Biology degree. What we are proposing is not new or an addition to existing conservation Biology programs; we are merely merging two already approved degrees, one of which included Conservation Biology, into one more flexible major.

We hope that this helps clarify any questions, but would be happy to respond if there are further concerns.

## **Option in Conservation, Ecology, and Evolution (BIOL-20071127) Tri-Campus Review Comments:**

**Comment by John Mittler made 4/15/2008 12:44:48 PM**

I fully support the idea of creating an option in ecology, evolution, and conservation.

One limitation of the current proposal is that it is very diffuse. I think it is important that graduates of this program have a firm understanding of core principles in ecology and evolution. This could be ensured by making Biology 354 (Foundations in Evolution and Systematics) and Biology 356 (Foundations in Ecology) required courses.

**Comment by Erica Cline made 4/15/2008 3:02:35 PM**

I like the stated emphasis in the introduction on computational and analytic skills, but if I read it correctly it would be possible to complete the major without taking a statistics course. I would suggest having a statistics class be required as one of the prerequisites (i.e., not just one of the options within mathematics) and/or an upper division requirement (not just as an option within the electives). It might be possible to require one quarter of calculus and one quarter of stats, or perhaps keep the two quarter calculus requirement, and substitute only one quarter of physics instead of two.

**Comment by John Marzluff made 4/21/2008 3:21:47 PM**

I do not agree with creating this option as currently formulated. I have no problem with a curriculum in ecology and evolution, but I do not think that conservation should be included at this time. This is for two reasons. First the current conservation classes are primarily BIOL classes. A conservation biologist needs more classes from the social sciences and a broader perspective on conservation that is apparent in these classes. A greater requirement to take classes in social science as well as to take key conservation classes in fisheries and forestry is needed. This would also reduce duplication of classes that currently exists across these programs. More importantly, and secondly, the conservation focus of this proposal would be better served in the new College of the Environment. Having Biology faculty participate in that college to offer a truly interdisciplinary conservation option would be excellent. Until the COE proposal is finalized, I would not support additional conservation options being developed at UW Seattle.

**UNIVERSITY CAMPUSES UNDERGRADUATE PROGRAM REVIEW PROCEDURES\*\***

**CHECKLIST**

Title of Proposal: Option in Ecology, Evolution, and Conservation (BIOL-20071127)

Proposed by (unit name): Biology

Originating Campus:

  X   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: (list name of program review body)

Chaired by:

03/07/08 Date proposal received by originating campus's review body

03/10/08 Date proposal sent to University Registrar

03/10/08 Date proposal posted & email sent to standard notification list

05/16/08 Date of originating campus's curriculum body approval

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

B.   3   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:

6/5/08 FCTCP subcommittee

6/5/08 FCTCP full council

Chaired by: Janet Primomo

5/27/08 Date request for review received from University Registrar

6/5/08 Date of FCTCP report

B. Review (attached)

YES NO

  x        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: At its meeting on June 5, 2008, the full FCTCP completed the Phase II review of this proposal. The Council noted that all procedures were followed.

The FCTCP is pleased to have the Registrar forward the final proposal to the President for final action and transmit the information to the Dean. Thank you.

Janet Primomo, Chair, FCTCP

#### 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