



UNIVERSITY OF WASHINGTON

OFFICE OF THE PRESIDENT

Mark A. Emmert, President

January 24, 2006

Dean David C. Hodge
College of Arts and Sciences
Box 353765

Dear David:

Based on the recommendation of its Subcommittee on Admissions and Programs, the Faculty Council on Academic Standards has recommended approval of the Environmental Earth Sciences option for a Bachelor of Science degree within the existing major in Earth and Space Sciences. A copy of the change is attached.

I am writing to inform you that the Department of Earth and Space Sciences is authorized to specify these requirements beginning winter quarter 2006

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: Professor Robert Winglee (with enclosure)
Mr. Robert Corbett (with enclosure)
Dr. Deborah Wiegand (with enclosure)
Mr. Todd Milton, J.D. (with enclosure ESS-050822)



ESS - 082205

Creating & Changing Undergraduate Academic Programs*

After college/school review, send signed original and 8 copies to: FCAS, Box 351271

College: Arts & Sciences Department or Unit: Earth and Space Sciences Date: Aug. 22, 2005

New Programs

- Leading to a Bachelor of _____ in _____ degree
- Leading to a Bachelor of _____ degree with a major in _____
- X Leading to a Environmental Earth Sciences Option *within the existing major in Earth and Space Sciences*
- 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 _____

Proposed Effective Date: (quarter/year) Fall 2005

Contact Person	Phone Number	Email
Robert Winglee, Chair	543-1190	winglee@ess.washington.edu

1. Explanation of and Rationale for Proposed Change: (Please use additional pages if necessary. For new programs, please include any relevant supporting documentation such as student learning outcomes, projected enrollments, letters of support, and departmental handouts.)

The Department of Earth and Space Sciences has a strongly interdisciplinary faculty, and the interests of our majors are correspondingly diverse. Many of our students come to our department with an expressed interest in the environment, but at present there is no clearly-defined set of courses that correspond to a degree in "environmental earth sciences". Existing options emphasizing 1) traditional geological sciences, 2) geobiology, and 3) geophysics. These options leave too little time for environment-related classes for those students whose particular interest is either in applied geosciences (e.g. geotechnical work, remote sensing, environmental quality) or who plan to go on to graduate school in any of various interdisciplinary fields (e.g. studies of climate, marine geology, biogeochemistry). The new option in Environmental Earth Sciences provides for these students by replacing some required classes from traditional geology with other, more interdisciplinary and environment-oriented classes. It also requires a statistics course in place of one quarter of physics, and places greater emphasis on geochemistry and geomorphology, which are the cornerstones of this field.

Creating & Changing Undergraduate Academic Programs

2. Catalog Copy

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.*)

1. *Science Core (35 Credits):*

- a. *Basic Supporting Science (20 credits):* MATH 124, MATH 125 or equivalent; PHYS 114/PHYS 117 or PHYS 121; CHEM 142. (Students wishing to pursue the ESS Physics Option must take PHYS 121.)
- b. *ESS Required Core Courses (15 credits):* ESS 211, ESS 212, ESS 213. (Students in the ESS Physics Option may substitute ESS 205 for one of these.)

2. *ESS Options (55 Credits):*

a. *Standard Option.*

- i. *Supporting science (13-15 credits):* MATH 126 or equivalent; PHYS 115/PHYS 118 or PHYS 122; and one of PHYS 116/PHYS 119 or PHYS 123, CHEM 152, MATH 307, MATH 308, STAT 311.
- ii. *ESS required (22 credits):* Two of ESS 311, ESS 312, ESS 313, ESS 314; ESS 400 or equivalent field/experiential component.
- iii. *ESS electives (18-20 credits):* ESS 400-level courses or any ESS 311-series course not taken as a required course, above. (May not include independent study or seminar courses numbered 490 through 499.)

b. *Biology Option.*

- i. *Supporting science (21 credits):* CHEM 152, CHEM 162 or equivalent; BIOL 180, BIOL 200 (or two from BIOL 201, BIOL 202, BIOL 203); MATH 126 recommended but not required.
- ii. *ESS required (22 credits):* Two of ESS 311, ESS 312, ESS 313, ESS 314; ESS 400 or equivalent field/experiential component.
- iii. *ESS electives (12 credits):* ESS 400-level courses or any ESS 311-series course not taken as a required course, above. (May not include independent study or seminar courses numbered 490 through 499.)

c. *Environmental Earth Sciences Option*

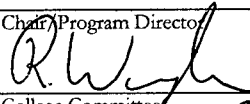

- i. *Supporting science (10 credits):* STAT 311 or QSCI 381, CHEM 152 or CHEM 220.
- ii. *ESS required (35 to 37 credits):* ESS 201; one of ESS 311, ESS 312, ESS 313, ESS 314; ESS 326; two from ESS 315, ESS 421, ESS 426, ESS 427, ESS 455, ESS 456, ESS 459; ESS 400 or equivalent field/experiential component.
- iii. *Electives (10 credits):* Additional courses chosen from any ESS 311-series course not taken as a required course above, ESS 400-level courses, or from an approved list of courses outside of ESS.



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d. *Physics Option.*

- i. *Supporting science (32-35 credits):* MATH 126, MATH 308, MATH 324 or MATH 136, MATH 324; PHYS 122, PHYS 123, PHYS 227, PHYS 228, PHYS 321, PHYS 322.
- ii. *ESS required (5 credits):* One of ESS 311, ESS 312, ESS 313, ESS 314.
- iii. *ESS electives (15-18 credits):* ESS 400-level courses or any ESS 311-series course not taken as a required course, above. (May not include independent study or seminar courses numbered 490 through 499.)

3. Signatures (required)

Chair/Program Director 	Date 8/23/05	Dean Ronald L. Swings	Date SEP 23 2005
College Committee 	Date SEP 23 2005	Faculty Council on Academic Standards APPROVED, WAITING FOR TRI-CAMPUS REVIEW	Date 10-21-05


 APPROVED AFTER TRICAMPUS REVIEW
 12-16-05