November 21, 2005

MEMORANDUM

TO: Cheng-i Wei  
Dean, College of Agriculture and Natural Resources

FROM: Phyllis Peres  
Associate Provost for Academic Planning and Programs

SUBJECT: Proposal to Add a Minor in Soil Science (PCC Log No. 05013)

At its meeting on November 18, 2005, the Senate Committee on Programs, Curricula, and Courses approved your proposal to add a Minor in Soil Science. A copy of the approved proposal is enclosed.

The changes are effective in Spring 2006. All advisors should be notified and the College should ensure that the approved guidelines are followed.

/cwr

Enclosure

cc: James Baeder, Chair, Senate PCC  
Sarah Bauder, Office of Student Financial Aid  
Mary Giles, University Senate  
Barbara Hope, Data Administration  
Kathy McAdams, Undergraduate Studies  
Anne Turkos, Archives  
Linda Yokoi, Records & Registrations  
John Doerr, Agriculture & Natural Resources  
Christopher Walsh, Agriculture & Natural Resources
DIRECTIONS:
- Provide one form with original approval signatures in lines 1 - 4 for each proposed action. Keep this form to one page in length.
- Early consultation with the Office of the Associate Provost for Academic Planning & Programs is strongly recommended if there are questions or concerns, particularly with new programs.
- Please submit the signed form to Claudia Reector, Office of the Associate Provost for Academic Planning and Programs, 1119 Main Administration Building, Campus.
- Please email the rest of the proposal as an MSWord attachment to pcc-submissions@umd.edu.

DATE SUBMITTED: October 31, 2005

COLLEGE/SCHOOL: AGNR

DEPARTMENT/PROGRAM: NRSL/Minor in Soil Science

PROPOSED ACTION (A separate form for each) ADD X DELETE _____ CHANGE _____

DESCRIPTION (Provide a succinct account of the proposed action. Details should be provided in an attachment. Provide old and new sample programs for curriculum changes.)

This minor will provide students with a sophisticated understanding of the soil resource, its development, characteristics, and principles for its use and management. Building on a basic introduction to the broad field of soil science, the program is completed by adding four or five upper division soils courses balanced between underlying principles and field applications.

JUSTIFICATION/REASONS/RESOURCES (Briefly explain the reason for the proposed action. Identify the source of new resources that may be required. Details should be provided in an attachment.)

This minor is particularly relevant to students majoring in Agricultural and Resource Economics, Geology, Geography, Environmental Science and Policy, Biology, Biochemistry, Chemistry, Anthropology, Architecture, Agriculture Science and Technology, Horticulture and Crop Production, Animal Science, Landscape Architecture, Parks and Planning, Biological Resources Engineering, Civil Engineering, and Environmental Engineering. Offering a minor in this discipline will enable students in the above majors to take advantage of the many career opportunities in soil science.

No additional faculty or staff resources are required for this minor.

=======================================================================================================================================================================

APPROVAL SIGNATURES

1. Department Committee Chair

2. Department Chair

3. College/School PCC Chair

4. Dean

5. Dean of the Graduate School (if required)

6. Chair, Senate PCC

7. Chair of Senate

8. Vice President for Academic Affairs & Provost

DATE

10/31/05

10/31/05

11/5/05

11-18-05

11-21-05

VPAAP 8-05
Proposed Minor in Soil Science

Description:

This minor will provide students with a sophisticated understanding of the soil resource, its development, characteristics, and principles for its use and management. Building on a basic introduction to the broad field of soil science, the program is completed by adding four or five upper division soils courses balanced between underlying principles and field applications.

All courses presented for the minor must be passed with a grade of C or better.

Declared majors in the Conservation of Soil Water and Environment Area of Concentration of NRSC or the Land and Water option in ENSP may not also minor in Soil Science.

Primary Sponsoring Unit:

Department of Natural Resource Sciences and Landscape Architecture (NRSL)

Faculty coordination of the minor:
Undergraduate Coordinator (Dr. Chris Walsh)
Soil Science Advisors (Dr. Ray Weil, Dr. Robert Hill)

Advising system for the minor:
The NRSL Department has mandatory faculty advising for each of its major and minor programs. Students are required to meet with their faculty advisor at least twice a year.

Curriculum:

NRSC 200 Fundamentals of Soil Science
Prerequisites: CHEM 131/132 (formerly CHEM103)
Credits: 4

Select 13 credits from the ten courses listed below. At least two courses must be from Group A.

Group A – Underlying Principles

NRSC 411 Principles of Soil Fertility
Prerequisites: NRSC 200 or equivalent
Credits: 3

NRSC 414 Soil Morphology, Genesis and Classification
Prerequisites: NRSC 200
Credits: 4

NRSC 417 Soil Hydrology and Physics
Prerequisites: NRSC 200 and a physics course
Credits: 3
NRSC 421 Soil Chemistry  
Prerequisites: NRSC 200  
Credits: 4

NRSC 422 Soil Microbiology  
Prerequisites: NRSC 200 and CHEM 104 or permission of department  
Credits: 3

Group B - Applications

NRSC 308 Field Soil Morphology  
Prerequisites: Permission of department  
Credits: 1

NRSC 413 Soil and Water Conservation  
Prerequisites: NRSC 200  
Credits: 3

NRSC 415 GIS Applications in Soil Science  
Prerequisites: NRSC 200  
Credits: 4

NRSC 423 Soil-Water Pollution  
Prerequisites: NRSC 200 and CHEM 104 or permission of department  
Credits: 3

NRSC 461 Wetland Soils  
Prerequisites: NRSC 200  
Credits: 3

Total Credits: A minimum of 17 credits is required to complete this minor.

Students attempting this minor will need a strong background in Chemistry and Math. There are a total of 17 required credits in NRSC classes, plus a 4 credit chemistry prerequisite. Depending on the pre-requisites needed and the optional courses selected and pre-requisites, students will take between 17 and 24 credits.

Target Population:

This minor is particularly relevant to students majoring in Agricultural and Resource Economics, Geology, Geography, Environmental Science and Policy, Biology, Biochemistry, Chemistry, Anthropology, Architecture, Agriculture Science and Technology, Horticulture and Crop Production, Animal Science, Landscape Architecture, Parks and Planning, Biological Resource Engineering, Civil Engineering, and Environmental Engineering.