April 23, 2008

MEMORANDUM

TO: Stephen Halperin
       Dean, College of Computer, Mathematical and Physical Sciences

FROM: Phyllis Peress
       Associate Provost for Academic Planning and Programs

SUBJECT: Proposal to modify the Minor in Earth Material Properties (PCC log no. 07070)

Your proposal to modify the curriculum of the Minor in Earth Material Properties has been administratively approved. A copy of the approved proposal is attached.

The changes are effective Fall 2008. The College should ensure that the changes are fully described in the Undergraduate Catalog and in all relevant descriptive materials, and that all advisors are informed.

CWR/

Enclosure

cc: Carmen Balthrop, Chair, Senate PCC Committee
    Sarah Bauder, Office of Student Financial Aid
    Laura Slavin, University Senate
    Barbara Hope, Data Administration
    Denise Nadasen, Institutional Research & Planning
    Anne Turkos, Archives
    Linda Yokoi, Office of the Registrar
    Scott Wolpert, Undergraduate Studies
    David Lay, College of Computer, Mathematical and Physical Sciences
DATE SUBMITTED: 3/8/2008

COLLEGE/SCHOOL: CMPS

DEPARTMENT/PROGRAM: GEOL

PROPOSED ACTION (A separate form for each) ADD____ DELETE____ CHANGE_X__

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 is a proposal for a change to the Minor in Earth Material Properties. See attached.

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.)

To reflect the Department of Geology's growing research effort in geophysics through the incorporation of GEOL446 – Introduction to Geophysics in the list of optional courses and to extend the Department's commitment to undergraduate research to the Earth Material Properties Minor by the incorporation of GEOL499 – Special Problems in Geology to the list of its optional courses. See attached.

APPROVAL SIGNATURES

1. Department Committee Chair
   [Signature]  John Smith  3/8/08

2. Department Chair
   [Signature]  David C. Lee  3/6/08

3. College/School PCC Chair
   [Signature]  David C. Lee  4/8/08

4. Dean
   [Signature]  David C. Lee  4/8/08

5. Dean of the Graduate School (if required)
   [Signature]  [Signature]  4/8/08

6. Chair, Senate PCC
   [Signature]  4/8/08

7. Chair of Senate
   [Signature]  4/23/08

8. Vice President for Academic Affairs & Provost
   [Signature]  4/23/08

VPAAP Rev. 3/1/04
Proposal for a change in the Minor in Earth Material Properties

1. This is a proposal to change an existing minor.

2. Catalog Description is unchanged.

Courses currently required for the minor are:

Required:

- One of the following:
  - GEOL 100/110 Physical Geology/Physical Geology (4)
  - GEOL 120/110 Environmental Geology/Physical Geology Lab (4)
- GEOL 322 Mineralogy (4)

In addition, the student must choose two from the following:

- GEOL 341 Structural Geology (4)
- GEOL 423 Optical Mineralogy (3)
- GEOL 443 Petrology (4)
- GEOL 445 Principles of Geochemistry (3)

Courses to be required for the minor under the proposed revision are:

Required:

One of the following:

- GEOL 100/110 Physical Geology/Physical Geology (4)
- GEOL 120/110 Environmental Geology/Physical Geology Lab (4)
- GEOL 322 Mineralogy (4)

In addition, the student must choose two from the following:

- GEOL 341 Structural Geology (4)
- GEOL 423 Optical Mineralogy (3)
- GEOL 443 Petrology (4)
- GEOL 445 High Temperature Geochemistry (3)
- GEOL 446 Introduction to Geophysics (3)
- GEOL 499 Special Problems in Geology (3 cr. Letter grade only)

3. This proposal incorporates two changes:

- Since 2005, Geology has significantly expanded its research presence in geophysics, with the addition of four new research faculty specializing in that field. Geology seeks to enhance its undergraduate curriculum with contributions from this growing research emphasis. Geophysical methods are of paramount importance in the illumination of deep-
Earth geodynamic processes, making their exclusion from this minor a conspicuous lacuna. Geology therefore proposes the inclusion of GEOL446 – Introduction to Geophysics in the Earth Material Properties Minor.

• In its major tracks, the Geology Department maintains the highest possible commitment to the undergraduate research experience, fostering the development of its majors into high-caliber scientific researchers through its required two-semester senior research track (GEOL393 and GEOL394). Geology now seeks to extend this commitment and opportunity to its minors by giving them access to opportunities for independent study/research under faculty supervision. To this end, we propose the inclusion of the three-credit option of GEOL499 – Special Problems in Geology, among optional courses for each minor track, including Earth Material Properties.