MEMORANDUM

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

FROM: Phyllis Peres
    Associate Provost for Academic Planning and Programs

SUBJECT: Proposal to modify the B.S. in Geology – Professional Track (PCC log no. 06034)

In its meeting on February 2, the Senate PCC Committee approved your proposal to modify the Professional track of the B.S. in Geology. A copy of the approved proposal is enclosed.

The changes are effective for Fall 2007. The College should ensure that the change is fully described in the Undergraduate Catalog and in all relevant descriptive materials, and that all advisors are informed.

CWR/

Enclosure

cc: Richard Ellis, Chair, Senate PCC Committee
    Sarah Bauder, Office of Student Financial Aid
    Mary Giles, University Senate
    Barbara Hope, Data Administration
    Anne Turkos, Archives
    Linda Yokoi, Office of the Registrar
    Kathy McAdams, Undergraduate Studies
    David Lay, College of Computer, Mathematical and Physical Sciences
    John Merck, Department of Geology
THE UNIVERSITY OF MARYLAND, COLLEGE PARK
PROGRAM/CURRICULUM PROPOSAL

DIRECTIONS: Provide one form with original approval signatures in lines 1 - 4 for each proposed action. Keep this form to one-page in length. Forms and appropriate attachments should be submitted to the Office of Academic Affairs, who will assign a Log Number to each proposal. Also submit an electronic version of as much of the proposal as is possible.

DATE SUBMITTED 11/03/06

PCC LOG NO. 06034

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 an alteration of the supporting course requirements for the major in Geology, Professional Track. 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.)

The Geology Professional Track major currently requires between CHEM 135/136 (Chemistry for Engineers and lab) as a supporting requirement. To facilitate the acquisition of fundamental supporting instruction in Chemistry by Geology majors, we propose to allow a choice between CHEM 135/136 and CHEM 131/132 (Fundamentals of General Chemistry and lab). This change requires no additional resources. See attached.

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

VPAAP Rev. 3/1/04
Geology Major, Professional Track

1. This is a proposal to alter requirements for an existing major.

2. The Catalog Description is unchanged. The proposed program follows. See table below for summary.

• Geology Courses
  One of the following:
  - GEOL 100/110—Physical Geology and Laboratory
  - GEOL 120/110—Environmental Geology and Lab
  - GEOL 102—Historical Geology
  - GEOL 322—Mineralogy
  - GEOL 340—Geomorphology
  - GEOL 341—Structural Geology
  - GEOL 342—Stratigraphy and Sedimentation
  - GEOL 393—Technical Writing
  - GEOL 394—Research Problems
  One of the following:
  - GEOL 444—Low-Temperature Geochemistry
  - GEOL 445—High-Temperature Geochemistry
  One of the following:
  - GEOL 446—Geophysics
  - GEOL 472—Tectonics
  - GEOL 451—Groundwater
  - GEOL 423—Optical Mineralogy
  - GEOL 443—Petrology
  - GEOL 490—Field Camp

• Supporting Courses
  One of the following
  - CHEM 131—Fundamentals of General Chemistry and CHEM 132—
    Fundamentals of General Chemistry Laboratory (4)
  - CHEM 135—Chemistry for Engineers and CHEM 136—Chemistry for
    Engineers Laboratory (4)
  - MATH 140—Calculus I
  - MATH 141—Calculus II
  - PHYS 141—General Physics
  One of the following
  - PHYS 142—General Physics
  - BIOM 301—Introduction to Biometrics
  Any of GEOL 444, GEOL 445, GEOL 446 or GEOL 472 not already
  completed to meet the requirements above or any other 300 or 400 level
  Geology course not listed above

As an initial accommodation of changes in Chemistry's curriculum that became effective in 2005 whereby CHEM 103 (Chemistry I) was phased out, Geology opted to require
CHEM135/136 (Chemistry for engineers and its lab), a course with a proven track record, in place of the newly introduced CHEM131/132 (Fundamentals of General Chemistry and lab). Now that CHEM131/132 has been offered for over a year, and Geology faculty have had the opportunity to review its content, it is clear that it also offers an adequate preparation for Chemistry intensive Geology courses. Additionally, requiring CHEM 135/6 of all Geology majors imposes significant constraints on student schedules and places a noticeable seats burden on Chemistry. Geology, thus, proposes to allow majors to satisfy a supporting requirement in Chemistry by taking either CHEM 135/136 or CHEM 131 (Fundamentals of General Chemistry) and CHEM 132 (Fundamentals of General Chemistry lab).

3. Resources: Currently 37 sections of CHEM131 are taught annually, as opposed to 12 of CHEM135. Since the numbers of Geology majors taking either course per semester is typically less than ten, the proposed change will require no additional resources. Indeed, it should free up seats in CHEM 135/6.
### Summary Table

<table>
<thead>
<tr>
<th>Current program</th>
<th>Proposed program</th>
<th>Rationale for changes</th>
</tr>
</thead>
</table>
| One of the following:  
  • GEOL 100/110  
  • GEOL 120/110 | One of the following:  
  • GEOL 100/110  
  • GEOL 120/110 | No change |
| GEOL 102 | GEOL 102 | No change |
| GEOL 322 | GEOL 322 | No change |
| GEOL 340 | GEOL 340 | No change |
| GEOL 341 | GEOL 341 | No change |
| GEOL 342 | GEOL 342 | No change |
| GEOL 393 | GEOL 393 | No change |
| GEOL 394 | GEOL 394 | No change |
| One of the following:  
  • GEOL 444  
  • GEOL 445 | One of the following:  
  • GEOL 444  
  • GEOL 445 | No change |
| One of the following:  
  • GEOL 446  
  • GEOL 472 | One of the following:  
  • GEOL 446  
  • GEOL 472 | No change |
| GEOL 451 | GEOL 451 | No change |
| GEOL 423 | GEOL 423 | No change |
| GEOL 443 | GEOL 443 | No change |
| GEOL 490 | GEOL 490 | No change |
| CHEM 135 and CHEM 136 | One of the following  
  • CHEM 131 and  
  CHEM 132  
  • CHEM 135 and  
  CHEM 136 | See explanation above. |
| MATH 140 | MATH 140 | No change |
| MATH 141 | MATH 141 | No change |
| PHYS 141 | PHYS 141 | No change |
| One of the following  
  • PHYS 142  
  • BIOM 301  
  • Any of GEOL-444,  
  GEOL 445, GEOL 446  
  or GEOL 472 not  
  already completed to  
  meet the requirements  
  above or any other 300  
  or 400 level Geology  
  course not listed above | One of the following  
  • PHYS 142  
  • BIOM 301  
  • Any of GEOL-444,  
  GEOL 445, GEOL 446  
  or GEOL 472 not  
  already completed to  
  meet the requirements  
  above or any other 300  
  or 400 level Geology  
  course not listed above | No change |
Ritzie Coleman

From: John Merck [jmerck@wam.umd.edu]
Sent: Wednesday, November 15, 2006 3:49 PM
To: rcoleman@umd.edu
Subject: [Fwd: Re: Geology student and PCC proposal]

Ritzie:

I am forwarding the Chemistry undergrad director's blessing of Geology's PCC proposals for your records.

Ciao,

John Merck

-------- Original Message --------
Subject: Re: Geology student and PCC proposal
Date: Fri, 3 Nov 2006 11:57:31 -0500
From: Michael Montague-Smith <mpms@umd.edu>
To: John Merck <jmerck@wam.umd.edu>
References: <454B6FDE.4030002@wam.umd.edu>

Cathy will enter the permissions.

I have read through the chemistry related material in your proposal, and I have no objections to the Geology Department's plan to offer CHEM 131/132 as an option to your majors. The reasoning is objective and well stated.

have a good weekend,

mike
Michael F. Montague-Smith, Ph.D.
Director of Undergraduate Studies
Department of Chemistry and Biochemistry
Building 091
University of Maryland
College Park, MD 20742-2021
Voice: 301 405 1791
FAX: 301 314 9121

On Nov 3, 2006, at 11:35 AM **Nov3, John Merck wrote:

> Dear Michael:
> Hi. Two things:
> " I'm attaching a copy of the PCC proposal that I am submitting to
> CMPS to change the Geology Chemistry requirements, as we discussed

11/30/2006
earlier. Please let me know if it presents any problems.

"I have three Geology majors who plan to register for CHEM135/6 this Spring. (Pending approval of the proposal, I'm planning for the worst-case scenario.) Their names are:

Heyfa Khenissi (108852662)
Jill Gribbin (108333024)
Jodi Gaeman (108262966)

Please allow them to enroll.

Thanks.

Ciao,

John Merck