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 curriculum in the Minor in Hydrology  
(PCC log no. 05024)

At its meeting on February 17, the Senate Committee on Programs, Curricula, and Courses approved your proposal to modify the curriculum of the Minor in Hydrology. A copy of the approved proposal is enclosed.

The changes are effective in Fall 2006. The College should ensure that the new requirements are fully described in the Undergraduate Catalog and in all relevant descriptive materials, and that all advisors are informed.

/cwr
Enclosure

cc: James Baeder, Chair, Senate PCC  
    Sarah Bauder, Student Financial Aid  
    Mary Giles, University Senate  
    Barbara Hope, Data Administration  
    Anne Turkos, Archives  
    Linda Yokoi, Records & Registrations  
    Kathy McAdams, Undergraduate Studies  
    Deborah Reid Bryant, College of Computer, Mathematical and Physical Sciences
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: 4/12/2004

COLLEGE/SCHOOL: CMPS

DEPARTMENT/PROGRAM: GEOL

PROPOSED ACTION (A separate form for each) ADD ___ 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 is a proposal for a change to the Minor in Hydrology. 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 changes in the department of Geology's course offerings in geochemistry. See attached.

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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

11/22/05
11/22/05
11/30/05
1/17/06
2/20/06

VPAAP Rev. 3/1/04
Proposal to Modify the Curriculum in the Minor in Hydrology

This proposal to modify the curriculum in the Minor in Hydrology responds to ongoing changes in the Chemistry Department's undergraduate curriculum.

In Fall, 2005, GEOL445 - Principles of Geochemistry was divided into two courses: GEOL445 - High Temperature Geochemistry, and GEOL444 - Low Temperature Geochemistry (a new course). Previously, GEOL445 - Principles of Geochemistry had been an optional course in the Hydrology Minor. Its new emphasis on high-temperature processes makes it much less appropriate for these students. Instead, Geology proposes the substitution of the new GEOL444 - Low Temperature Geochemistry, which specifically addresses chemical processes associated with the interaction of water and the solid Earth.

### Current Requirements

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<td>One of the following:</td>
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<td>• GEOL 100/110 Physical Geology (4)</td>
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<tr>
<td>• GEOL 120/110 Environmental Geology (4)</td>
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<tr>
<td>GEOL 322 Mineralogy (4)</td>
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<td>Prerequisites:</td>
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<td>GEOL 100 or 120, GEOL110, and one of the following: CHEM 131 and 132, CHEM 135 and 136, or CHEM 103</td>
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<tr>
<td>GEOL 342 Sedimentation and Stratigraphy (4)</td>
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<td>Prerequisites: GEOL 100 or 120, GEOL110, and GEOL 322, and one of the following: CHEM 131 and 132, CHEM 135 and 136, or CHEM 103</td>
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In addition, the student must choose two from the following:

- GEOL 436 Biogeochemistry (3)  
  Prerequisites: MATH 140 or 220, GEOL 100 or 120, GEOL 322, and one of the following: CHEM 131 and 132, CHEM 135 and 136, or CHEM 103
- GEOL 445 Principles of Geochemistry (3)  
  Prerequisites: GEOL 100 or 120, GEOL110, GEOL 322, and one of the following: CHEM 131 and 132, CHEM 135 and 136, or CHEM 103
- GEOL 451 Groundwater (3)  
  Prerequisites: MATH 140, GEOL 100 or 120, GEOL110, and one of the following: CHEM 131 and 132, CHEM 135 and 136, or CHEM 103
- GEOL 452 Watershed and Wetland Hydrology (3)  
  Prerequisite: permission of the department

### Proposed Requirements

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- GEOL 436 Biogeochemistry (3)  
  Prerequisites: MATH 140 or 220, GEOL 100 or 120, GEOL 322, and one of the following: CHEM 131 and 132, CHEM 135 and 136, or CHEM 103
- **GEOL 444 Low-Temperature Geochemistry (4)**  
  Prerequisites: CHEM103 or CHEM135 and CHEM136, MATH115, GEOL100, GEOL322
- GEOL 451 Groundwater (3)  
  Prerequisites: MATH 140, GEOL 100 or 120, GEOL110, and one of the following: CHEM 131 and 132, CHEM 135 and 136, or CHEM 103
- GEOL 452 Watershed and Wetland Hydrology (3)  
  Prerequisite: permission of the department