MEMORANDUM

TO: Jayanth Banavar
   Dean, College of Computer, Mathematical, & Natural Sciences

FROM: Elizabeth Beise
   Associate Provost for Academic Planning and Programs

SUBJECT: Proposal to Modify the Minor in Earth Material Properties (PCC log no. 13063)

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

The change is effective Fall 2014. Please ensure that the change is fully described in the Undergraduate Catalog and in all relevant descriptive materials.

MDC/

Enclosure

cc: Marilee Lindemann, Chair, Senate PCC Committee
    Barbara Gill, Office of Student Financial Aid
    Reka Montfort, University Senate
    Erin Howard, Division of Information Technology
    Pam Phillips, Institutional Research, Planning & Assessment
    Anne Turkos, University Archives
    Linda Yokoi, Office of the Registrar
    Doug Roberts, Undergraduate Studies
    Roberta Rudnick, Department of Geology
This is a proposal for the modification of the minor in Earth Materials Processes. See attached.

To bring Geology's minor in Earth Materials Processes up to date by inclusion of recently developed curriculum.
Proposal for changes to the Minor in Earth Materials Properties

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

2. Catalog Description is unchanged.

Courses currently required for the minor (those to be changed or eliminated in the revision in boldface):

Required:

• One of the following:
  GEOL 100/110 Physical Geology (4)
  GEOL 120/110 Environmental Geology (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 (4)
• **GEOL 446 Geophysics (3)**
• GEOL 499 Special Problems in Geology (3)

Proposed courses for the revised minor (new/changed requirements are boldfaced):

Required:

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

Plus three from:

GEOL 341 Structural Geology (4)
GEOL 423 Optical Mineralogy (4)
GEOL 443 Petrology (4)
GEOL 445 High Temperature Geochemistry (4)
One of the following:
  GEOL 456 Engineering Geology (3)
  GEOL 457 Seismology (3)
GEOL 499 Special Problems in Geology (3)

In 2004, Geology’s existing citation in Earth Materials Properties was converted into a minor. This minor focuses on the chemistry and physical properties of natural Earth materials – prerequisite knowledge for non-geology majors seeking to pursue research or
professional opportunities in planetary, environmental, or geotechnical sciences. Since 2004, however, Geology has significantly increased its range of course offerings and hired several new faculty members with relevant expertise. Consequently, we now propose revisions to four of our minors in order to bring them up to date with Geology’s current resources.

Specific changes to the Earth Materials Properties minor include:

- The elimination of GEOL446 – Geophysics from electives.
- The addition of GEOL456 – Engineering Geology, and GEOL457 – Seismology, both newer courses, to the elective list.

Both actions reflect Geology’s conviction that the latter two applications-oriented courses are more appropriate to the curriculum than Geophysics. In order to guarantee that minors obtain a broad scope of Earth Materials knowledge, we stipulate that only one of GEOL456 or GEOL457 may be applied to the minor. This is especially appropriate given that a separate minor in Geophysics is available. The proposed changes do not alter that course load or general prerequisites needed to complete the minor.