MEMORANDUM

TO: Kitty Lagareta
   Chairperson, Board of Regents

VIA: David McClain
     President

FROM: Rose Tseng
      Chancellor, University of Hawaiʻi at Hilo

SUBJECT: Change in Status from Provisional to Established for the Bachelor of Arts Degree in Geology at the University of Hawaiʻi at Hilo

SPECIFIC ACTION REQUESTED

It is requested that the Board of Regents approve the change of status from provisional to established for the Bachelor of Arts Degree in Geology at the University of Hawaiʻi at Hilo (UH Hilo).

RECOMMENDED EFFECTIVE DATE

Upon approval.

ADDITIONAL COST

The Bachelor of Arts Degree in Geology required no additional cost to implement and there will be no additional cost upon conversion to established status.

PURPOSE

The Bachelor of Arts Degree in Geology is in its fifth year and subject to approval or discontinuance under Board of Regents Policy 5-1 a.(3).

BACKGROUND

The Geology Department previously offered only a Bachelor of Science degree in Geology with strong mathematics and physics components, designed for students planning to pursue graduate degrees.
The Bachelor of Arts degree was added to attract students who plan to pursue teacher certification, scientific/technical writing, hydrology, technical earth science positions (volcano monitoring, environmental science, geographical information systems, surveying and geodesy) and other jobs that require only a Bachelors Degree. Graduates with the B.A. degree are also more likely to be retained in the local workforce. The degree was designed to be more flexible and allow students to tailor a degree combining a strong liberal arts background with rigorous science training. It supports the UH Hilo mission of using the Big Island as a living laboratory and of involving students in hands-on learning. It also makes the study of geology more accessible to more students by reducing somewhat the level of mathematics, broadening the number of interdisciplinary science courses, and increasing the number of elective hours. The Bachelor of Arts degree also encourages students to broaden their study of other sciences.

Curriculum: The requirements for the Bachelor of Arts in Geology may be summarized as follows:

- four foundation courses in geology (plus laboratory courses)
- one introductory course in either marine science or astronomy
- two upper division geology courses selected from subjects taught in traditional geology curriculum
- six upper-division elective courses in geology or closely related disciplines (two of these six may be selected from earth science courses in closely-related disciplines)
- a senior seminar series
- one course each in calculus, chemistry and physics (plus laboratory courses)

The required courses add up to 45 credits in geology and closely-related disciplines and 11 credits of supplementary (math, chemistry, and physics) courses. In comparison, the Bachelor of Science degree requires 42 credits in geology and 31 credits of supplementary courses. There have been no changes to the core curriculum for the Bachelor of Arts Degree in Geology since it was awarded provisional status by the Board of Regents.

Students in the B.S. program take several upper-division courses not required of students in the B.A. On the other hand, students working towards their Bachelor of Arts degree are able to take a larger number of courses in English, the Humanities, Social Sciences, and other Natural Sciences than in the Geology Bachelor of Science program. Such breadth is especially desirable in the education of teachers, technical positions, and other jobs in the local workforce that do not require going on to graduate school to obtain an advanced degree.
Resource Requirements: No additional resources have been required for implementation of the B.A. degree. The curriculum includes only existing courses and students in the B.A. may take fewer 400-level geology courses than those working for their B.S. degree if they choose to substitute science courses from other disciplines. Required lower-division courses in math, physics and chemistry are also required for other majors, but the relatively small numbers of geology majors will have only a modest impact on those courses. Having additional majors within upper division geology courses increases the cost effectiveness of these course offerings.

Student Enrollment, Graduation, and Employment: Enrollments in the Geology Program at UH Hilo have reached all time highs due in part to the implementation of the Geology B.A. degree option. In 2000-01, we had 17 majors and this has increased to 32 as of 2005-06 with nine of these having declared a Geology B.A. major. Likewise numbers of graduating Geology majors have increased from an average of four to five per year to an all time high of 11 in the 2005-06 year with three of these being Geology B.A. recipients. As time progresses, we anticipate an increased percentage of degrees being awarded to Geology B.A. students.

To date we have had five graduates from the Geology B.A. program, four of which are employed or in school and one is deceased. Out of the four graduates, two are employed in geotechnical positions on the Big Island and one of these, Kevan Kamibayashi, has a permanent position at the Hawaiian Volcano Observatory. We are particularly proud of Kevan’s achievements as the Geology Department faculty mentored him as a seventh grade Na Pua No‘eau student and he returned to follow his goal of working on the active volcanoes of the Big Island. The third student is currently enrolled in the UH Hilo Teacher Education Program. The only student not retained in the local workforce is currently working as a Geographic Information Specialist in the petroleum industry in Texas.

**ACTION RECOMMENDED**

It is recommended that the Board of Regents approve the change of status from provisional to established for the Bachelor of Arts Degree in Geology at the University of Hawai‘i at Hilo.

Attached are the Self-Study Program Review and Academic Program Cost and Revenues for the Bachelor of Arts Degree in Geology.

Attachments

C: Executive Administrator and Secretary of the Board