Brief History of Issue - why the issue is being considered:

The Department of Geology along with other cooperating programs (including: biology, chemistry, economics, geography and anthropology, philosophy and religious studies, mathematics, communication and journalism, and watershed) is proposing three new certificates (~18 credits /certificate) aimed at providing students with opportunities to augment other degree programs with an emphasis toward enhancing employment or graduate school opportunities in the broad area of earth resources. Wisconsin employers including: environmental engineering firms, mining companies, and state and federal regulatory agencies have collectively asked the university to more broadly train our graduates providing future employees with additional expertise in professional communications, environmental policy, statistics, and geographic information systems (GIS). These certificates also include coursework emphasizing strategies for effectively minimizing environmental damage and/or remediating sites damaged by human activity associated with earth resource development. The Department of Geology is proposing three certificates to address this need.

A. Certificate in Water Resources: Departments of Geology, Biology, Chemistry, Economics, Geography and Anthropology, Philosophy and Religious Studies, and Watershed. This certificate is targeted toward STEM majors interested in professional careers or in graduate school dealing with water resource issues.

B. Certificate in Responsible Mining: Departments of Geology, Biology, Communication and Journalism, Geography and Anthropology, Mathematics, and Watershed. This certificate is primarily designed to augment a Geology comprehensive major but may be useful for other STEM disciplines such as Biology, Chemistry and Geography. The primary emphasis is on building professional communication skills, statistics, environmental policy background, and an initial understanding of environmental remediation/contaminant transport.

C. Certificate in Earth Resources: Departments of Geology, Biology, Economics, Communication and Journalism, Geography and Anthropology, Watershed, and Philosophy and Religious Studies. This certificate is primarily designed for non-STEM graduates that might be interested in pursuing careers as resource related professionals such as environmental law or public relations. The certificate emphasizes using evidence-based scientific discussions for professionals that might interact with scientists and engineers, the legal professions, politicians and the public in areas dealing broadly with Earth Resources.

Points Discussed by Committee:

1. All of the courses are currently offered on a regular basis except for a new (1-credit) seminar course, which will be offered by geology each spring
2. Formalizes a process where students have been using topical minors to achieve some of the same results.
3. No hard numbers on student enrollments are available but it is estimated that the three emphases combined would initially serve about 20 students/year.
4. These certificates are not more specialized training in one discipline but instead represent an enhanced liberal arts component emphasizing skills that employers say that students need beyond their technical background.

Pros of Recommendation:

1. All of the coursework is currently offered so the main advantage is to provide a coherent focus in earth resources issues and to serve the needs of both STEM majors and non-STEM majors interested in working in fields related to Earth Resources.
2. Wide variety of participating departments allows students to tailor a program to meet their specific career goals.

Cons of Recommendation: none
Geology Certificates

Technology/Human Resource Impact:

No additional resources beyond those already authorized are needed to offer this certificate. These certificates are dependent upon being able to fill a currently authorized position in hydrogeology in the Department of Geology.

Committee Recommendation: That the Department of Geology coordinates and administers certificate programs in the following areas:

2. Proposed Certificate in Responsible Mining from Departments of Geology, Biology, Communication and Journalism, Geography and Anthropology, Mathematics, and Watershed.
Geology Certificates

MOTION FOR THE UNIVERSITY SENATE

The University Senate Committee: Academic Policies Committee

by a vote of ___7___ for to ___0___ against on ___November 29, 2016___ (Date)

Recommends that the Department of Geology will coordinate and administer three certificate programs in the following areas:

2. Certificate in Responsible Mining from Departments of Geology, Biology, Communication and Journalism, Geography and Anthropology, Mathematics, and Watershed.

Implementation Date: Catalog 2017/18

Signed: ______________________________________

Chair of the Committee

Send to: University Senate Office