

Library Resource Form Required for New Courses

Submission Deadlines: Fall - October 11, 2005 Spring - February 14, 2006

TITLE General Education Status for 2206-193 Introduction to Mapping and Geographical

Sponsor(s) John Hasse e-mail: hasse@rowan.edu
Richard Scott e-mail: scott@rowan.edu
e-mail:

DEPARTMENT Geography and Anthropology
College Liberal Arts and sciences

If **LAS** -check: History/Humanities Social/Behavioral Sciences
 Math/Science

UNDERGRADUATE **GRADUATE**

Minor changes to existing General Education course
 Request new or existing course receive the following description:
 Writing Intensive Literature
 Multicultural-Global Lab Science
 Changes to General Education requirements of a degree or program
 New or Existing course to be placed in the General Education Bank:

Fine/Per
 LAS: So: scott@rowan
 Commur: ruthig@rowan
hasse

Signatures Required: representin

the Senate

Department Chair:
Department CURRICULUM Chair:
Academic DEAN:

Date: 2/13/06
Date: 2/13/06
Date: 2-13-06

COLLEGE CURRICULUM COMMIT

AA

Signature: College Curriculum Chair

Signature: SENATE CURRICULUM

7/21/06

Comments:

Signature: Executive Vice President/Provost:

C.L. Jones
Date: 4/21/06

Approved:
Not Approved:

Signature: REGISTRAR

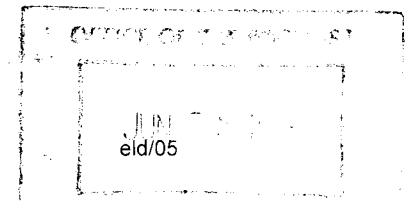
Date: 5/30/06

Course Description Received & Approved
Hegis Taxonomy & Course

GEOG 06.193

Notification Forward:

SCC CHAIR Academic Dean
 IR Department Chair
 CAP VP/Student Affairs
 Registrar Other-



Title of Proposal: Status Change to “General Education” for *Introduction to Mapping and Geographical Information Science* [2206-193]

Details

- a. Change Requested: Change 2206-193 from: Non-general education course to general education course in the social and behavioral sciences bank
- b. Sponsors: Dr. John Hasse and Dr. Richard Scott, Department of Geography and Anthropology

Rationale:

a. Statement documenting need for requested change. In our continually globalizing world, communication about events, activities and phenomenon around the world requires an informed understanding. Information about events such as the War in Iraq or hurricanes in the Gulf of Mexico requires an understanding of the basic geography related to the event. More important than simply knowing “where things are”, an informed citizen must know how to read, interpret and be critical of maps and graphics used to communicate within various media. The American populace is woefully lacking in its geographic literacy and there is a strong need to improve our ability to comprehend, read, and utilize maps.

Furthermore, the need for mapping literacy, spatial analysis and skills in cartographic communication has grown well beyond the discipline of geography. Internet mapping services and land visualization tools such as MapQuest and Google Earth are becoming more widely utilized by the general public. As more and more citizens unschooled in cartography are deluged with maps, knowing how to read and understand maps is becoming vital to citizenship and informed intellectual development. As geographers, we are cognizant of the potential for purposeful cartographic miscommunication, which can lead the cartographically illiterate to draw unfounded conclusions concerning political, economic and environmental issues.

This proposal to add *Intro to Mapping & GIS* (2206.193) to the Gen Ed bank of Social and Behavioral Sciences satisfies the general education goals far more than it's title may imply in that it provides students with a better “understanding of major concepts, theories, and methods” (SBS goal #1) related to geography, one of the social and behavioral sciences. Students will develop a better “understanding of the development of human society as it relates to culture, geography, and language in the context of an emerging interdependent, global community” (SBS goal #2). Communicating these processes in a spatial context is exactly the essences of mapping. Furthermore, mapping is the primary analytical instrument for the field of geography allowing “students [to acquire the] ability to apply basic methodologies used in the measurement of social and behavioral science” (SBS goal #3).

Introduction to Mapping & GIS (2206.193) is an entry-level course offered by the Department of Geography and Anthropology that teaches basic knowledge of how to read, understand, utilize and create maps as well as other geographic graphics. The course is required by geography majors but has been gaining greater interest from non-majors as well professionals who are interested in gaining mapping and GIS skills for applied research, marketing, environmental management, crime analysis among many other applications. A number of Rowan departments including Biology and Civil Engineering have expressed strong interest for their students to take this course but it is often difficult to add due to the rigid requirements of their respective programs. This proposal to make *Introduction to Mapping and GIS* a general education course will address these needs by making the course available to fulfill a general education requirement. We feel that this change is very important at this time in order to address all the issues stated above.

- b. The department has three full-time faculty members and two adjunct faculty members fully qualified to teach this course. Currently, we offer one to two sections of the course each semester. If the proposed change is approved, we believe that demand might increase to require two sections each semester. Current software holdings and computer facilities are adequate to support this change. The department has thirty-five licenses of the software required to teach the course. Civil and Environmental Engineering, a department that has requested and supports this change has thirty licenses to the software and adequate computer resources.

Results of Consultation.

We have solicited letters of support from a number of programs/departments including: the Department of civil and Environmental Engineering, Biology and the newly forming interdisciplinary Environmental Studies program.



Memorandum

Civil and Environmental Engineering

To: Dick Scott & John Hasse, Geography & Anthropology

From: Joe Orlins, Civil & Environmental Engineering

Cc: Ralph Dusseau, Chair, Civil & Environmental Engineering
Yusuf Mehta, CEE Curriculum Committee
Steve Chin, Associate Dean, Engineering

Date: 11 October 2005

Re: Curriculum Proposal to add *Introduction to Mapping and Geographical Information Sciences* (2206-193) to SBS General Education Bank

The Civil and Environmental Engineering Program at Rowan University supports the proposed curricular revision to make *Introduction to Mapping and Geographical Information Sciences* (2206-193) a General Education Course in the Social and Behavioral Sciences bank. The support is based on two factors: first, the course fulfills a need for basic cartographic literacy and provides skills for students in our program. Second, our students are hard-pressed to take additional free electives, especially with the high credit loads required to graduate in the Civil and Environmental Engineering program. Allowing students the flexibility to fulfill a general education requirement with this course will increase the accessibility of this course for our students.

Students in Civil and Environmental Engineering are visual communicators. As engineers, they must be able to read, interpret, and create graphical representations of existing conditions as well as future conditions - whether it is a bridge to be constructed, a road to be built, a plot of land to be developed, or a Superfund hazardous waste site to be cleaned up.

The main modes of graphic communication used by civil engineers are engineering drawings and topographic maps. Currently, students in the Civil and Environmental Engineering program take one required course in Surveying and Engineering Graphics (0908-203). That course covers the fundamentals of land surveying and the creation of basic engineering drawings. However, it is *not* a course in cartography (map making), and focuses on the knowledge and skills to conduct surveys and create engineering drawings using design software such as AutoCAD.

Currently, many students in the College of Engineering take General Education courses in the department of Geography and Anthropology in their freshman year (e.g. World and Regional Geography, 2206-111; Cultural Geography, 2206-102). These

Gen-Ed courses fulfill the Social and Behavioral Sciences requirement. In addition, some students in the Civil and Environmental Engineering program take an upper-level course in the department of Geography and Anthropology (e.g. Introduction to Geographic Information Systems, 2206-360; Advanced Geographic Information Systems, 2206-415). These courses are considered “Technical Electives” in the CEE curriculum. However, the courses are generally taken in the student’s senior year (or are taken at the graduate level for students in our MS program). The skills and knowledge base from those courses would be useful to students earlier in their academic careers.

If students were able to take *Introduction to Mapping and Geographical Information Sciences* as an SBS General Education course in their freshman year, they would gain not only the understanding of the social dynamics behind maps and cartography, but also some of the skills to help bridge the gap until they take the more advanced GIS courses.

In sum, the addition of *Introduction to Mapping and Geographical Information Sciences* (2206-193) to the SBS General Education bank will benefit the cultural *and* technical literacy of students in the Civil and Environmental Engineering program. The CEE program supports this curricular change.



Date: 10 February 2006
To: Dr. John Hasse, Dr. Richard Scott, Department of Geography & Anthropology
Re: Curriculum Proposal for Introduction to Mapping and Geographical Information Science

Thank you for consulting with Department of Biological Sciences in regards to your proposed new General Education course entitled "Introduction to Mapping and Geographical Information Science".

As you outline in your course proposal, we have had a number of Biology majors interested in taking a course about GIS, but in some instances these students have been unable to fit a GIS course into their busy schedules. By making this course a General Education course, we feel confident that more Biology majors will take advantage of this opportunity.

A number of our students are interested in ecology and environmental science, and we have been encouraging them to learn GIS as a powerful tool that will help them should they go into a number of fields of research. We also encourage them to take a course in GIS because many, if not most, job ads in these fields request an applicant familiar with GIS. Even when job ads do not explicitly list this as a requirement for the job, familiarity with GIS is likely to be seen as a significant asset to employers of our graduates in the ecological and environmental fields.

We also agree that literacy with reading and interpreting maps, and data presented using GIS, is increasingly important in today's job market and in society in general, and this course will teach students to be more critical consumers of information. This is, of course, important for anyone, in any field.

Thank you for consulting with the Biological Sciences Department regarding your curricular proposal. Our department enthusiastically supports this proposal.

Sincerely,

Dr. Gregory Hecht
Chair, Department of Biological Sciences

January 22, 2006

Professor John Hasse
Department of Geography and Anthropology,

Dear John,

I'm glad to write a letter of support for your proposal to classify *Introduction to Mapping and Geographical Information Science* [2206-193] as a general education course. I am a member of the Board of the new Bachelor of Arts in Environmental Studies, and with Professor Bob Newland from Chemistry I am interim co-director of the new program. Geographical Information Systems I and II are requirements in that program, and this introductory course is a prerequisite for GIS I. Our students will need to take the course in order to complete their program; it will be of benefit to them to be able to meet a general education requirement by doing so. Also, this is one of a number of courses in which students may begin to learn about the different dimensions of environmental science, and be drawn toward our major.

Let me add that as a member of the faculty, and as Chair of the Department of Philosophy and Religion, I also totally support the classification of this course as a general education course. The material it covers is increasingly essential for understanding of the modern world; it is material that all students would benefit from knowing.

Sincerely,

David Clowney
Interim Co-director
Bachelor of Arts in Environmental Studies