

Referred to SCAD and SBRC

**Senate Committee on Academic Development  
and  
Senate Budget Review Committee**

**Program Approval Submission 2008-09**

*This form is to be used when seeking approval for all new or substantially revised programs of study leading to a degree, diploma or certificate*

**FACULTY/SCHOOL: FACULTY OF ARTS AND SCIENCE**

**PROPOSED NEW PROGRAM: CERTIFICATE IN GEOGRAPHIC INFORMATION SCIENCE**

**PROPOSED IMPLEMENTATION DATE: SEPTEMBER 1, 2009**

**DATE OF FACULTY BOARD APPROVAL:** \_\_\_\_\_

**SUBMISSION CONTACT**

**NAME: Dr. Paul Treitz, Department of Geography, Queen's University**

**TELEPHONE: 533-6448**

**EMAIL: paul.treitz@queensu.ca**

**SIGNATURE OF THE DEAN:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

Please note that program proposals must receive the approval of Faculty Board prior to being submitted to the Senate Office for referral to the Senate Committee on Academic Development (SCAD) and the Senate Budget Review Committee (SBRC), which will then make their recommendations to Senate.

**The criteria requested in PART A should be regarded as the minimum criteria for the assessment of academic programs. Any unit planning a new program should show how not only the criteria listed below but also, where appropriate, those required by the Undergraduate Program Review Audit Committee and those of the Ministry of Training, Colleges & Universities have been taken into account. For further information, please refer to the Senate Policy "Policies and Procedures for Establishing New Undergraduate Programs" (<http://www.queensu.ca/secretariat/senate/policies/newprog/index.html>)**

## PART A

### 1. OBJECTIVES:

Please summarize the rationale for introducing this program. The program should be consistent with the Queen's mission, the academic plans of the unit including its teaching and research strengths, the relation of the unit with other academic units and the standards, educational goals and learning objectives of the degree. Explain how this program will achieve the expected academic quality. Please identify the Faculty, School or Department, which will be administratively responsible for the academic aspects of this program such as supervision of graduate students, curriculum development and the Internal Academic Review Process.

Due to a reduction in operating budgets for Geography (GPHY) and the Geographic Information Science (GISCI) Program, we have been forced to scale back our course offerings in geographic information science. This is a function of a lack of resources for additional sessional and adjunct teaching. As a result, we will no longer be able to offer GISCI medials with Geography, Biology or Geology. We are now only able to offer a BA MIN and a BSC GEN. However, to enhance the profile of geographic information science throughout the university, we are proposing to offer the students at Queen's, the opportunity to graduate with a **Certificate in Geographic Information Science**. The advantage of the Certificate is that many of the courses that make up the Certificate in Geographic Information Science can also be counted towards the students major, either as core courses or electives.

### **Background**

"Geographic information science" is a term, originally coined by Dr. Michael Goodchild to describe the "science behind the systems" referring to the sciences of cartography, geodesy, statistics, error and uncertainty, photogrammetry and remote sensing, cognition of geographic information, etc. that form the basis of geographic information systems.<sup>1,2</sup> Montello and Freundsuh describe geographic information science as a "multi-disciplinary field that is concerned with the collection, storage, processing, analysis, and depiction and communication of digital information about spatio-temporal and thematic attributes of the earth, and the objects and events found there".<sup>3</sup>

There is potential for the Certificate in Geographic Information Science to boost enrollments in Geography. In fact, this has been demonstrated over the past three years with the GISCI Program. As reported in Nature, "the US Department of Labor identified geotechnology as one of the three most important emerging and evolving fields, along with nanotechnology and biotechnology".<sup>4</sup> There is undoubtedly a market for graduates with expertise in this field. However, this Certificate is not meant to simply provide students with the technical skills required for working with spatial data in a computerized environment. Doug Richardson, executive director of the Association of American Geographers (AAG) stresses that, although technical skills are important, there is a deeper need to understand the underlying geographic concepts.<sup>4</sup> We feel that the introduction of the Certificate in Geographic Information Science will encourage more students to major in Geography.

<sup>1</sup> Goodchild, M.F., 1992. Geographical information science. *International Journal of Geographical Information Systems*, 6(1):31-45.

<sup>2</sup> Goodchild, M.F., 2004. Preface, In *A Research Agenda for Geographic Information Science*, University Consortium for Geographic Information Science, Edited by R.B. McMaster, and E.L. Usery, CRC Press, New York.

<sup>3</sup> Montello, D.R., and S. Freundsuh, 2004. Cognition of Geographic Information, In *A Research Agenda for Geographic Information Science*, University Consortium for Geographic Information Science, Edited by R.B. McMaster, and E.L. Usery, CRC Press, New York, pp. 61-91.

<sup>4</sup> Gewin, V., 2004. Mapping Opportunities, *Nature*, 427(22):376-377.

David R. Edgar  
Secretary  
Faculty Board  
e-mail facsec@queensu.ca

**Referred to SCAD**

Tel: (613) 533-6000 ext. 77938  
Fax: (613)533-6884

February 6, 2009

Ms. G. Moore  
University Secretariat  
B-400 Mackintosh-Corry  
Queen's University

Dear Ms. Moore:

Please find enclosed a request on behalf of all members of the Department of Anesthesiology requesting the name of the department be changed to the "Department of "Anesthesiology and Perioperative Medicine." A letter to Dean Walker from J. Parlow, Head of the Department of Anesthesiology along with a briefing note detailing reasons for the proposed name change is attached as supporting documentation.

The request has been reviewed by their departmental committee and the committee's recommendations have been incorporated into the letter. The request has been approved by our School of Medicine Executive, School of Medicine Academic Council and Faculty Board. The motion approving the name change to the Department of Anesthesiology and Perioperative Medicine by Faculty Board is,

"K. Nakatsu *moved* and *seconded* by T. Massey that Board approve and forward to Senate for their consideration that the name of the Department of Anesthesiology be changed to the Department of Anesthesiology and Perioperative Medicine."

**CARRIED**

Thank you for your attention to this matter.

Yours sincerely,

David R. Edgar  
Secretary, Faculty Board

Encl.