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**MEMORANDUM**

<b>ATTENTION</b>	Senate	<b>DATE</b>	April 8, 2011
<b>FROM</b>	Bill Krane, Chair Senate Committee on Undergraduate Studies	<b>PAGES</b>	1/1
<b>RE:</b>	Faculty of Environment/Faculty of Applied Sciences (SCUS 11-21)		

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**For information:**

Acting under delegated authority at its meeting of April 7, 2011, SCUS approved the following curriculum revisions effective Spring 2012:

1. Changes to the Geographic Information Science Major and Honours Programs

Senators wishing to consult a more detailed report of curriculum revisions may do so on the Web at [http://www.sfu.ca/senate/Senate\\_agenda.html](http://www.sfu.ca/senate/Senate_agenda.html) following the posting of the agenda. If you are unable to access the information, please call 778-782-3168 or email [shelley\\_gair@sfu.ca](mailto:shelley_gair@sfu.ca).



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MEMO

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ATTENTION	Bill Krane, Chair, SCUS
FROM	Duncan Knowler, Chair, FENV Curriculum Committee
	Rob Cameron, Associate Dean, FAS
RE	Faculty of Environment/Faculty of Applied Sciences - Changes to the GIS Major and Honors Programs
DATE	March 23, 2011

The following changes to the:

- (1) Geographic Information Science Major Program and
- (2) Geographic Information Science Honors Program

were approved by the Faculty of Environment (FENV) Curriculum Committee at its meeting of March 22, 2011 after consultation with and approval from the Faculty of Applied Sciences. These programs are jointly administered by the Department of Geography (FENV) and the School of Computing Science (FAS).

The changes consist of:

- i) Deletion of GEOG 250 from both programs
- ii) Addition of GEOG 356 to both programs



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The former removes a bottleneck to student progress as the course is no longer taught on a regular basis. Adding GEOG 356 enlarges options and should facilitate student progress; this is a relatively recent addition to the GIS course list in the Department of Geography.

The changes proposed were approved by Geography's Undergraduate Studies Committee and have been endorsed by the School of Computing Science [as per attached e-mail from Richard Vaughan, Chair of Undergraduate Studies, School of Computing Science].

Would you please place these proposed changes on the agenda of the next meeting of SCUS.

Two handwritten signatures in blue ink. The first signature is "Duncan Knowler" and the second is "R. Cameron".

----- Original Message -----

Subject: Re: GIScience Program changes  
Date: Tue, 15 Mar 2011 17:52:54 -0700  
From: Richard Vaughan <vaughan@sfu.ca>  
To: Duncan Knowler <djk@sfu.ca>

Dear Duncan,

Computing Science has no objections to the proposed changes outlined in Ivor's email of March 7.

For the record, I also support the idea of our joint major curriculum changes being reviewed by the upstream path from the change-originating department in all cases when the changes are not disputed by the other department. This email is evidence of no dispute in this case.

Please keep me informed of the outcome of the proposed changes, so I can report back to my school.

regards,  
Richard/

## **FROM:**

### **Geographic Information Science Major Program**

#### **Program Requirements**

Students complete 120 units, including the following specified units.

#### **Lower Division Requirements**

Students complete a total of 45 lower division units including all of

- ← CMPT 120-3 Introduction to Computing Science and Programming I
- ← CMPT 125-3 Introduction to Computing Science and Programming II
- ← CMPT 225-3 Data Structures and Programming
- ← GEOG 100-3 Society, Space, Environment: Introducing Human Geography
- ← GEOG 111-3 Earth Systems
- ← ~~GEOG 250-3 Cartography I~~
- ← GEOG 253-3 Aerial Photographic Interpretation
- ← GEOG 255-3 Geographical Information Science I
- ← MACM 101-3 Discrete Mathematics I
- ← MACM 201-3 Discrete Mathematics II
- ← MATH 232-3 Applied Linear Algebra

and one of

- ← GEOG 213-3 Introduction to Geomorphology
- ← GEOG 214-3 Climate and Environment
- ← GEOG 215-3 Biogeography
- ← GEOG 221-3 Economic Geography
- ← GEOG 241-3 Social Geography
- ← GEOG 261-3 Introduction to Urban Geography

and one of

- ← GEOG 251-3 Quantitative Geography
- ← STAT 270-3 Introduction to Probability and Statistics

and one of

- ← MATH 150-4 Calculus I with Review
- ← MATH 151-3 Calculus I
- ← MATH 154-3 Calculus I for the Biological Sciences
- ← MATH 157-3 Calculus for the Social Sciences I

and one of

- ← MATH 152-3 Calculus II
  - ← MATH 155-3 Calculus II for the Biological Sciences†
  - ← MATH 158-3 Calculus for the Social Sciences II†
- †with a grade of B+ or better and permission of the School of Computing Science

### Upper Division Requirements

Students complete a total of 45 upper division units including all of

- ← CMPT 307-3 Data Structures and Algorithms
- ← CMPT 354-3 Database Systems I
- ← CMPT 361-3 Introduction to Computer Graphics

and one of

- ← CMPT 300-3 Operating Systems I
- ← CMPT 363-3 User Interface Design
- ← CMPT 371-3 Data Communications and Networking
- ← CMPT 384-3 Symbolic Computing

and three of

- ← GEOG 351-4 Cartography and Visualization
- ← GEOG 352-4 Spatial Analysis
- ← GEOG 353-4 Remote Sensing
- ← GEOG 355-4 Geographical Information Science II

and two of

- ← CMPT 406-3 Computational Geometry
- ← CMPT 412-3 Computational Vision
- ← CMPT 454-3 Database Systems II
- ← CMPT 461-3 Image Synthesis
- ← CMPT 470-3 Web-based Information Systems

and two of

- ← GEOG 451-4 Spatial Modeling
- ← GEOG 453W-4 Remote Sensing of Environment
- ← GEOG 455-4 Theoretical and Applied GIS
- ← GEOG 457-4 Geovisualization Interfaces

and four additional upper division units in physical or human geography. Students should consult with the program advisor when choosing these units.

and three additional upper division units in CMPT or MACM courses.

**TO:**

## **Geographic Information Science Major Program**

### **Program Requirements**

Students complete 120 units, including the following specified units.

#### Lower Division Requirements

Students complete a total of 42 or 43 lower division units including all of

- ← CMPT 120-3 Introduction to Computing Science and Programming I
- ← CMPT 125-3 Introduction to Computing Science and Programming II
- ← CMPT 225-3 Data Structures and Programming
- ← GEOG 100-3 Society, Space, Environment: Introducing Human Geography
- ← GEOG 111-3 Earth Systems
- ← GEOG 253-3 Aerial Photographic Interpretation
- ← GEOG 255-3 Geographical Information Science I
- ← MACM 101-3 Discrete Mathematics I
- ← MACM 201-3 Discrete Mathematics II
- ← MATH 232-3 Applied Linear Algebra

and one of

- ← GEOG 213-3 Introduction to Geomorphology
- ← GEOG 214-3 Climate and Environment
- ← GEOG 215-3 Biogeography
- ← GEOG 221-3 Economic Geography
- ← GEOG 241-3 Social Geography
- ← GEOG 261-3 Introduction to Urban Geography

and one of

- ← GEOG 251-3 Quantitative Geography
- ← STAT 270-3 Introduction to Probability and Statistics

and one of

- ← MATH 150-4 Calculus I with Review
- ← MATH 151-3 Calculus I
- ← MATH 154-3 Calculus I for the Biological Sciences
- ← MATH 157-3 Calculus for the Social Sciences I

and one of

- ← MATH 152-3 Calculus II

- ← MATH 155-3 Calculus II for the Biological Sciences†
  - ← MATH 158-3 Calculus for the Social Sciences II†
- †with a grade of B+ or better and permission of the School of Computing Science

### Upper Division Requirements

Students complete a total of 45 upper division units including all of

- ← CMPT 307-3 Data Structures and Algorithms
- ← CMPT 354-3 Database Systems I
- ← CMPT 361-3 Introduction to Computer Graphics

and one of

- ← CMPT 300-3 Operating Systems I
- ← CMPT 363-3 User Interface Design
- ← CMPT 371-3 Data Communications and Networking
- ← CMPT 384-3 Symbolic Computing

and three of

- ← GEOG 351-4 Cartography and Visualization
- ← GEOG 352-4 Spatial Analysis
- ← GEOG 353-4 Remote Sensing
- ← GEOG 355-4 Geographical Information Science II
- 0 GEOG 356-4 3D Geovisualization

and two of

- ← CMPT 406-3 Computational Geometry
- ← CMPT 412-3 Computational Vision
- ← CMPT 454-3 Database Systems II
- ← CMPT 461-3 Image Synthesis
- ← CMPT 470-3 Web-based Information Systems

and two of

- ← GEOG 451-4 Spatial Modeling
- ← GEOG 453W-4 Remote Sensing of Environment
- ← GEOG 455-4 Theoretical and Applied GIS
- ← GEOG 457-4 Geovisualization Interfaces

and four additional upper division units in physical or human geography. Students should consult with the program advisor when choosing these units.

and three additional upper division units in CMPT or MACM courses.