SFU   OFFICE OF THE ASSOCIATE VICE-PRESIDENT, ACADEMIC

8888 University Drive,	TEL: 778.782.4636	avpcio@sfu.ca
Burnaby, BC	FAX: 778.782.5876	www.sfu.ca/vpacademic
Canada V5A 1S6		

MEMORANDUM

ATTENTION	Senate	**DATE**	April 7, 2015
FROM	Gordon Myers, Chair	**PAGES**	1/1
	Senate Committee on		
	Undergraduate Studies		
RE:	Faculty of Applied Sciences (SCUS 15-15)		

For information:

Acting under delegated authority at its meeting of April 2, 2015 SCUS approved the following curriculum revisions effective Spring 2016.

1. <u>School of Computing Science (SCUS 15-15a)</u>

    (i) Prerequisite change to CMPT 371, 379, 433

    (ii) Lower division requirement changes to the Geographic Information Science Honours Program

2. <u>School of Engineering Science (SCUS 15-15b)</u>

    (i) Prerequisite change to ENSC 225, 481, 488

SIMON FRASER UNIVERSITY   ENGAGING THE WORLD

SFU FACULTY OF APPLIED SCIENCES

OFFICE OF THE DEAN
8888 University Drive, Burnaby, BC   TEL: 778.782.4724   www.fas.sfu.ca
Canada V5A 1S6   FAX: 778.782.5802

MEMORANDUM

ATTENTION	Senate Committee on Undergraduate Studies	**DATE**	March 11, 2015
FROM	Ed Park, Associate Dean	**PAGES**	
RE:	Curriculum Changes		

The following changes have been approved by the FAS Undergraduate Curriculum Committee and are appended here for approval by SCUS and recommendation to Senate.

1.) School of Computing Science
   a. Course Pre-requisite Changes
      - CMPT 371
      - CMPT 379
      - CMPT 433

   c. Calendar Changes
      - GIS Honours

2. School of Engineering Science
   a. Course Pre-requisite Changes
      - ENSC 225
      - ENSC 481
      - ENSC 488

Thank you,

Edward Park
Associate Dean

(EP/mt)

SCUS 15-15a

EXISTING COURSE, CHANGES RECOMMENDED

Please check appropriate revision(s):

☐ Course number   ☐ Credit   ☐ Title   ☐ Description   ☑ Prerequisite   ☐ Course deletion   ☐ Learning Outcomes

Indicate number of hours for: Lecture _____ Seminar_____ Tutorial _____ Lab _____

FROM
Course Subject/Number _CMPT 371_____

TO
Course Subject/Number _____

Credits _____

Credits_____

TITLE
(1) LONG title for calendar and schedule, no more than 100 characters including spaces and punctuation.
FROM: TO:

(2) SHORT title for enrollment and transcript, no more than 30 characters including spaces and punctuation.
FROM: TO:

DESCRIPTION
FROM:

DESCRIPTION
TO:

PREREQUISITE

Does this course replicate the content of a previously approved course to such an extent that students should not receive credit for both courses? If so, this should be **noted in the prerequisite**.

FROM: CMPT 225, CMPT/ENSC 150 and MATH 151 (MATH 150). MATH 154 or 157 with a grade of at least B+ may be substituted for MATH 151 (MATH 150).

PREREQUISITE

TO: CMPT 225, (CMPT 150, ENSC 150 or CMPT 295) and MATH 151 (MATH 150). MATH 154 or 157 with a grade of at least B+ may be substituted for MATH 151 (MATH 150).

LEARNING OUTCOMES

RATIONALE

CMPT 295 is replacing CMPT 150 in the CS curriculum. CMPT 295 merges topics from CMPT 150 and CMPT 250 that are considered fundamental to an understanding of the digital systems underpinnings of computer systems and updates coverage of these topics.

Effective term and year
Spring 2016

EXISTING COURSE, CHANGES RECOMMENDED

Please check appropriate revision(s):

☐ Course number   ☐ Credit   ☐ Title   ☐ Description   ■ Prerequisite   ☐ Course deletion   ☐ Learning Outcomes

Indicate number of hours for: Lecture _____ Seminar_____ Tutorial _____ Lab _____

FROM
Course Subject/Number **CMPT 379**

TO
Course Subject/Number _____

Credits _____

Credits _____

TITLE

(1) LONG title for calendar and schedule, no more than 100 characters including spaces and punctuation.

FROM: TO:

(2) SHORT title for enrollment and transcript, no more than 30 characters including spaces and punctuation.

FROM: TO:

DESCRIPTION
FROM:

DESCRIPTION
TO:

PREREQUISITE

Does this course replicate the content of a previously approved course to such an extent that students should not receive credit for both courses? If so, this should be **noted in the prerequisite**.

FROM: Prerequisite: MACM 201, (CMPT 150 or ENSC 215) and CMPT 225.

PREREQUISITE

TO: Prerequisite: MACM 201, (CMPT 150, CMPT 295 or ENSC 215) and CMPT 225.

LEARNING OUTCOMES

RATIONALE

CMPT 295 is replacing CMPT 150 in the CS curriculum. CMPT 295 merges topics from CMPT 150 and CMPT 250 that are considered fundamental to an understanding of the digital systems underpinnings of computer systems and updates coverage of these topics.

Effective term and year   Spring 2016

NOVEMBER 2012

EXISTING COURSE, CHANGES RECOMMENDED

Please check appropriate revision(s):

☐ Course number ☐ Credit ☐ Title ☐ Description ■ Prerequisite ☐ Course deletion ☐ Learning Outcomes

Indicate number of hours for: Lecture _____ Seminar_____ Tutorial _____ Lab _____

FROM
Course Subject/Number **CMPT 433**_____

TO
Course Subject/Number _____

Credits _____

Credits_____

TITLE

(1) LONG title for calendar and schedule, no more than 100 characters including spaces and punctuation.

FROM:

TO:

(2) SHORT title for enrollment and transcript, no more than 30 characters including spaces and punctuation.

FROM:

TO:

DESCRIPTION
FROM:

DESCRIPTION
TO:

PREREQUISITE

Does this course replicate the content of a previously approved course to such an extent that students should not receive credit for both courses? If so, this should be **noted in the prerequisite**.

FROM: Prerequisite: CMPT 250, 300.

PREREQUISITE

TO: Prerequisite: (CMPT 250 or CMPT 295) and CMPT 300.

LEARNING OUTCOMES

RATIONALE

CMPT 295 is replacing CMPT 150 in the CS curriculum. CMPT 295 merges topics from CMPT 150 and CMPT 250 that are considered fundamental to an understanding of the digital systems underpinnings of computer systems and updates coverage of these topics.

Effective term and year
Spring 2016

NOVEMBER 2012

Revision to Geographic Information Science Honours Program

John Edgar

March 2015

Description

Update Honours Program for changes to the Computing Science curriculum.

The substance of the changes is:
1. Replace CMPT 275 with CMPT276
2. Replace CMPT 150 with CMPT 295

Rationale

1. CMPT 275 is a 4 credit course with a workload that is considered very difficult to manage for both students and instructors. CMPT 276 covers less material and has a smaller project and has been offered successfully at the Surrey campus since 2010. Students who wish to pursue farther studies in this area have a number of upper division options.

2. CMPT 150 has no pre-requisites and most students are not sufficiently prepared to address the topics of digital design and assembly language programming. We believe that digital design and computer architecture are subjects that can better be addressed in the second year of studies. CMPT 295 merges topics from CMPT 150 and CMPT 250 that are considered fundamental to an understanding of the digital systems underpinnings of computer systems and updates coverage of these topics.

Current	Proposed
Lower Division Requirements	**Lower Division Requirements**
~~Students complete a total of 49-53 lower division units including all of~~	**Students complete a total of 48-52 lower division units including all of**
~~CMPT 150 - Introduction to Computer Design (3)~~	CMPT 225 - Data Structures and Programming (3)
CMPT 225 - Data Structures and Programming (3)	**CMPT 276 – Introduction to Software Engineering I (3)**
~~CMPT 275 - Software Engineering I (4)~~	**CMPT 295 – Introduction to Computer Systems (3)**
GEOG 100 - Society, Space, Environment:	

Introducing Human Geography (3)

GEOG 111 - Earth Systems (3)

GEOG 253 - Introduction to Remote Sensing (3)

GEOG 255 - Geographical Information Science I (3)

MACM 101 - Discrete Mathematics I (3)

MACM 201 - Discrete Mathematics II (3)

and either all of

CMPT 120 - Introduction to Computing Science and Programming I (3)

CMPT 125 - Introduction to Computing Science and Programming II (3)

CMPT 127 - Computing Laboratory (3)

or both of

CMPT 130 - Introduction to Computer Programming I (3)

CMPT 135 - Introduction to Computer Programming II (3)

and one of

GEOG 213 - Introduction to Geomorphology (3)

GEOG 214 - Weather and Climate (3)

GEOG 215 - Biogeography (3)

and one of

GEOG 221 - Economic Geography (3)

GEOG 241 - Social Geography (3)

GEOG 261 - Introduction to Urban Geography (3)

and one of

GEOG 100 - Society, Space, Environment: Introducing Human Geography (3)

GEOG 111 - Earth Systems (3)

GEOG 253 - Introduction to Remote Sensing (3)

GEOG 255 - Geographical Information Science I (3)

MACM 101 - Discrete Mathematics I (3)

MACM 201 - Discrete Mathematics II (3)

and either all of

CMPT 120 - Introduction to Computing Science and Programming I (3)

CMPT 125 - Introduction to Computing Science and Programming II (3)

CMPT 127 - Computing Laboratory (3)

or both of

CMPT 130 - Introduction to Computer Programming I (3)

CMPT 135 - Introduction to Computer Programming II (3)

and one of

GEOG 213 - Introduction to Geomorphology (3)

GEOG 214 - Weather and Climate (3)

GEOG 215 - Biogeography (3)

and one of

GEOG 221 - Economic Geography (3)

GEOG 241 - Social Geography (3)

GEOG 261 - Introduction to Urban Geography (3)

GEOG 251 - Quantitative Geography (3) STAT 270 - Introduction to Probability and Statistics (3) and one of MATH 150 - Calculus I with Review (4) MATH 151 - Calculus I (3) MATH 154 - Calculus I for the Biological Sciences (3) † MATH 157 - Calculus I for the Social Sciences (3) † and one of MATH 152 - Calculus II (3) MATH 155 - Calculus II for the Biological Sciences (3) † MATH 158 - Calculus II for the Social Sciences (3) † and one of MATH 232 - Applied Linear Algebra (3) MATH 240 - Algebra I: Linear Algebra (3) † with a grade of B+ or better and permission of the School of Computing Science	and one of GEOG 251 - Quantitative Geography (3) STAT 270 - Introduction to Probability and Statistics (3) and one of MATH 150 - Calculus I with Review (4) MATH 151 - Calculus I (3) MATH 154 - Calculus I for the Biological Sciences (3) † MATH 157 - Calculus I for the Social Sciences (3) † and one of MATH 152 - Calculus II (3) MATH 155 - Calculus II for the Biological Sciences (3) † MATH 158 - Calculus II for the Social Sciences (3) † and one of MATH 232 - Applied Linear Algebra (3) MATH 240 - Algebra I: Linear Algebra (3) † with a grade of B+ or better and permission of the School of Computing Science

From: Ivor Winton, Chair of Undergraduate Studies Committee, Geography

To: John Edgar, Undergraduate Program Director, Computing Science

John:

An official response to your request.... On Thursday, March 5, Geography discussed Computing Science's proposal to change two required courses for the GIScience honours program [namely, CMPT 275 replaced by CMPT 276; CMPT 150 replaced by CMPT 295].

It was an easy decision: my department supports the proposed changes.

Ivor

--
John Edgar
Undergraduate Program Director
School of Computing Science

SFU

COURSE SUBJECT	ENSC	NUMBER	225	TITLE	Microelectronics I

INSTRUCTIONS (OVERALL):

1. Using Microsoft Word draft changes using the following guideline. Paste in box below.
2. Rationale must be included. If more space is needed than provided below, please use the provided text box on page 2 of this document.
3. Indicate term = Fall, Spring, Summer

TYPE OF CHANGES RECOMMENDED

Please type 'X' for the appropriate revision(s):

SCUS 15-15b

	Course number		Credit		Title		Description	X	Prerequisite		Deletion

WORDING/DESCRIPTION EDITS

1. Indicate deleted or changed text using ~~strikethrough~~.
2. Indicate added or new text using <u>underline</u>.
3. Equivalent courses: preclusion statement should read:
   a. Students with credit for x cannot take y for further credit.

Prerequisite: ~~(ENSC 150 or CMPT 150 or ENSC 252),~~(ENSC 220 or MSE 250), MATH 232, and MATH 310. Quantitative.

SAMPLE

POL 223 ~~Canadian~~ <u>American</u> Political Economy (3)

~~An introductory study of~~ <u>America's</u> ~~Canada's~~ political economy, stressing the interrelated nature of Canada's economic and political life. ~~The course~~ <u>F</u>ocuses on current economic problems and policies, taking into account the geographical, historical and political environments. Topics include the resource and industrial structures, research and development, the public sector, fiscal and monetary policy, the role of the state, trade and foreign ownership, energy, regional disparity, corporate concentration and the political economy of federalism.

~~This course is identical to CNS 280 and students cannot take both courses for credit.~~
<u>Students with credit for CNS 280 cannot take POL 223 for further credit.</u>

~~Recommended~~ <u>Pre-requisite:</u> POL 100 or 101W.

Breadth – Social Sciences.

RATIONALE

If more space is needed, please use the provided text box on page 2 of this document

The course content of ENSC 150, CMPT 150 and ENSC 252 is not needed for ENSC 225 but was previously there to keep students in sync.

EFFECTIVE TERM AND YEAR, FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

Spring 2016

SFU SENATE COMMITTEE ON
UNDERGRADUATE STUDIES

COURSE SUBJECT |ENSC| NUMBER |481| TITLE |Designing for Reliability|

INSTRUCTIONS (OVERALL):

1. Using Microsoft Word draft changes using the following guideline. Paste in box below.
2. Rationale must be included. If more space is needed than provided below, please use the provided text box on page 2 of this document.
3. Indicate term = Fall, Spring, Summer

TYPE OF CHANGES RECOMMENDED

Please check appropriate revision(s):

☐ Course number ☐ Credit ☐ Title ☐ Description ■ Prerequisite ☐ Deletion

WORDING/DESCRIPTION EDITS

4. Indicate deleted or changed text using ~~strikethrough~~.
5. Indicate added or new text using underline.
6. Equivalent courses: preclusion statement should read:
   a. Students with credit for x cannot take y for further credit.

Prerequisite: ~~ENSC 330 and 80 units.~~ (ENSC 330 or ENSC 280) and 80 units.

SAMPLE

POL 223 ~~Canadian~~ American Political Economy (3)

~~An introductory study of America's~~ Canada's political economy, stressing the interrelated nature of Canada's economic and political life. ~~The course~~ Focuses on current economic problems and policies, taking into account the geographical, historical and political environments. Topics include the resource and industrial structures, research and development, the public sector, fiscal and monetary policy, the role of the state, trade and foreign ownership, energy, regional disparity, corporate concentration and the political economy of federalism.

~~This course is identical to CNS 280 and students cannot take both courses for credit.~~ Students with credit for CNS 280 cannot take POL 223 for further credit.

~~Recommended~~ Pre-requisite: POL 100 or 101W.

Breadth – Social Sciences.

RATIONALE

If more space is needed, please use the provided text box on page 2 of this document

ENSC 330 is no longer offered and has been replaced with ENSC 280.

EFFECTIVE TERM AND YEAR, FOR CHANGES

Fall, Spring, Summer and year

SPRING 2016

COURSE SUBJECT ENSC **NUMBER** 488 **TITLE** Introduction to Robotics

INSTRUCTIONS (OVERALL):

1. Using Microsoft Word draft changes using the following guideline. Paste in box below.
2. Rationale must be included. If more space is needed than provided below, please use the provided text box on page 2 of this document.
3. Indicate term = Fall, Spring, Summer

TYPE OF CHANGES RECOMMENDED

Please check appropriate revision(s):

☐ Course number ☐ Credit ☐ Title ☐ Description ☑ Prerequisite ☐ Deletion

WORDING/DESCRIPTION EDITS

4. Indicate deleted or changed text using ~~strikethrough~~.
5. Indicate added or new text using underline.
6. Equivalent courses: preclusion statement should read:
   a. Students with credit for x cannot take y for further credit.

Prerequisite: (ENSC 230 or ENSC 386) and (ENSC 383 or MSE 381) and 80 units. ~~Recommended: ENSC 230 is strongly recommended for Systems Option students.~~

SAMPLE

POL 223 ~~Canadian~~ American Political Economy (3)

~~An introductory study of~~ America's ~~Canada's~~ political economy, stressing the interrelated nature of Canada's economic and political life. ~~The course~~ Focuses on current economic problems and policies, taking into account the geographical, historical and political environments. Topics include the resource and industrial structures, research and development, the public sector, fiscal and monetary policy, the role of the state, trade and foreign ownership, energy, regional disparity, corporate concentration and the political economy of federalism.

~~This course is identical to CNS 280 and students cannot take both courses for credit.~~ Students with credit for CNS 280 cannot take POL 223 for further credit.

~~Recommended~~ Pre-requisite: POL 100 or 101W.

Breadth – Social Sciences.

RATIONALE

If more space is needed, please use the provided text box on page 2 of this document

ENSC 230 is now required. ENSC 386 (formerly ENSC 230) and ENSC 383 (equivalent to MSE 381) are now required.

EFFECTIVE TERM AND YEAR, FOR CHANGES

Fall, Spring, Summer and year

SPRING 2016