

## OFFICE OF THE ASSOCIATE VICE-PRESIDENT, ACADEMIC

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MEMORANDUM

**ATTENTION** 

Senate

DATE

September 11, 2015

FROM

Gordon Myers, Chair

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Senate Committee on

Undergraduate Studies

RE:

Faculty of Science (SCUS 15-31)

For information:

Acting under delegated authority at its meeting of September 10, 2015 SCUS approved the following curriculum revision effective Summer 2016.

## 1. Department of Mathematics (SCUS 15-31q)

(i) Upper and lower division requirement changes to the Mathematics and Computing Science Joint Major program



**MEMO** 

#### ATTENTION Dr. Carl Lowenberger

### Faculty of Science Undergraduate Curriculum Committee

# Department of Mathematics

MICHAEL MONAGAN Chair, Undergraduate Studies Committee

MAILING ADDRESS Simon Fraser University 8888 University Drive Burnaby, BC V5A 1S6 Canada

CONTACT INFO Voice: 778.782.4279 Fax: 778.782.4947 Email: mmonagan@cecm.sfu.ca FROM Michael Monagan, Chair, Undergraduate Studies Committee

RE Calendar Changes

DATE June 26, 2015

Please find enclosed the following documents relating to undergraduate curriculum changes approved by Mathematics to be considered at the next Faculty of Science Undergraduate Curriculum Committee meeting.

#### **Program Changes**

#### Motion 1:

To make changes to the Mathematics and Computing Science Joint Major Program. (Please see attached rationale and supporting documents).

Contact: Ms. Dale Yamaura, Manager, Academic and

**Administrative Services** 

Voice: 2-3799; Email: math\_manager@sfu.ca

From: "Edward Park" < ed park@sfu.ca>

To: clowenbe@sfu.ca

Cc: mmonagan@cecm.sfu.ca, mtrautma@sfu.ca, "John Edgar" < john edgar@sfu.ca >

Sent: Friday, 22 May, 2015 13:27:51

Subject: Proposed changes to CMPT/MATH joint major program for SCUS

Hi Carl.

I just wanted to send you a quick memo that the proposed changes to the CMPT/MATH joint major program (to be presented to SCUS by you) has been approved at our FAS UCC in May.

You are welcome to take the changes on to the June SCUS meeting.

Best regards,

Ed

Dr. Edward J. Park, PhD, PEng Professor of School of Mechatronic Systems Engineering, Associate Dean of Faculty of Applied Sciences, Associate Member of Faculty of Health Sciences, Director of Biomechatronic Systems Laboratory, Simon Fraser University

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#### **Motion 1 Rationale:**

There are 6 routine changes.

1 Prerequisite Grade Requirement - Deletion of the statement "Students will not normally be permitted to enroll in any course for which a D grade or lower was obtained in any prerequisite". Because it is redundant (see previous paragraph) and because it sends the wrong message.

2 Lower Division Requirements -

Deletion of CMPT 150 and addition of CMPT 295.

CMPT 150 Introduction to Computer Design (3) is no longer offered.

It is replaced with CMPT 295 Introduction to Computer Systems (3).

3 Lower Division Requirements -

Deletion of the CMPT 275 software engineering option.

CMPT 275 Software Engineering (4) is no longer offered.

CMPT 276 Introduction to Software Engineering (3),

originally introduced at Surrey, is now offered at Burnaby.

4 Lower Division Requirements -

Changes to the mathematical software requirement MACM 203, MACM 204, MATH 294.

MACM 294 Computational Studies in Mathematics (2) is deleted because

it has never been offered. The allowable substitutions are changed to require

a 400 level course substitution for each of MACM 203 and 204.

These changes are the same changes made already to the Mathematics



major and Applied Mathematics major.

5 Upper Division Requirements

The textual changes make it clear that the total number of required upper division credits is 45.

6 Faculty of Science Major Requirements.

The entire section is deleted because

The first bullet "additional upper ..." is redundant

(the program stipulates 45 upper division credits) and
the second bullet "students who ..." is no longer needed.

## Mathematics and Computing Science Joint Major

## Prerequisite Grade Requirement

. . . . .

Students will not normally be permitted to enrol in any course for which a D grade or lower was obtained in any prerequisite. ....

## **Lower Division Requirements**

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. . . . . .
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CMPT 150 - Introduction to Computer Design (3)
CMPT 295 - Introduction to Computer Systems (3)

and either

CMPT 275 - Software Engineering I (4)

or

CMPT 276 - Introduction to Software Engineering (3)

or two both of

MACM 203 - Computing with Linear Algebra (2) +

MACM 204 - Computing with Calculus (2) +

MATH 294 - Computational Studies in Mathematics (2)

or with prior approval, one of A

MACM 401 - Introduction to Computer Algebra (3)

MACM 409 - Numerical Linear Algebra: Algorithms, Implementation and

Applications (3)

MATH 439 - Selected Topics in Algebra (3)

Acannot be used to satisfy other upper division requirements

......

+ The following substitutions are also permitted.

They may not also be used to satisfy the upper division requirements below.

MACM 409 - Numerical Linear Algebra: Algorithms, Implementation and Applications (3) for MACM 203.

MACM 401 - Introduction to Computer Algebra (3) for MACM 204.

MACM 442 - Cryptography (3) for MACM 204.

## **Upper Division Requirements**

Students complete at least 15 45 units, including all of

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## Faculty of Science Major Requirements

In addition to the above requirements, students must also satisfy Faculty of Science major program requirements to complete a total of 120 units including

- additional upper division units to total a minimum of 44 upper division units (excluding EDUC 401 to 406)
- students who were enrolled at Simon Fraser University between fall 1991 and summer 2006 are required to complete a minimum of 12 units in subjects outside the Faculty of Science (excluding EDUC 401 to 406) including six units minimum to be completed in the Faculty of Arts and Social Sciences