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MEMORANDUM

ATTENTION	Senate	**DATE**	September 13, 2024
FROM	Peter Hall, Chair Senate Committee on Undergradua Studies	**PAGES**	1/2
RE:	Program Changes		

For information:

Acting under delegated authority at its meeting of September 12, 2024 SCUS approved the following curriculum revisions effective Summer 2025.

a. Faculty of Applied Sciences *(SCUS 24-83)*

1. School of Computing Science

(i) Requirement changes to the Theoretical Computing Science Concentration for the:

- Computing Science Major
- Computing Science Dual Degree Program Major
- Computing Science Second Degree Major
- Computing Science Minor
- Computing Science Honours
- Computing Studies Certificate

2. School of Engineering Science

(i) Requirement changes to the:

- Engineering Science, Computer Engineering Option Major
- Engineering Science, Computer Engineering Option Honours

3. School of Mechatronic Systems Engineering

(i) Requirement changes to the:

- Mechatronic Systems Engineering Major
- Mechatronic Systems Engineering Honours
- Mechatronic Systems Engineering and Business Double Degree Program Major

4. **Faculty of Environment** *(SCUS 24-80)*

1. Dean of Environment Office

(i) Creation of a Second Undergraduate Degree option for BA, BEnv and BSc

Senators wishing to consult a more detailed report of curriculum revisions may do so on the Senate Docushare repository at https://docushare.sfu.ca/dsweb/View/Collection-12682.

Calendar Entry Change
Name of Program or Name of Faculty

School of Computing Science, Addition of MACM 476 to Concentration Tables

Rationale for change: Creation of MACM 476, which is equivalent to CMPT 476.
Effective term and year: Summer 2025
The following program(s) will be affected by these changes: Computing Science Major Computing Science Dual Degree Program Major Computing Science Second Degree Major Computing Science Honours Computing Science Minor Computing Studies Certificate

Calendar Change: **"**to" and "from" sections are not required. All deletions should be crossed out as follows: ~~sample.~~ All additions should be marked by a **bold.**

Computing Science Major
Computing Science Dual Degree Program Major
Computing Science Second Degree Major
Computing Science Honours
Computing Science Minor

THEORETICAL COMPUTING SCIENCE

CMPT 307 - Data Structures and Algorithms (3)
CMPT 308 - Computability and Complexity (3)
CMPT 404 - Cryptography and Cryptographic Protocols (3)
CMPT 405 - Design and Analysis of Computing Algorithms (3)
CMPT 406 - Computational Geometry (3)
CMPT 407 - Computational Complexity (3)
CMPT 409 - Special Topics in Theoretical Computing Science (3)
CMPT 476 - Introduction to Quantum Algorithms (3) **or MACM 476 - Introduction to Quantum Algorithms (3)**
MACM 300 - Introduction to Formal Languages and Automata with Applications (3)

Computing Studies Certificate

THEORETICAL COMPUTING SCIENCE

CMPT 307 - Data Structures and Algorithms (3)
CMPT 308 - Computability and Complexity (3)
CMPT 404 - Cryptography and Cryptographic Protocols (3)
CMPT 405 - Design and Analysis of Computing Algorithms (3)
CMPT 407 - Computational Complexity (3)
CMPT 409 - Special Topics in Theoretical Computing Science (3)
CMPT 476 - Introduction to Quantum Algorithms (3) **or MACM 476 - Introduction to Quantum Algorithms (3)**

Calendar Entry Change
Name of Program or Name of Faculty

Name of Program or Name of Faculty Engineering Science
Rationale for change: School of Computing Science replaced CMPT300 to CMPT303. The content of CMPT303 is essential for the Computer Engineering Program. Therefore, we want to replace CMPT300 in our program to CMPT303
Effective term and year: Summer 2025
The following program(s) will be affected by these changes: Engineering Science, Computer Engineering Option Major

Calendar Change: "to" and "from" sections are not required. All deletions should be crossed out as follows: ~~sample.~~ All additions should be marked by a **bold.**

Core Course Requirements

The following core courses are required for the engineering science major in computer engineering and cannot be substituted for "equivalent" courses in other areas without prior approval by the school. "Equivalent" courses taken without prior approval will not be applied to graduation requirements. Students should consult an academic advisor within their program for details on obtaining permission.

CHEM 121 - General Chemistry and Laboratory I (4)
CMPT 225 - Data Structures and Programming (3)
CMPT 276 - Introduction to Software Engineering (3)
~~CMPT 300 - Operating Systems I (3)~~
CMPT 303 - Operating Systems (3)
ECON 103 - Principles of Microeconomics (4)
ENSC 100W - Engineering, Science and Society (3)
ENSC 105W - Process, Form, and Convention in Professional Genres (3)
[…]

Name of Program or Name of Faculty Engineering Science
Rationale for change: School of Computing Science replaced CMPT300 to CMPT303. The content of CMPT303 is essential for the Computer Engineering Program. Therefore, we want to replace CMPT300 in our program to CMPT303
Effective term and year: Summer 2025
The following program(s) will be affected by these changes: Engineering Science, Computer Engineering Option Honours

Calendar Change: "to" and "from" sections are not required. All deletions should be crossed out as follows: ~~sample.~~ All additions should be marked by a **bold.**

Core Course Requirements

The following core courses are required for the engineering science honours program in computer engineering and cannot be substituted for "equivalent" courses in other areas without prior approval by the school. "Equivalent" courses taken without prior approval will not be applied to graduation requirements. Students should consult an academic advisor within their program for details on obtaining permission.

CHEM 121 - General Chemistry and Laboratory I (4)
CMPT 225 - Data Structures and Programming (3)
CMPT 276 - Introduction to Software Engineering (3)
~~CMPT 300 - Operating Systems I (3)~~
CMPT 303 - Operating Systems (3)
ECON 103 - Principles of Microeconomics (4)
ENSC 100W - Engineering, Science and Society (3)
ENSC 105W - Process, Form, and Convention in Professional Genres (3)
[…]

Name of Program or Name of Faculty Mechatronic Systems Engineering
Rationale for change: The required number of Agri-tech coops was causing issues for both students and the coop office.
Effective term and year: Summer 2025
The following program(s) will be affected by these changes: Mechatronic Systems Engineering Major Mechatronic Systems Engineering Honours Mechatronic Systems Engineering and Business Double Degree Program Major

Calendar Change: All deletions should be crossed out as follows: ~~sample.~~ All additions should be marked in **bold font.** Do not use **"**to" and "from" sections.

Co-operative Education Work Experience

[…]

* For the agricultural technology (AgriTech) concentration, at least ~~two~~ **one** of the co-op work terms must be on AgriTech-based placements.

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

PROGRAM MODIFICATION TEMPLATE

Name of Program or Name of Faculty Faculty of Environment, Second Degree options for Bachelor of Arts, Bachelor of Environment, and Bachelor of Science
Rationale for change: A new Faculty of Environment (FENV) and Fraser International College second degree pathway (effective Fall 2024) utilizes existing program requirements but adds existing Minor programs combinations in FENV to offer new options that are stable, flexible, and clearly defined. Revised second degree options will be open to all second degree students.
Effective term and year: Summer 2025
The following program(s) will be affected by these changes: None

Calendar Change: All deletions should be crossed out as follows: ~~sample.~~ All additions should be marked in **bold font.** Do not use **"**to" and "from" sections.

Faculty of Environment

Second Undergraduate Degrees

Students who hold a bachelor's degree may complete a second Bachelor of Arts (BA) or Bachelor of Environment (BEnv) or Bachelor of Science (BSc) degree. Students are encouraged to determine whether a second degree is actually required for their purposes (in many cases, post-degree studies may be more appropriate). For information regarding second degrees and/or post-degree studies, students should seek advice from the Faculty of Environment Advisors in the program of your choice.

A student may not enroll in a second degree in a subject in which they already hold a degree. A student who has a minor in a particular subject may enroll in a second degree with a major or honors program in that subject.

Degree seekers must first gain admission to SFU.

Admission Requirements

Students will need to apply for formal admission to SFU as a degree holder.

Upon admission, students will need to contact the advisor for your intended major and will then work with the advisor to complete a Second Degree approval form outlining the specific requirements for your program.

Program Requirements

Students admitted into a second BA or BEnv degree will be required to complete a minimum of 45 upper division units. Students admitted into a second BSc degree will be required to complete a total of 44 upper division units. Prior completion of lower division requirements for the major program may be required or may be waived at the discretion of the department.

Second degree students must complete one upper division writing (W) course and one quantitative (Q) course.

In order to satisfy residency requirements for the second degree, students must complete at least two thirds of their upper division units at SFU.

Before pursuing a second degree, you must have approval from the advisor of the program and a complete list of courses required.

Second degrees utilize various minor program combinations and are outlined below.

Transfer Credit

Courses not used towards a previous degree (as determined by the institution awarding that degree) may be used to reduce the number of courses required in the second BA or BSc degree where applicable. Courses extra to previous degrees may be counted towards the second degree if completed before admission into the second degree, to a maximum of 15 units, in accordance with University regulations.

Second degree students may not complete courses at another institution through a Letter of Permission.

Bachelor of Arts

Students complete two minor programs including a minimum of 45 upper division units in Faculty of Environment courses.

Choose two minors

Archaeology
Geography
Sustainable Development

Bachelor of Environment Option 1

Students complete two minor programs including a minimum of 45 upper division units in Faculty of Environment courses.

Choose two minors

Climate Change and Society
Geographical Information Science
Resource and Environmental Management

Bachelor of Environment Option 2

Students complete two minor programs including a minimum of 45 upper division units in Faculty of Environment courses.

One of

Climate Change and Society
Geographical Information Science
Physical Geography
Resource and Environmental Management

and one of

Archaeology
Geography
Sustainable Development

Bachelor of Science

Students complete two minor programs including a minimum of 44 upper division units in Faculty of Environment courses.

Choose two minors

Climate Change and Society
Geographical Information Science
Physical Geography