



Program/Major or Minor/Concentration Revision Form

(2013)

1.0 Degree Title

Specify the two degrees for concurrent degree programs

Honours Software Engineering

1.1 Major (Legacy= Subject) (30-char. max.)

B.Sc.

1.2 Concentration (Legacy = Concentration/Option) If applicable (30 char. max.)

Software Engineering

1.3 Minor (with Concentration, if applicable) (30 char. max.)

1.4 Category

- | | |
|--|--|
| <input type="checkbox"/> Faculty Program (FP) | <input checked="" type="checkbox"/> Honours (HON) |
| <input type="checkbox"/> Major | <input type="checkbox"/> Joint Honours
Component (HC) |
| <input type="checkbox"/> Joint Major | <input type="checkbox"/> Internship/Co-op |
| <input type="checkbox"/> Major Concentration (CON) | <input type="checkbox"/> Thesis (T) |
| <input type="checkbox"/> Minor | <input type="checkbox"/> Non-Thesis (N) |
| <input type="checkbox"/> Minor Concentration (CON) | <input type="checkbox"/> Other |

Please specify

1.5 Complete Program Title

Honours Software Engineering

2.0 Administering Faculty/Unit

Science

Offering Faculty/Department

Science / Computer Science

3.0 Effective Term of revision or retirement

Please give reasons in 5.0 "Rationale" in the case
of retirement

(Ex. Sept. 2004 = 200409) Retirement

Term: 201409

4.0 Existing Credit Weight

72-75

Proposed Credit Weight

5.0 Rationale for revised program

This new course ECSE 539 Software Language Engineering is definitely of interest for our students in Software Engineering programs as well as our larger Computer Science programs.

6.0 Revised Program Description (Maximum 150 words)

7.0 List of existing program and proposed program

Existing program (list courses as follows: Subj Code/Crse Num, Title, Credit weight, under the headings of: Required Courses, Complementary Courses, Elective Courses)

Required Courses (39-42 credits)

COMP 202 (3) Foundations of Programming*
COMP 250 (3) Intro to Computer Science
COMP 251 (3) Algorithms & Data Structures
COMP 206 (3) Intro to Software Systems
COMP 273 (3) Intro to Computer Systems
COMP 302 (3) Programming Languages & Paradigms
COMP 303 (3) Software Development
COMP 310 (3) Operating Systems
Or ECSE 427 (3) Operating Systems
COMP 361 D1 (3) Software Engineering Project
COMP 361 D2 (3) Software Engineering Project
COMP 400 (3) Honours Project in Computer Science
ECSE 429 (3) Software Validation
MATH 223 (3) Linear Algebra
MATH 240 (3) Discrete Structures 1

(*Students who have sufficient knowledge in programming language are not required to take COMP 202)

Complementary Courses (33 credits)

At least 9 credits selected from Groups A and B, with at least 3 credits selected from each:

*Students who have successfully completed MATH 150 & MATH 151 are not required to take MATH 222.

Group A:

MATH 222 (3) Calculus 3*
MATH 323 (3) Probability
MATH 324 (3) Statistics

Group B:

COMP 330 (3) Theory of Computation
COMP 360 (3) Algorithm Design

At least 18 credits selected from the following, with at least 6 credits selected from Software Engineering Specializations, and at least 9 credits from Application Specialties.

Software Engineering Specializations

COMP 409 (3) Concurrent Programming
Or ECSE 420 (3) Parallel Computing
COMP 523 (3) Language-based Security
COMP 525 (3) Formal Verification
COMP 529 (4) Software Architecture
COMP 533 (3) Object-oriented Software Development

Applications Specialties

COMP 350 (3) Numerical Computing
COMP 417 (3) Introduction to Robotics & Intelligent Systems
COMP 421 (3) Database Systems
COMP 424 (3) Artificial Intelligence
COMP 512 (4) Distributed Systems
COMP 520 (4) Compiler Design
COMP 521 (4) Modern Computer Games
COMP 535 (3) Computer Networks 1
COMP 557 (3) Fundamentals of Computer Graphics
Or ECSE 532 (3) Computer Graphics
COMP 558 (3) Fundamentals of Computer Vision
ECSE 424 (3) Human-Computer Interaction

At least 6 credits selected from any COMP courses at the 500-level or above. These may include courses on the Software Engineering Specializations and Application Specialties lists. Of the 33 credits, at least 12 credits must be at the 500-level or above. Courses at the 600- level require special permission.

Proposed program (list courses as follows: Subj Code/Crse Num, Title, Credit weight, under the headings of: Required Courses, Complementary Courses, Elective Courses)

Required Courses (39-42 credits)

COMP 202 (3) Foundations of Programming*
COMP 250 (3) Intro to Computer Science
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Or ECSE 420 (3) Parallel Computing
COMP 523 (3) Language-based Security
COMP 525 (3) Formal Verification
COMP 529 (4) Software Architecture
COMP 533 (3) Object-oriented Software Development
ECSE 539 (3) Software Language Engineering

Applications Specialties

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COMP 417 (3) Introduction to Robotics & Intelligent Systems
COMP 421 (3) Database Systems
COMP 424 (3) Artificial Intelligence
COMP 512 (4) Distributed Systems
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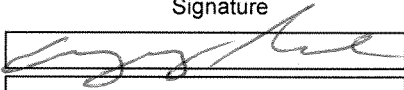
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Attach extra page(s) as needed

8.0 Consultation with Related Units Yes No Financial Consult Yes No

Attach list of consultations

9. Approvals

Routing Sequence	Name	Signature	Date
Department	Gregos Dudik		Oct 14, 2014
Curric/Acad Committee			
Faculty 1			
Faculty 2			
Faculty 3			
CGPS			
SCTP			
APC			
Senate			

Submitted by

Name	Bettina Kemme / Liette Oi Chin	To be completed by ARR:
Phone	514 398-7071 x 00118	CIP Code
Email	liette.chin@mcgill.ca	
Submission Date	July 17, 2014	

10. FQRSC (Research) Indicator (for GPS): Yes No