

## Panelist Statement: The Role Of Graduate Software and Systems Engineering Bodies Of Knowledge in Graduate Software Engineering Curricula

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## Master's Program in Software Engineering

- Joint Program between the Software and IT Engineering Department at École de technologie supérieure and the Computer Science Department at Université du Québec à Montréal
- Program has been in existence for roughly 15 years
- Professional Master's program. Most students are part-time.
- Both departments have recently agreed to formally initiate a formal revision of the program.

## Initial Program Revision Objectives

- Keep the curriculum up to date :
  - Evolution of the field
  - Needs of students and employers
- Increase the number of students
- Incorporate work terms into the program
- Better leverage the expertise of our profs
- Offer an interesting graduate program in software engineering for our own graduates of our undergraduate degrees.
- Align our program with « GSWE2009 Graduate Software Engineering Curriculum » and « SWEBOOK Guide V3 and include these alignments in our promotion.

## Two Years Industrial Experience Admission Criteria

- Interesting from a pedagogical point of view and has been in place since the onset of the program
- Inconsistent with other graduate programs in our institutions
- Prohibits our own graduates of our undergraduate degrees of being admitted into the program
- Often prohibits students who completed their undergraduate studies abroad from entering into the program
- Several courses are shared with other graduate programs at ETS who do not have this criterion
- Option 1: Remove the criteria
- Option 2: Replace with a criteria of having one year of professional experience (note: three undergraduate work terms would be considered equivalent to one year's experience).

## Five groups of courses

- Group 1 : Compulsory Core
  - Group 2 : Software Architecture and Design
  - Group 3 : Software Engineering Management
  - Group 4 : Software Systems Engineering (BKCASE?)
  - Group 5 : Software Engineering in an International Context
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- Students with a Bachelor's degree specifically in software engineering would replace Group 1 by one of the four other groups?

## Group 1 : Compulsory Courses

- MGL800 Software Project Management
  - MGL801 Software Systems Requirements
  - MGL802 Software Design
  - MGL804 Software Construction and Maintenance
  - MGL805 Software Quality Assurance and Verification
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- Drop MGL806 Semi-Formal and Formal Methods course from the list of compulsory courses
    - Doesn't play a sufficiently important role in SWEBOK Guide V3 and in GSwE2009 to warrant a compulsory course
  - Testing is an obvious weakness

## GSWE2009 and SWEBOK Guide V3

- Alignment is currently quite good but can be improved
- A detailed mapping between this proposed revision, the current course descriptions and these frameworks will be made.
- Make changes as deemed appropriate by our constraints and contexts.
- Use these alignments in our marketing notably by giving credibility to our program.