

Final Assessment Report
Submitted by SUPR-U to SCAPA

Undergraduate Program:	Software Engineering
New or Cyclical Program Review (please indicate)	Cyclical
Degree(s) Offered:	
Date of Site Visit:	November 23, 2012
Evaluation	Good Quality with report in Two years

External Consultants:

Robert Biddle, Ph.D., Carleton University, Ottawa
Philippe Kruchten, Ph.D., P.Eng, University of British Columbia, Vancouver

The external consultants found the self-evaluation document less helpful than they had expected it to be because it had been derived from an accreditation document which had been written for a different purpose. Although they found it difficult, therefore, to respond to some of the criteria identified for the IQAP review, they were, overall, satisfied with the program.

Objectives: This was one of the areas the consultants noted was lacking in the self-evaluation report. They understood from the Vice-Provost, however, that experiential learning and internationalization are key objectives at Western, and they commented on these features of the SE program.

Program Structure and Curriculum: The consultants observed that “the SE curriculum is clear, well aligned to the current state of the discipline, and consistent with the expectations for an undergraduate engineering program.” They identified a number of positive features, including “the inspirational nature of the instructor of the programming course” in the first year; “important SE courses” offered at second year as well as “supporting courses . . . that appear of high potential worth”; a good project course in third year (SE 3350) involving “real industry customers”; and “a laudable amount of elective material in appropriate areas in fourth year.” They noted, however, that students felt “a ‘disconnect’ between the various courses,” and thought tools and techniques used in SE2203 and SE2350 were out of date. The consultants suggested that the curriculum committee “may benefit from direct input from industry representatives.”

Assessment of Teaching and Learning: The consultants noted that “methods of delivery and assessment seem adequate, although rather traditional and conservative;” they also commented that “courses are well built, and assessment is thorough.” They noted that they saw no evidence of problem-based or team-based learning, or of innovative delivery technologies such as video-recording, web-based delivery, in-lecture “clickers”, etc.

Resources Undergraduate Programs: The consultants commented that “resources available to the program are very stretched.” They noted “a very high level of non-research faculty (LD, LT)” and “few graduate students [who are] available and competent or interested in software engineering.” The consultants heard student concerns about the student cohort being too large to be accommodated in a single lab.

Quality and Other Indicators: Faculty: there is a higher than usual reliance on LD/LT instructors; class size seems to have gone beyond what the department should actually accept to keep a reasonable level of quality.

Program: program meets CEAB standards for accreditation.

Students: many are attracted by a single LD instructor; retention is good; enrolment of women is low.

Quality Enhancement: “There was no material available to the reviewers to address this point.”

Conclusion and Recommendations: In this section, the consultants commented that “resources are constrained.” They also made three brief recommendations:

1. the curriculum should be examined closely to improve connections among courses;
2. more coordination with Computer Science may be beneficial;
3. the Department should find ways to better incorporate student feedback and input from the local software industry in evolution of the program.

Department’s Response: The Department responded to a total of 24 questions, comments, and issues raised in the external consultant’s report. The external consultants mentioned only four particular recommendations in the conclusion to their report:

Recommendation	Responsibility
Improve connection among courses to CEAB accreditation model during regular curriculum review	Departmental Curriculum Committee
Explore coordination with Computer Science	Faculty
Evaluate need for enrollment cap until HR & other resources are addressed	Faculty
Better incorporate student feedback re the program, as well as input from local software industry.	Department Chair & Program Directors