

COMP 4520 – Undergraduate Honours Project

Course Description

Calendar entry

A research-based project on a specific area of computer science. Students must find a faculty supervisor and write a proposal in their penultimate term. If acceptable, the defined research is to be carried out in the student's final term. Permission to take the course is given on an individual basis. Available to 4th Year students only.

Prerequisite: departmental permission.

Detailed Prerequisites

Before gaining entry, a student must identify a faculty member willing to act as their supervisor. Consent of the faculty member and a project topic must be presented to the department to gain approval and registration in the course.

General Course Description

This is a three credit-hour course, completed in two phases.

Initiation (Phase I):

Phase I is to be done in the term prior to the course. It consists of:

- Identifying a faculty member willing to act as a project supervisor.
- Working with the faculty advisor to sketch out a project direction.
- Obtaining approval from the department.

Research (Phase II)

Phase II consists of conducting research under the guidance and support of the faculty advisor, with the following additional requirements:

- Writing a 2-page proposal due by the end of the first full week of the term. The proposal should describe:
 - i. The research problem or questions to be addressed,
 - ii. 3 references to relevant literature with 2-3 sentences per reference on how the referenced work relates to the project,
 - iii. anticipated methods for addressing these problems/questions, and anticipated products of the research (e.g., software prototype, empirical results, algorithm, proofs).

- Documenting the project in a digital journal made available to the faculty advisor and course director. The digital journal (e.g., blog, wiki, etc.) should document progress and be divided into two-week reporting periods. artifacts and results, etc., and should be divided into two-week reporting periods. Students are encouraged to use graphs, figures, and screenshots to explain their work.
- Presenting the research results at an end of term seminar. (Consult the course director for presentation date, format, and criteria.)
- Writing a final project report. The final report should explain the aims of the project, the methods applied, and the results of the research. The use of graphs, figures and screenshots is again encouraged. As a rough guide, reports should be approximately 10 pages in length, double spaced. Students are encouraged to use this report as a basis for a paper to be submitted for publication at a peer-reviewed venue (in consultation with project's faculty advisor).

Note: This project course must represent substantial and new work to the student. A student cannot summarize previous work for which any credit or remuneration has been received. Both the student and the faculty member should expect to benefit from this project course, but the primary beneficiary of the project course is to be the student.

Evaluation

Evaluation of the project will be carried out by the student's faculty advisor and approved by the department. Evaluation criteria will include novelty, amount of work, demonstrated understand of the topic, and quality of course deliverables.