

### **COMP-4960. Research Project**

This course consists of two components: a) development of research skills, and b) development of technical writing and project presentation skills. This course requires students to complete a research project in some area of Computer Science under the supervision of a faculty member. The course will typically involve the development of some software or the design and/or implementation of some algorithm. Each student will be required to submit a project report and give one or more seminars on the research project. (a 6 credit course restricted to Semester 7 or Semester 8 students in BCS (Honours) or B.Sc. (Honours Computer Science with Software Engineering Specialization) with a major average of 8.0 or better). (Anti-requisite COMP-4990.) (3 lecture hours or equivalent a week, for two terms)

### **Learning Objectives**

At the end of this course, the successful student will know and be able to:

- Develop an affinity to identify a computer science research problem and formulate it correctly.
- Identify and critique relevant and state of the art research literature and methods.
- Develop the research skills necessary to construct algorithmic solutions within a field of interest in computer science.
- Implement solutions and conduct experiments to collect empirical evidence, or build theoretical proofs to build a case for or against a hypothesis.
- Analyze the research methods identifying its strengths and weaknesses.
- Write technical reports or research papers and give seminars.

### **Course Requirements**

Follow these steps:

1. Identify a research project supervisor and a topic of interest. You may contact Dr. Kobti via MS-Teams Chat if you need help getting started or if you have any questions about this process.
2. Confirm with Dr. Kobti your project supervisor and tentative topic title.
3. Start work with the research supervisor and follow his/her meeting and objective requirements. At this point Dr. Kobti is no longer involved with your research work unless you are working with him on the topic. There is no regular class for this course, the timeslot on Friday is simply to allow you to schedule time to attend the seminars typically held at this time.
4. Throughout the two terms for which you are registered in this course, attend the research seminars hosted by the School regularly (either on main campus or downtown campus located at 300 Ouellette). Only seminars officially announced by the School of Computer Science are allowed; they may include Thesis proposals/defenses. The time for this course reserved on Friday is because the seminars typically occur during this timeslot so you may attend them. There is no regular class during this time as you are required to work with your research supervisor who sets your work hours and expectations.
5. For term B only: Complete a final report/paper as directed by your supervisor. You will need to submit these on the report/paper on this site in the second term of the course.
6. For term B only: Present your research findings in a public seminar at the end of the second term.

### **The final grade is calculated as follows:**

85% - grade provided by the research supervisor (so make sure to know what your supervisor's expectations are through regular communication)

10% - submission of at least 10 School of Computer Science seminar summaries you attended total for both terms (must be done on this course site after each seminar you attend)

5% - Final seminar presentation to be scheduled during weeks 10 or 11 of the course (second term only) / and final report/paper submission. Graded based on presentation quality.