

Syllabus for COMP 491 and 492, Senior Seminar in Computer Science

Fall 2010 and Spring 2011

Dickinson College

Instructor: John MacCormick

Goals

- Understand the fundamental ethical, legal and social implications of computing
- Become prepared for graduate study or a professional career in computing
- Understand some elements of software engineering
- Improve technical writing skills and oral presentation skills
- Attain a broader vision of the discipline of computer science

Teaching methods

- Substantial year-long research or implementation project, including multiple written and oral status reports
- Required readings
- Class discussions of required readings, some led by students
- Programming labs to reinforce software engineering concepts

When and where

- Classes: Tuesday 3:00–5:00pm, Tome 232
- Office hours: see the instructor's webpage

Book

Ethics for the Information Age (4th Edition)

by Michael J. Quinn, 2010

Publisher: Addison Wesley

ISBN: 0132133873

Assessment and grading

- Final grade for the Fall semester will comprise:

	weight	due date
A1: iterated waterfall lab design documents	5%	9/14
A2: project proposal and presentation	15%	9/21
A3: literature review	10%	9/28 10/5
A4: code review	10%	11/2
A5: first draft of project report	15%	11/16 11/23
A6: project presentation	10%	12/7
A7: second draft of project report	15%	12/18
A8: code submission	10%	12/18
reading responses	10%	various

- **Assignments:** Assignments A1-A8 will be described in more detail on the course webpages. All assignments are due at the start of class on the due date, or at the end of the exam slot. Assignments should be submitted electronically to Moodle unless otherwise specified in the assignment instructions.
- **Reading responses:** At the start of some discussion classes, students will be asked to write a short response to a question about the readings. Whenever a reading is assigned, every student must bring a copy of the reading to class (either an electronic copy on a laptop, or a paper copy) for use in discussions.
- **Senior project:** All students will complete a year-long senior project on a topic of their own choosing; the majority of graded assignments represent milestones in the senior project. The project must involve a substantial amount of computer programming; beyond this, there are no fixed restrictions. However, the topic must be approved by the instructor. It is envisaged that most projects will take the form of either a *research project* or an *implementation project*. A research project involves original research and experimentation supervised by a faculty advisor; candidates for departmental honors must pursue projects of this type. An implementation project involves producing a software system for a client. Students may propose their own project or seek help from the instructor in identifying a project. Projects may be done in teams or individually.

Amount of work

College policy recommends approximately 3 hours of independent work for every hour of class time. Our class meets for only 2 hours per week, but it is a seminar-style class with a substantial project attached. Thus, the 3-hour multiplier does not provide a realistic estimate for this class; using a 4-hour multiplier is more appropriate. Therefore, you should expect to spend 7-9 hours per week (outside of class time) on this course.

Plagiarism, copying, and collaborating

The College's standard policy on plagiarism and academic integrity applies; you should be familiar with it (please see the "Community Standards" document available from the college website). Be especially careful to apply the same standards of academic integrity to computer code as you would to written work. Always give a full, clear attribution to code copied from any source whatsoever. In the senior project, it is permissible to copy code from appropriate sources in the same way that a professional software developer might do so, provided of course that the source is clearly acknowledged. In lab projects, code may not be copied from any source unless expressly authorized in the instructions for the lab.

Accommodations

The instructor will follow college policy on accommodations for students who need them.

Late Work Policy

Each student is permitted a total of four no-penalty days of lateness over the entire semester; every subsequent day of lateness incurs up to a 25% penalty for the late assignment. Late days can be used only in whole day units. Late days cannot be used for presentations or reading responses. To use one or more late days on a given assignment, state clearly at the start of your submission how many days you are using, and the total used so far in the semester.