CMPSC 600 and 610
Senior Thesis I and II
Fall 2013 and Spring 2014

Syllabus

Course Instructors

Dr. Gregory M. Kapfhammer
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http://www.cs.allegheny.edu/sites/gkapfham/

Dr. Robert S. Roos
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Office Hours

Dr. Gregory M. Kapfhammer Alden Hall 108. Office hours: M 4:30–5:30 pm; W 1:00–4:00 pm; Th 1:00 – 3:00 pm; F 9:00–10:00am and 1:00–2:00 pm; and by appointment. Please see Dr. Kapfhammer's online schedule at http://www.cs.allegheny.edu/~gkapfham/schedule/.

Dr. Robert S. Roos Alden Hall 106. Office hours: M 9:30–11:30 am and 2:30–4:30 pm; T 8:30–10:30 am and 1:30–3:30 pm; W 9:30–11:30 am; Th 8:30–10:30 am; and by appointment. Please see Dr. Roos's online schedule at http://www.cs.allegheny.edu/~rroos/schedule.html.

To schedule a meeting with one of the course instructors during their office hours, please visit their Web site and use the Google-based appointment reservation system. Once you have both clicked a silver box representing an open slot during office hours and filled out the required information, the appointment will appear in your Google calendar and the Google calendar of the professor.

Schedule

CMPSC 600 – Completed

September 6	Submit request for first and second reader
September 9	Register for CMPSC 600 with first reader
November 4 – November 8	Register for CMPSC 610 with first reader
November 4 – December 10	Oral defense of thesis proposal
December 16	Submit two chapters to course instructor by 5 pm
Before September 20	Schedule weekly meeting time with your first reader
Before October 16	Schedule proposal defense with Pauline Lanzine
Before November 4	Proposal formally approved by first reader
Before November 28	Get technical report number from Pauline Lanzine
Entire academic semester	Friday class session, 2:30 pm – 3:20 pm
September through December	Meet with first reader on a regular basis

CMPSC 610 – In Progress

Before January 24	Schedule weekly meeting time with your first reader
Before February 28	Submit the final drafts of three chapters
Before March 3	Finish the scheduling of the thesis defense with Pauline Lanzine
April 2	Submit unbound and signed thesis to first and second readers
April 7 – April 21	Complete oral defense of senior thesis
May 1	Submit final bound and signed thesis to Pauline Lanzine by 4 pm
Entire academic semester	Meet with first reader on a regular basis

The schedule for CMPSC 600 or 610 may change as the course instructors deem appropriate. In particular, additional deadlines for CMPSC 610 may be announced during the Spring 2014 semester. Unless evidence of extenuating circumstances is presented in writing to one of the course instructors, a student's grade in the course will be reduced if the stated deadlines are not met.

Grading

Final grades are determined by vote of the entire faculty of the Department of Computer Science, not just the course instructor for CMPSC 600 or CMPSC 610.

Your grade in CMPSC 600 and CMPSC 610 will be based on a combination of the following activities and deliverables. Percentages are not given because we recognize that the senior thesis experience differs from one student to the next and that there are many variables, such as the nature of the project and the availability of external resources, that can influence the relative importance of these criteria. However, for CMPSC 600 it is important to note that a large percentage of your grade depends upon your written proposal, your proposal defense, and your two chapters. Similarly, a large part of your grade in CMPSC 610 will be based on your unbound written thesis and your thesis defense. Please see the course instructors if you have questions about these grading criteria.

Your grade for CMPSC 600 will be based on a combination of these activities and deliverables:

Participation This includes meeting regularly with your first reader. Although the exact details about frequency and length of each meeting must be established with your first reader, you should adhere to the previously stated schedule.

Written proposal This document must be approved by your senior thesis adviser and formatted according to the department's thesis proposal style requirements, available from the course Web site.

Proposal defense This event is scheduled in consultation with your first and second reader and the building coordinator, Pauline Lanzine.

Chapters Any two chapters of your final senior thesis must be submitted to the course instructor by the aforementioned deadline. The chapters must be formatted in the department's thesis style; please note that this style is available from the course Web site and it is different from the proposal's style.

Your grade for CMPSC 610 will be based on a combination of these activities and deliverables:

Participation While exact details about the frequency and length of meetings must be established with your first reader, you should meet regularly and adhere to the previously stated schedule.

Written thesis This document must be formatted according to the department's thesis style guide, available from the course Web site. You will submit an unbound version of your thesis first and then later turn in the final bound version of the thesis.

Thesis defense This event is scheduled in consultation with your first and second reader and the building coordinator, Pauline Lanzine.

Course Expectations and Deliverables — CMPSC 600

Participation. Once your readers have been assigned, you must regularly meet with your first reader, who will report on your participation when the department's faculty meet to assign grades. Students are expected to come to each meeting with a status update on their progress and a meeting agenda. Students should conclude each meeting by listing the tasks that they want to complete before the next meeting. Evidence of regular meetings should be submitted to the course instructor.

Proposal. The proposal should follow the department's proposal style and thus must include an abstract, the main body of your proposal, a tentative schedule for completing the project, a bibliography, and any other information deemed important by your first reader. This will often include one or more of the following: a survey of the existing literature; an overview of your proposed technique; the description of an evaluation method; examples or code artifacts or evidence that you understand the nature of the work you are proposing and can feasibly complete it in the time available. The proposal must adhere to professional standards of writing. Your first reader will make suggestions on your submitted drafts; students are expected to revise multiple proposal drafts.

You must work at a pace that will ensure that your first reader can formally approve the final draft of you thesis proposal before the stated deadline. Failure to secure formal approval of your thesis proposal before this date will result in the reduction of your final grade in CMPSC 600.

Proposal Defense. A proposal defense is a prepared, formal presentation of about ten minutes in which you lay out the essential pieces of your chosen project under the assumption that your first and second reader have studied your proposal. Following the presentation that is supported by polished slides, you will participate in a discussion with your readers to identify potential problems, refine or modify some aspects of the project proposal, and ensure that your project is feasible and appropriate. All aspects of your proposal defense should be prepared in consultation with your first reader. You must schedule your proposal defense before the stated deadline. Your grade in CMPSC 600 will be reduced if you miss the deadline for scheduling or conducting your defense.

Thesis Chapters. Your two chapters, due on the previously stated date, should represent a significant addition to or extension of the material in your proposal. Don't simply "split the proposal into two chapters" — this usually does not work well since your chapters represent work

completed, not work being proposed. Chapters are judged according to the same professional standards as the proposal; they must include a full bibliography, a preliminary table of contents, lists of any figures and tables, and any other items required by your first reader.

As you write your chapters in consultation with your first and second reader, allow these individuals to comment on a draft and then make all of the requested changes. Plan to write several drafts of the chapters before submitting them on the due date; failure to submit the chapters by the stated deadline will result in the reduction of your final grade in CMPSC 600.

Course Expectations and Deliverables — CMPSC 610

Participation. You must regularly meet with your first reader, who will report on your participation when the department's faculty meet to assign grades. Students are expected to come to each meeting with a status update on their progress and a meeting agenda. Students should conclude each meeting by listing the tasks that they want to complete before the next meeting. Evidence of regular meetings should be submitted to the course instructor at the end of the semester.

Written Thesis. In consultation with your first reader and in accordance with the stated deadlines, you must work out a schedule for the completion of your thesis research and your written document. All senior theses are due, properly formatted and signed (but not bound), on the stated due date. Your thesis should both follow the department's style and adhere to professional standards of writing. You are expected to work closely with your first reader when creating this document. Your CMPSC 610 grade will be reduced if you fail to submit the unbound thesis on time.

Following your thesis defense, you must submit the bound copy of your senior thesis on the aforementioned due date. This document must incorporate any changes that were requested by your first and second reader. Seniors who have not delivered the signed and appropriately bound copies of their senior thesis by the stated deadline will receive an incomplete and will not graduate.

Thesis Defense. The standards for this presentation are the same as for the proposal defense — you must give a ten minute presentation supported by polished slides and adhere to all of the other stated requirements. Part of your grade will depend on how well you are able to discuss aspects of your thesis, including implications of your work, connections between your research and other areas of computer science, and possible extensions or improvements of your research ideas. You are expected to work with your first reader in preparing for your oral defense. Your grade in CMPSC 610 will be reduced if you do not schedule or conduct your thesis defense by the stated deadlines.

Email

Using your Allegheny College email address, we will sometimes send out class announcements about matters such as assignment clarifications or changes in the schedule. It is your responsibility to check your email at least once a day and to ensure that you can reliably send and receive emails. This class policy is based on the following statement in *The Compass*, the College's student handbook.

> "The use of email is a primary method of communication on campus. ... All students are provided with a campus email account and address while enrolled at Allegheny and are expected to check the account on a regular basis."

Disability Services

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. Students with disabilities who believe they may need accommodations in this class are encouraged to contact Disability Services at 332-2898. Disability Services is part of the Learning Commons and is located in Pelletier Library. Please do this as soon as possible to ensure that approved accommodations are implemented in a timely fashion.

Honor Code

The Academic Honor Program that governs the entire academic program at Allegheny College is described in the Allegheny Course Catalogue. The Honor Program applies to all work that is submitted for academic credit or to meet non-credit requirements for graduation at Allegheny College. This includes all work assigned for these classes (e.g., source code, technical diagrams, and your written thesis). All students who have enrolled in the College will work under the Honor Program. Each student who has matriculated at the College has acknowledged the following pledge:

> I hereby recognize and pledge to fulfill my responsibilities, as defined in the Honor Code, and to maintain the integrity of both myself and the College community as a whole.

It is recognized that an important part of the learning process in any course, and particularly one in computer science, derives from thoughtful discussions with teachers and fellow students. Such dialogue is encouraged. However, it is necessary to distinguish carefully between the student who discusses the principles underlying a problem with others and the student who produces assignments that are identical to, or merely variations on, someone else's work. While it is acceptable for students in this class to discuss their programs, data sets, results analyses, chapters, and other items with their classmates or other individuals, deliverables that are nearly identical to the work of others will be taken as evidence of violating the Honor Code.

Welcome to an Adventure in Computer Science

CMPSC 600 and 610 afford you the opportunity to pursue independent research in computer science. Moreover, these courses properly position you to conduct ground-breaking work that can have a positive influence on your future career and graduate school prospects, the students and faculty in the Department of Computer Science, the Allegheny College community, and a broader society that heavily relies on computer hardware and software. At the start of the second semester of your senior year, we invite you to pursue your senior thesis with great enthusiasm and vigor.