

INSTRUCTOR: John Nordlie

Phone: 777-2891

Email: john.nordlie@und.edu <- best bet

Office: Upson II, 366A

Hours: MWF 1:00-2:00 and by appointment

MATERIALS:

PURPOSE:

The Senior Capstone courses are a two-semester sequence in which computer science majors undertake a culminating research or software development project. Students will have the opportunity to work on projects with researchers from across UND as well as with external companies. The course requires written documents, oral presentations, and peer review of the initial phases of the project, including a project proposal, a review of related work, and a complete software design or research plan. Students will gain the appropriate oral and written communication skills, as well as critical and creative thinking skills to successfully enable them to work in teams and as future graduate students or employees.

The CSci 492/493 sequence carries the Essential Studies Capstone (C) designation. The following two ES goals are integrated into the course:

1) Critical and creative thinking: Your senior project will require that you design and implement a software product or conduct a formal research project in computer science. In either case, you will be required to apply critical thinking skills in the review and analysis of previously published material and to apply creative thinking skills in the design of an original project that draws upon your specific interests in computing. Approximately 50% of your grade will be based on successful application of critical and creative thinking.

2) Oral and written communication: This course has four phases, each of which entails an oral presentation and a written document. Approximately 50% of your grade will be based on the quality of these presentations and documents.

The CSci 492/493 sequence also carries the Essential Studies Capstone Advanced Communication (A) designation. More than one-third of the course activities and graded work (up to approximately 50%) will be dedicated to the development of discipline-specific communication skills. You will be expected to apply feedback on the quality of your work from one phase to the next in an effort to improve and refine your communication skills.

COURSE OUTLINE (tentative and approximate):

Week Material

492:

- 1 Introduction
- 2 Team Formation and Project Selection
- 3 IP Presentation & Project Proposal Reviews
- 4 Project Proposal Reviews
- 5 Related Work Paper/Presentation Discussion
- 6 Group Work Session
- 7 Proposal Presentations
- 8 Proposal Presentations
- 9 Template overview, paper submission protocol
 Patents, copyrights

- 10 Related Work/Rough Draft Review and Feedback
- 11 Related Work/Rough Draft Review and Feedback
- 12 Related Work and background presentation
- 13 Related Work and background presentation
- 14 First Semester Project Demos
- 15 First Semester Project Demos - Final Paper due

493:

- 1 Second Semester Overview
- 2 Group Work Session
- 3 Group Work Session
- 4 Group Work Session
- 5 Midterm Code Review Explanation and Overview
- 6 Group Work Session
- 7 Midterm Code Review and Demos
- 8 Midterm Code Review and Demos
- 9 Spring Break
- 10 Rough Draft Discussion
- 11 Final Paper Rough Draft Reviews
- 12 Final Paper Rough Draft Reviews
- 13 Final Demo Presentations
- 14 Final Demo Presentations
- 15 Final Poster Session / Pizza Party

GENERAL:

- 1) All assignments are due on the assigned dates (by midnight). No late assignments are accepted without PRIOR written approval.
- 2) Grading: Grades for both CS 492 and 493 will be based on assessed critical and thinking, as well as oral and written communication.

CSci 492

- Critical Thinking (20%): Project Design/Research Plan
- Creative Thinking (20%): Initial Project Code Review
- Oral Communication (25%):
 - 7% - Project Proposal Presentation
 - 8% - Selected Related Work Presentation
 - 10% - Project Design/Research Plan presentation
- Written Communication (35%):
 - 10% - Progress Reports
 - 7% - Initial Project Proposal
 - 8% - Refined Project Proposal
 - 10% - Related Work Survey

CSci 493

- Critical and Creative Thinking (40%):
 - 20% - Midterm Code Review
 - 20% - Final Code Review
- Oral Communication (30%):
 - 10% - Poster Presentation
 - 10% - Midterm Code Presentation
 - 10% - Final Project Presentation
- Written Communication (30%):

10% - Progress Reports
10% - Rough draft of software design documentation/research
paper
10% - Final draft of software design documentation/research
paper

A=100-90%, B=89-80%, C=79-70%, D=69-60%, F=59-0%.

Any grading problems, appeals or questions can be brought before the instructor for discussion.

3) Plagiarism: You are expected to write your own assignments. In any/all cases of plagiarism the grade for that assignment will be zero for all persons involved. However, I do encourage students to discuss and work together on labs and assignments. But, do not copy solutions, programs, or code fragments from other students.

4) If you plan to request disability accommodations in this course, you are expected to register with Disability Services for Students, McCannel Hall, Rm 190, 777-3425 v/tty, dss@und.edu, www.und.edu/dept/dss.

5) If you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible. My office hours are indicated as above.

6) Disclaimer: This syllabus is intended to suggest the outline of the course; it is not absolute. Changes to the syllabus will be announced in class.

Copyright © 2019