

Syllabus for SENG 4500 001

Course Name:

Software Engineering Capstone Project I

Course Prefix and Number:

SENG 4500

Course Section Number:

001

Course Description (from catalog):

Application of technical and professional skills in solving a real-world problem in a team environment. Topics include professional code of conduct, intellectual property, patents and copyrights, legal and ethical issues, entrepreneurship, and transition from student to software engineering professional.

Required Course Materials for Purchase:

None

Student Learning Outcomes or Objectives:

This is the first course in a two-course, senior-level capstone project experience. This course provides practical training in software development using software engineering tools and principles. Students will practice using software development processes, methodologies, and commonly used tools covering the complete life cycle of software development by building a fairly complex software system. Students are required to complete a significant team project during the semester. Students work as part of a team to develop solutions to problems posed by either internal or external customers. Problems may require considerable software development or evolution and maintenance of existing software products.

Upon completion of this course, each student will be able to:

- Analyze problem statements and customer feedback to determine requirements.
- Analyze proposed architecture and design for conformance to requirements.
- Design a system to meet the requirements using architectural and design principles from previous courses.

- Create a plan of work with appropriate milestones and team member responsibilities to deliver the product in the time available
- Document software systems

Assessment of Student Performance – Grading Scale:

Grading	
A	≥ 94
A-	90-93
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
F	below 60

Assessment of Student Performance – Major Assignments and percentage of final grade:

Task	Percent
Project Management	20%
Requirements Elicitation, Analysis, and Specification	20%
Design and Architecture	20%
Project Presentations	20%
Peer Feedback	10%

Assessment of Student Performance – Attendance/participation if portion of final grade:

Attendance is required for this course: you must attend regular classes. Not counting excused absences, you can miss at most three regular class sessions on days when you are not presenting before you start

losing points. Each class missed beyond the first three will result in a deduction of 3 points from your final course grade (e.g., if you have five absences that are not excused, you will lose 6 points from your final grade). You cannot miss a class session on a day when you are scheduled to present (i.e., when you are one of the speakers for your team) without a university-excused absence. Ten unexcused absences will automatically give you an F for this class.

Statement of Engagement with Diverse Scholarly Perspectives

This course aligns with the intent of the university to engage diverse scholarly perspectives to develop critical thinking, analysis, and debate. The inclusion of a course reading does not imply endorsement.