

Fall 2020

CS 490-101: Design in Software Engineering

Theodore Nicholson

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CS 490: Design in Software Engineering

Syllabus

Instructor

Instructor:	Theodore L. Nicholson
Office:	GITC 4414
Office Hours:	Due to Covid all office hours will be online in WebEx (or Canvas)
Email:	theodore.l.nicholson@njit.edu

Course Description

This course focuses on the methodology for developing software systems. Methods and techniques for functional requirements analysis and specifications, design, coding, testing and proving, integration and maintenance are discussed.

Textbook

	Software Engineering (9th Edition) Ian Sommerville ISBN: 978-0137035151
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Grading Scheme

Exam	30%
Course Project	70%
--Alpha	(10%)
--Beta	(15%)
--Release Candidate	(20%)
--Final Version	(25%)

Student Outcomes

- Students will be able to explain the major theories and methods applicable to professional software engineering.
- Students will be able to design, implement and evaluate a computer based system to meet desired needs.
- Students will be able to function effectively on a team to accomplish a goal.
- Students will be able to use current techniques, skills and tools necessary for computing practice.

Topics

- Software Processes

- Project Management
- Software Requirements/Requirements Engineering Process
- System Models
- Architectural Design
- Distributed System Architectures
- Application Architectures
- Object-Oriented Design
- User Interface Design
- Tools – debuggers, unit testing, profiling, version control.

Cheating Policy

Cheating on a programming assignment results in zero credit for all students involved. Cheating on an exam will result in an "F" in the course.

You may discuss problems with each other, in fact, you are encouraged to do so. Where does discussion end and cheating start? You may **NOT** copy lines of code from anybody or anywhere. You may **NOT** use code in your assignments that you did not write. You may not use third party frameworks. As a general rule: If you don't understand the code and can't explain the code, you can't use the code.

Please familiarize yourself with the [NJIT Honor Code](#). Violations of the honor code will be dealt with seriously and reported immediately to the Dean of Students.

Late Policy

To receive credit all programming assignments must be handed in on time. No credit will be given for any programming assignment that is not turned in on the day (and time) it is due.

Prerequisites

CS 280, CS 288
