

Syllabus

SENG541 Special Topics in Software Engineering

Yrd. Doç. Dr. Mehmet KAYA

Course Meeting Times

Lectures: 1 session / week, 3 hours / session

Description

This seminar course is based on the book "Design Patterns", Gamma et. al. It is intended to provide a sophisticated look at Object Oriented Design methods with emphasis on conceptual understanding rather than writing a lot of code (you will be writing lots of code in Software Metrics).

Students will make several presentations on patterns from the text and will write a small amount of supporting code. This work is conducted in teams of two students each. The presenting students and I jointly lead a discussion of each pattern following its presentation. A strong background in Object Oriented Design Principles is a must to be successful in this class, although any particular programming language expertise is not required.

Required Texts

Design Patterns, Elements of Reusable Object-Oriented Software, Erich Gamma, et. al., Addison-Wesley, 1994, ISBN 0-201-63361-2

Exams

There will be no midterm or final exam. After each session, students will be given a quiz on the pattern covered during that session. This will be a take home quiz and they will have 24 hours to submit their answers. Students will also be evaluated based on their presentations and class participations.

Presentation Schedule

Following Design Patterns will be assigned to students on the first day of classes:

Abstract Factory, Builder, Singleton, Factory Method, Prototype, Adapter, Bridge, Composite, Decorator, Façade, Flyweight, Proxy, Chain of Responsibility, Command, Interpreter, Iterator, Mediator, Memento, Observer, State, Strategy, Template Method, and Visitor

Grading

Your overall grade will be determined roughly as follows where each Project will have equal weight:

| ACTIVITIES | PERCENTAGES |
|---------------|-------------|
| Presentations | 60% |
| Participation | 10% |
| Quizzes | 30% |