

Fall 2006

CEG 760: Advanced Software Computer Engineering

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CEG760 Advanced Software Engineering

Fall Quarter 2006

Wright State University

Course Description

This course covers advanced topics in software engineering. Aspects of problem specification, design, verification, and evaluation are discussed. We will focus on design methods, including software patterns and software architecture, plus some advanced topics involving formal methods of software specification or evaluation using software metrics. Students will participate in team projects to apply the methods discussed.

Professor

Dr. Thomas C. Hartrum

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Office Hours: M T W R 2:00-4:00 or by appointment.

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Class Hours: T R 8:00 P.M. – 9:15 P.M., Russ, Room 153.

Texts

Partha Kuchana, *Software Architecture Design Patterns in Java*, Auerbach, 2004.

Jos Warmer & Anneke Kleppe, *The Object Constraint Language Second Edition*, Addison-Wesley, 2003.

Additional papers will be handed out as appropriate.

Prerequisites

CEG 660

Grading

Grading will be as follows:

Projects	30
Midterm	35
Final Exam	35

Course grades will be based on the total score as follows. A: 90-100, B: 80-89, C: 70-79, D: 60-69, F: below 60.

Grades may be further curved if appropriate.

The projects will be worked in teams of two or three. You may pick your partner(s) or I will pick them. More detail on the projects will be provided later.

Tentative Schedule Fall 2006

Week	Topic	Kuchana	Warmer & Kleppe
1	Introduction, OO Review	Ch 1, 2, Handouts	Ch 1
2	Abstraction & polymorphism	Handouts	
3	Patterns & Creational Patterns	Ch 3-9, 10, 11, 12	
4	Collectional Patterns	Ch 15, 16, 17, 18	
5	Structural Patterns	Ch 19, 20, 21, 22, 24	
6	Behavioral Patterns, midterm 10/12	Ch 30, 33, 36	
7	Architecture	Handouts	
8	Formal Methods		Ch 2 & 3, Ref Ch 6 - 10
9	Formal Methods		Ch 2 & 3, Ref Ch 6 - 10
10	Formal Methods		Handouts
Final Exam (11/14) Tuesday 8:00 – 10:00 PM All			All

NOTE: There will be *no* early final exam – plan your travel accordingly. In case of a legitimate conflict, a makeup final can be arranged.