SE 207 – Software Design and Architecture Spring 2008 Location: HH 522 W/F 1:00 – 2:15 PM

Instructor

Jiacun Wang, jwang@monmouth.edu Office location: Howard Hall B-12 Office telephone: (732) 571 – 4449 Office hours: Wednesday 9:00 -12:00. Other times by appointment only.

Course Objectives:

The course introduces students to nature of software design, design process, design principles, design notations, design tools, design heuristics, and design patterns. It covers both software product design and software engineering design. Engineering design will be discussed at architecture level, mid-level and low-level separately.

Required text book:

Christopher Fox, Introduction to Software Engineering Design, Addison Wesley Higher Education, 2007, ISBN-10: 0321410130

Course Work

There will be four assignments, a midterm test, a final exam, and a group project.

Course Policies:

Evaluation:

Assignments:	40%
Project:	20%
Midterm:	20%
Final exam:	20%

Attendance:

Attendance at classes is required. Students are responsible for all material covered and announcements made in class.

Academic Honesty:

Everything turned in for grading in this course must be your own work. By the Monmouth University policy, students found to be in violation of this rule will, at the very least, receive a failing grade in the course and may be subject to stiffer penalties. Students who contribute to violations by sharing their work with others are subject to the same penalty.

Special Accommodations:

Students with disabilities who need special accommodations for this class are encouraged to meet with me or the appropriate disability service provider on campus as soon as possible. In order to receive accommodations, students must be registered with the appropriate disability service provider on campus as set forth in the student handbook and must follow the university procedure for selfdisclosure, which is stated in the Guide to Services and Accommodations for Students with Disabilities. Students will not be afforded any special accommodations for academic work completed prior to the completion of the documentation process with the appropriate disability service office.

Withdrawal:

Last day to withdraw with automatic assignment of "W" grade: March 31, 2008.

Topics covered (tentative):

The following is the tentative lecture schedule for this course. Dates and topics may change during the semester.

Date	Lecture	Chapter
1/23	Discipline of software design	1
1/25	Software design processes and UML activity diagrams	2
1/30	Design processes and design management	2
2/01	Context of software product design	3
2/06	Product design analysis	4
2/08	Product design alternatives	5
2/13	More on product design alternatives	5
2/15	Designing with Use Cases	6
2/20	More on Use Cases	6
2/22	Engineering design analysis	7
2/27	Conceptual modeling	7
2/29	Engineering design resolution activities	8
3/05	Review	
3/07	Midterm	
3/19	Architectural design	9
3/21	Architectural modeling	9
3/26	Generating and selecting software architecture	10
3/28	Finalizing architecture	10
4/02	Advanced UML diagrams	11
4/04	Detailed design overview and mid-level class modeling	11
4/09	Project	
4/11	Project	
4/16	Dynamic mid-level design: Interaction Models	12
4/18	Mid-level stated-based design	13
4/23	Low-level design	14
4/25	Patterns in software design	15
4/30	Project presentation	
5/02	Review	