

CS 442/542 Software Engineering Spring 2005
Mon & Wed 5:30-6:45pm (CH 430)

Prerequisite: CS303 & CS350 with grades of C or better

Instructor: Wei Zhao

Office Hour: Mon & Wed 2:00-4:00pm (CH154); after class is also a good time; or by appointment.

Text Book: Stephen R. Schach, Object-Oriented & Classical Software Engineering, 6th ed), McGraw Hill,

Text book URL:

http://auth.mhhe.com/business/mis/schach_jump/index.mhtml.

There are some online quizzes of each chapter
<http://www.mhhe.com/engcs/compsci/schach5/quizzes.mhtml>.

Home work:

Home work will be based on selected exercises of each chapter. Undergraduate and Master students will be given slightly different exercises. Master students will be given more research oriented reading assignments. There will be 3 writing home work. The home work does not include the term project documents.

Examinations:

There are two exams: mid-term exam and the final exam. The time of the exams is indicated on the schedule. Those are close-book exams. Questions include multiple choices, filling-in blanks, and short answers. You may also be requested to write up code fragments. Master students will have slightly different questions.

Term projects (choose one of two topics):

Project topic one: Ophelia's Oasis in the Amlet Desert (See Appendix A for project description)

Objectives: Prepare yourself as a software consultant to develop enterprise applications

Project topic two: Develop a transformation system that transforms business process models into run-time implementations. Detailed description will be posted later.

Objectives: Prepare yourself as a technical engineer and/or a software engineering researcher to develop IT infrastructure that helps to advance software engineering itself.

Grading:

Mid-term exam: 25%

Final-exam: 30 %

Project: 30%

 Demo and implementations: 15%

 Project documents: 10%

 Project final presentation: 5%

 Individual student is credited according to the amount of effort he/she has contributed to the project. The project document should clearly indicate individual's contribution.

Homework: 15%

 Master students get 10% for the homework and get 5% for the reading assignments.

 Undergraduate students get 10% for the homework and get 5% for the two department-wide exams.

Policy:

1. No makeup exams.
2. No late home work assignment and project documents will be accepted. If you can not attend the class to submit the home work at the due date, please email me the files before the due date. All submitted materials are processed by regular word processors. No hand-writing will be accepted.
3. Any single incident of copying or duplication of assignment and exams will result in 0 score for that assignment and exam. A subsequent occurrence of academic dishonesty will result in the grade of F for the course.

Tentative Schedule:

Date	Lecture	Chapter	Miscellaneous
Jan 5, Wed	1	1	Lecture 1.ppt
Jan 5, Wed			Pre-class exam: 7:00 – 8:00 PM (CH430)
Jan 6, Thu			Pre-class exam: 7:00 – 8:00 PM (CH430)
Jan 7, Fri			Pre-class exam: 11:00 AM – 12:00 Noon (CH430)
Jan 10, Mon	2	2	Lecture2.ppt
Jan 12, Wed	3	2	Lecture3.ppt Homework 1: 1.1, 1.4, 1.6, 1.8, 2.4, 2.6, 2.8, 2.10 Reading assignment: C. Larman, V. R. Basili, Development: A Brief History,” IEEE Computer 36
Jan 17, Mon			Martin Luther King, Jr. Holiday
Jan 19, Wed	4	3	Lecture4.ppt Homework 1 due
Jan 24, Mon	5	3	Lecture5.ppt Homework 1 return. Homework 1 solution
Jan 26, Wed	6	4	Lecture6.ppt
Jan 31, Mon	7	5	Lecture7.ppt Homework 2: 1. undergraduate and master students: 3.1, 3.9, 4 2. master student reading assignment. V. Manzoni, R. T. Price, “Identifying Ext Comply with CMM Levels 2 and 3”, IE engineering. .pdf

			<ul style="list-style-type: none"> ▶ Write a report (less than one page) stating <ul style="list-style-type: none"> ■ What KPA of CMM are satisfied by ■ What KPA are not ■ What features that need to be added to reach CMM levels 2 and 3 <p>Reading for pleasure: J. Grenning, “Launching a Process-Intensive Company”, IEEE software. [pdf]</p>
Feb 2, Wed	8	6	Lecture8.ppt
Feb 7, Mon	9	6	Homework 2 due
Feb 9, Wed	10	7	
Feb 14, Mon	11	7	
Feb 16, Wed	12	10	Homework2 return
Feb 21, Mon			Mid-term exam: software engineering fundamentals
Feb 23, Wed	13	10	The start of term project
Feb 28, Mon	14	11	
Mar 2, Wed	15	11	Term project requirement analysis documents due
Mar 7, Mon	16	11	
Mar 9, Wed	17	12	
Mar 14, Mon	18	12	
Mar 16, Wed	19	13	
Mar 21, Wed	20	13	Term project analysis documents due

Mon			
Mar 23, Wed	21	14	
Apr 4, Mon	22	14	Term project design documents due
Apr 6, Wed	23	15	
Apr 11, Mon	24	15	
Apr 13, Wed	25	8	
Apr 16, Sat			Major Field Test exam required for undergraduate exam before 10:00am-12:00pm. A light breakfast is provided at 9:30. Location: online or in CH145 and CH430 Registration deadline: April 1th 12:00 noon CH118
Apr 18, Mon	26	9	
Apr 20, Wed	27	16	
Apr 25, Mon	28		Project demo and presentation
Apr 27, Wed			Open days
May 4, Wed			Final exam 4:15-6:45pm

Useful links:

1. IEEE standard software engineering terminology:
<http://ieeexplore.ieee.org.fetch.mhsl.uab.edu/iel1/2238/4148/00159342.pdf?tp=&arnumber=159342&isnumber=4148&arSt=&ared=&arAuthor=> (you have to use UAB computers to access this file)

2. Capability Maturity Model for Software version 1.1:
<http://www.sei.cmu.edu/pub/documents/93.reports/pdf/tr24.93.pdf>
CMMI frequently asked questions:
<http://www.sei.cmu.edu/cmmi/adoption/ques-ans.html>
3. Extreme Programming resource:
<http://www.extremeprogramming.org/>
4. Resources on CVS: <https://www.cvshome.org/>,
<http://durak.org/cvswebsites/doc/>
5. Apache Ant: <http://ant.apache.org/>