

Spring 2018: CIS 487 - Software Engineering (3 Credits)

W 4:10-6:50. SN 227.

Instructor

Dr. Zhijun Wang.

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Office Hours: MW 1-3, WF 9-10, or by appointment.

Course Description

From the Catalog – Introduces the Unified Modeling Language (UML) for object-oriented analysis and design, object-oriented life cycle models, testing, maintenance, and performance measurement of object-oriented software projects. Students will work in teams to develop object-oriented software projects. Prerequisites: CIS 321.

Mandated Goals/Learning Outcomes

- LEAP goal – Intellectual and practical skills throughout the curriculum.
- Learning outcomes – Critical thinking and creative thinking.

Specific Course Goals

- Get familiar with basic concepts and techniques of software engineering.
- Learn a visual software design language, OOP design patterns, and the SCRUM process.
- Work on team-based software engineering projects.

Tentative Schedules

- Exam 1 – 1/31. Exam 2 – 2/21. Exam 3 – 3/28. Final exam due by 11pm on 4/24.
- Week 1 – 4. Systems life cycle models. Agile methods. SCRUM.
- Week 5 – 7. Business cases and user requirements. Visual languages. Analysis.
- Week 8 – 12. System design. Object-oriented design patterns. System architecture.
- Week 13 – 15. User interface and interaction design. Implementation and testing.
- Week 1 – 15. Team project - Design and implementation of small software systems using popular languages/libraries such as Java, .Net, or Python.
- For detailed schedules and assignments with due dates etc., please visit <http://cs.planetapps.com/487.html>

Textbook

- “Head First Software Development” by Dan Pilon and Russ Miles, O’Reilly Media, 1st edition, 2008. ISBN-13: 978-0596527358.
- “Essential Scrum: A Practical Guide to the Most Popular Agile Process” by Kenneth S. Rubin, Addison-Wesley Professional, 1st edition, 2012. ISBN-13: 978-0137043293.
- Other relevant book and web references will be posted on the course webpage.

Evaluations

- Team Project Attendance and Documentation – 50%
Teamwork attendance – 40%. Document submissions – 10%. No late project file will be accepted without a documented excusable reason.
- Three Midterm Exams/Presentations – 30%
The first missing midterm exam can be excused with an excusable reason such as an absence with a doctor's written notice. In this case the final exam carries its weight.
- Comprehensive Final Exam and Final Project Presentation – 20%
A missing final exam receives a zero. No exception.
- Final Grade – A \geq 90%, B \geq 80%, C \geq 70%, D \geq 60%, F < 60%.

Federally, HEPC, and Shepherd Mandated Policies

Disability Support Services

Disability Support Services at Shepherd University believes that every student should succeed, and works closely with students to meet their needs. Students requesting any disability related accommodation should contact the Disability Coordinator at 304-876-5122. This includes students with learning disabilities needing classroom accommodations, students requesting specific housing accommodations for health-related reasons, and all other disability accommodations. Accommodations need to be documented and provided to instructors. Please see <http://www.shepherd.edu/disability> for more information.

Academic Integrity

Each student in this course is expected to abide by the Shepherd University Academic Integrity Procedures in the Student Handbook – <http://www.shepherd.edu/conduct>.

Class Attendance

You must attend your classes regularly and engage in the requirements for each class; otherwise, your financial aid may be revoked either partially or in full. This would result in an amount due by you to the University immediately. Please refer to <http://www.shepherd.edu/financialaid> for more details.

Shepherd and CME Suggested Policies and Information

Free tutoring scheduling. Please refer to the academic support center's website at <http://www.shepherd.edu/academic-support/>.

Cell Phone and Text Messaging Policy – Please turn your cell phone off or put it in the silent mode. Please talk outside of the classroom if needed. No texting please.

Students in athletics – It is your responsibility to provide a letter signed by your coach listing all of the days in which you will be absent. Accommodations will be made only if the letter is received from your coach no later than the end of the first week of class.

The instructor reserves the right to update this syllabus, but only when necessary. In this case students will be notified in a reasonable and timely fashion.