Syllabus

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COURSE INFORMATION

Course Number

SER 215

Course Title

Software Enterprise I: Personal Software Process

Credits

3

Prerequisites

CST 200 with C or better

Students are espected to have experience with problem-solving using programming and object-oriented programming using Java.

Faculty

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Teaching Assistant

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Catalog Description

Software Engineering; Object-Oriented Programming; Personal Software process for individual professionalism; Time and Defect estimation; Yield and Productivity; Software Tools;

Course Overview

This course is first in the Software Enterprise (multi-semester sequence) designed to expose students to practical, real-world considerations in software development. It is a required/core course for BS in Software Engineering program. Students will learn in a hybrid lecture-lab-project environment, which exposes them to concepts and accelerates conceptual understanding in a project context. Lab assignments provide an opportunity for students to develop and enhance a defined process for their own work. Students will be introduced to Software Engineering, Software Life Cycle models, Object-Oriented Programming, Personal Software process, Effort estimation and tracking, Defect estimation and tracking.

Learning Outcomes

At the completion of this course, students will be able to:

- Design a software solution using Object-Oriented Design principles of encapsulation, information hiding, abstraction, inheritance, and polymorphism
- Implement a software solution in an object-oriented programming language employing standard naming conventions and making appropriate use of advanced features such as exception handling, I/O, and simple GUIs
- Use object-oriented design tools such as UML class diagrams to model problem solutions and express classes and relationships such as inheritance, association, aggregation, and composition
- Use personal software process for individual development productivity through time estimation and tracking
- Use personal software process for individual development quality through defect estimation and tracking
- Demonstrate working effectively in small teams

COURSE TOPICS, SCHEDULE & GRADING

Course Topics, Schedule (TENTATIVE)

Activities used for instruction and assessment of learning include: discussion/presentations; textbook and

supplemental readings; individual assignments; programming assignments, quizzes, group project, mid-term test, and a final exam.

ACTIVITIES/ASSIGNMENTS	POINTS	DUE DATE All assignments are due at **11:59pm** on dates shown
WEEK 1: Introduction to Software Engineering, Software Development Process		
Quiz (Software Development Process)	20	Aug 25
Assignment 1	50	Aug 27
WEEK 2: Java Overview		
Quiz (Java Overview)	20	Sep 1
Assignment 2	50	Sep 3
Assignment 3	50	Sep 3
WEEK 3: Object-Oriented Programming (OOP)		
Quiz (OOP)	20	Sep 8
Assignment 4	50	Sep 10
Assignment 5	50	Sep 10
WEEK 4: Personal Software Process (PSP), PSP0 (Effort Tracking), Modeling with UML		
Quiz (PSP)	20	Sep 15
Quiz (UML)	20	Sep 15
Assignment 6 (PSP0)	50	Sep 17
Assignment 7 (UML)	50	Sep 17
Project: Iteration 1 (Team formation)	25	Sep 17

WEEK 5: Defect Tracking & Estimation (PSP1)		
Quiz	20	Sep 22
Assignment 8 (PSP1)	50	Sep 24
Project: Iteration 2 (Planning)	50	Sep 24
WEEK 6: Design & Code Reviews (PSP2)		
Assignment 9 (PSP2)	50	Oct 1
Project: Iteration 3 (Design)	50	Oct 1
WEEK 7: Project		
Project: Iteration 4 (Implementation)	75	Oct 8
WEEK 8: FINALS		
Final Exam	150	Oct 10
Project: Iteration 5 (Testing and Post-mortem) Final Deliverable	75	Oct 10
Project: Peer-Review CATME survey	25	Oct 10
Post-Assessment	-	Oct 10

Grading

Grade	Percentage	Points Range
A	90 – 100%	900 – 1000
B	80 – 89%	800 – 899
C	70 – 79%	700 – 799
D	60 – 69%	600 – 699
E/F	Below 60%	599 and below

Assessment Type	Weight	Points
Assignments	35%	350 (top 7 out of 9 assignments)
Quizzes	10%	100 (top 5 out 7 quizzes)
Mid-term test	10%	100
Final Exam	15%	150
Project	30%	300
Total		1000

Grading Procedure

Grades reflect your performance on assignments and adherence to deadlines. Graded assignments will be available within 10 days of the due date via the Gradebook.

COURSE POLICIES & ETHICS

Communicating With the Instructor

This course uses a discussion board called "Hallway Conversations" for general questions about the course. Prior to posting a question, please check the syllabus, announcements, and existing posts. If you do not find an answer, post your question. You are encouraged to respond to the questions of your classmates.

Email questions of a personal nature to your instructor or assigned TA. You can expect a response within 48 hours.

Online Course

This is an online course. There are no face-to-face meetings. You can log into your course via MyASU or https://my.asu.edu.

Email and Internet

ASU email is an official means of communication among students, faculty, and staff. Students are expected to read and act upon email in a timely fashion. Students bear the responsibility of missed messages and should check their ASU-assigned email regularly.

All instructor correspondence will be sent to your ASU email account.

Course Time Commitment

This three-credit course requires approximately 135 hours of work. Please expect to spend around 18 hours each week preparing for and actively participating in this course.

Late or Missed Assignments

Notify the instructor **BEFORE** an assignment is due if an urgent situation arises and the assignment will not be submitted on time. Published assignment due dates (Arizona Mountain Standard time) are firm. Please follow the appropriate University policies to request an accommodation for religious practices or to accommodate a missed assignment due to University-sanctioned activities.

Submitting Assignments

All assignments, unless otherwise announced, MUST be submitted to the designated area of Blackboard. Do not submit an assignment via email.

Drop and Add Dates/Withdrawals

This course adheres to a compressed schedule and may be part of a sequenced program, therefore, there is a limited timeline to drop or add the course. Consult with your advisor and notify your instructor to add or drop this course. If you are considering a withdrawal, review the following ASU policies: Withdrawal from Classes, Medical/Compassionate Withdrawal, and a Grade of Incomplete.

Grade Appeals

Grade disputes must first be addressed by discussing the situation with the instructor. If the dispute is not resolved with the instructor, the student may appeal to the department chair per the University Policy for Student Appeal Procedures on Grades.

Student Conduct and Academic Integrity

Academic honesty is expected of all students in all examinations, papers, laboratory work, academic transactions and records. The possible sanctions include, but are not limited to, appropriate grade penalties, course failure (indicated on the transcript as a grade of E), course failure due to academic dishonesty (indicated on the transcript as a grade of XE), loss of registration privileges, disqualification and dismissal. For more information, see http://provost.asu.edu/academicintegrity. Additionally, required behavior standards are listed in the Student Code of Conduct and Student Disciplinary Procedures, Computer, Internet, and Electronic Communications policy, and outlined by the Office of Student Rights & Responsibilities. Anyone in violation of these policies is subject to sanctions.

Plagiarism or academic dishonesty in any form will not be tolerated. Punishment can include a record on the student's transcripts, an E in the course, and/or dismissal from the department. The following exemptions are valid for this course:

- You can discuss the homework with other students. ***But you are not allowed to copy someone***

else's code.
- You can discuss the methods and the algorithm with other students. *But do not write the code (share the code) with the other students.*
- *Do not share your code (complete or partial) on discussion boards or via email*

All source code you submit **must be yours**. A software tool may be used to check for similarities between submitted assignments and code available on the web. In this class, any cases of suspected violations will be turned over to the department who will track violations and determine additional punishment for students and repeat offenders. Punishment can include a record on the student's transcripts, an E in the course, and/or dismissal from the department. If you are not sure if something is really cheating, ask your professor. ASU's academic integrity policies (http://provost.asu.edu/academicintegrity) and the ASU Student Code of Conduct are provided on ASU's website.

Students are entitled to receive instruction free from interference by other members of the class. An instructor may withdraw a student from the course when the student's behavior disrupts the educational process per Instructor Withdrawal of a Student for Disruptive Classroom Behavior.

Appropriate online behavior (also knows as *netiquette*) is defined by the instructor and includes keeping course discussion posts focused on the assigned topics. Students must maintain a cordial atmosphere and use tact in expressing differences of opinion. Inappropriate discussion board posts may be deleted by the instructor.

The Office of Student Rights and Responsibilities accepts incident reports from students, faculty, staff, or other persons who believe that a student or a student organization may have violated the Student Code of Conduct.

Prohibition of Commercial Note Taking Services

In accordance with ACD 304-06 Commercial Note Taking Services, written permission must be secured from the official instructor of the class in order to sell the instructor's oral communication in the form of notes. Notes must have the notetaker's name as well as the instructor's name, the course number, and the date.

Course Evaluation

Students are expected to complete the course evaluation. The feedback provides valuable information to the instructor and the college and is used to improve student learning. Students are notified when the online evaluation form is available.

Syllabus Disclaimer

The syllabus is a statement of intent and serves as an implicit agreement between the instructor and the student. Every effort will be made to avoid changing the course schedule but the possibility exists that unforeseen events will make syllabus changes necessary. Please remember to check your ASU email and

the course site often.

Accessibility Statement

In compliance with the Rehabilitation Act of 1973, Section 504, and the Americans with Disabilities Act as amended (ADAAA) of 2008, professional disability specialists and support staff at the Disability Resource Center (DRC) facilitate a comprehensive range of academic support services and accommodations for qualified students with disabilities.

Qualified students with disabilities may be eligible to receive academic support services and accommodations. Eligibility is based on qualifying disability documentation and assessment of individual need. Students who believe they have a current and essential need for disability accommodations are responsible for requesting accommodations and providing qualifying documentation to the DRC. Every effort is made to provide reasonable accommodations for qualified students with disabilities.

Qualified students who wish to request an accommodation for a disability should contact the DRC by going to https://eoss.asu.edu/drc, calling (480) 965-1234 or emailing DRC@asu.edu. To speak with a specific office, please use the following information:

ASU Online and Downtown Phoenix Campus
University Center Building, Suite 160
602-496-4321 (Voice)

Polytechnic Campus
480-727-1165 (Voice)

West Campus
University Center Building (UCB), Room 130
602-543-8145 (Voice)

Tempe Campus

480-965-1234 (Voice)

TECHNICAL REQUIREMENTS & SUPPORT

Computer Requirements

This course requires a computer with Internet access and the following:

- Web browsers (Chrome, Internet Explorer, Mozilla Firefox, or Safari)
- Adobe Acrobat Reader (free)
- Adobe Flash Player (free)
- Microphone (optional) and speaker

Technical Support

This course uses Blackboard to deliver content. It can be accessed through MyASU at http://my.asu.edu or the Blackboard home page at https://myasucourses.asu.edu

To monitor the status of campus networks and services, visit the System Health Portal at http://syshealth.asu.edu/.

To contact the help desk call toll-free at 1-855-278-5080.

STUDENT SUCCESS

Student Success

This is an online course. To be successful:

- check the course daily
- read announcements
- read and respond to course email messages as needed
- complete assignments by the due dates specified
- communicate regularly with your instructor and peers
- create a study and/or assignment schedule to stay on track