

Syllabus – CS2540 ONLINE – Software Engineering

Instructor:	Alison Sunderland Email: alisonsunderland@weber.edu (slow), Canvas email is preferred for course related matters. Phone: 801-395-3592 Office: Davis Campus, D2-308K Office Hours: Mon: 9:30am – 1130am and Tues/Thur: 7:30pm – 9:30pm
Text:	System Analysis & Design An Object-Oriented Approach with with UML (5th Edition) by Dennis, Wixom, and Tegarden. ISBN 978-1-119-03020-1 Coursework is based off of the 5th edition. Keep this in mind, if you chose to purchase an earlier edition.
Required Software	Microsoft Visio: For UML Modeling. The Department's MSDN Academic Alliance program permits students to install fully licensed Microsoft software on their personal computers. Instructions for obtaining various titles, including Visio, can be found here . If you have any problems logging into the system, please contact PatrickBeck@weber.edu for technical assistance. Meanwhile, you can also download and install the trial version of Visio directly from Microsoft (good for 60 days) if you are waiting. *Note this title is also accessible via Remote Desktop
Course Fees	Course fees for the Computer Science major are designed to cover the costs of lab equipment maintenance and replacement including desktop and server computer systems and software; consumable materials and supplies; and support for lab aides, student tutors, and online instructional resources.
Course Description:	<p>This course provides an introductory understanding of Systems Analysis and Design (SAD) and provides practical guidance on the construction of object-oriented systems by gathering requirements from a client, then analyzing and designing a solution to fit their needs. This course covers the Unified Modeling Language (UML) 2.0 and explores IBM'S Rational Unified Process as one possible Software Engineering methodology.</p> <p>The overall goal of this course is for each student to understand the concepts of software modeling by diagramming and formalizing system requirements as they relate to the Software Development Lifecycle (SDLC).</p>
Learning Outcomes:	Upon successful completion of this course, the student shall be able to <ul style="list-style-type: none">• Interview and communicate with clients to gather their Software Requirements and Specifications.• Produce UML object oriented modeling artifacts with focus on system analysis and design principles.• Create Use-Case models, narratives, and Data Flow Diagrams describing the system.• Create Class Objects, including Class Diagrams and Interaction Diagrams.• Create Component and Deployment Diagrams.• Develop a relational database schema.• Design User Interfaces.• Write a Software Requirements and Specification (SRS) Document for a client

<p>Canvas:</p>	<p>This online course is hosted in Canvas. To log on to the course once it has been made available, go to http://canvas.weber.edu, and follow the login instructions. You will need your WSU wildcat name and password to log in. You should have already received this information from the admissions department. If you still have problems getting into the course, please email me and I will see if I can resolve the issue. If you are unfamiliar with Canvas, there are Canvas Getting Started guides available.</p>
<p>Announcements</p>	<p>I use Canvas Announcements to communicate with the class as a whole. Make sure to set up your Canvas profile to receive Announcements in a timely manner.</p> <ul style="list-style-type: none"> • click on Profile on the top right hand corner of the page. • add one or more Ways To Contact, preferably the email you check daily or your active cell phone number • click on Notifications on the left side of the page • under Announcement set at least one contact method to ASAP <p>You are responsible for the information contained in all Announcements.</p>
<p>Virtual Meetings with Instructor</p>	<p>Communication is a two way street. Although this is an on-line course, I strongly encourage you to ask questions via our discussion forum first (hopefully other students can help answer your questions in a timely manner, as I'm not always on-line 24/7).</p> <p>If it's of a more personal nature, you can e-mail me through Canvas or chat live with me when I'm on-line via Google Hangout, or schedule a help session via our Conference Forum in Canvas (by appointment request) anytime you feel you are having difficulty with the material, or would like personal feedback on your performance (after an assignment is graded). Of course these appointments should be made well in advance and you should not wait to the last minute to ask for help.</p>
<p>Class Participation:</p>	<p>This may be your first online course, so you may wonder how the lessons are organized and how much time is required of you to earn a good grade.</p> <p>There are about the same number of lessons as there would be lectures in a walk-in class that meets two times (4 hours) per week for 15 weeks. This does not count reading and homework time, which is usually double the amount of class time. So, realistically, you should expect to devote at least 12 hours per week on this course to successfully pass it.</p> <p>I will be presenting new material almost every week. You will be responsible for reading at least one chapter per week, plus viewing the videos and completing a homework assignment approximately once per week.</p> <p>Just as attendance is a significant factor in a student's success in a traditional class, your online participation in this course will be important to your learning and academic success. You should plan to log in to the course, even if briefly, at least every couple days. This will allow you to check for any new announcements, read and participate in discussions, and review other materials that might have been posted. The benefits of actively participating in the class are numerous: you will become a more involved learner, get to know your fellow classmates and benefit from their questions and comments, as well as contributing your own.</p>

	Also, don't wait until the last minute to start your work - it's a guaranteed way to fail my course!						
Group work	<p>Software Engineering is rarely an individual activity. There is usually a team of people working together to refine the system requirements. As a result, working with a group of students is a strong component of this course.</p> <p>You will be placed in several semi-permanent groups during the semester. The group is a tool you can use to help solidify your understanding of the content, ask questions about assignment requirements, brainstorm ideas, and share resources.</p> <p>Much of the time you will be submitting your own individual work but you are still expected to actively participate in the group activities.</p>						
Student with Disabilities:	Any student requiring accommodations or services due to a disability must contact Services for Students with Disabilities (SSD) at the Student Services Center in room 181. SSD can also arrange to provide course materials (including this syllabus) in alternative formats if necessary. You can also call 801-626-6413 or visit WSU SSD for more details.						
System Accounts:	<p>Students taking CS classes are given access to the CS network.</p> <p>Students can access Athena, the Computer Science department's Windows server, from the any internet-enabled device: To log into Athena, use Remote Desktop Start-> Programs-> Accessories-> Remote Desktop Connection OR Start-> Programs-> Accessories-> Communication-> Remote Desktop Connections Type athena.cs.weber.edu:53243 into the Computer text box. To store data on your local computer, click Options-> Local Resources and make sure the Disk Drives box is checked</p> <p>Username: lower case 'cs\' followed by a capital W and your W#. (Example: cs\W12345678).</p> <p>Password: the last 4 digits of your W# followed by cs! (Example: 4567cs!) The first time you log on, you will have to change your password. The password must be least 8 characters, containing both upper and lowercase alpha characters, numbers and special characters. (Example: aBc+D3f~`)</p> <p>Network accounts should be created for the students automatically. If you have any problems logging into the system, please contact PatrickBeck@weber.edu for technical assistance.</p>						
Grading:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Homework Assignments:</td> <td style="text-align: center;">70%</td> </tr> <tr> <td style="text-align: center;">Final Project (20% from me, 10% from your peers)</td> <td style="text-align: center;">30%</td> </tr> <tr> <td style="text-align: center;">Total Possible</td> <td style="text-align: center;">100%</td> </tr> </table>	Homework Assignments:	70%	Final Project (20% from me, 10% from your peers)	30%	Total Possible	100%
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Homework Assignments	Homework assignments are made up of questions and/or activities designed to reinforce the concepts introduced in the chapter.
Final Project	<p>The best way to learn and understand system analysis and design is for students to actually analyze and design software systems. As such, students in this class will be working on a simulated final project as a team during the end of the semester.</p> <p>The final project will involve building a detailed Software Requirements Specification (SRS) document based on a simulated business similar to your homework assignments. It will encompass everything you were taught (and should have learned) throughout the course.</p> <p>Before issuing a final grade, peer evaluations will also be performed in which students confidentially evaluate their group members at the end of the project. Based on the evaluations, all students in the group may not receive the same grade. Teamwork is critical and internal communication is a must. Group evaluation is a way to fairly distribute grades to those who are actually doing the work. If there is a problem with team members, I reserve the right to redistribute team assignments at any time.</p>
Late/Missing Homework	All assignment due dates are clearly posted several weeks in advance. Consequently, the posted due dates are the absolute latest you can turn in an assignment (typically 11:59PM MST on a Sunday) for full potential credit. I will not accept late work for full credit under any circumstance (even emergencies).
Military Deployment	During deployment, military personnel will not be penalized for late homework assignments. Submit a copy of the deployment letter, indicating the dates, before the deployment begins.
Cheating:	<p>Academic honesty is highly valued at Weber State University and within this class. A student must always submit work that represents his or her original words or ideas. If any words or ideas are used that do not represent the student's original words or ideas, the student must cite all relevant sources. The student should also make clear the extent to which such sources were used. Words or ideas that require citations include, but are not limited to, all hardcopy or electronic publications, whether copyrighted or not, and all verbal or visual communication when the content of such communication clearly originates from an identifiable source.</p> <p>Individuals involved in any acts of cheating or plagiarism will be given a failing grade for the course. In addition, names of these individuals will be submitted for disciplinary action by the department and the university.</p> <p>Academic dishonesty in an online learning environment involves any and all of the following:</p> <ul style="list-style-type: none"> • Having a tutor or friend complete a portion of your assignments • Having a reviewer make extensive revisions to an assignment • Copying work directly from another student • Using information from online information services without proper citation <p>If detail source code is duplicated from another's program into yours, it will be deemed as cheating and severe action will be taken against persons who knowingly have participated. Source code that doesn't match the output results may also be deemed as cheating which may result in severe penalties.</p>

	<p>CS Department policy dictates that any verifiable evidence of student academic cheating, as defined and determined by the instructor, will result in: 1) an automatic failing grade for the class and 2) a report to the Dean of Students that will include the student's name and a description of the student's dishonest conduct.</p> <p>Students are expected to be familiar with the WSU Student Code and abide by it. The Code may be reviewed online. (pay specific attention to Section 4D). All necessary steps will be taken to enforce the Student Code to guarantee fairness to all students.</p>																												
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Tentative 16-Week Schedule – CS2450 Fall 2016

Week	Reading Assignments	Weekly Objective	Final Project	Homework
ONLINE Aug 29 – Dec 15 (Finals Week)				
1 Aug 29	Chapter 1: Intro to S.A.D	SAD Quiz	Homework 1	
2 Sept 5	Mon – Labor Day SCHOOL CLOSED Chapter 2: Project Management	Create a System Request and Cost Benefit Analysis	Homework 2	
3 Sept 12	Chapter 3: Requirements Determination	Create a Software Requirements Specification (SRS)	Homework 3	
4 Sept 19	Chapter 3 continued			

5 Sept 26	Chapter 4: Business Processes and Functional Modeling	Create a Use Case Diagram and Activity Diagrams	Homework 4	
6 Oct 3	Chapter 5: Structural Modeling	Create an Analysis Class Diagram	Homework 5	
7 Oct 10	Chapter 6: Behavioral Modeling	Create Interaction Diagrams	Homework 6	
8 Oct 17	Fri – Fall Break SCHOOL CLOSED Chapter 8: Class and Method Design	Create a Design Class Diagram	Homework 8	
9 Oct 24	Chapter 9: Data Management Layer Design GROUP FORMATIONS - Final Project Introduced	Create a Database Table diagram Discuss with your group the final project scenario and responsibilities.	Homework 9	W1
10 Oct 31	Work on Final Project	Group meeting with professor for final project approval		W2 Final Project System Proposal and CBA
11 Nov 7	Chapter 10: Human-Computer Interaction Layer Design	Create User Interface (UI) Design	Homework 10	W3
12 Nov 14	Chapter 10 continued and Work on Final Project	Create User Interface (UI) Storyboards		W4 Group SRS Draft Peer Review 1
13 Nov 21	Thur / Fri – Thanksgiving SCHOOL CLOSED Chapter 10 continued and Work on Final Project	Create User Interface (UI) Mockups		W5
14 Nov 28	Work on Final Project			W6 Group UI Draft
15 Dec 5	Final Project Presentations	Presentation and Brochure due by client presentations		Presentation feedback
16 Dec 12	<p align="center">Finals Week</p> <p align="center">Submit the electronic final draft of the SRS with incorporated UI and the tri-fold brochure in Canvas by Tues, Dec 13.</p> <p align="center">Submit one bound, hard-copy of final SRS document with incorporated UI and the tri-fold brochure by Tues, Dec 13.</p> <p align="center">Submit Peer Review 2 within 24 hours of final SRS submission</p>			

*Subject to change at instructor's discretion