

California Lutheran University

Bachelor's Degree for Professionals

Systems Analysis and Design
CSC 331 Systems Analysis
SPRING 2016 - 1 March through 10 May

PROFESSOR: John Dillon
CLASSROOM: Main Campus, D Building, Room 8
TIME: Tuesdays, 6:00 – 9:30 PM
OFFICE HOURS: By appointment
CONTACT INFORMATION: jpdillon@CalLutheran.edu

TEXTBOOK: *Systems Analysis and Design, 6th edition*
Dennis, Wixom, and Roth, Wiley

PREREQUISITES: Math 241: Discrete Math
CSC 210: Introduction to programming

DROP DATES: March 14 – Last Day to Drop without ‘W’
April 11 – Last Day to Drop

Description from Catalog

This is the first course in system engineering that stresses the system development life cycle. Students learn ways of organizing the structure and process of building very large-scale systems that may or may not involve computers. Includes information gathering, design tradeoffs, implementation strategies, product liability, acceptable risk analysis and project follow-up. Prerequisites: [CSC 210](#), [MATH 241](#).

Course Description

This course introduces you to two systems development methodologies: traditional structured systems development (SSD) and object-oriented systems development (OOSD).

The course focuses on analysis and design and introduces the student to several analysis and design models and techniques. We concentrate on analyzing and designing a system from the business point of view.

Our primary objective is for you to develop the skills of a systems analyst, including

- Enterprise analysis and modeling
- Structured modeling techniques, such as workflow diagrams, data flow diagrams, program structure charts, and system flow charts.
- Object-oriented modeling techniques, such as use cases and object relationship models

From this course, you will acquire solid concepts and skills for the next related course, *CS335 – Software Engineering*.

GOALS/OBJECTIVES:

Upon completion of this course, the student will be able to:

- Understand how to gather requirements
- Identify the differences between Structured and Object-Oriented systems development
- Document system requirements with traditional diagrams (such as workflow, system flow, and data flow diagrams) and object oriented models (such as relationship diagrams and use cases)
- Analyze and develop models for business processes and applications
- Define input and output requirements
- Identify implementation concerns

Class Format

This course is a blended course; that means that approximately 30% of material will be online, while 70% of the content will be presented in class, face-to-face. As a blended course, it is neither more nor less challenging than traditional courses you've taken at CLU, and was developed to meet Cal Lutheran's strict requirements for excellence and compliance with Carnegie-hours requirements.

This course offers you a chance to learn a myriad of system concepts and skills. A variety of opportunities are provided to help you learn and demonstrate your understanding of this material.

Class time will be devoted to lectures, collaborative learning such as class discussions, small-group exercises and team projects.

You are *strongly encouraged* to take notes during class.

Since this is a class about design, not implementation, *no computer programming is required* for any of the class work, assignments, or projects.

Due to time constraints, the lecture will cover *selected* materials from the text, but you are responsible for *all* concepts covered in the assigned readings. You should complete assigned readings and exercises *before* coming to class.

You will probably spend 3 to 6 hours outside of class on reading and homework.

To facilitate discussion of course materials and exercises, you should bring your textbook to class each meeting.

Class participation includes regular attendance, and contributions to discussions, small group exercises, and individual projects. Thoughtful study of assignments before coming to class will ensure that you're ready to contribute. Missing more than two classes may impact your final grade.

You will complete an individual project based on a business case problem. Exercises we do throughout the term will be used as a basis for reports on the projects. They require you to make a single cohesive report document from the exercises.

All assigned works should be turned in by the due date at the beginning of class. There may be times when other obligations take priority. If so, inform me in advance (at least 2-3 days before a due date). With a valid reason, I will accept late assignments without penalty *for one class meeting only*. Any assignments more than one class meeting late will be given a zero.

You are expected to take quizzes and exams during the regular class period on the dates scheduled. Exceptions to this policy will be allowed if you have a documented medical excuse and only if you make arrangements with me before the scheduled exam period.

Conduct yourself in a professional manner in this course. Conduct and performance that would not be acceptable on the job may reduce your chances of success in this course.

The project reports will require that you employ your writing and presentation skills since both written and oral reports are required.

Course Assignments/Requirements/Course Schedule

Date	Topic/Readings
Week 1	The Context of Systems Analysis and Design Methods Information Systems Development Project Selection and Management
Week 2	Requirements Determination Fact-Finding Techniques for Requirements Discovery Modeling System Requirements with Use Cases
Week 3	Process Modeling Data Modeling
Week 4	Midterm
Week 5	Moving into Design Architecture Design
Week 6	UI Design Program Design
Week 7	Data Storage Design OO Design
Week 8	Implementation
Week 9	Deployment and Maintenance
Week 10	Project Presentations

	Course Wrap-up & Exam Review
Week 11	Final Exam

Student Workload/Carnegie Hours:

Typical Student Workload for this 4-credit course (50-minute hour):

Activity	Instructor-Led Hours		Homework Hours		Remarks
	Weekly	Course	Weekly	Course	
Readings of required material (instructor notes, text book and on-line resources)			3 hr 40 min	40	Over 11 weeks, uneven distribution
Weekly Classes	3 hr. 20 min.	36 hrs. 40 min.			Includes final exam
Mid-term Prep				10	Average, varies by student
Weekly Projects				35	Average, varies by student
Final Exam Prep				15	Average, varies by student
Total		50		100	

Grading

Grading Criteria:

- Homework and quizzes: 20%
- Midterm: 20%
- Final: 25%
- Projects: 25%
- Active class participation: 10%
- It is *possible though unlikely* that the midterm and final will be take-home exams.
- *If* we have ten or more students in the class, exam scores will be pseudo-normalized to the *second-highest* value. Otherwise scores will be normalized to the highest grade achieved. See this article for details: [Addressing the “One Genius Makes the Rest of Us Look Bad” Problem](#).
- Classroom participation is naturally somewhat subjective. I realize that some students are more “outgoing” than others and I will take this into consideration as I get to know you.

The university allows for the assignment of +/- grades thus the following scale will be used for homework and exams:

		B+	<90 - 87	C+	<80 - 77	D+	<70 - 67
A	100-97	B	<87 - 84	C	<77 - 74	D	<67 - 64
A-	<97 - 90	B-	<84 - 80	C-	<74 - 70	D-	<64 - 60
						F	<60

CLU Course Technology Requirements

We will use Blackboard for all homework and project submittals, as well as tests. Exams tend to be a mixture of multiple choice, true/false, fill in the blank, and “short answer” questions, but you should read each question carefully and select the *best* answer for each.

Course Evaluations Statement

All course evaluations are conducted online. Your feedback is important to us. You will receive an email message reminding you when the website is open for your feedback. The link is:

<http://courseval.callutheran.edu>

Disability Statement

California Lutheran University is committed to providing reasonable accommodations in compliance with ADA of 1990 and Section 504 of the Rehabilitation Act of 1973 to students with documented disabilities. If you are a student requesting accommodations for this course, please contact your professor at the beginning of the semester and register with the Disability Support Services Coordinator, Wendy Jimenez, for the facilitation and verification of need. The Disability Support Services Coordinator is located in the Center for Student Success Office at 3259 Pioneer Street, and can be contacted by calling 805.493.3878 or emailing wjimene@callutheran.edu

Statement on Academic Honesty

The educational programs of California Lutheran University are designed and dedicated to achieve academic excellence, honesty and integrity at every level of student life. Part of CLU’s dedication to academic excellence is our commitment to academic honesty. Students, faculty, staff and administration share the responsibility for maintaining high levels of scholarship on campus. Any behavior or act which might be defined as “deceitful” or “dishonest” will meet with appropriate disciplinary sanctions, including dismissal from the University, suspension, grade F in a course or various forms of academic probation. Policies and procedures regarding academic honesty are contained in the faculty and student handbooks.

Plagiarism, cheating, unethical computer use and facilitation of academic dishonest are examples of behavior which will result in disciplinary sanctions. Plagiarism includes, but is not limited to:

- word for word copying without using quotation marks or presenting the work as yours
- using the ideas or work of others without acknowledgement
- not citing quoted material. Students must cite sources for any information that is not either the result of original research or common knowledge.

Standards of Student Conduct Statements:

- [Student Life Handbook](#)
- [Academic Honesty Statement](#)

University Harassment Policy

Be civil to each other, both on- and offline. For information on the University's **student harassment policy and rights, please go to the following link:**
[Student Life Handbook](#)

Sexual Misconduct

California Lutheran University does not tolerate any degree of sexual misconduct on or off-campus. We encourage you to report if you know of, or have been the victim of, sexual harassment, misconduct, and/or assault. If you report this to a faculty member, she or he must notify Cal Lutheran's Title IX Coordinator about the basic facts of the incident. More information about your options for reporting can be found at: <http://www.callutheran.edu/title-ix/>

Pearson Library

Pearson Library provides access to scholarly books, journals, ebooks, and databases of full text articles from scholarly journals. To begin using these materials, visit the library web page <http://www.callutheran.edu/library>

There are many ways to contact Pearson Library for research assistance, no matter where you are!

- Email Yvonne Wilber (Professionals liaison) at ywilber@callutheran.edu
- General Library email: CLUlibrary@callutheran.edu
- Library main phone: 805.493.3250
- Text us your question: 805.493.3867
- Get more help at: <http://www.callutheran.edu/library/help/>

CLU Writing Center

The Writing Center provides 1:1 writing consultations, in-person and online, with trained undergraduate and graduate writing consultants. We welcome all writing-related projects at any stage of the writing process across the diverse disciplines of study at CLU. The Writing Center also hosts writing workshops, provides in-class visits, facilitates writing groups, and offers a writer's studio option for longer, sustained projects. Services suit writers of all levels, including traditional undergraduates, graduate students from all fields, all English language learners, and accomplished scholars alike. All members of the CLU community with an @callutheran.edu email address are welcome to make use of our services. For more information, please visit at www.callutheran.edu/writing_center or call 805-493-3257. Please schedule appointments online through MyCLU Blackboard with the yellow "The Writing Center" icon in "Tools," or stop by The Writing Center itself, located in the Darling Collaboration Suite of Pearson Library.

Veterans Resources

If you are a veteran, military member, or a family member of a veteran or military member, please refer to Cal Lutheran's Veterans Resources webpage for important information: <http://www.callutheran.edu/veterans/> Also, if you are a veteran receiving benefits and you are struggling in a class, you most likely qualify for free tutoring. Please contact the Veterans Coordinator, Jenn Zimmerman, veterans@callutheran.edu or 805.493.3648, for more information.

Help Desk

Students may contact the Help Desk about telephone, network, wireless network, software questions password problems, hardware problems, and general consultation (i.e. you cannot log into your MyCLU portal, or you are having problems with Blackboard). Please email specific details about your problems to helpdesk@callutheran.edu, click on the following link for more information http://www.callutheran.edu/iss/technology_services/helpdesk.php or call: 805.493.3698

Final Note

This syllabus is subject to change. Every effort will be made to alert students to changes that occur in a timely manner.

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