

<p style="text-align: center;">COURSE SYLLABUS <b>Object-Oriented Design and Analysis</b> <b>CSC 315</b> <b>Fall 2014</b></p>
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**PROFESSOR:** Mr. John Dillon

**CLASSROOM:** D14

**TIME:** Mon 6:00 – 9:30 PM

**OFFICE HOURS:** Mon 5:00 – 6:00 or as needed (D21)

**CONTACT INFORMATION:** email: [jpdillon@callutheran.edu](mailto:jpdillon@callutheran.edu)

**TEXTBOOK:** TBD

**COURSE DESCRIPTION:**

This course focuses on problem solving utilizing the object-oriented paradigm. We will discuss the development of programs using classes which employ the concepts of abstraction, encapsulation, inheritance, and polymorphism. Emphasis will be on writing and testing programs. Prerequisites: CSC 210.

**IMPORTANT: Programming will be done in Visual Basic, which the student should have installed and operational on the first day of class.**

NOTE: We are using Visual Basic as our language for teaching, but the concepts learned here will apply to other OOP languages as well.

**GOALS/OBJECTIVES:**

Goal 1: Demonstrate an understanding of how to formulate objects.

1. When should atomic data items be grouped to form an encapsulated abstract data type (class)
2. When should one class be used to create additional classes (inheritance and aggregation)
3. How to modify existing classes to include exceptional behavior (overloading and polymorphism)

Goal 2: Demonstrate an understanding of how to implement and manipulate objects.

1. Class creation using Visual Basic.NET
2. How Visual Basic.NET implements inheritance overloading, and polymorphism.
3. How to create a fully encapsulated object in Visual Basic.NET and why this is an important programming concept.

### **ACADEMIC HONESTY:**

Intellectual property rights are to be respected at all times, with appropriate recognition/reference given to informational sources. Plagiarism occurs whenever a source of any kind has not been acknowledged. Every student must understand the correct procedures for acknowledging and identifying sources of borrowed material. The basic rule is this: Give credit where credit is due. In other words, if you include any material which is beyond your first hand experience, and which is not common knowledge of scholars in your field, you must cite your source in a way that your reader can [a] find the source from the information in your reference and [b] immediately determine which information is your source's contribution to scholarship and which is yours.

### **GROUP PROJECTS/ACTIVITIES:**

I do not foresee any group projects/activities outside of the classroom but if that changes, you will be given specific instructions.

### **GRADING CRITERIA:**

Course grades will be assigned based on your performance on homework assignments, exams, and classroom participation. Homework assignments and exams can usually be assigned objective grades (you either answered the questions correctly or you didn't.)

For programming assignments:

- Fully working program will earn 100%
- Mostly working program will earn between 90% and 100%
- Correct general approach but not working will earn between 80% and 90%
- A legitimate attempt but incorrect approach will earn between 70% and 80%
- A weak attempt, or no attempt at all will earn very little, if anything
- *Late programs will lose 10% of their grade per late class period*

Programs are due at the beginning of the specified class period unless otherwise specified. Anytime after that is considered late. The above scores are dependent on you demonstrating the program for me in class and then turning in the printed code and a brief write-up (to be specified at the time of assignment.) Details will be provided at the time the assignment is given. Come to class prepared. **Do not assume that paper will be available in the classroom printer.**

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	100-95	B	<87 - 83	C	<77 - 73	D	<67 - 63
A-	<95 - 90	B-	<83 - 80	C-	<73 - 70	D-	<63 - 60
						F	< 60

Your course grade will be determined as follows:

Programming Homework	35%
Midterm(s) and quizzes	30%
Final Exam	25%
Class participation	10%

***Tentative Schedule (of necessity, some topics will overlap with others)***

<b>Week</b>	<b>Subjects</b>	<b>Homework Due</b>
1	Introduction and specifics relating Visual Studio	
2	Object abstraction	Homework 1
3	Object development	Homework 2
4	Object development (continued)	Homework 3
5	Object encapsulation	Homework 4
6	Midterm	
7	Message passing between objects	Homework 5
8	Inheritance	Homework 6
9	Polymorphism	Homework 7
10	Miscellaneous topics and final review	
11	Final	

**ADEP DROP DATES**

15 September, Monday: Last day to add; last day to drop without financial penalty

13 October, Monday: Last day to withdraw with a grade of “W”

**Number of Hours Outside of Class:** You will spend on average 100 “50-minute” hours of homework for the term, or 9 hours of homework per week, to meet our Carnegie Instructional Hours requirements.

**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 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				8	Average, varies by student
Homework Projects				40	Average, varies by student
Final Exam Prep				12	Average, varies by student
<b>Total</b>		<b>50</b>		<b>100</b>	

**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 in the Pederson Administration building, and can be contacted by calling 805.493.3260 or emailing [wjimene@callutheran.edu](mailto: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.

**Pearson Library**

At Cal Lutheran we won't tell you what to think — we'll teach you how to think. You'll learn how to gather information, analyze and synthesize. Don't worry about the "gathering"... that's the easy part. We have technicians, information specialists, and trainers to help you find the information you need. 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/iss/research/>. Librarians are available to assist you at the Thousand Oaks campus or via Meebo chat on the Library's home page or emailing [CLUlibrary@callutheran.edu](mailto:CLUlibrary@callutheran.edu). You may contact the library at (805) 493-3250. If you attend classes at one of CLU's satellite locations, see <http://www.callutheran.edu/iss/research/satellite.php> for the full range of services provided.

The Information Specialist for the Bachelor's Degree for Professionals program is Jennifer Petersen (<http://libguides.callutheran.edu/ADEP>)

### **CLU Writing Center**

The California Lutheran University Writing Center believes that it is important to create better writers, not just better papers. Our trained, experienced tutors are happy to help CLU undergraduate, ADEP, and graduate students in all stages of the writing process, from generating ideas to refining final drafts. Tutors are therefore trained to act as interested audience members, rather than as professional editors or proofreaders. They will actively collaborate with students on ways to improve their writing by asking lots of questions, giving feedback, and demonstrating self-editing strategies that can be applied to future writing tasks. Please go to [http://www.callutheran.edu/writing\\_center/](http://www.callutheran.edu/writing_center/) to register and schedule an appointment.

### **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](mailto: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 click on the following link for more information [http://www.callutheran.edu/iss/technology\\_services/helpdesk.php](http://www.callutheran.edu/iss/technology_services/helpdesk.php) or call: 805.493.3698