

California Lutheran University

Computer Science

Course Description

Title: Capstone

Course Description:

This course is a project oriented capstone course that permits the students to demonstrate that they have mastered the material presented in other computer science and related courses. Students will select a development/research project related to work, school or personal interest and proceed, independently, as if they were working under a contract to develop the project requirements, design, code, tests, and/or documentation. The instructor will provide guidance and acts as a customer or customer's tech representative.

Objectives:

The objective is to permit students to demonstrate that they have mastered the fundamentals of program requirement definition, analysis, design, implementation, testing and documentation by working in a realistic environment. Students who complete this course should have confidence in their ability to perform in the workplace.

Learning Outcome Goals:

Technology Integration
Information Technology
Analysis/Critical Thinking.

Prerequisites:

Students should have completed appropriate upper-division Computer Science courses. Those who select a project that is database related should have completed a course in database system design.

Grading:

University Honesty Policy will be observed. No examinations or intermediate grades will be used. Final grade will be based on the assessment of the quality of the student's performance on the project as indicated by the working program, program documentation and final report.

Project Guidelines:

Project should be used to demonstrate that you know how to take a project from inception to completion, including all necessary documentation. It will be evaluated on *quality* not quantity.

In selecting your project, give consideration to a small project related to your work. It is much better to do a small project well than to do a poor job on a large or complex project. Projects with interdisciplinary subjects, including business and engineering, are encouraged. Whenever appropriate, issues on ethics should be included.

Guidelines for preparation are outlined as follows. Strict adherence is not required.

- Problem statement
- Feasibility assessment
- Proposal
- Requirements specification
- Design documentation
- Source code and Program documentation
- Operating procedures
- Final report (typically an organized compilation of the documents identified above)