

Laney College

Computer Systems Analysis

Overview

College	Laney - Mathematics and Sciences
Originator	Kim Bridges
Award Type	Certificate of Achievement

Codes and Dates

State Approval Date	1/02/2018
Curriculum Committee Approval Date	5/12/2017
Board of Trustees Date	11/14/2017
Current Effective Date	1/22/2018
Program Control Number	35261
Top Code	0701.00 - Computer Systems Analysis
CIP Code	11.0101: Computer and Information Sciences, General

Description

The certificate in Computer Systems Analysis prepares students for careers as Systems Analysts, or as software developers with duties in analysis and design. The program provides the analytical, methodological, and language skills required within the computer industry, and serves as a partial foundation for continued education at four-year institutions. It provides a "merit badge" certification of a skill set needed in a vital career field. See a counselor for more information.

Career Opportunities

There are numerous opportunities for workers with these skills as Systems Analysts doing this work exclusively. These are also career-enhancing skills for programmers, software engineers, and computer systems developers.

Program Learning Outcomes

Upon successful completion of this program, students will be able to:

1. Explain the purpose of systems analysis and design, life cycle of systems design, iterative, and waterfall development processes, object oriented analysis and design.
2. Gather data to identify client requirements and interpret and evaluate requirements for completeness, relevance, accuracy, and consistency. Clearly define problems, opportunities, or mandates that initiate projects, write clear and concise business requirements documents and convert them into technical specifications.
3. Use UML in requirements, analysis, design, and documentation phases of software. Use a methodology for analyzing a business situation (a problem or opportunity), modeling it using Use Case & Class Diagrams, and specifying requirements for a system that enables a productive change in a way the business is conducted.
4. Design high-level logical system characteristics (user interface design, design of data and information requirements), and prototype system artifacts to implement a solution.
5. Analyze and articulate economic, ethical, cultural, and legal issues and their feasibilities among alternative solutions.
6. Communicate effectively with various organizational stakeholders to collect information using a variety of techniques and to convey proposed solution characteristics to them.

Degree Requirements:

Core Requirements	Credit Hours: (11 Required)
CIS 006 or Introduction to Computer Programming	5
CIS 061 Structure and Interpretation of Computer Programs *	5
CIS 062 Introduction to Systems Analysis and Design	3
CIS 081 Systems Analysis with UML	3
 Choose 2 courses from the following	 Credit Hours: (7 - 8 Required)
BNK/F 056 Bank Management *	3
BUS 001A Financial Accounting *	4
BUS 001B Managerial Accounting *	4
BUS 005 Human Relations in Business	3
BUS 010 Introduction to Business	3
BUS 020 General Accounting *	3
BUS 024 Computerized Accounting Principles *	3
BUS 076 E-Commerce/Entrepreneurship	3
COMM 020 Interpersonal Communication Skills	3
CIS 025 Object Oriented Programming Using C++	4
CIS 036A Java Programming Language I	4
ECON 002 Principles of Economics (Micro-Economics) *	3
ENGL 005 Critical Thinking in Reading and Writing	3
GRART 115 Web Site Design	3
M/SVN 082 Essentials of Managerial Communications	3
MATH 013 Introduction to Statistics *	4
PHIL 010 Logic	3

Systems analysts must understand the business that they are analyzing, so courses emphasizing business and organization are encouraged. Since man)

Total: 18.00 - 19.00

*: Students planning to transfer to a Computer Science program, especially at UC Berkeley, should choose CIS 61
*: Finance courses mentioned
*: Analysis courses mentioned

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