

Laney College

Database Management With SQL

Overview

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

Codes and Dates

State Approval Date	1/03/2018
Curriculum Committee Approval Date	9/15/2017
Board of Trustees Date	11/14/2017
Current Effective Date	1/22/2018
Program Control Number	35260
Top Code	0707.20 - Data Modeling/Warehousing and Database Administrat
CIP Code	11.0802: Data Modeling/Warehousing and Database Administratic

Description

The certificate in Database Management with SQL prepares students for careers as Database Administrators, or as software developers with skills in database programming. 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

Virtually every computer programming shop requires database expertise. This Certificate provides a highly desirable skill for the computer programmer, or can be the basis for employment as Database Administrator (DBA).

Program Learning Outcomes

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

1. Develop Data Models such as Class Diagrams or Entity Relationship Diagrams (ERDs) from business processes to support database analysis and design.
 2. Create and modify a database and its tables using Structured Query Language's Data Definition Language (SQL-DDL) features.
 3. Write programs that store and modify data in database tables using Structured Query Language's Data Manipulation Language (SQL-DML) features.
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Degree Requirements:

Core Requirements		Credit Hours: (13 Required)
CIS 006 or	Introduction to Computer Programming	5
CIS 061	Structure and Interpretation of Computer Programs *	5
CIS 098	Database Programming with SQL	4
CIS 099	Database Administration with SQL	4
Choose 1 course from the following		Credit Hours: (3 - 4 Required)
BUS 001A	Financial Accounting	4
BUS 005	Human Relations in Business	3
BUS 020	General Accounting	3
BUS 024	Computerized Accounting Principles	3
CIS 020	Microcomputer Assembly Language	4

CIS 025	Object Oriented Programming Using C++	4
CIS 025B	C++ Programming Language II	4
CIS 027	Data Structures and Algorithms	4
CIS 036A	Java Programming Language I	4
CIS 036B	Java Programming Language II	4
CIS 062	Introduction to Systems Analysis and Design	3
CIS 081	Systems Analysis with UML	3
ECON 002	Principles of Economics (Micro-Economics)	3
MATH 011	Discrete Mathematics	4
MATH 013	Introduction to Statistics	4

Since many programming jobs involve financial systems, an introductory accounting or micro-economics course (such as BUS 1A, BUS 20, or ECON 2) is useful to a programming career so can be used as an elective. Computer Science majors often require higher mathematics, so an advanced mathematics course can be used as an elective (such as MATH 3A, 11, or 13).

Total: 16.00 - 17.00

*: *If transferring, CIS 61 is the preferred course, consult with a counselor for more information.

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