

DATABASE MANAGEMENT - ASSOCIATE IN SCIENCE

Plan Code: 2127

The Database Management Systems concentration includes coursework in the design, development and maintenance of relational databases. The program is designed to prepare students for employment in a computer field following graduation. Students wishing a Bachelors' degree (transfer program) should meet with a counselor or advisor to discuss transferability of courses.

Program Student Learning Outcomes

- Demonstrate the ability to attain the Institutional Student Learning Outcomes (ISLOs).
- Analyze the data needs an organization or company and determine how to best organize and store the data in logical, secure, and accessible structures.
- Design web applications to access and manipulate data using MS Access, MySQL, MS SQL Server and PHP.
- Understand the roles and responsibilities of a database administrator and how to diagnose and troubleshoot systems.

Program Requirements

This degree requires the completion of General Education coursework plus the following:

Code Number	Course Title	Units
REQUIRED COURSES		
BCOM 15	Business Communications	3
COSA 25	Microsoft Access for Windows	3
COSA 50	Intro to IT Concepts and Applications	4
COSN 205	UNIX/LINUX Fundamentals	4
COSN 251	Database Essentials in Amazon Web Svcs	3
COSP 38	Database Concepts	4
COSP 237	Database Programming with SQL	4
Required Subtotal		25
Complete one of the following: ¹		19-39
LBCC General Education (Plan A) (https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-a/)		
CSU GE Breadth (Plan B) (https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-b/)		
IGETC Pattern (Plan C) (https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-c/)		
Electives (as needed to reach 60 degree-applicable units) ²		
Minimum Degree Total		60

¹ Units for the major may be double-counted for LBCC GE, CSU GE, or IGETC; see counselor for limitations.

² Elective units from course(s) numbered 1-599, if needed, to reach 60 degree-applicable units.

DATABASE MANAGEMENT - CERTIFICATE OF ACHIEVEMENT

Plan Code: 3127

This program provides the knowledge and skills required of data management professionals. This certificate will prepare students for a variety of roles suitable for an entry-level position in database-related employment. The program provides students with hands-on experiences in enterprise standard database management systems. Students learn to use the SQL database programming language, create database objects, plan, and organize a database around a business need, normalize a relational database system, and provision in-house and cloud-based database solutions. Students may earn industry certificates as part of this certificate.

Program Student Learning Outcomes

- Analyze the data needs an organization or company, and determine how to best organize and store the data in logical, secure and accessible structures.
- Design web applications to access and manipulate data using MS access, MySQL, MS SQL Server and PHP.
- Understand the roles and responsibilities of a database administrator, and how to diagnose and troubleshoot systems.

Program Requirements

Code Number	Course Title	Units
REQUIRED COURSES		
BCOM 15	Business Communications	3
COSA 25	Microsoft Access for Windows	3
COSA 50	Intro to IT Concepts and Applications	4
COSN 205	UNIX/LINUX Fundamentals	4
COSN 251	Database Essentials in Amazon Web Svcs	3
COSP 38	Database Concepts	4
COSP 237	Database Programming with SQL	4
Total Units		25

DATABASE ADMINISTRATOR SPECIALIST - CERTIFICATE OF ACCOMPLISHMENT

Plan Code: 4080

This certificate verifies a strong foundation in the design and management of modern database systems including Microsoft SQL Server, MySQL, and Oracle.

Program Student Learning Outcomes

- Demonstrate the ability to install database software on a computer system and configure it for use.

Program Requirements

Code Number	Course Title	Units
REQUIRED COURSES		
COSA 25	Microsoft Access for Windows	3
COSP 38	Database Concepts	4
Total Units		7

SQL PROGRAMMER SPECIALIST - CERTIFICATE OF ACCOMPLISHMENT

Plan Code: 4158

This certificate features instructor-led exercises and practice in designing and running programs in ANSI/ISO standard Structured Query Language. Types of commands studied include DDL, DML, DQL, DCL, administration and transactional. Students may earn industry certificate of completion as part of this certificate.

Program Student Learning Outcomes

- Design, run, and analyze new and existing SQL programs according to commonly practiced industry standards.

Program Requirements

Code Number	Course Title	Units
REQUIRED COURSES		
COSP 237	Database Programming with SQL	4
Total Units		4