

# CIS PROFESSIONAL IN SQL (CERTIFICATE M0811)

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## Business Division

### Certificate M0811

The SQL Server certificate is designed to prepare students for a career in database administration using SQL Server. The certificate offers a balanced set of classes that provides students skills in database design, data retrieval and database programming. Emphasis is placed on building databases; retrieving data; creating and maintaining database objects; writing stored procedures, functions and triggers for reusable software components. Students will demonstrate the ability to view and update databases and develop programs to automate database functions. Opportunities available after the completion of this certificate include SQL Server report writer, SQL Server developer and software engineer.

## Required Courses

Course Prefix	Course Name	Units
CISD 21	Database Management - Microsoft SQL Server	3
CISD 21L	Database Management - Microsoft SQL Server Laboratory	0.5
CISD 31	Database Management - Oracle	3
CISD 31L	Database Management - Oracle Laboratory	0.5
CISD 40	Database Design	3
<b>Total Units</b>		<b>10</b>

CIS Program Website (<http://www.mtsac.edu/cis/>)

## Program Learning Objectives

*Upon successful completion of this program, a student will be able to:*

- Apply normalization rules to database design.
- Create E-R (Entity Relationship) and UML (Unified Modeling Language) diagrams for a given database scenario.

Review Student Learning Outcomes (SLOs) (<http://www.mtsac.edu/instruction/outcomes/sloinfo.html>) for this program.