

PROGRAMMING IN C++ (CERTIFICATE N0634)

Business Division

Certificate N0634

The Programming in C++ Certificate prepares students for a career in computer programming. The certificate offers a balanced set of classes that provides students the skills to create business-oriented applications in C++, maintain a Microsoft Access database, and learn the tools and techniques required of a systems analyst. Emphasis is placed on object-oriented programming techniques, creating database tables, forms, reports and queries, and implementing a computer system using the system development life cycle methodology. Students will demonstrate the ability to create business applications, write effective program documentation, demonstrate program troubleshooting skills, and build a computer system using the steps of the system development life cycle. Career opportunities after the completion of this certificate include programmer and systems analyst.

Required Courses

Course Prefix	Course Name	Units
CISB 11	Computer Information Systems	3.5
CISD 11	Database Management - Microsoft Access	3
CISD 11L	Database Management - Microsoft Access Laboratory	0.5
CISM 11	Systems Analysis and Design	3.5
CISN 21	Windows Operating System	3
CISP 31	Programming in C++	3
CISP 31L	Programming in C++ Laboratory	0.5
CISP 34	Advanced C++ Programming	3
CISP 34L	Advanced C++ Programming Laboratory	0.5
Total Units		20.5

Program Learning Outcomes

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

- Create event-driven program, using Windows Forms.
- Connect C++ program to the database and incorporate SQL statements into C++ code.

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