EnTec | MIAMI DADE COLLEGE
SCHOOL OF ENGINEERING + TECHNOLOGY

COMPUTER PROGRAMMING AND ANALYSIS

The advantage of the degree

Computer programmers can work for companies to develop in-house applications, as consultant for hire for a specific project, or for a software developer. As an entry-level programmer, you will be primarily modifying code developed by other programmers. You can advance to software engineer, senior programmer, programming manager, and systems analyst.

Skills you will learn

- System Analysis and Design Techniques
- Problem solving skills
- Logic development tools
- Programming in:
  - Visual Basic. NET
  - C++
  - Java

About the major

Computer Programmers convert project specifications, and statements of problems and procedures, into detailed logic from which code or instructions are produced using a computer programming language. The specifications are determined primarily by computer software engineers or systems analysts. Programmers develop and write computer programs to store, locate, calculate, and retrieve specific documents and data. The programs created may run on a mainframe, microcomputer, or from a web site.

Earn This Degree and Work as...

Position	Median Salary
Computer Programmer	$49,396
Software Engineer	$67,150
System Analyst	$65,200
Programming/System Manager	$83,601

Source for position and salary information is the Department of Labor and Statistics.

25065
Associate in Science
Computer Programming and Analysis-Bus Application Programming

Total credits required for the degree is 63.

To provide an opportunity to establish a basic foundation in computer programming for employment in scientific, commercial, industrial, and government data processing applications. Graduates are prepared for positions as entry-level application programmers. Programmer specialists, computer programmers, and programmer analysts.

Course	Course Title	Credits

GENERAL EDUCATION REQUIREMENTS—15 credits required

ENC1101	English Composition 1	3
SPC1017	Fundamental of Speech Communication	3
PHI2604	Critical Thinking/Ethics	3
CLP1006	Psychology of Personal Effectiveness	3
MAC1105	College Algebra	3

MAJOR COURSE REQUIREMENTS— 32 credits required

ACG2021/L	Financial Accounting and Lab	4
CGS1060	Intro to Microcomputer Usage	4
CGS1540	Database Concepts Design	4
CIS1321	Introduction to Systems Analysis and Design	4
CIS2322	Systems Analysis Design and Implementation	4
COP1332	Introduction to Visual BASIC Programming	4
COP1334	Introduction to C++ Programming	4
COP2800	Java Programming	4

Program Electives — 16 credits required

Choose 8 credits

COP2333	Advanced Programming in Visual BASIC	4
COP2335	Advanced Object Oriented Programming C++	4
COP2805	Advanced Java Programming	4
COP2842	Developing Websites using PHP/MYSQL	4

—AND—

Choose 8 credits

CGS2091	Professional Ethics and Social Issues	4
CTS2433	Microsoft SQL Implementation	4
COP2700	Database Application Programming	4
COP2823	ASP/Script Language Programming	4
CTS2463	C# Web Application Development	4

Requirement Note:
Student must attempt CGS1060 by the sixteenth Earned College-Level Credit.

NEW Bachelor of Science in Information Systems Technology Requirements:
ECO 2013, STA 2023, CGS 1060, CGS 1540, COP 1334, and either CTS 1134 or CTS 1650 are pre-requisites for the MDC BS-IST.

This suggested schedule is only one possible method to complete your degree requirements. It is highly recommended that you seek the advice of a Technology department advisor and/or faculty member.

First Term — 15 Credits

CGS1060	Introduction to Microcomputer Usage	4
ENC1101	English Composition I	3
ACG2021/L	Financial Accounting and Lab	4
COP1334	Introduction to C++ Programming	4

Second Term — 15 Credits

COP1332	Introduction to Visual BASIC	4
COP2800	Java Programming	4
CIS1321	Intro. to Systems Analysis and Design	4
MAC1105	College Algebra	3

Third Term — 12 Credits

CIS2322	System Analysis Design Implementation	4
CGS1540	Database Concepts Design	4

Choose one course from the following:
COP2805, COP2333, COP2335, COP2842   4

Fourth Term — 12 Credits

Choose one course from the following:
COP2805, COP2333, COP2335, COP2842   4

Choose two courses from the following:
CGS2091, CTS2433, COP2700, COP2823, CTS2463   8

Fifth Term — Option A — 9 Credits

SPC1017	Fundamentals of Speech Communications	3
PHI2604	Critical Thinking/Ethics	3
CLP1006	Psychology of Personal Effectiveness	3

FOR FURTHER INFORMATION

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