

## Associate in Arts Pathway to a major in Computer Science (10703)



### Areas of Specialization

- Artificial Intelligence
- Information Technology
- Operating Systems and Networks
- Software Applications

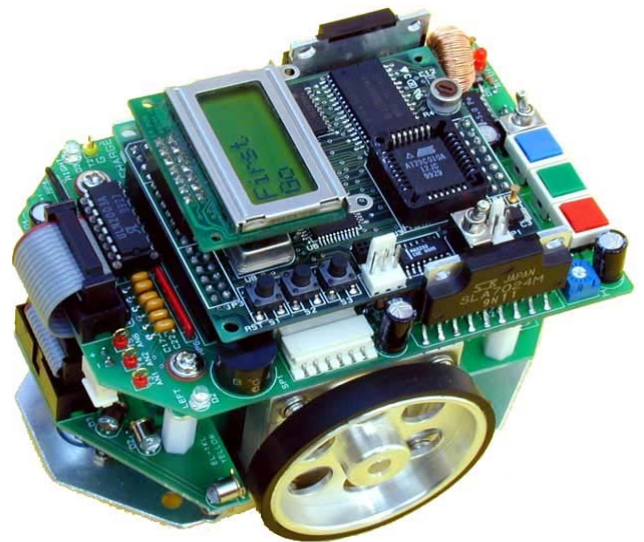
### What can I do with this degree

Computer scientists, especially those who complement their technical knowledge with communication and business skills, can find careers for themselves in almost any sector of society. Computer science majors can find positions as technical administrators and software engineers, as well as non-technical jobs in product support, sales and marketing for wholesale and retail trade.

An advanced degree qualifies a computer scientist to work in a research lab or for a consulting firm. It qualifies him or her to teach at the college and university level as well.

### About the Major

Computer Science is a more science-intensive program than CIS. In addition to courses in programming and applications, the program provides a thorough grounding in mathematics, biology, chemistry and physics. Computer scientists design technical programs, do research, create new technologies, develop operating systems, code device drivers, write specialized programming languages and implement complex applications in a variety of settings. The average entry salary for a computer scientist is \$61,738 although it may vary based on your area of expertise.



## A.A. Pathway to a major in Computer Science 10703

Total credits required for the degree is 60.

Computer Science is a more science-intensive program than CIS. In addition to courses in programming and applications, the program provides a thorough grounding in mathematics, biology, chemistry and physics. Computer scientists design technical programs, do research, create new technologies, develop operating systems, code device drivers, write specialized programming languages and implement complex applications in a variety of settings. Computer Science requires skills in mathematics and physics. Students must complete Calculus II and Physics with Calculus II before entering their junior year.

Course	Course Title	Credits
<b>GENERAL EDUCATION REQUIREMENTS - 44 credits required</b>		
ENC 1101	English Composition 1	3
ENC 1102	English Composition 2	3
SPC 1017	Fundamental of Speech Communication	3
PHI 2604	Critical Thinking/Ethics	3
Humanities	Group B Elective	3
CLP 1006	Psychology of Personal Effectiveness	3
ECO 2013	Economics	3
MAC 2311	Calculus 1	5
MAC 2312	Calculus 2	4
PHY 2048	Physics	4
PHY 2048L	Physics Lab	1
PHY 2049	Physics	4
PHY 2049L	Physics Lab	1
	Natural Science (Life Science) and Lab	4

### Computer Competency (0 credit)

CGS1060	Intro to Microcomputer Usage	0
---------	------------------------------	---

### MAJOR REQUIREMENTS – 16 credits required

CGS 1060	Intro to Microcomputer Usage	4
COP 1334	Intro to C++ Programming	4
COP 2800	Java Programming	4
COP 2805	Advanced Java Programming	4

### Requirement Note:

Student must attempt CGS1060 by the sixteen 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 department advisor and/or faculty member.

### First Term

16 Credits

CGS1060	Introduction to Microcomputer Usage	4
ENC1101	English Composition 1	3
MAC2311	Calculus 1	5
	Natural Science (Life Science) and Lab	4

### Second Term

14 Credits

COP1334	Intro to C++ Programming	4
ENC1102	English Composition 2	3
PHI2604	Critical Thinking/Ethics	3
MAC2312	Calculus 2	4

### Third Term

15 Credits

COP2800	Java Programming	4
CLP1006	Psychology of Personal Effectiveness	3
PHY2048	Physics with Calculus 1	4
PHY2048L	Physics Lab	1
SPC1017	Fundamentals of Speech Communication	3

### Fourth Term

15 Credits

COP2805	Advanced Java	4
PHY2049	Physics with Calculus 2	4
PHY2049L	Physics Lab	1
ECO2013	Principles of Economics	3
Humanities	Group B elective	3

## FOR FURTHER INFORMATION

Miami Dade College District Board of Trustees:  
Helan Aguirre Ferrer, Chair • Armando J. Bucalo Jr., Vice  
Chair • Bernie Navarro • Benjamin Leon III •  
Armando J. Olivera • Marill Cancio • Jose K. Fuentes

Eduardo J. Padrón, College President, Miami Dade College  
Rolando Montoya, College Provost  
Malou C. Harrison, President, North Campus  
Lourdes Oroza, President, Kendall Campus  
José A. Vicente, President, Wolfson Campus  
Armando Ferrer, President, Medical Center Campus  
Jasme F. Jacobs, President, Homestead Campus  
Joanne Bashford, President, InterAmerican Campus  
Mattie Roig-Watnik, President, Hialeah Campus

The Miami Dade College Foundation supports the mission and values of Miami Dade College by encouraging gifts from a wide variety of sources, particularly in the areas of scholarship and program support. For more information on how you can contribute to the College, please call MDC at 305-237-8888.

Miami Dade College is an equal access/equal opportunity institution in compliance with ADA and does not discriminate because of veteran, marital or disability status or on the basis of age, sex, race, national origin or religion. This information is available in accessible formats. For this, or special accommodations, call 305-237-3848 three days before the event. TDD: 711; 1-800-955-8771



Write us  
School of Engineering and Technology  
MDC Wolfson Campus  
500 NE 2nd Ave, Suite 7148  
Miami, FL 33132  
Call or Email US  
305-237-8888 / entec@mdc.edu  
Visit Our Web Site  
<http://entec.mdc.edu>