

**COMPUTER PROGRAMMING AND ANALYSIS**  
**Computer Programming and Analysis Associate in Science Major Code 2195**

**Program Description**

The Associate in Science Degree in Computer Programming & Analysis, offered at the A. Hugh Adams Central Campus, is designed to prepare students for the dynamic world of applications development, while also permitting the student to tailor the degree to their educational goals. Areas of choice include a wide variety of topic areas such as business and engineering programming, hardware and software support, computer applications, computer aided design, computer networking, database management, accounting, business, management, marketing, mathematics, physics, and statistics.

**Related Programs**

Sun Certified Java Specialist Technical Certificate Major Code 62388

**Entrance Requirements**

- HS Diploma or GED
  - PERT
- The PERT test places students into preparatory level reading, writing and math courses designed to prepare them for college-level coursework. Recent ACT or SAT score may also be used for placement. For more information, see <http://www.broward.edu/testing/>. Students who test into college prep courses must successfully complete all of the required coursework to qualify for graduation.

**First Year Term I**

|                                  |  |           |
|----------------------------------|--|-----------|
| CIS 1000C                        | Introduction to Computer Science             | 3         |
| COP 1334C                        | Introduction to C++ Programming <sup>1</sup> | 3         |
| ENC 1101                         | Composition I                                | 3         |
| MAC 1105                         | College Algebra                              | 3         |
| SPC 1024                         | Intro to Speech Communication <b>or</b>      |           |
| SPC 1608                         | Intro to Public Speaking                     | 3         |
| <b>Total Term Semester Hours</b> |  | <b>15</b> |

**First Year Term II**

|                                  |   |           |
|----------------------------------|---|-----------|
| CIS 2321C                        | Systems Analysis & Design <sup>2</sup>          | 3         |
| COP 1335C                        | Intermediate C++ Programming <sup>3</sup>       | 3         |
| CGS 1540C                        | Database Management <b>or</b>                   |           |
| CTS 1431C                        | Microsoft Specialist:: Access <sup>4</sup>      | 3         |
| ENC 1102                         | Composition II <sup>5</sup> <b>or</b>           |           |
| ENC 2210                         | Professional and Technical Writing <sup>5</sup> | 3         |
| Hum / FA                         | Humanities/Fine Arts Elective                   | 3         |
| <b>Total Term Semester Hours</b> |   | <b>15</b> |

**First Year Term III**

|                                  |  |          |
|----------------------------------|--|----------|
| COP 2361C                        | Object-Oriented Analysis & Design <sup>6</sup> | 3        |
| OOP Elec                         | Object-Oriented Programming Elective*          | 3        |
| <b>Total Term Semester Hours</b> |  | <b>6</b> |

**Second Year Term I**

|                                  |                                    |           |
|----------------------------------|------------------------------------|-----------|
| CIS 1513C                        | Project Management <sup>4</sup>    | 3         |
| COP Elec                         | Computer Programming Elective**    | 3         |
| CS Elec                          | Computer Science Elective***       | 3         |
| Elective                         | Field Elective****                 | 3         |
| Soc / Beh                        | Social/Behavioral Science Elective | 3         |
| <b>Total Term Semester Hours</b> |                                    | <b>15</b> |

**Second Year Term II**

|                                  |                                 |           |
|----------------------------------|---------------------------------|-----------|
| COP Elec                         | Computer Programming Elective** | 3         |
| CS Elec                          | Computer Science Elective***    | 3         |
| CS Elec                          | Computer Science Elective***    | 3         |
| Elective                         | Field Elective****              | 3         |
| <b>Total Term Semester Hours</b> |                                 | <b>12</b> |

**Total Program Semester Hours** **63**

\* OOP Electives: COP2360C or COP2800C

\*\*COP Electives: Any course with a COP prefix or CTS1851C, CTS2403C, CTS2445C, CTS2446C, CTS2420C, CTS2423C, CTS2464C, CTS2465C, CTS2803C, CTS2852C, or CTS2857C

\*\*\* CS Electives: CGS1060C or any course with a CIS, COP, or CTS prefix

**Note:** Students must fulfill the computer literacy general education requirements within the first 15 hours of BC credit by successfully completing the basic student technology test or pass the CG1060C to earn the degree.

\*\*\*\* Field Electives: Any Computer Science (CS) Elective or ACG1003, ACG2001, ACG2011, BUL2241, EGS1001, ETD1320, ETD2350C, GEB1011, GEB2112, MAC2311, MAC2312, MAC2313, MAN2021, MAR1011, PHY1001, PHY2048, PHY2049, PHY2053, PHY2054, or STA2023

<sup>1</sup> Prerequisite – MAT 1033 or MTB 1310

Pre/Co-requisite – CIS1000C

<sup>2</sup> Prerequisite – CIS 1000C and COP 1334C (each with a grade of C or higher)

<sup>3</sup> Prerequisite – COP 1334C (with a grade of C or higher); Pre/Co-requisite – CIS2321C

<sup>4</sup> Prerequisite – CGS 1060C (with a grade of C or higher) or Placement

<sup>5</sup> Prerequisite – ENC 1101

<sup>6</sup> Prerequisite – CIS 2321C and COP 1335C (each with a grade of C or higher)

**It is strongly recommended that students see an academic advisor every term**