

# Computer Science (A.A.S. and B.S.)

## Computer Science Associate of Applied Science Program

The Associate of Applied Sciences Degree in Computer Sciences offers an applied theoretical and practical preparation to develop in students basic and current concepts in the field of computation and information.

The Program promotes the development of skills such as logical reasoning, concepts and basic principles of assembly, microcomputer repair and configuration, mastery of at least one programming language, database management, and the basic knowledge of technical writing.

The Program also aims to develop professionals capable of continuing their learning, programming and installing software, and making publications by electronic means, in addition to having the capability of working in teams and possessing knowledge on professional ethics.

This program is authorized to be offered online.

### TOTAL COST OF PROGRAM

Tuition	\$11,780
Fees	\$1,600
Books	\$1,736
Supplies	<u>\$1,152</u>
Total	\$16,268

### REQUIREMENTS FOR THE ASSOCIATE OF APPLIED SCIENCE DEGREE IN COMPUTER SCIENCE

General Education Requirements	24 credits
Major Requirements	35 credits
Elective Credits	<u>3 credits</u>
Total	62

#### General Education Requirements - 24 credits

GESP	Spanish	6
GEEN	English	6
GEMA1200	Fundamentals of Algebra	3
GEHS 2001F	Historical Process of Florida	3
GECF 1010	Introduction to the Christian Faith	3
GEIC 1010	Information and Computer Literacy	3

#### Major Requirements - 35 credits

COMP 2025	Development of Webpages	3
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COMP 2120	Programming Logic	3
COMP 2315	Structured Programming	3
COMP 2400	Object Oriented Programming	3
COMP 2501	Discrete Computational Structures I	3
COMP 2800	Databases	3
COMP 2850	Mobile Computing	3
COMP 2900	Data Structures	3
COMP 3015	Web Programming with Databases	3
COMP 2970	Seminar and Practice	3
MATH 1500	Precalculus	5

### **Elective Credits – 3 credits**

An elective course is (i) any course a student takes in any General Education, Major or Prescribed Distributive Course within the student’s degree program, in addition to the courses that the student has taken to satisfy the minimum degree program requirements in each category and/or (ii) any course in another degree program. Provided that the student must meet course prerequisites and cannot count the same course twice.

## **Computer Science Bachelor’s Program**

The Bachelor of Science Degree in Computer Science offers a theoretical and practical preparation to develop current concepts in the technical and diversified areas of the computer field. The Program fosters the development of skills such as: logical reasoning, developing well-documented structured programs in various programming languages that work efficiently in a reasonable period of time, recognizing which types of problems are susceptible to solution by computer and using the necessary tools to solve problems and measure the implications of the student’s work as an individual, as well as a team member. The Program also includes detailed knowledge of the organization, architecture, operation and limitations of computerized systems and a background that allows students to continue studying and developing themselves in the field of computer sciences.

Practice or internship experience may be credited to students who have had a satisfactory work experience and request such credit in writing to the director of the academic department. This credit will be subject to whether:

1. The student has been working for a minimum period of two years in a company within the five-year period immediately prior to the date of the request.
2. The student presents a certification and letter from the employer or the Human Resources Office of the company that specifies:
  - a. Years of experience
  - b. Period of time employed
  - c. Position (s) occupied
  - d. Description of tasks
  - e. Any other evidence of professional performance during the time of employment.

3. The student pays 50% of the cost of registration for the practice or internship course for which credit is requested.

This program is authorized to be offered online.

**TOTAL COST OF PROGRAM**

Tuition	\$23,180
Fees	\$3,200
Books	\$3,472
Supplies	<u>\$2,304</u>
Total	\$32,156

**REQUIREMENTS FOR THE BACHELOR OF SCIENCE DEGREE IN COMPUTER SCIENCE**

General Education Requirements	48 credits
Major Requirements	65 credits
Prescribed Distributive Requirements	6 credits
Elective Courses	<u>3 credits</u>
Total	122

**General Education Requirements - 48 credits**

Forty-eight (48) credits are required as explained in the section “General Education Requirements for Bachelors’ Degrees.” Students will take the course GEMA 1200 in the Basic Skills in Mathematics category.

**Major Requirements - 65 credits**

COMP 2025	Development of Webpages	3
COMP 2120	Programming Logic	3
COMP 2315	Structured Programming	3
COMP 2400	Object Oriented Programming	3
COMP 2501	Discrete Computational Structures I	3
COMP 2502	Discrete Computational Structures II	3
COMP 2800	Databases	3
COMP 2900	Data Structures	3
COMP 3015	Web Programming with Databases	3
COMP 3300	Organization and Computer Architecture	3
COMP 3400	Software Engineering	3
COMP 3500	Operating Systems	3
COMP 3900	Visual Computation	3
COMP 4200	Teleprocessing and Networks	3
COMP 4400	Systems Development and Implementation	3
COMP 4410	Computer Security	3

COMP 4910	Practice and Professional Ethics	3
MATH 1500	Precalculus	5
MATH 2100	Introduction to Probability and Statistics	3
MATH 2251	Calculus I	5
PHYS 3001	General Physics I	4

**Prescribed Distributive Requirements - 6 credits**

Select six (6) credits from the following courses:

COMP 2850	Mobile Computation	3
COMP 3600	Computer Graphics	3
COMP 3800	Programming Languages	3
COMP 397_	Special Topics	3
COMP 4160	Parallel Processing	3
COMP 4210	Cloud Computing	3
COMP 4415	Forensics Computation	3
COMP 4480	Artificial Intelligence	3
COMP 4580	Introductions to Robotics	3
MATH 2100	Introductions to Probability and Statistics	3

**Elective Requirements - 3 credits**

An elective course is (i) any course a student takes in any General Education, Major or Prescribed Distributive Course within the student's degree program, in addition to the courses that the student has taken to satisfy the minimum degree program requirements in each category and/or (ii) any course in another degree program. Provided that the student must meet course prerequisites and cannot count the same course twice.