

PROGRAM DEVELOPMENT/ SOFTWARE DEVELOPMENT SPECIALIZATION - COMPUTER INFORMATION SYSTEMS TECHNOLOGY, BACHELOR OF APPLIED SCIENCE

Program Code: CTBSPDCT

Meta-Major: STEM

Location(s): Cocoa, Palm Bay, Online

Delivery Method(s): On-Campus, Online

Previous Degree Required: AS/AA

Eligible for Financial Aid: Yes

Additional Limited Access Application Process Required: No

Program Testing Requirements:

Classification of Instructional Programs (CIP) Code: 11.0401

Florida Department of Education CIP Code: 1101104011

Students can only select one major and one specialization. Students may receive a specific A.S./B.A.S. degree only one time. While students may take courses from multiple specializations, however, the degree will be awarded only once.

The Program Development/Software Development Bachelor's Degree specialization at Eastern Florida State College prepares students for entry-level positions involving general computer software applications. [Visit the program page for more details and how to apply.](#)

Specialization Requirements

Code	Title	Credit Hours
Associate Degree		
Complete Associate Degree		60
General Education or Technical Concentration		
General Education (for A.S. degree students) or Technical Concentration (for A.A. degree students) ¹		21
Computer Information Systems Technology - Major Courses		
GEB 3213	Foundations of Managerial Communications	3
ISM 3011	Introduction to Information Technology Management	3
ISM 4300	Information Systems Operations Management	3
MAN 4504	Operational Decision Making	3
Program Development/Software Development Specialization		
CEN 3024	Software Development 1	3
CEN 4025	Software Development 2	3
CEN 4802	Software Integration, Configuration, and Testing	3
COP 3330	Object Oriented Programming	3
COP 3530	Data Structures and Algorithm Analysis	3
ISM 3324	Applications in Information Security	3
Specialization Electives Choose 9 Credits		9
CEN 4949	Internship	
COP 3703	Database Design and Architecture	

COP 3813	Internet Programming
COP 4655	Application Development for Mobile Devices
COP 4849	Web Applications Programming
ISM 3113	Information Systems Analysis and Design
ISM 4041	Emerging Information Technologies

Total Credit Hours 120

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The BAS in Computer Information Systems Technology has two Common Program Prerequisites. These courses must be completed before being admitted to 3000 and 4000 level courses and students will need to earn a grade of "C" or higher.

Students must take STA 2023 Statistics and COP 2334 Introduction to C++ Programming .

Important Notes: The prerequisite for STA 2023 is MGF 1106 or MAC 1105 with a grade of "C" or higher. MAC 2311 is the alternate approved course to STA 2023. No other substitutions are permitted. The prerequisite for COP 2334 is COP 1000. The Common Program Prerequisite, COP 2334 may also be satisfied by any COP Computer Programming course. No other course substitutions are permitted

Learning Outcomes: Program & Software Development BAS

- Demonstrate the ability to use current techniques, skills, and tools necessary for the evaluation of information systems.
 - Supports Core Ability: Think Critically and Solve Problems*
- Systematically analyze data to improve organizational input and output processes, productivity and quality of work for users.
 - Supports Core Ability: Process Information*
- Demonstrate the ability to apply agile methods to the complete software development process model.
 - Supports Core Ability: Process Information*
- Demonstrate the ability to design and write high quality computer programs that are well organized and documented.
 - Supports Core Ability: Think Critically and Solve Problems*
- Demonstrate the ability to design and write mobile applications for phones and tablets.
 - Supports Core Ability: Think Critically and Solve Problems*
- Demonstrate the ability to design, build and test server side web applications.
 - Supports Core Ability: Think Critically and Solve Problems*
- Apply techniques for storage and retrieval of data to support the organization's functional units and external customers.
 - Supports Core Ability: Process Information*
- Demonstrate the ability to build and execute a software test plan.
 - Supports Core Ability: Process Information*