

COMPUTER INFORMATION SYSTEMS (B.S.)

The Bachelor of Science (B.S.) in Computer Information Systems (CIS) prepares students for IS development and support careers in business and government. Graduates of this program are not only technically competent, but understand how to use information technology to facilitate business success. Courses include projects designed to enhance critical thinking, oral and written communications, and teamwork skills. Students are introduced to ethical and global issues via the study of CIS business cases. Typical employment for graduates includes systems analysis, system administration, and application or web development.

Concentrations

- Business Application Development Concentration
- Computer Programming Concentration
- Cybersecurity Concentration

Program Progression and Additional Graduation Requirements

Degree-seeking students are classified as pre-majors prior to formal transition into a Lutgert College of Business (LCOB) major. As pre-majors, students may enroll in lower division (1000-2999 level) courses to satisfy general education and common prerequisite requirements; lower level electives; and business common core courses, except GEB 4890 Business Strategy, if course prerequisites are met. Pre-majors may not enroll in upper division (3000-4999 level) courses for the major.

Transition from a LCOB pre-major to a major happens following (a) completion of all common prerequisites with a minimum grade of C or higher in each course; and (b) completion of 50 earned credits of courses with a minimum FGCU GPA of 2.0.

For timely degree completion, FTIC (First Time in College) students are expected to complete the following:

- MAC 1105 College Algebra with a minimum grade of B (or relevant accelerated credit or placement exam) or MAC 1147 Precalculus with minimum grade of B (or relevant accelerated credit or placement exam) (for programming concentration), ECO 2023 Principles of Microeconomics or ECO 2013 Principles of Macroeconomics with minimum grade of C, one additional common prerequisite, and an overall 2.4 FGCU GPA within one calendar year from admission.
- Four common prerequisites by the end of the third semester (excluding summer) from admission
- Seven common prerequisites and an overall 2.7 FGCU GPA by the end of the fourth semester (excluding summer) from admission
- FIN 3403 Business Finance with minimum grade of C by the end of the sixth semester (excluding summer) from admission

For timely degree completion, transfer students are expected to complete the following:

- Seven common prerequisites and an overall 2.7 FGCU GPA by the end of the third semester (excluding summer) from admission
- FIN 3403 with minimum grade of C by the end of the fifth semester (excluding summer) from admission

Students should refer to the Degree Map for milestone information. Degree maps for each major can be found at <https://www.fgcu.edu/cob/>.

In addition to the program requirements, students must:

- Attempt ACG 2021 Intro. to Financial Acctg. no more than two times.
- Earn a grade of C or higher in the common prerequisites, business common core, required courses in the major, and restricted electives/concentration.
- Complete a minimum of 48 of the last 120 credits at the upper division (3000-4999 level).
- Complete the last 30 credits of business courses at FGCU.
- Complete a minimum of 12 credits of courses in the major at FGCU.
- Earn a minimum cumulative GPA of 2.0 for all coursework attempted at FGCU.
- Satisfy the College-Level Skills and foreign language entrance requirements.
- Satisfy Service-Learning requirement.
- Satisfy the Civic Literacy requirement.
- Complete the standardized business knowledge assessment exam administered during the last semester in GEB 4890 Business Strategy.
- Complete the summer course enrollment requirement.
- Submit an Application for Graduation by the deadline listed in the FGCU Academic Calendar.

Program Requirements

Code	Title	Credits
FGCU General Education Program (https://www.fgcu.edu/academics/undergraduestudies/generaleducation/)		
To prevent or minimize excess hours, select general education courses that satisfy common prerequisite requirements for your intended major.		
Common Prerequisites		
For this major, common prerequisite courses with an asterisk (*) require prior knowledge and skills demonstrated through degree acceleration programs (e.g., the College Board's Advanced Placement Program [AP], International Baccalaureate Program [IB], College-Level Examination Program [CLEP], Advanced International Certificate of Education Program [AICE]); dual enrollment; placement exam; or college coursework.		
A minimum grade of C is required in each course		
ACG 2021	Intro. to Financial Acctg. (Acceptable Substitute: ACGX021 or ACGX022 or (ACGX001 and ACGX011))	3
ACG 2071	Intro. to Managerial Acctg. (Acceptable Substitute: ACGX071 or ACGX301)	3
CGS 1100	Computer Software & Technology (Acceptable Substitute: CGSX100 or CGSX100C or CGSX570 or CGSX060 or CGSX531 or CGSX000 or ISMX000 or CGSX518) ¹	3
ECO 2013	Principles of Macroeconomics (Acceptable Substitute: ECOX013)	3
ECO 2023	Principles of Microeconomics (Acceptable Substitute: ECOX023)	3
MAC 2233	Elementary Calculus I (Acceptable Substitute: MACX233 or MACX311) ^{*,2}	3

STA 2023	Statistical Methods (Acceptable Substitute: STAX023 or STAX122 or QMBX100)	3
Business Common Core		(27 credits)
A minimum grade of C is required in each course		
BUL 3130	Legal & Ethical Enviro of Bus	3
FIN 3403	Business Finance	3
GEB 4890	Business Strategy	3
ISM 3011	Information Systems	3
MAN 3025	Principles of Management	3
MAR 3023	Introduction to Marketing	3
SCM 3005	Supply Chain Management	3
Select one of the following:		
ENC 3250	Professional Writing	3
GEB 3523	Critical Think&Writing for Bus	3
Select one of the following:		
GEB 3085	Professional Development	3
SPC 1608	Effective Speaking	3
SPC 2023	Public Speaking	3
Required Courses in the Major		(15 credits)
A minimum grade of C is required in each course		
ISM 3113	Systems Analysis & Design	3
ISM 3212	Database Concepts & Admin	3
ISM 4323	Network Security	3
ISM 4915	Information Systems Project	3
QMB 3302	Business Analytics	3
Restricted Electives in the Major/Concentration		(12-15 credits)
Select one of the following groupings:		
No concentration noted on transcript		
ISM 3230	Introduction Bus Programming	3
Select an additional 9 credits of approved upper division (3000-4999 level) electives in Computer Information Systems from the following list: ³		
ISM 3053	Mobile App Development	3
ISM 3400	Data Warehouse and Bus Intell	3
ISM 4094	Enterprise Systems	3
ISM 4263	Cloud Solution Architectures	3
ISM 4324	Computer Forensics	3
ISM 4572	I.T. Continuity	3
ISM 4905	Directed Independent Studies	1-3
ISM 4930	Topics in Computer Info Sys	3
ISM 4941	Practicum in Computer Info Sys	3
Business Application Development Concentration		
ISM 3053	Mobile App Development	3
ISM 3230	Introduction Bus Programming	3
ISM 4263	Cloud Solution Architectures	3
Select an additional 6 credits of approved upper division (3000-4999 level) electives in CIS		
Computer Programming Concentration		
MAC 2312	Calculus II	4
COP 2006	Programming I	3

COP 3003	Programming II	3
ISM 3053	Mobile App Development	3
Cybersecurity Concentration		
ISM 3230	Introduction Bus Programming	3
ISM 3371	Secure Business Applications	3
ISM 4324	Computer Forensics	3
ISM 4373	Ethical Hacking for Business	3
Select an additional 3 credits of approved upper division (3000-4999 level) electives in CIS		
Sustainability Course Graduation Requirement		(3 credits)
Select at least 3 credits in sustainability coursework (SCGR Attribute)		
Additional Electives		
As needed to reach total credits required for the degree		

- ¹ Note: Select COP 1500 Intro to Computer Science for Computer Programming Concentration
- ² Prerequisites of MAT 1033 Intermediate Algebra minimum grade of C then MAC 1105 College Algebra minimum grade of B; or relevant accelerated credit; or placement exam
- ³ Other upper division (3000-4999 level) courses with a Computer Information Systems focus may be considered to meet the elective requirement - see college advisor/student success counselor

Total Credits Required: 120