

## Computer and Technology Majors at FSU

COMPUTER ENGINEERING* What is it? • The study of computer engineering application areas including digital systems, digital signal processing, computer networks, and VLSI design. What will I study? • How to design and interface embedded computer systems; how to design and implement digital hardware; software and algorithm development; digital systems theory • Calculus I • Calculus II • Differential Equations • Linear Algebra • General Chemistry I w/ Lab • General Physics A w/ Lab • General Physics B w/ Lab • Fundamentals of Programming (C++)	COMPUTATIONAL SCIENCE (Scientific Computing) What is it? • The integration of mathematics and computation to solve problems in science and engineering. What will I study? • Mathematical and computational algorithms for science applications; how to translate these algorithms into one of several computer languages, including Python and C++; how to conduct scientific research using algorithms and computation What courses will I need before I start? • Calculus I • Introduction to Scientific Computing <u>or</u> Introductory Programming • Science course w/ Lab for science major	INFORMATION TECHNOLOGY What is it? • Designing, creating, and managing information systems to meet the needs of an organization. What will I study? • Technical communication, research and data analysis, information science, information systems and services <u>What courses will I need before I start?</u> • Precalculus • Any Database course • Any Object-Oriented Programming • Principles of Macroeconomics • Any general Psychology course • Any general Ethics course	COMPUTER SCIENCE*† What is it? • The study of software development and engineering. What will I study? • Data & instruction processing; mobile app development; programming languages including C++ and Python What courses will I need before I start? BA degree option: • Calculus I BS degree option: • Calculus I & II • Introductory Programming • 2 Natural Science courses COMPUTER PROGRAMMING AND APPLICATIONS What is it? • The introductory study of programming with a large amount of flexibility. What will I study? • Introductory programming language courses in C++, Java, and Python What courses will I need before I start? • Calculus I
<ul> <li>Who can I contact for information?</li> <li>Shanna Rich, Academic Advisor</li></ul>	<ul> <li>Who can I contact for information?</li> <li>Karey Fowler, Academic Advisor</li></ul>	<ul> <li>Who can I contact for information?</li> <li>CCI Advising Center</li></ul>	<ul> <li>Who can I contact for information?</li> <li>Kimberly Pack, Academic Advisor</li></ul>
ece_advisor@eng.famu.fsu.edu	advising@sc.fsu.edu	advising@cci.fsu.edu	advisor@cs.fsu.edu

Other majors you may want to consider: Studio Art; Information, Communication & Technology

Program information subject to change.

\* denotes majors that are also available at the Panama City Campus. + denotes majors that are also available as Distance Learning.

Please refer to the FSU Academic Program Guide (academic-guide.fsu.edu) and Match Major Sheets (career.fsu.edu/resources) for specific course numbers & more information. Effective Summer 2018



## Computer and Technology Majors at FSU

COMPUTATIONAL BIOLOGY (Biology) What is it? • An interdisciplinary major intended to train students to develop computational models and algorithms to solve biological problems.	COMPUTATIONAL BIOLOGY (Computer Science) What is it? • An interdisciplinary major intended to develop an understanding of software development and the fundamentals of biology.	CYBER CRIMINOLOGY What is it? • The study of how crimes are facilitated and committed through the use of computers.	MANAGEMENT INFORMATION SYSTEMS What is it? • The study of the processes for the design and analysis of information systems & databases, programming languages used to build these systems, and how to use technology
<ul> <li>What will I study?</li> <li>Biology; genetics; scientific computing; algorithms for scientific applications</li> <li>What courses will I need before I start?</li> <li>Calculus I</li> <li>C++ or Java programming course</li> <li>General Biology I w/ Lab</li> <li>General Biology II w/ Lab</li> <li>General Chemistry I</li> <li>General Chemistry II</li> </ul> Who can I contact for information? <ul> <li>Bonnie Garcia-Gloeckner, Advisor bgarcia@bio.fsu.edu</li> </ul>	What will I study?• Biology and computer science electives; genetics; programming languagesWhat courses will I need before I start?• Calculus I• Calculus II• General Biology I• General Chemistry I w/ Lab• General Chemistry I w/ Lab• College or General Physics A w/ Lab• Kimberly Pack, Academic Advisor advisor@cs.fsu.edu	<ul> <li>What will I study?</li> <li>Trends in criminal activity and behavior; object-oriented programming; how to detect and combat cybercrime</li> <li>What courses will I need before I start?</li> <li>Computer Science degree option: <ul> <li>College Algebra</li> <li>Precalculus</li> <li>Computer Programming</li> </ul> </li> <li>Criminology degree option: <ul> <li>College Algebra</li> <li>Precalculus</li> <li>Computer Programming</li> </ul> </li> <li>Who can I contact for information? <ul> <li>Computer Science: Kimberly Pack advisor@cs.fsu.edu</li> <li>Criminology Advisor: Rahila Arshad rarshad@fsu.edu</li> </ul> </li> </ul>	to create business solutions. What will I study? • Systems analysis & design, database development, project management, programming languages, business analytics, and infrastructure & telecommunications What courses will I need before I start? • Calculus for Business • Business Statistics • Introduction to Financial Accounting • Introduction to Managerial Accounting • Principles of Macroeconomics • Principles of Microeconomics • Microcomputer Applications for Business Who can I contact for information? • College of Business Advising ugprog@business.fsu.edu

Other majors you may want to consider: Studio Art; Information, Communication & Technology

Program information subject to change.

\* denotes majors that are also available at the Panama City Campus. + denotes majors that are also available as Distance Learning.

Please refer to the FSU Academic Program Guide (academic-guide.fsu.edu) and Match Major Sheets (career.fsu.edu/resources) for specific course numbers & more information. Effective Summer 2018 Please flip over for additional majors →