# Computer and Technology Majors at FSU

**COMPUTER ENGINEERING**

**What is it?**
- The study of digital systems and how they interface with the world; including hardware, software, and algorithm 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

**What courses will I need before I start?**
- Calculus I
- Calculus II
- Calculus III
- Differential Equations
- Linear Algebra
- General Chemistry I w/ Lab
- General Physics A w/ Lab
- General Physics B w/ Lab

**Who can I contact for information?**
- Hillary Campbell, Mapping Coord. hdcampbell@fsu.edu

**COMPUTER SCIENCE**

**What is it?**
- The study of software development and engineering.

**What will I study?**
- How data and instructions are processed; 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
  - Calculus II
  - Introductory Programming
  - 2 Natural Science courses

**Who can I contact for information?**
- Kimberly Pack, Academic Advisor advisor@cs.fsu.edu

**COMPUTATIONAL SCIENCE**

**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
- Calculus II
- Introduction to Scientific Computing or Introductory Programming
- Science course w/ Lab for science major

**Who can I contact for information?**
- Karey Fowler, Academic Advisor advising@sc.fsu.edu

**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

**What courses will I need before I start?**
- Precalculus
- 2000-level Statistics
- Any Database course
- Any Programming course
- Any Object-Oriented Programming
- Principles of Macroeconomics
- Any general Psychology course
- Any general Ethics course

**Who can I contact for information?**
- CCI Advising Center advising@cci.fsu.edu

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

Program information subject to change. A * denotes majors that are also available at the Panama City Campus.

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

*Effective Summer 2017*
### COMPUTATIONAL BIOLOGY
(Biology and Scientific Computing)

**What is it?**
- An interdisciplinary major intended to train students to develop computational models and algorithms to solve biological problems.

**What will I study?**
- Biology; genetics; scientific computing; algorithms for scientific applications

**What courses will I need before I start?**
- Calculus I
- C++ or Java programming course
- General Biology I w/ Lab
- General Biology II w/ Lab
- General Chemistry I
- General Chemistry II
- Physics A w/ Lab

**Who can I contact for information?**
- Bonnie Garcia-Gloeckner, Advisor
  bgarcia@bio.fsu.edu

### COMPUTATIONAL BIOLOGY
(Computer Science)

**What is it?**
- An interdisciplinary major intended to develop an understanding of software development and the fundamentals of biology.

**What will I study?**
- Biology and computer science electives; genetics; programming languages

**What courses will I need before I start?**
- Calculus I
- Calculus II
- General Biology I
- General Biology II
- General Chemistry I w/ Lab
- General Chemistry II w/ Lab
- Physics A w/ Lab
- Physics B w/ Lab

**Who can I contact for information?**
- Kimberly Pack, Academic Advisor
  advisor@cs.fsu.edu

### COMPUTER CRIMINOLOGY

**What is it?**
- The study of how crimes are facilitated and committed through the use of computers.

**What will I study?**
- Trends in criminal activity and behavior; object-oriented programming; how to detect and combat cybercrime

**What courses will I need before I start?**
- Computer Science degree option:
  - College Algebra
  - Precalculus
  - Computer Programming
- Criminology degree option:
  - College Algebra
  - Precalculus
  - Computer Programming

**Who can I contact for information?**
- Computer Science: Kimberly Pack
  advisor@cs.fsu.edu
- Criminology: Rahila Arshad, Advisor
  rarshad@fsu.edu

### MANAGEMENT INFORMATION SYSTEMS

**What is it?**
- This major provides students with both business and technical knowledge allowing them to manage the design and development of systems related solutions for companies.

**What will I study?**
- Design and analysis of information systems, databases and programming language

**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

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

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