**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

**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
- Fundamentals of Programming (C++)

**Who can I contact for information?**
- Shanna Rich, Academic Advisor
ece_advisor@eng.famu.fsu.edu

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**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
- 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

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**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

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**COMPUTER SCIENCE**

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

**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

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

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**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

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

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

Program information subject to change.

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 ➔
COMPUTATIONAL BIOLOGY
(Biology)
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

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
• College or General Physics A w/ Lab

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

CYBER 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 Advisor: Rahila Arshad
  rarshad@fsu.edu

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 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.
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Effective Summer 2018

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