COMPUTER SCIENCE UF ONLINE

This program combines the study of computer science with a liberal arts education. It prepares students for employment as computing professionals while offering significant freedom to choose coursework in other areas. The major is especially popular with students who want the technical education in computer science with the flexibility to take other non-technical courses, sometimes in the form of a minor or certificate.

About this Program
• College: Liberal Arts and Sciences
• Degree: Bachelor of Science
• Credits for Degree: 120
• Additional Information
• Contact: 1.855.99GATOR
• Related Computer Science Programs

To graduate with this major, students must complete all university, college, and major requirements.

Critical Tracking records each student’s progress in courses that are required for entry to each major. Please note the critical-tracking requirements below on a per-semester basis.

For degree requirements outside of the major, refer to CLAS Degree Requirements: Structure of a CLAS Degree.

Equivalent critical-tracking courses as determined by the State of Florida Common Course Prerequisites may be used for transfer students.

Course Title Credits
Semester One
IU 1000 What is the Good Life (Gen Ed Humanities) 3
MAC 2311 Analytic Geometry and Calculus 1 (Critical Tracking; State Core Gen Ed Mathematics) 4
State Core Gen Ed Composition (Writing Requirement) 3
State Core Gen Ed Social and Behavioral Sciences 3
Credits 13

Semester Two
COP 3502 Programming Fundamentals 1 (Critical Tracking) 3
MAC 2312 Analytic Geometry and Calculus 2 (Critical Tracking; Gen Ed Mathematics) 4
Select one: 3-4
PHY 2053 Physics 1 (Critical Tracking; State Core Gen Ed Physical Sciences) 1
PHY 2048 Physics with Calculus 1 (Critical Tracking; State Core Gen Ed Physical Sciences) 1
PHY 2053L Laboratory for Physics 1 (Critical Tracking; Gen Ed Physical Sciences) 1
PHY 2048L Laboratory for Physics with Calculus 1 (Critical Tracking; Gen Ed Physical Sciences) 1
Gen Ed Social and Behavioral Sciences 3
Credits 14-15

Semester Three
COP 3503 Programming Fundamentals 2 3
COT 3100 Applications of Discrete Structures (Gen Ed Mathematics) 3
MAC 2313 Analytic Geometry and Calculus 3 (Critical Tracking; Gen Ed Mathematics) 4
Select one: 3-4
PHY 2054 Physics 2 (Critical Tracking; Gen Ed Physical Sciences) 1
PHY 2049 Physics with Calculus 2 (Critical Tracking; Gen Ed Physical Sciences) 1
PHY 2054L Laboratory for Physics 2 (Critical Tracking; Gen Ed Physical Sciences) 1
PHY 2049L Laboratory for Physics with Calculus 2 (Critical Tracking; Gen Ed Physical Sciences) 1
Gen Ed Social and Behavioral Sciences 3
Credits 14-15

Semester Four
CDA 3101 Introduction to Computer Organization 3
COP 3530 Data Structures and Algorithm 4
Elective 3
State Core Gen Ed Humanities 3
Gen Ed Social and Behavioral Sciences 3
Credits 16

Semester Five
CEN 3031 Introduction to Software Engineering 3
ENC 3246 Professional Communication for Engineers (Gen Ed Composition) 3
Gen Ed Biological Sciences 3
Foreign language 4-5

Students are expected to complete the writing requirement while in the process of taking the courses below. Students are also expected to complete the general education international (GE-N) and diversity (GE-D) requirements concurrently with another general education requirement (typically, GE-C, H or S).
The College of Liberal Arts and Sciences’ computer science program exposes students to a broad range of disciplines, including programming languages, theory of computer science, physical science, mathematics and software engineering. Students will graduate with the ability to apply knowledge of science and mathematics to computer science problems, to design computer systems or components to satisfy users’ needs and to communicate technical information regarding computer systems to other computer scientists. This program emphasizes the broader aspects of computer science and is less technical in depth than the computer science program in the Herbert Wertheim College of Engineering.

Before Graduating Students Must
- Pass assessment according to department rubric of student performance on a major design experience.
- Pass assessment in one or more core courses or individual assignments targeted to each SLO.
- Complete requirements for the baccalaureate degree, as determined by faculty.

Students in the Major Will Learn to
Student Learning Outcomes (SLOs)

Content
1. Apply knowledge of mathematics and science to computer science problems.
2. Design a computing system, component or process, analyzing and interpreting the data.
3. Use the techniques, skills and tools necessary for computer science practice.

Critical Thinking
4. Design a computing system, component or process to meet desired needs within realistic economic, environmental, social, political, ethical, and health and safety constraints.
5. Identify, formulate and solve computer science problems.

Communication
6. Communicate technical data and design information effectively in writing, in speech and in multidisciplinary teams to other computer scientists.

Curriculum Map

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<thead>
<tr>
<th>Semester Six</th>
<th>Semester Seven</th>
<th>Semester Eight</th>
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<tbody>
<tr>
<td>EEL 3701C</td>
<td>Digital Logic and Computer Systems</td>
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<td>MAS 3114</td>
<td>Computational Linear Algebra</td>
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<td>COT 4501</td>
<td>Numerical Analysis: a Computational Approach</td>
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<td>Foreign language course (or elective if 4-3-3 option)</td>
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<td>CIS 4914</td>
<td>Senior Project</td>
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<td>CISE elective</td>
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<td>COP 4600</td>
<td>Operating Systems</td>
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Courses

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Assessment Types
- Written assignments
- Exams
- Oral reports/presentations
- Exit survey