COMPUTER INFORMATION SYSTEMS, B.S.

Degree Requirements (120 hours)
See College of Engineering and Computing (https://academicbulletins.sc.edu/undergraduate/engineering-computing/) for progression requirements and special academic opportunities.

Program of Study

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Carolina Core</td>
<td>34-41</td>
</tr>
<tr>
<td>2. College Requirements</td>
<td>0</td>
</tr>
<tr>
<td>3. Program Requirements</td>
<td>48-59</td>
</tr>
<tr>
<td>4. Major Requirements</td>
<td>27-36</td>
</tr>
</tbody>
</table>

Founding Documents Requirement
All undergraduate students must take a 3-credit course or its equivalent with a passing grade in the subject areas of History, Political Science, or African American Studies that covers the founding documents including the United State Constitution, the Declaration of Independence, the Emancipation Proclamation and one or more documents that are foundational to the African American Freedom struggle, and a minimum of five essays from the Federalist papers. This course may count as a requirement in any part of the program of study including the Carolina Core, the major, minor or cognate, or as a general elective. Courses that meet this requirement are listed here (https://academicbulletins.sc.edu/undergraduate/founding-document-courses/).

1. Carolina Core Requirements (34-41 hours)

CMW – Effective, Engaged, and Persuasive Communication: Written (6 hours)
Must be passed with a grade of C or higher.

- ENGL 101
- ENGL 102

ARP – Analytical Reasoning and Problem Solving (7-8 hours)
Must be passed with a grade of C or higher.

- CSCE 145
- MATH 122 or MATH 141

SCI – Scientific Literacy (8 hours)

- Two 4-credit hour CC-SCI courses (https://academicbulletins.sc.edu/undergraduate/carolina-core-courses/) laboratory science courses

GFL – Global Citizenship and Multicultural Understanding: Foreign Language (0-6 hours)
Score two or better on foreign language placement test; or complete the 109 and 110 courses in FREN, GERM, LATN or SPAN; or complete the 121 course in another foreign language.

2. College Requirements (0 hours)

No college-required courses for this program.

3. Program Requirements (48-59 hours)

Supporting Courses (30 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 462</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 463</td>
<td>Business Writing</td>
<td></td>
</tr>
<tr>
<td>MATH 174</td>
<td>Discrete Mathematics for Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 374</td>
<td>Discrete Structures</td>
<td></td>
</tr>
<tr>
<td>STAT 509</td>
<td>Statistics for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>or STAT 515</td>
<td>Statistical Methods I</td>
<td></td>
</tr>
<tr>
<td>STAT 516</td>
<td>Statistical Methods II</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credit Hours 12

1. Carolina Core Stand Alone or Overlay Eligible Requirements — Overlay-approved courses offer students the option of meeting two Carolina Core components in a single course. A maximum of two overlays is allowed. The total Carolina Core credit hours for this program must add up to a minimum of 34 hours.

1 MATH 174 and MATH 374 must be passed with a grade of C or higher
Lower Division Computing (18 hours)

*Must be passed with a grade of C or higher.*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCE 146</td>
<td>Algorithmic Design II</td>
<td>4</td>
</tr>
<tr>
<td>CSCE 190</td>
<td>Computing in the Modern World</td>
<td>1</td>
</tr>
<tr>
<td>CSCE 201</td>
<td>Introduction to Computer Security</td>
<td>3</td>
</tr>
<tr>
<td>CSCE 210</td>
<td>Computer Hardware Foundations</td>
<td>3</td>
</tr>
<tr>
<td>CSCE 215</td>
<td>UNIX/Linux Fundamentals</td>
<td>1</td>
</tr>
<tr>
<td>CSCE 240</td>
<td>Advanced Programming Techniques</td>
<td>3</td>
</tr>
<tr>
<td>CSCE 247</td>
<td>Software Engineering</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credit Hours** 18

Minor in Business Information Management (18 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 224</td>
<td>Introduction to Economics</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 222</td>
<td>Survey of Accounting</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 371</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>MGSC 290</td>
<td>Computer Information Systems in Business</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives**

Select two of the following:

- ACCT 324 Survey of Commercial Law
- ECON 311 Issues in Economics
- ECON 379 Government Policy Toward Business
- FINA 333 Finance and Markets
- IBUS 301 Introduction to International Business
- MGMT 350 Principles of Marketing
- MGMT 373 Entrepreneurship and New Venture Opportunities
- MKTG 351 Consumer Behavior
- MGSC 395 Operations Management

**Total Credit Hours** 18

Electives (0-11 hours)

At least 120 degree applicable credits are required to complete the BS in Computer Information Systems. The CIS curriculum includes 0-11 hours of electives depending on how students fulfill the Carolina Core requirements and their choice of Concentration. Any course in the university can be used to satisfy the elective requirement, including additional electives in the major.

4. Major Requirements (27-36 hours)

*Must be passed with a grade of C or higher.*

**Major Courses (24 hours)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCE 205</td>
<td>Business Applications Programming</td>
<td>3</td>
</tr>
<tr>
<td>or CSCE 242</td>
<td>Web Applications</td>
<td></td>
</tr>
<tr>
<td>CSCE 350</td>
<td>Data Structures and Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>CSCE 416</td>
<td>Introduction to Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>CSCE 490</td>
<td>Capstone Computing Project I</td>
<td>3</td>
</tr>
<tr>
<td>CSCE 492</td>
<td>Capstone Computing Project II</td>
<td>3</td>
</tr>
<tr>
<td>CSCE 520</td>
<td>Database System Design</td>
<td>3</td>
</tr>
<tr>
<td>CSCE 522</td>
<td>Information Security Principles</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCE 594</td>
<td>Strategic Management of Information Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credit Hours** 24

**Major Elective (3 hours)**

Students must complete 3 hours of Major Electives below. Students may choose to complete a concentration in Artificial Intelligence or Cybersecurity in place of the Major Electives.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITEC 447</td>
<td>Management of Information Technology</td>
<td>3</td>
</tr>
<tr>
<td>ITEC 560</td>
<td>Project Management Methods</td>
<td></td>
</tr>
<tr>
<td>Select an approved CSCE course, 510 and higher</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Credit Hours** 3

**Concentrations**

Students may choose to complete a concentration below in place of the 3 hours of Major Electives.

**Artificial Intelligence Concentration (12 hours)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCE 580</td>
<td>Artificial Intelligence</td>
<td>3</td>
</tr>
</tbody>
</table>

Select any three courses from the following:

- CSCE 555 Algorithms in Bioinformatics
- CSCE 567 Visualization Tools
- CSCE 574 Robotics
- CSCE 578 Text Processing
- CSCE 582 Bayesian Networks and Decision Graphs
- CSCE 585 Machine Learning Systems

**Total Credit Hours** 12

**Cybersecurity Concentration (6 hours)**

Select any two courses from the following:

- CSCE 311 Operating Systems
- CSCE 548 Building Secure Software
- CSCE 557 Introduction to Cryptography

**Total Credit Hours** 6