COMPUTER SCIENCE, B.S.C.S.

Degree Requirements (125 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>35-44</td>
</tr>
<tr>
<td>2. College Requirements</td>
<td>0</td>
</tr>
<tr>
<td>3. Program Requirements</td>
<td>60</td>
</tr>
<tr>
<td>4. Major Requirements</td>
<td>30</td>
</tr>
</tbody>
</table>

1. Carolina Core Requirements (35-44 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 (8 hours)
Must be passed with a grade of C or higher.
- MATH 141
- MATH 142

SCI – Scientific Literacy (8 hours)
Select all of one of the following:
Either
- CHEM 111 & CHEM 111L - both must be passed with a grade of C or higher
- CHEM 112 & CHEM 112L (both not approved for CC-SCI)
or
- PHYS 211 & PHYS 211L - both must be passed with a grade of C or higher
- PHYS 212 & PHYS 212L

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.
- CC-GFL courses (https://academicbulletins.sc.edu/undergraduate/carolina-core-courses/)

GHS – Global Citizenship and Multicultural Understanding: Historical Thinking (3 hours)
- any CC-GHS course (https://academicbulletins.sc.edu/undergraduate/carolina-core-courses/)

GSS – Global Citizenship and Multicultural Understanding: Social Sciences (3 hours)
- any CC-GSS course (https://academicbulletins.sc.edu/undergraduate/carolina-core-courses/)

AIU – Aesthetic and Interpretive Understanding (3 hours)
- any CC-AIU course (https://academicbulletins.sc.edu/undergraduate/carolina-core-courses/)

CMS – Effective, Engaged, and Persuasive Communication: Spoken Component ¹ (3 hours)
- SPCH 140 or SPCH 230

INF – Information Literacy ¹ (0-3 hours)
- any overlay or stand-alone CC-INF course (https://academicbulletins.sc.edu/undergraduate/carolina-core-courses/)

VSR – Values, Ethics, and Social Responsibility ¹ (1 hour)
- CSCE 390 - must be passed with a grade of C or higher

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 35 hours.

2. College Requirements (0 hours)
No college-required courses for this program.

3. Program Requirements (60 hours)

Supporting Courses (60 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 241</td>
<td>Vector Calculus</td>
<td>3</td>
</tr>
<tr>
<td>MATH 344</td>
<td>Applied Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 344L</td>
<td>Applied Linear Algebra Lab</td>
<td>1</td>
</tr>
<tr>
<td>MATH 374</td>
<td>Discrete Structures (must be passed with a grade of C or higher)</td>
<td>3</td>
</tr>
<tr>
<td>STAT 509</td>
<td>Statistics for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 462</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 463</td>
<td>Business Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credit Hours 16

Laboratory Science Elective (4 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 161</td>
<td>Human Origins: An Introduction to Biological Anthropology</td>
<td>4</td>
</tr>
<tr>
<td>ASTR 101</td>
<td>Introduction to Astronomy</td>
<td>4</td>
</tr>
<tr>
<td>Course</td>
<td>Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>BIOL 101</td>
<td>Biological Principles I</td>
<td></td>
</tr>
<tr>
<td>&amp; 101L</td>
<td>and Biological Principles I Laboratory</td>
<td></td>
</tr>
<tr>
<td>BIOL 110</td>
<td>General Biology</td>
<td></td>
</tr>
<tr>
<td>CHEM 111</td>
<td>General Chemistry I</td>
<td></td>
</tr>
<tr>
<td>&amp; 111L</td>
<td>and General Chemistry I Lab</td>
<td></td>
</tr>
<tr>
<td>CHEM 141</td>
<td>Principles of Chemistry I</td>
<td></td>
</tr>
<tr>
<td>ENVR 101</td>
<td>Introduction to the Environment</td>
<td></td>
</tr>
<tr>
<td>&amp; 101L</td>
<td>and Introduction to the Environment Lab</td>
<td></td>
</tr>
<tr>
<td>ENVR 200</td>
<td>Natural History of South Carolina</td>
<td></td>
</tr>
<tr>
<td>GEOG 201</td>
<td>Landform Geography</td>
<td></td>
</tr>
<tr>
<td>GEOG 202</td>
<td>Weather and Climate</td>
<td></td>
</tr>
<tr>
<td>GEOL 101</td>
<td>Introduction to the Earth</td>
<td></td>
</tr>
<tr>
<td>GEOL 201</td>
<td>Observing the Earth</td>
<td></td>
</tr>
<tr>
<td>GEOL 215</td>
<td>Coastal Environments of the Southeastern U.S. and Coastal Environments of the Southeastern U.S. (Laboratory)</td>
<td></td>
</tr>
<tr>
<td>PEOL 302</td>
<td>Rocks and Minerals</td>
<td></td>
</tr>
<tr>
<td>MSCI 101</td>
<td>The Ocean Environment</td>
<td></td>
</tr>
<tr>
<td>MSCI 102</td>
<td>The Living Ocean</td>
<td></td>
</tr>
<tr>
<td>MSCI 210</td>
<td>Oceans and Society</td>
<td></td>
</tr>
<tr>
<td>&amp; 210L</td>
<td>and Oceans and Society Laboratory</td>
<td></td>
</tr>
<tr>
<td>MSCI 215</td>
<td>Coastal Environments of the Southeastern U.S. and Coastal Environments of the Southeastern U.S (Laboratory)</td>
<td></td>
</tr>
<tr>
<td>PHYS 211</td>
<td>Essentials of Physics I</td>
<td></td>
</tr>
<tr>
<td>&amp; 211L</td>
<td>and Essentials of Physics I Lab</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credit Hours:** 4

**Liberal Arts Electives (9 hours)**
Select 9 hours of the following:

- AERO 401, AERO 402
- AFAM 201-AFAM 580
- ANTH 101-ANTH 499
- ARMY 401, ARMY 402
- ARTE 101, ARTE 260
- ARTH 105-ARTH 366
- ARTS 103-ARTS 261
- CHIN 103-CHIN 550
- CLAS 220-CLAS 598
- CPLT 150-CPLT 597
- CRJU 101-CRJU 494
- DANC 101-DANC 381
- ECON 123-ECON 499
- ENGL 270-ENGL 499
- FAMS 180-FAMS 597
- FREN 109-FREN 615
- GEOG 103-GEOG 595
- GERM 109-GERM 615
- HIST 101-HIST 692
- ITAL 101-ITAL 615
- JAPA 121-JAPA 500
- LASP 201-LASP 451
- LATN 109-LATN 615
- LING 300-LING 600
- MART 110-MART 341
- MUSC 110-MUSC 140
- NAVY 401, NAVY 402

**Lower Division Computing (22 hours)**

**Total Credit Hours:** 22

**Application Area (9 hours)**
An application area consists of three courses (9 hours) that display a distinct curricular pattern that is different from computer science. Any three non-CSCE courses that are from one department or are a subset of a defined minor, and that are each 3 credit hours or more, may satisfy this requirement. Students may petition the department for approval of other sets of application area courses.

**4. Major Requirements (30 hours)**

**Major Courses (21 hours)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCE 311</td>
<td>Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCE 330</td>
<td>Programming Language Structures</td>
<td>3</td>
</tr>
<tr>
<td>CSCE 350</td>
<td>Data Structures and Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>CSCE 355</td>
<td>Foundations of Computation</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>
</tbody>
</table>

**Total Credit Hours:** 21

**Major Electives (9 hours)**
Select from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCE 317</td>
<td>or any CSCE course 500 or higher</td>
<td>9</td>
</tr>
</tbody>
</table>

Select any approved CSCE courses, 500 and higher - a list of acceptable courses is also maintained in the department office and on its website.

**Total Credit Hours:** 9