Computer Information Systems, B.S.

Degree Requirements (120-137 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>
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</thead>
<tbody>
<tr>
<td>1. Carolina Core</td>
<td>34-44</td>
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<tr>
<td>2. College Requirements</td>
<td>0</td>
</tr>
<tr>
<td>3. Program Requirements</td>
<td>57-59</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 (34-44 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 (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 (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.

- 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)

*Any CC-CMS course (https://academicbulletins.sc.edu/undergraduate/carolina-core-courses/)*

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 34 hours.

2. College Requirements (0 hours)

*No college-required courses for this program.*

3. Program Requirements (57-59 hours)

Supporting Courses (39 hours)

<table>
<thead>
<tr>
<th>Foundational Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 462</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 463</td>
<td></td>
</tr>
<tr>
<td>MATH 174</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 374</td>
<td></td>
</tr>
<tr>
<td>STAT 509</td>
<td>3</td>
</tr>
<tr>
<td>or STAT 515</td>
<td></td>
</tr>
<tr>
<td>STAT 516</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credit Hours 12

1 MATH 174 and MATH 374 must be passed with a grade of C or higher.
Liberal Arts Electives (9 hours)
Select from 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 101-LING 600, but only one of the LING 300, LING 301, and LING 600 can be used
- MART 110-MART 341
- MUSC 110-MUSC 140
- NAVY 401, NAVY 402
- PHIL 101-PHIP 109, PHIL 112-PHIP 598
- POLI 101-POLI 499
- PORT 121-PORT 615
- PSYC 101-PSYC 499
- RELG 101-RELG 552
- RUSS 121-RUSS 616
- SOCY 101-SOCY 499
- SOST 101-SOST 500
- SPAN 109-SPAN 615
- THEA 170-THEA 565
- WGST 112-WGST 555

Lower Division Computing (18 hours)
Must be passed with a grade of C or higher.

Course | Title | Credits
--- | --- | ---
CSCE 146 | Algorithmic Design II | 4
CSCE 190 | Computing in the Modern World | 1
CSCE 201 | Introduction to Computer Security | 3
CSCE 210 | Computer Hardware Foundations | 3
CSCE 215 | UNIX/Linux Fundamentals | 1
CSCE 240 | Advanced Programming Techniques | 3
CSCE 247 | Software Engineering | 3

Total Credit Hours 18

Minor in Business Information Management (18 hours)

Course | Title | Credits
--- | --- | ---
ECON 224 | Introduction to Economics | 3
ACCT 222 | Survey of Accounting | 3
MGMT 371 | Principles of Management | 3
MGSC 290 | Computer Information Systems in Business | 3

Electives
Select two of the following:

Course | Title | Credits
--- | --- | ---
ACCT 324 | Survey of Commercial Law | 3
ECON 311 | Issues in Economics | 3
ECON 379 | Government Policy Toward Business | 3
FINA 333 | Finance and Markets | 3
IBUS 301 | Introduction to International Business | 3
MKTG 350 | Principles of Marketing | 3
MKTG 351 | Consumer Behavior | 3
MGSC 395 | Operations Management | 3

Total Credit Hours 18

Elective (0-2 hours)
The CIS curriculum includes 0-2 hours of electives depending on how students fulfill the Carolina Core requirements. 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)

Course | Title | Credits
--- | --- | ---
CSCE 205 | Business Applications Programming | 3
or CSCE 242 | Web Applications | 3
CSCE 350 | Data Structures and Algorithms | 3
CSCE 416 | Introduction to Computer Networks | 3
CSCE 490 | Capstone Computing Project I | 3
CSCE 492 | Capstone Computing Project II | 3
CSCE 520 | Database System Design | 3
CSCE 522 | Information Security Principles | 3
CSCE 594 | Strategic Management of Information Systems | 3

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.

Course | Title | Credits
--- | --- | ---
ITEC 447 | Management of Information Technology | 3
ITEC 560 | Project Management Methods | 3
Select an approved CSCE course, 510 and higher

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: 9

- 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
- CSCE 587  Big Data Analytics

Total Credit Hours: 12

Cybersecurity Concentration (6 hours)

Select any two courses from the following: 6

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

Total Credit Hours: 6