

# COMPUTER INFORMATION SYSTEMS, B.S.

## Accreditation

The Computer Information Systems Program is accredited by the Computing Accreditation Commission of ABET, <http://www.abet.org>.

## Learning Outcomes

At the time of graduation students should satisfy the following Learning Outcomes

- Students will demonstrate an ability to analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
- Students will demonstrate an ability to design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
- Communicate effectively in a variety of professional contexts.
- Students will demonstrate an ability to recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- Students will demonstrate an ability to function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
- Students will demonstrate an ability to support the delivery, use, and management of information systems within an information systems environment.

## Academic Standards

### Program GPA

Program GPA requirement policies are described in the College of Engineering and Computing section of this bulletin. For the purpose of these policies, the following courses are used to determine the Program GPA for the Computer Information Systems B.S. program: all Lower Division Computing courses, Computer Information Systems Major courses, Computer Information Systems Electives, CSCE 145, CSCE 390, and MGSC 290.

### Exclusions

No Lower Division Computing, Computer Engineering Major, or Computer Engineering Elective course may be counted toward a minor. All other required courses and electives may be used for a minor as appropriate. CSCE 101 and CSCE 102 are not major courses and may not be used for degree credit.

### Minimum Course Grades

The Computer Information Systems B.S. program requires that a grade of "C" or better be earned in each of the following courses: ENGL 101, ENGL 102, MATH 122 or MATH 141, MATH 174 or MATH 374, and all CSCE courses applied to the degree.

## Admissions

### Entrance Requirements

Admission requirements and processes for freshman, transfer students, and former students seeking readmission are managed by the Office of

Undergraduate Admissions ([http://sc.edu/about/offices\\_and\\_divisions/undergraduate\\_admissions/](http://sc.edu/about/offices_and_divisions/undergraduate_admissions/)).

Transfer applicants from regionally accredited colleges and universities must have a cumulative 2.75 GPA on a 4.00 scale to enter the College of Engineering and Computing. In addition, transfer applicants for the Aerospace Engineering, Biomedical Engineering, Chemical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, or Mechanical Engineering majors must also have completed a four semester-hour calculus course equivalent to MATH 141 with a grade of "C" or better.

Current University of South Carolina students who wish to enter the College of Engineering and Computing, and former students seeking readmission, must have an institutional GPA of 2.50 or better on at least 15 hours earned at UofSC. In addition, such applicants for the Aerospace Engineering, Biomedical Engineering, Chemical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, or Mechanical Engineering majors must also have completed a four semester-hour calculus course equivalent to MATH 141 with a grade of "C" or better.

The last 25% of a student's degree must be completed in residence at the University, and at least half of the hours in the student's major courses and in the student's minor courses (if applicable) must be taken at the University.

## Degree Requirements (120-128 hours)

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

### Program of Study

Requirements	Credit Hours
1. Carolina Core	34-44
2. College Requirements	0
3. Program Requirements	57-59
4. Major Requirements	27

## 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 <sup>1</sup> (3 hours)

- SPCH 140, SPCH 145 or SPCH 230

## INF – Information Literacy <sup>1</sup> (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 <sup>1</sup> (1 hour)

- CSCE 390 - *must be passed with a grade of C or higher*

<sup>1</sup> **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)

#### Foundational Courses

Course	Title	Credits
ENGL 462 or ENGL 463	Technical Writing Business Writing	3
MATH 174 or MATH 374	Discrete Mathematics for Computer Science <sup>1</sup> Discrete Structures	3
STAT 509 or STAT 515	Statistics for Engineers Statistical Methods I	3

STAT 516	Statistical Methods II	3
<b>Total Credit Hours</b>		<b>12</b>

<sup>1</sup> 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-PHIL 109, PHIL 112-PHIL 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: 6

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 472	Entrepreneurship and Small Business	
MKTG 350	Principles of Marketing	
MKTG 351	Consumer Behavior	
MGSC 395	Operations Management	

**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 hours)

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

### Major Courses (24 hours)

Course	Title	Credits
CSCE 205 or CSCE 242	Business Applications Programming Client-Server Computing	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)

Course	Title	Credits
Select one of the following:		3
ITEC 447	Management of Information Technology	
ITEC 560	Project Management Methods	

Select an approved CSCE course, 510 and higher - a list of acceptable courses is also maintained in the department office and on its website

**Total Credit Hours** 3

## Major Map

A major map is a layout of required courses in a given program of study, including critical courses and suggested course sequences to ensure a clear path to graduation.

Major maps are only a suggested or recommended sequence of courses required in a program of study. Please contact your academic advisor for assistance in the application of specific coursework to a program of study and course selection and planning for upcoming semesters.

### Computer Information Systems, B.S.