# INTEGRATED INFORMATION TECHNOLOGY, B.S.

The BS Integrated Information Technology program is accredited by the Computing Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Information Technology and Similarly Named Computing Programs Criteria.

## Learning Outcomes

1. Students will analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions.
2. Students will design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the IT discipline.
3. Students will communicate effectively in a variety of professional contexts.
4. Students will recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Students will function effectively as a member or leader of a team engaged in activities appropriate to the IT discipline.
6. Students will use systemic approaches to select, develop, apply, integrate, and administer secure computing technologies to accomplish user goals.

## Academic Standards

### Program GPA

Program GPA requirement policies are described in the Molinaroli College of Engineering and Computing (https://academicbulletins.sc.edu/undergraduate/engineering-computing/) section of this bulletin. For the purpose of these policies, the following courses are used to determine the Program GPA for the Integrated Information Technology B.S. program: all Lower Division Integrated Information Technology courses, all Integrated Information Technology Major courses and all Major Elective courses.

### Minimum Course Grades

The Integrated Information Technology B.S. program requires that a grade of "C" or better be earned in MATH 174 and all ITEC 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/).

Transfer applicants from regionally accredited colleges and universities must have a minimum cumulative 2.75 GPA on a 4.00 scale to enter the Molinaroli College of Engineering and Computing. Current University of South Carolina students, and former students seeking readmission, must have an institutional GPA of 2.50 or better on at least 15 hours earned at USC.

## 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

| Requirements | Credit Hours |
| --- | --- |
| 1. Carolina Core | 34-40 |
| 2. College Requirements | 0 |
| 3. Program Requirements | 44-50 |
| 4. Major Requirements | 36 |

### 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 (34-40 hours)

### CMW – Effective, Engaged, and Persuasive Communication: Written (6 hours)

- ENGL 101 - *must be passed with a grade of C or higher*
- ENGL 102

### ARP – Analytical Reasoning and Problem Solving (6 hours)

- MATH 174 - *must be passed with a grade of C or higher*
- STAT 201, STAT 205, or STAT 206

### SCI – Scientific Literacy (7 hours)

- two CC-SCI courses (https://academicbulletins.sc.edu/undergraduate/carolina-core-courses/) from the natural sciences including one laboratory selected from Astronomy, Biology, Chemistry, Environmental Science, Geology, Marine Science or Physics

### 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, SPCH 145, or SPCH 230

### INF [1] – Information Literacy (0 hours)

- ENGL 102

### VSR – Values, Ethics, and Social Responsibility (3 hours)

- ITEC 101

[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 31 hours.

## 2. College Requirements (0 hours)

*No college-required courses for this program.*

## 3. Program Requirements (44-50 hours)

### Supporting Courses (36-41 hours)

| Course | Title | Credits |
|---|---|---|
| **Foundational Courses** | | |
| Select one of the following: | | 3-6 |
| RETL 261 & 262 | Principles of Accounting I and Principles of Accounting II | |
| or ACCT 222 | Survey of Accounting | |
| ECON 224 | Introduction to Economics [1] | 3 |
| SPTE 240 | Business Law | 3 |
| or ACCT 324 | Survey of Commercial Law | |
| HTMT 344 | Human Resource Management in Hospitality, Retail, and Sport Management | 3 |
| or MGMT 371 | Principles of Management | |
| Select one of the following: | | 3 |
| ITEC 242 | Business Communications | |
| ENGL 462 | Technical Writing | |
| ENGL 463 | Business Writing | |
| MGMT 250 | Professional Communication | |
| **Lower Division Integrated Information Technology** | | |
| Must be passed with a grade of C or higher. | | |
| ITEC 233 | Introduction to Computer Hardware and Software | 3 |
| ITEC 293 | Cybersecurity Operations | 3 |
| ITEC 245 | Introduction to Networking | 3 |
| ITEC 264 | Computer Applications in Business I | 3 |
| ITEC 265 | Introduction to Databases | 3 |
| **Software Programming Language** | | |
| Select one of the following sequences: | | 6-8 |
| CSCE 104 & ITEC 352 | Program Design and Development and Software Design | |
| ITEC 104 & 352 | Program Design and Development and Software Design | |
| CSCE 145 & 146 | Algorithmic Design I and Algorithmic Design II | |

[1] ECON 224 may be satisfied by completing both ECON 221 and ECON 222, if they were taken prior to the student becoming an IIT major or through transient enrollment.

### Electives (3-14 hours)

The IIT curriculum includes 3-14 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 (36 hours)

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

### Major Courses (33 hours)

| Course | Title | Credits |
|---|---|---|
| ITEC 301 | Professional Internship Seminar | 3 |
| ITEC 362 | Introduction to Web Systems | 3 |
| ITEC 370 | Database Systems in Information Technology | 3 |
| ITEC 444 | Introduction to Human Computer Interaction | 3 |
| ITEC 445 | Advanced Networking and Security | 3 |
| ITEC 447 | Management of Information Technology | 3 |
| ITEC 493 | Information Technology Security for Managers | 3 |
| ITEC 495 | Professional Internship | 6 |
| ITEC 560 | Project Management Methods | 3 |
| ITEC 564 | Capstone Project for Information Technology | 3 |
| **Total Credit Hours** | | **33** |

### Major Elective (3 hours)

Students must take 3 credit hours of Integrated Information Technology electives.  Undergraduate courses that may be used to satisfy this requirement are listed below.  In addition, ITEC courses numbered 700 and above may be used to satisfy this requirement, provided the student is admitted to an Accelerated Bachelor's/Graduate Program.

| Course | Title | Credits |
|---|---|---|
| ITEC 475 | Mainframe Systems | 3 |
| ITEC 476 | Job Control Language | 3 |
| ITEC 490 | Special Topics in Information Technology | 3 |
| ITEC 510 | Emerging Information Technology Trends | 3 |
| ITEC 534 | Advanced Human Computer Interaction | 3 |
| ITEC 544 | Training Systems | 3 |
| ITEC 545 | Telecommunications | 3 |
| ITEC 552 | Linux Programming and Administration | 3 |
| ITEC 562 | Advanced Web Support Systems | 3 |

| ITEC 570 | Database Management and Administration | 3 |
| ITEC 590 | Special Topics in Integrated Information Technology | 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.

**Integrated Information Technology, B.S.**