

INTEGRATED INFORMATION TECHNOLOGY

Department Website (https://sc.edu/study/colleges_schools/engineering_and_computing/study/integrated_information_technology/)

Elizabeth A. Regan, *Director*

The College of Engineering and Computing offers a bachelor of science degree with a major in integrated information technology.

Programs

- Integrated Information Technology Minor (<https://academicbulletins.sc.edu/archives/2020-2021/undergraduate/engineering-computing/integrated-information-technology/integrated-information-technology-minor/>)
- Integrated Information Technology, B.S. (<https://academicbulletins.sc.edu/archives/2020-2021/undergraduate/engineering-computing/integrated-information-technology/integrated-information-technology-bs/>)

Courses

ITEC 101 - Thriving in the Tech Age (3 Credits)

Pervasive impact of computers on today's global society; skills and strategies for using technology. How information technologies impact daily life and drive change.

ITEC 143 - Advanced Business Document Preparation (3 Credits)

Emphasis on production and versatility in preparing business documents. Not for TSTM majors. For business teacher certification.

Graduation with Leadership Distinction: GLD: Professional and Civic Engagement Leadership Experiences

ITEC 204 - Program Design and Development (3 Credits)

Fundamental algorithms and processes used in business information systems. Development and representation of programming logic. Introduction to implementation using a high-level programming language.

Prerequisites: C or better in either CSCE 101, MGSC 290 or ITEC 264.

Cross-listed course: CSCE 204, MGSC 298

ITEC 233 - Introduction to Computer Hardware and Software (3 Credits)

Understanding of current computer hardware and software through computer building, repairing, and troubleshooting.

ITEC 242 - Business Communications (3 Credits)

Theory and processes in written business communications; composing effective business letters and reports.

Prerequisites: C or better in both ENGL 101 and ENGL 102.

Graduation with Leadership Distinction: GLD: Professional and Civic Engagement Leadership Experiences

ITEC 243 - Word Processing Concepts and Technology (3 Credits)

Introduction to word processing concepts and applications.

Prerequisites: keyboarding.

ITEC 245 - Introduction to Networking (3 Credits)

Understanding the essential concepts of computer networks, including standards, topologies, security, media, switching, routing, and more.

Prerequisites: C or better in ITEC 233.

ITEC 264 - Computer Applications in Business I (3 Credits)

Survey of core skills and techniques for spreadsheet design and analysis of business problems.

ITEC 265 - Introduction to Databases (3 Credits)

Fundamentals of modern database design and applications.

ITEC 270 - Records Control (3 Credits)

Analysis and control of office records including creation, processing, maintenance, protection, and disposition.

Prerequisites: ITEC 264.

ITEC 293 - Cybersecurity Operations (3 Credits)

Operations in Security Operations Centers (SOC). Securing information systems by monitoring, analyzing, detecting, and responding to security events.

Prerequisites: C or better in ITEC 233 or CSCE 145.

ITEC 301 - Professional Internship Seminar (3 Credits)

Preparation for professional internship.

Prerequisites: C or better in both ITEC 242 and ITEC 370.

Graduation with Leadership Distinction: GLD: Professional and Civic Engagement Internships

ITEC 352 - Software Design (3 Credits)

Survey of core software development principles, application development from pseudocode and flow charting through coding process.

Prerequisites: C or better in CSCE 204 or ITEC 204.

ITEC 362 - Introduction to Web Systems (3 Credits)

Introduction to web based systems, including HTML, CSS, and JavaScript; working with Content Management systems (Wordpress, Joomla); Accessibility, SEO, and web development best practices.

Prerequisites: C or better in either ITEC 101, CSCE 101, or CSCE 102.

ITEC 370 - Database Systems in Information Technology (3 Credits)

Survey of techniques for working with enterprise-level database systems.

Prerequisites: C or better in ITEC 265.

ITEC 390 - Special Topics in Information Technology (1-3 Credits)

Advanced concepts, issues, and trends in information technology. Course content varies and will be announced in the schedule of classes by title. May be taken twice for credit.

ITEC 399 - Independent Study (1-6 Credits)

Contract approved by instructor, advisor, and department head for undergraduate students.

Graduation with Leadership Distinction: GLD: Research

ITEC 444 - Introduction to Human Computer Interaction (3 Credits)

Human computer interaction: human factors of interactive software, methods to develop and assess interfaces, interaction styles, and design considerations.

Prerequisites: C or better in either CSCE 204 or CSCE 145; and C or better in ITEC 362.

Graduation with Leadership Distinction: GLD: Research

ITEC 445 - Advanced Networking (3 Credits)

Advanced administration of client/server networks with major emphasis on network operating system software.

Prerequisites: C or better in ITEC 245.

ITEC 447 - Management of Information Technology (3 Credits)

Overview of current practices and trends in end-user technology and information system management.

Prerequisites: C or better in ITEC 101 and ITEC 245.

ITEC 472 - Directed Teaching in High School (Business Education) (12 Credits)

Graduation with Leadership Distinction: GLD: Professional and Civic Engagement Internships

ITEC 475 - Mainframe Systems (3 Credits)

Introduction to the large scale computer systems used by businesses to support thousands of simultaneous users and process millions of transactions.

Prerequisites: C or better in ITEC 352, or C or better in CSCE 146.

Cross-listed course: CSCE 415

ITEC 476 - Job Control Language (3 Credits)

Programming in job control language used to process batch jobs on mainframe computers. Use of standard system utility programs.

Prerequisites: C or better in ITEC 352, or C or better in CSCE 146.

ITEC 493 - Information Technology Security for Managers (3 Credits)

Information technology security from a managerial perspective, including security awareness, risk assessment, and security policy development.

Prerequisites: C or better in ITEC 445.

ITEC 495 - Professional Internship (6 Credits)

Internship coordinated by a faculty member and supervised by an approved business supervisor. Contract approved by instructor, advisor, and department head is required for undergraduate students.

Prerequisites: C or better in ITEC 301.

Experiential Learning: Experiential Learning Opportunity

ITEC 544 - Training Systems (3 Credits)

Theory, design, and implementation of technology-based training systems, including hardware and software solutions.

Prerequisites: C or better in ITEC 444.

ITEC 545 - Telecommunications (3 Credits)

Telecommunications systems, applications, and equipment allowing for the global dissemination of information.

Prerequisites: C or better in ITEC 245.

ITEC 552 - Linux Programming and Administration (3 Credits)

Shell scripting and administration in the Linux operating system.

Prerequisites: C or better in CSCE 204, or C or better in CSCE 145.

ITEC 560 - Project Management Methods (3 Credits)

Project management principles and standard practices, including software applications for project management.

Prerequisites: C or better in ITEC 362; and C or better in either ITEC 264 or MGSC 290.

ITEC 562 - Advanced Web Support Systems (3 Credits)

The development of advanced, dynamic, Web-based information systems, including the integration of back-end database-records management systems.

Prerequisites: C or better in ITEC 362.

ITEC 564 - Capstone Project for Information Technology (3 Credits)

Application of project management software, technologies, and practices to the design and implementation of real-world capstone projects.

Prerequisites: C or better in both ITEC 362 and ITEC 560.

ITEC 570 - Database Management and Administration (3 Credits)

Introduction to database administration and implementation using an enterprise-level Relational Database Management System (RDBMS).

Prerequisites: C or better in ITEC 370.

ITEC 590 - Special Topics in Integrated Information Technology (3 Credits)

Advanced concepts, issues, and trends in technology support and training management. Course content varies and will be announced in the schedule of classes by title. May be repeated twice for credit.