

COLLEGE OF INFORMATION SCIENCE & TECHNOLOGY (CIST)

College of Information Science & Technology Undergraduate Courses

CIST 1010 LEARN AND EARN: COLLEGE AND CAREER SUCCESS (1 credit)

This course provides students the opportunity to identify their learning strengths and weaknesses along with academic strategies to support their success in traditional and online courses. Students will have opportunities to practice effective communication, problem solving, critical thinking, team work and career planning, with an emphasis on key elements of information technology professions. Students will gain skills and experience in establishing a personal brand, networking, and developing a professional career portfolio.

Prerequisite(s): Students may count only one of CIST 1010, US 1010, or US 1020 toward undergraduate degree requirements. Not open to non-degree graduate students.

CIST 1300 INTRODUCTION TO WEB DEVELOPMENT (3 credits)

This course covers the basics of web development with a focus on creating mobile-friendly websites. Students will learn HTML and CSS, the fundamental languages used to create web pages, and gain hands-on experience building responsive layouts and designing user interfaces. Additionally, the course covers best practices for mobile web development, including creating mobile-first designs and optimizing websites for different devices and screen sizes.

Prerequisite(s): High school algebra or equivalent

CIST 1400 INTRODUCTION TO COMPUTER SCIENCE I (3 credits)

This course is an introduction to computer science within the context of a high-level programming language. Students will be introduced to fundamental programming concepts and program design with the goal of solving computational problems. This course has a required laboratory component.

Prerequisite(s): MATH 1300, MATH 1320, or MATH 1370 (may be taken concurrently) and one of CIST 1300, CSCI 1200, or CSCI 1280 with a grade of C- or better.

CIST 1510 CULTURE AND HISTORY OF VIDEO GAMES (3 credits)

This course is an overview of the history of video gaming; its evolution, genres, and how games and gaming relate to their audience and the world in which we live. Topics include Project Management, HCI, GUI Design, Pattern Language(s), game design, console evolution, gaming/industry milestones, gaming cultures and subcultures, and the profound impact gaming has had on life in the modern world.

Prerequisite(s): Not open to non-degree graduate students.

CIST 1600 INTRODUCTION TO PROGRAMMING USING PRACTICAL SCRIPTING (3 credits)

Practical scripting is an introductory course using a script programming language. The course covers fundamental programming concepts and program design such as data types, condition and control statements, and managing program complexity. The focus of the course is on practical applications of programming in other academic areas, such as automation of tasks, and data visualization.

Prerequisite(s): Not intended for students who have completed CIST 1400 and CSCI 1620

CIST 2010 IS&T PROFESSIONAL DEVELOPMENT SEMINAR (2 credits)

This course provides students with strategies for developing and attaining personal and professional goals. Topics include learning how to synthesize career information using skills developed in the class such as self-awareness, professional communication, critical thinking, and self-advocacy. Students will engage in experiential learning and activities to facilitate the development of the career readiness competencies identified by the National Association of Colleges & Employers, which include critical thinking, oral/written communications, collaboration, digital technology, leadership, professionalism, career management, and global/intercultural fluency. The skills students learn in this class promote lifelong learning and career development.

Prerequisite(s): Not open to non-degree graduate students.

CIST 2100 ORGANIZATIONS, APPLICATIONS AND TECHNOLOGY (3 credits)

This survey course provides an introduction to organizations and the role information and information systems play in supporting operations, decision-making, processes, quality management, and strategic activities of an organization. In addition, the course covers management of the IS function, strategic and regulatory issues of telecommunications, and ethical and legal issues.

Prerequisite(s): Sophomore standing, or permission of the instructor.

Distribution: Social Science General Education course

CIST 2500 INTRODUCTION TO APPLIED STATISTICS FOR IS&T (3 credits)

The course emphasizes the function of statistics in information science and technology including topics such as descriptive statistical measures, probability discrete probability, sampling, estimation analysis, hypothesis testing, regression, and analysis of variance. A well-known computer package will be used to support the problem-solving process.

Prerequisite(s): MATH 1220 or permission of an instructor

CIST 3000 ADVANCED COMPOSITION FOR IS&T (3 credits)

Advanced Composition for IS&T provides students with instruction and practice in academic writing for the technical sciences. The course focuses on principles of rhetoric and composition, advanced library-based research techniques, academic modes of writing suited to the technical sciences, style, grammar, and punctuation, all with attention to adapting writing to suit the needs of various academic and professional audiences.

Prerequisite(s): ENGL 1160 (or placement in a 3rd year writing course) and junior standing, or permission of the instructor. Not open to non-degree graduate students.

Distribution: Writing in the Discipline Single Course

CIST 3110 INFORMATION TECHNOLOGY ETHICS (3 credits)

The course will cover the development and need for issues regarding privacy and the application of computer ethics to information technology.

Prerequisite(s): ENGL 1150 or placement in a second or third-year writing class, and sophomore standing

Distribution: Humanities and Fine Arts General Education course

CIST 4540 COMPUTER SECURITY MANAGEMENT (3 credits)

The purpose of this course is to integrate concepts and techniques from security assessment, risk mitigation, disaster planning, and auditing to identify, understand, and propose solutions to problems of computer security and security administration. (Cross-listed with CYBR 4540, CYBR 8546, ISQA 8546)

Prerequisite(s): CYBR 4360 or permission of the instructor.

CIST 4910 SYSTEMS DEVELOPMENT IN OPEN SOURCE COMMUNITIES (3 credits)

This course will expose students to systems development in open source communities. The course will engage existing open source communities in the advancement of open source code, tooling, processes, and methodologies.

Prerequisite(s): CIST 1400, CIST 2100, and CSCI 1620