

INFORMATION TECHNOLOGY (ITE) (ITE)

ITE 190 ITE Special Topics 1 cr

Selected topics in information technology. Prerequisite: Permission of the ITE coordinator.

ITE 271 Info Techn in Organizations 3 cr

This course introduces students to the Information Technology (IT) concepts and the software that facilitates IT solutions. Topics include: data, information, and knowledge concepts, productivity software tools, role of networking and communication, the "digital phenomena", and the benefits of IT. Also included are IT program concepts such as: ethics, the importance of effective written and oral communication, continuous learning, and technology monitoring-evaluation.

ITE 272 Systems Architecture 3 cr

This course introduces students to the Information Technology (IT) hardware and systems software concepts. Topics include: computer hardware, operating systems, system software, hardware and software integration, operating procedures, system performance, security/safety, and compatibility. Student labs and hands-on activities will include: Windows, Unix, and Linux systems, system utilities and software tools.

Prerequisite: CIS 115 Minimum Grade of C

Cross-Listed: ISC 272

ITE 285 Intermediate Programming 3 cr

A second course in visual, event-driven programming that builds on CIS 115. Topics include functions and procedures, arrays, LINQ, structures, text files, structured exception handling, additional controls and objects, and object-oriented programming. Programming projects are required. Credit cannot be received for both ISC 285 and ITE 285.

Prerequisite: CIS 115 Minimum Grade of C

Cross-Listed: ISC 285

ITE 370 Adv Application Development 3 cr

This course explores advanced topics in visual applications development. Emphasis is placed upon developing increased program functionality and connectivity with local and remote databases. Other topics: integrating programming components and libraries, object-oriented application development and testing methodologies, and using an object-oriented approach for multi-tiered applications. Programming projects are required. Credit cannot be received for both ITE 370 and ISC 361.

Prerequisite: (ITE 285 Minimum Grade of C or ISC 285 Minimum Grade of C) and CIS 324 Minimum Grade of C

Cross-Listed: ISC 361

ITE 372 Advanced Operating Systems 3 cr

This course introduces students to advanced Operating Systems techniques and related system architecture concepts. Students will examine how Operating Systems retain parameters set during installation and customization as well as the basic strategies used in Operating System security. Students will use advanced command-line tools to discover and modify settings within the Operating System and will use advanced scripting techniques to parse data within Operating System's files.

Prerequisite: (ISC 272 Minimum Grade of C or ITE 272 Minimum Grade of C) and (ISC 285 Minimum Grade of C or ITE 285 Minimum Grade of C)

ITE 373 File Sys for Digital Forensics 3 cr

This course introduces students to advanced file system techniques used in Forensic Analysis. Students will examine the current principles in drive storage hardware and file systems, including Windows and Linux-based systems and evaluate possible data hiding techniques which can be employed within these systems. Students will be required to perform imaging of hard drives for analysis of possible hidden data using techniques covered in this course.

Prerequisite: (ISC 272 Minimum Grade of C or ITE 272 Minimum Grade of C)

ITE 375 Publishing for the WWW 3 cr

This course is an introduction to the models and tools used to develop documents for the World Wide Web. Course topics include website planning and design, markup and styling languages, graphics, multimedia utilization, typography, and scripting. Website design issues such as ethics, copyright and intellectual property rights are also covered.

Prerequisites: CIS 321 and either ISC 272 or ITE 272.

Prerequisite: CIS 321 Minimum Grade of C and (ISC 272 Minimum Grade of C or ITE 272 Minimum Grade of C)

ITE 380 Multimedia Production 3 cr

This course covers the models and tools of multimedia development and production. Development models include: message analysis, audience analysis, and media formats. Technical issues include: data formats, data interoperability, and hardware concepts. From a practical perspective, students will develop a multimedia project.

Prerequisite: (ISC 272 Minimum Grade of C or ITE 272 Minimum Grade of C)

ITE 382 Network Administration 3 cr

This course examines the network and database administrator functions in an organization. Students study the functions required of an administrator to facilitate the usage of the environment while securing the resources. Various methods and software products will demonstrate the areas of access and security.

Prerequisite: CIS 321 Minimum Grade of C and (ISC 272 Minimum Grade of C or ITE 272 Minimum Grade of C)

ITE 384 Network Infrastructure Systems 3 cr

This course focuses upon the concepts of network hardware systems that provide interconnection of communication devices. Topics include: network architectures and technologies, concepts such as routing, addressing, and network protocols (TCP/IP and others). Students will be required to setup, configure, and manage wired and wireless network equipment such as switches, routers, access points, and gateways

Prerequisite: CIS 321 Minimum Grade of C and (ISC 272 Minimum Grade of C or ITE 272 Minimum Grade of C)

ITE 453 Web Site Management 3 cr

This course addresses the design, establishment and implementation of a World Wide Web site. Issues addressed are: definition of the site, establishment of a physical site, choice of a Web server, determination of software requirements, implementation details, security, management, and monitoring of the site.

Prerequisite: CIS 321 Minimum Grade of C and (ISC 272 Minimum Grade of C or ITE 272 Minimum Grade of C)

ITE 473 Digital Forensic Analysis 3 cr

This course introduces students to acceptable methodologies of securing, collecting, analyzing and reporting data of a computer forensics investigation. Topics include: Ethics, introduction to computer investigations, evidence control, forensics tools, data acquisition, data recovery, data analysis and presenting the results. Students will be required to perform several forensics analyses in a controlled lab environment.

Prerequisite: ITE 372 Minimum Grade of C and ITE 373 Minimum Grade of C

ITE 474 Human Computer Interface 3 cr

Students will study the concepts of human-computer interaction and interface design. Topics include: detailed human-computer interaction concepts, modern graphical user interface models, and interface usability testing. Students will use rapid-prototyping tools to develop and test a typical user interface. Credit cannot be received for both ITE 474 and ISC 474.

Prerequisite: (ISC 285 Minimum Grade of C or ITE 285 Minimum Grade of C)

Cross-Listed: ISC 474

ITE 475 IT Project Management 3 cr

This course examines the principles and techniques of project management from an information technology perspective. Major topics include project context, project selection, and project planning. Students work in collaborative teams and are instructed in the use of a project software tool. Credit cannot be received for both ITE 475 and ISC 475.

Prerequisite: CIS 324 Minimum Grade of C

Cross-Listed: ISC 475

ITE 476 Network Security Management 3 cr

This course examines network and web security issues including: risks and threats, system access points, hardware and software defense methods, and organizational security policies. Labs will require students to analyze systems for potential threats, implement security procedures, monitor systems for security breaches, and institute recovery or repairs.

Prerequisite: ITE 382 Minimum Grade of C and ITE 384 Minimum Grade of C

ITE 480 Needs Assess-Tech Eval - W 3 cr

This course presents methodologies for assessing technological needs in support of organizational information requirements. Students learn the next logical step is a formal means of evaluating a given technology. Major topics of the course are specifying organizational needs, identifying potential technologies, evaluating potential benefits, assessing the organization's ability to utilize the technology. Students will examine planning for technological change and strategic implementation of the change.

Prerequisite: EH 102 Minimum Grade of C and ITE 271 Minimum Grade of C and ITE 285 Minimum Grade of C

ITE 482 Adv Web Development 3 cr

This is an advanced course in web programming and development. This course provides a hands-on approach using high-level development tools to learning advanced web programming concepts including server-side and database processing. Students will implement usability and security features into the development of modern web applications.

Prerequisite: CIS 324 Minimum Grade of C and ITE 375 Minimum Grade of C

ITE 484 Advanced Network Management 3 cr

This course explores advanced network management issues including: developing/designing network implementation strategies, managing users and data, providing operational support and help-desk, developing network use policies, developing network recovery procedures. Labs will require that students manage an operational network that provides typical network services and experience the day-to-day problems that network administrators encounter.

Prerequisite: ITE 382 Minimum Grade of C and ITE 384 Minimum Grade of C

ITE 485 ITE Senior Demo Project 3 cr

A senior capstone individual project course working from problem requirements and specifications to produce a solution. This requires exploration of suitable information technologies to produce a solution that improves the problem situation. Students will analyze, plan, and report on the project and implement a prototype. Prerequisites: ITE 370 Minimum Grade of C, ITE 480 Minimum Grade of C, and permission of the ITE coordinator.

Prerequisite: ITE 370 Minimum Grade of C and ITE 480 Minimum Grade of C

ITE 490 Special Topics 3 cr

Advanced selected topics in information technology. Prerequisite: Permission of the ITE coordinator.

Prerequisite: Computer Sci Prof Component 30 or Computer Science Graduate 030