

CIST – Computer Information Systems

CIST 1001 - Computer Concepts

4.000 Credits

Provides an overview of information systems, computers and technology. Topics include information systems and technology terminology, computer history, data representation, data storage concepts, fundamentals of information processing, fundamentals of information security, information technology ethics, fundamentals of hardware operation, fundamentals of networking, fundamentals of the internet, fundamentals of software design concepts, fundamentals of software, (system and application), system development methodology, computer number systems conversion (binary and hexadecimal), mobile computing.

CIST 1122 - Hardware Installation and Maintenance

4.000 Credits

Prerequisites: Regular Status

This course serves to provide students with the knowledge of the fundamentals of computer technology, networking, and security along with the skills required to identify hardware, peripheral, networking, and security components with an introduction to the fundamentals of installing and maintaining computers. Students will develop the skills to identify the basic functionality of the operating system, perform basic troubleshooting techniques, utilize proper safety procedures, and effectively interact with customers and peers. This course is designed to help prepare students for the CompTIA A+ certification examination.

CIST 1130 - Operating Systems Concepts

3.000 Credits

Provides an overview of modern operating systems and their use in home and small business environments. Activities will utilize the graphical user interface (GUI) and command line environment (CLI). This will include operating system fundamentals; installing, configuring, and upgrading operating systems; managing storage, file systems, hardware and system resources; troubleshooting, diagnostics, and maintenance of operating systems; and networking.

CIST 1220 - Structured Query Language

4.000 Credits

Prerequisites: CIST 1001; CIST 1305; COMP 1000

Includes basic database design concepts and solving database retrieval and modification problems using the SQL language. Topics include database vocabulary, relational database design, data retrieval using SQL, data modification using SQL, developing and using SQL procedures.

CIST 1305 - Program Design and Development

3.000 Credits

An introductory course that provides problem solving and programming concepts for those that develop user applications. An emphasis is placed on developing logic, troubleshooting, and using tools to develop solutions. Topics include problem solving and programming concepts, structured programming, the four logic structures, file processing concepts, and arrays.

CIST 1401 - Computer Networking Fundamentals

4.000 Credits

Prerequisites: Regular Status

Introduces networking technologies and prepares students to take the CompTIA's broad-based, vendor independent networking certification exam, Network +. This course covers a wide range of material about networking, including local area networks, wide area networks, protocols, topologies, transmission media, and security. Focuses on operating network management systems, and implementing the installation of networks. It reviews cabling, connection schemes, the fundamentals of the LAN and WAN technologies, TCP/IP configuration and troubleshooting, remote connectivity, and network maintenance and troubleshooting. Topics include: basic knowledge of networking technology, network media and topologies, network devices, network management, network tools and network security.

CIST 1510 - Web Development I

3.000 Credits

Prerequisites: Regular Status

Explores the concepts of Hypertext Markup Language (HTML), Cascading Style Sheets (CSS), XML, and XHTML following the current standards set by the World Wide Web Consortium (W3C) for developing inter-linking web pages that include graphical elements, hyperlinks, tables, forms, and image maps.

CIST 1520 - Scripting Technologies

3.000 Credits

Prerequisites: CIS 1305

Students will learn how to use the features and structure of a client side scripting language. Students will also explore the features on server side scripting. Students will develop professional web applications that include special effects, interactive, dynamic, validated, and secure forms.

CIST 1530 - Web Graphics I

3.000 Credits

Prerequisites: CIST 1510

Students will explore how to use industry standard or open source graphics software programs to create Web ready images and Web pages. Topics include advanced image correction techniques and adjustments, typography and interpolation as well as conditional scripting statements and arrays. The course includes a final project that allows students to develop a Web page/site using the chosen software.

CIST 1540 - Web Animation I

3.000 Credits

Prerequisites: Regular Status

In this course, students will use scripting and the latest industry standard or open source software to cover the creation and manipulation of images and animations. Topics include graphic types, organizational methods, drawing tools, beginning to complex object modeling and an introduction to scripting.

CIST 1601 - Information Security Fundamentals

3.000 Credits

This course provides a broad overview of information security. It covers terminology, history, security systems development and implementation. Student will also cover the legal, ethical, and professional issues in information security.

CIST 2120 - Supporting Application Software

4.000 Credits

Prerequisites: COMP 1000

This course provides students with knowledge in the following areas: word processing, spreadsheets, and presentation software. Word processing topics include creating, customizing, and organizing documents by using formatting and visual content that is appropriate for the information presented. Spreadsheet topics include creating and manipulating data, formatting data and content, creating and modifying formulas, presenting data visually, and collaborating on and securing data. Presentation topics include creating and formatting presentation masters and templates, creating and formatting slide content, working with dynamic visual content, and collaborating on and delivering presentations. This course is designed to help prepare students for the Microsoft Certification tests in Word, Excel and PowerPoint.

CIST 2130 - Desktop Support Concepts

2.000 Credits

This course is designed to give an overview to Desktop Support Management.

CIST 2311 - Visual Basic I

4.000 Credits

Prerequisites: CIST 1305

Visual Basic I introduces event-driven programming. Common elements of Windows applications will be discussed created and manipulated using Microsoft's Visual Studio development environment. Topics include numeric data types and variables, decision making structures, arrays, validating input with strings and functions, repetition and multiple forms, test files, lists and common dialog controls.

CIST 2371 - Java Programming I

4.000 Credits

Prerequisites: CIST 1305

This course is designed to teach the basic concepts and methods of objected-oriented design and Java programming. Use practical problems to illustrate Java application building techniques and concepts. Develop an understanding of Java vocabulary. Create an understanding of where Java fits in the application development landscape. Create an understanding of the Java Development Kit and how to develop, debug, and run Java applications using the JDK. Continue to develop student's programming logic skills. Topics include Java language history, Java variable definitions, Java control structures, Java methods, Java classes, Java objects, and Java graphics.

CIST 2411 - Microsoft Client

4.000 Credits

Prerequisites: Regular Status

Provides the ability to implement, administrate, and troubleshoot Windows Professional Client as a desktop operating system in any network environment.

CIST 2412 - Microsoft Server Directory Services

4.000 Credits

Prerequisites: Regular Status

Provides students with knowledge and skills necessary to install, configure, manage, support, and administer Windows Server. Topics include server deployment, server management, monitor and maintain servers, application and data provisioning, and business continuity and high availability.

CIST 2413 - Microsoft Server Infrastructure

4.000 Credits

Prerequisites: Regular Status

Provides students with knowledge and skills necessary to install, configure, manage, support and administer Microsoft Directory Services.

CIST 2414 - Microsoft Server Administrator

4.000 Credits

Prerequisites: Regular Status

Provides students with knowledge and skills necessary to install, configure, manage, support, and administer a Microsoft network infrastructure.

CIST 2431 - UNIX/Linux Introduction

4.000 Credits

Prerequisites: Regular Status

This course introduces the UNIX/Linux operating system skills necessary to perform entry-level user functions. Topics include history of UNIX/Linux, login and logout, the user environment, user password change, the file system, hierarchy tree, editors, file system commands as they relate to navigating the file system tree, UNIX/Linux manual help pages, using the UNIX/Linux graphical desktop, and command options. In addition, the student must be able to perform directory and file displaying, creation, deletion, redirection, copying, moving, linking files, wildcards, determining present working directory and changing directory locations.

CIST 2510 - Web Technologies

3.000 Credits

Prerequisites: Regular Status

Students will investigate one or more software packages that help automate Web content creation. Students will explore and utilize various features of software packages such as CSS, multimedia incorporation, scripting technologies, form creation, search functionality, advanced image techniques and database connectivity.

CIST 2531 - Web Graphics II

3.000 Credits

Prerequisites: CIST 1530

Students will further explore how to use an industry standard or open source graphics software program to create Web-ready images and Web pages. Topics include advanced image correction techniques and adjustments, typography, and interpolation as well as conditional scripting statements and arrays.

CIST 2550 - Web Development II

3.000

Prerequisites: CIST 1220; CIST 1510; CIST 1520

Web Development II teaches students how to manipulate data in a database using the Open Database Connectivity (ODBC) model. Students will learn to retrieve, update, and display database information with a web application. Database access may be accomplished using a web programming language (such as PHP, Microsoft VB, Microsoft C#, or Sun Java). Topics include manipulating data in a database, working with a relational database via Open Database Connectivity (ODBC), working with different database systems, developing forms and applications to interact with a database server(s), modifying data in a database, and controls and validation.

CIST 2710 - 2D Computer Animation

3.000 Credits

This course covers the fundamental ideas and principles of 2-dimensional form and animation. Emphasis on basic design concepts, pictorial composition, color theory, vocabulary, media and processes that allow for the creation of 2D animations that are specifically Web ready. Topics covered include (but are not limited to) principles and techniques of motion graphics, graphic file types, frame-by-frame animation, tweened animation and if the software used permits, combining a scripting language with animation.

CIST 2730 - Intro to 3D Animation

3.000 Credits

Prerequisites: CIST 1540

This course is an introduction to the creation and manipulation of 3D objects. Topics include 3D types and tools, 3D objects, and inverse kinematics.

CIST 2733 - 3D Graphics for Gaming I

3.000 Credits

This course covers the creation and manipulation of 3D objects and animations in an actual 3D game engine using the latest in industry standard or open source software. Topics covered include graphic types, organizational methods, drawing tools, object modeling, character rigging, bones, nurb manipulation and normal mapping.

CIST 2750 - Game Design

3.000 Credits

This course covers the history of the Video Game Industry and gives a hands-on approach to the design methodologies used to create an interactive 2D and 3D video game. Topics include story and script development, storyboarding, character analysis and creation, interface and sound design and game documentation.

CIST 2751 - Game Development I

3.000 Credits

This course covers the design and creation of a 2D interactive game using the latest in industry standard. Topics include game development and concepts, sprite creation using .png and .giff formats, object placement and orientation, ActionScript, pseudocode and level and class design.

CIST 2752 - Game Development II

3.000 Credits

This course covers the design, creation and implementation of 2D and 3D elements as well as programming concepts into an interactive application. Topics include interface design, 3D object creation, game flow and scripting.

CIST 2759 - Math for Game Developers

3.000 Credits

This course emphasizes the math skills needed in 2D game design. These skills include trigonometric properties, vectors, and motion in one dimension.

CIST 2921 - IT Analysis Design and Project Management

4.000 Credits

Prerequisites: CIST 1305

IT Analysis, Design, and Project Management will provides a review and application of systems life cycle development methodologies and project management. Topics include systems planning, systems analysis, systems design, systems implementation, evaluation, and project management.

COMP 1000 - Introduction to Computers

3.000 Credits

Introduces the fundamental concepts, terminology, and operations necessary to use computers. Emphasis is placed on basic functions and familiarity with computer use. Topics include an introduction to computer terminology, the Windows environment, Internet and email, word processing software, spreadsheet software, database software, and presentation software.