

---

## Computer Information Systems (CIS)

### **CIS 002**                      **Internet Programming HTML/CSS**                      (3)

*Class Hours:* 54 Lecture

*Advisory(s):* **ENG 101B and MATH 101:**

*Transfers to:* CSU

#### Internet Programming HTML/CSS

CIS 002 helps students develop the skills needed to create and maintain well-organized and well-formed Web pages and sites. Students will learn the history, power and limitations of basic Web page development through the Web's foundation languages, Hypertext Mark-up Language (HTML) and Cascading Style Sheets (CSS) as specified by the official Web standards body. Students learn to build solid web pages at a RAW level through a series of hands-on exercises. The course is targeted toward Web designers, developers and publications specialists. This course serves as a tutorial for students who have coded Web pages before and review for students who have some HTML/CSS coding knowledge and want to build on that knowledge.

### **CIS 002B**                      **Internet Programming - CSS**                      (3)

*Class Hours:* 54 Lecture

*Advisory(s):* CIS 002, ENG-101B and MATH 101

*Transfers to:* CSU

#### Internet Programming - CSS

CIS 002B is an introductory course using Cascading style Sheets (CSS). CSS are an addition to Hyper Text Markup Language (HTML). CSS allows web pages designers to expand their ability to control a web page. CSS allows for the nesting of key page elements to allow page designers to achieve a consistent look and feel throughout a web site. This course builds upon the knowledge and experience students have gained from taking CIS Internet programming HTML/CSS.

### **CIS 002C**                      **Internet Programming Scripting**                      (3)

*Class Hours:* 54 Lecture

*Advisory(s):* CIS 002, ENG 105B, and MATH 101

*Transfers to:* UC/CSU

#### Internet Programming- Script Languages

CIS 002C is an introductory course in the scripting languages that are used for the creation of web pages. HTML/CSS documents alone create web pages that are static, but with scripting languages, web pages can be dynamic and interactive. This course teaches students how to incorporate various scripting languages in HTML/CSS documents. Students will learn the basic syntax for scripting, as well as how to use objects and eventhandlers to interact with users. Additional topics may include how to respond dynamically to user actions and cross-frame communication. (AA/AS, CSU, UC)

### **CIS 002D**                      **Intro to Programming Concepts**                      (3)

*Class Hours:* 54 Lecture

*Advisory(s):* CIS 002, ENG 101B, and MATH 101

*Transfers to:* UC/CSU

#### Intro to Programming Concepts & Methodolog

CIS 002D Introduction to Programming Concepts and Methodologies - JAVA is a nine-week introduction to the fundamental concepts and models of application development including the basic concepts of program design, data structures, programming, problem solving, programming logic, and fundamental design techniques for event-driven programs. CIS 002D introduces students to the Java programming language. Good programming practices will be emphasized, including structures and object-oriented techniques.

---

**CIS 002E                      Web Design & Interactive Media                      (3)**  
*Class Hours:* 54 Lecture                      P/NP  
*Advisory(s):* CIS 002, ENG 101B, and MATH 101  
*Transfers to:* CSU

#### Web Design & Interactive Media

CIS 002E is designed to teach the mechanics and fundamental design techniques for creating interactive web pages. This course gives the students experience with developing animated web graphics and interactive interfaces, which are developed through the use of industry standard software such as Flash. Interactive design fundamentals such as graphics, text, symbols, the creation of animations, and basic interactivity are studied.

**CIS 002F                      Internet Server Side Scripting                      (3)**  
*Class Hours:* 54 Lecture                      P/NP  
*Advisory(s):* CIS 002, ENG 101B, and MATH 101  
*Transfers to:* UC/CSU

#### Internet Server Side Scripting

CIS 002F focuses on interactivity in websites, introducing both client-side interactivity (using JavaScript) and server-side interactivity (using PHP). Dynamic generation of web pages from database tables is also covered. Finally, the course examines the maintenance and management of large websites (including CSS and XML) and issues in web security and privacy.

**CIS 002G                      Introduction to E-Commerce                      (3)**  
*Class Hours:* 54 Lecture                      P/NP  
*Transfers to:* CSU

#### Introduction to E-Commerce

CIS 002G examines the implications of constantly changing technology for business practices and how e-commerce will affect decision support mechanisms. Topics include the global, economic and societal impact of international information/communication infrastructures, business practices which are emerging due to enabling technology, the effective use of technologies to solve business problems, and an exploration of recent technological developments and their potential uses in business. Consideration will be given to ethical concerns including privacy issues.

**CIS 002H                      Internet Graphics                      (3)**  
*Class Hours:* 54 Lecture                      P/NP  
*Advisory(s):* ENG 101B and MATH 101  
*Transfers to:* CSU

#### Internet Graphics

CIS 002H introduces students to the creation and manipulation of digital images through Photoshop retouching and image editing program. The course introduces basic principles of photographic composition and design, with an eye to the capabilities of digital photography. Participants will explore Photoshop's extensive toolbox and learn the fundamentals of image scanning, transformation and conversion; how to apply filters and make color correction; and how to prepare files for export and printing. With the addition of text, students may construct simple to advanced graphic intended for use on the Web. Frequent critiques reinforce the principles of effective design and foster creativity.

**CIS 003                      Web Development****(3)***Class Hours:* 54 Lecture*Advisory(s):* CIS 16, ENG 101B and MATH 101*Transfers to:* CSU

## Web Development

CIS 003 is the capstone course for the Web Developer AA degree it emphasizes work on a substantial project. The intent of this course is to provide a capstone experience that integrates the material contained in required courses of the Web Development major. It also provides an opportunity for students to recognize and evaluate the interrelationship of their general education courses with the courses taken for their Web Development major. The Capstone will include discussion about professional and ethical issues related to the discipline of Web Development. Students will also culminate their experiences by taking an in-depth look into the evolution of the emerging discipline of Web Development. This course presents introductions to many of the basic concepts, issues and techniques related to designing, developing and deploying Web sites. During the course, students will learn about Web design, HTML, XHTML, basic JavaScript, Dynamic HTML, and Cascading Style Sheets (CSS).

**CIS 005A                      Info & Comm Tech Essentials****(4)***Class Hours:* 72 Lecture*Transfers to:* CSU

## Info &amp; Communication Tech Essentials

CIS 005A provides an introduction to the computer hardware and software skills needed to help meet the growing demand for entry-level Information and Communication Technologies (ICT) professionals. The fundamentals of computer hardware and software as well as advanced concepts, such as security, networking, and the responsibilities of an ICT professional will be introduced. Preparation for CompTIA's A+ certification with specialization in the areas of hardware and operating systems.

**CIS 005B                      Computer Network Fundamentals****(3)***Class Hours:* 54 Lecture*Transfers to:* CSU

## Computer Network Fundamentals

CIS 005B introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP (Internet Protocol) addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for further study of computer networks. It uses the OSI (Open Systems Interconnection) and TCP (Transmission Control Protocol) layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. This course prepares students to take the CompTIA Network+ certification exam.

**CIS 005C                      Routing & Switching Essentials****(3)***Class Hours:* 54 Lecture*Transfers to:* CSU

## Routing &amp; Switching Essentials

CIS 005C describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. This course will help prepare students for the CompTIA Network+ certification exam.

**CIS 005D System & Network Administratio (3)***Class Hours: 54 Lecture**Transfers to: CSU***System & Network Administration**

CIS 005D will provide students with the knowledge and skills required to build, maintain, troubleshoot, and support server hardware and software technologies. Students will be able to identify environmental issues; understand and comply with disaster recovery and physical / software security procedures; become familiar with industry terminology and concepts; understand server roles / specializations and interaction within the overall computing environment. This course will prepare students for the current version of CompTIA Server+ certification exam.

**CIS 005E Intro to Inf System Security (3)***Class Hours: 54 Lecture**Transfers to: CSU***Intro to Inf System Security**

CIS 005E course provides the latest security tips and techniques on Internet and computer security best practices. Topics include: important privacy legislation, case studies of infamous hackers, how to develop an effective security system, selection of IT security products, firewall benefits and limitations, intruder detection, correct ways to configure your computer, browser settings, virus settings, operating system vulnerabilities, strong password techniques, parasite detection, and encryption techniques. This course maps to CompTIA certification.

**CIS 005F Intro to Information Assurance (3)***Class Hours: 54 Lecture**Transfers to: CSU***Intro to Information Assurance**

CIS 005F introduces the network security specialist to the various methodologies for attacking a network. Students will be introduced to the concepts, principles, and techniques, supplemented by hands-on exercises, for attacking and disabling a network within the context of properly securing a network. The course will emphasize network attack methodologies with the emphasis on student use of network attack techniques and tools and appropriate defenses and countermeasures. Students will receive course content information through a variety of methods: lecture and demonstration of hacking tools will be used in addition to a virtual environment. Students will experience a hands-on practical approach to penetration testing measures and ethical hacking. This course will help prepare students for the CompTIA Network+ certification exam.

**CIS 005G Computer Forensics Fundamental (3)***Class Hours: 54 Lecture**Transfers to: CSU***Computer Forensics Fundamentals**

CIS 005G is an introduction to the methods used to properly conduct a computer forensics investigation beginning with a discussion of ethics, while mapping to the objectives of the International Association of Computer Investigative Specialists (IACIS) certification. Topics covered include an overview of computer forensics as a profession; the computer investigation process; understanding operation systems boot processes and disk structures tools. This course will help prepare students for the CompTIA certification exam.

**CIS 005H                      Operating Sysyms - Linux****(3)***Class Hours: 54 Lecture**Transfers to: CSU*

## Operating Systems - Linux

CIS 005H covers the basics of the UNIX and Linux operating systems, which includes UNIX shell scripting. UNIX and Linux Operating System Fundamentals course begins with a brief history and overview of both UNIX and Linux, and then proceeds to teach the skills required for working on a server running either operating system. Hands-on exercises are used to reinforce key concepts and are completed by logging in on a real server on the internet from work or home.

**CIS 007                              Computer Concepts****(3)***Class Hours: 36 Lecture | 54 Laboratory**P/NP**Transfers to: UC/CSU**C-ID: BUS 140*

## Computer Concepts

CIS 007 is an examination of information systems and their role in business. The course focuses on information systems, database management systems, networking, e-commerce, ethics and security, computer systems hardware and software components. The course includes application of these concepts and methods through hands-on projects developing computer-based solutions to business problems. C

**CIS 008                              Microcomputer Operating Enviro****(1)***Class Hours: 9 Lecture | 27 Laboratory**P/NP**Transfers to: CSU*

## Microcomputer Operating Environment

CIS 008 provides an overview of the Windows operating system on microcomputers including interface, using programs, working with disks and files, customizing the desktop, creating shortcuts, and changing the way Windows looks and sounds.

**CIS 015X                            Occupational Work Experience****(1 - 8)***Class Hours: Work Experience**Transfers to: CSU*

## Occupational Work Experience

Cooperative Work Experience Education (CWEE) develops skills and knowledge by integrating classroom study with planned, supervised work experience. It is based on the principle that well-educated individuals develop most effectively through an educational plan that incorporated work experience. Through these structured experiences, the students enrich their college studies, which enhance their total development. Occupational Work Experience is supervised employment which is intended to assist students in acquiring desirable work habits, attitudes, and career awareness in the field of the student's major. Students may earn up to 8 units per semester for a maximum of 16 total units. Credits are awarded for paid or voluntary work. For every 75 hours of paid work completed within the semester, 1 unit or credit is awarded. For every 60 hours of volunteer work completed within the semester, 1 unit of credit is awarded. Occupational Work Experience credits are counted as electives toward an Associate's Degree at West Hills College Lemoore and are transferable to four year universities (for specific transfer eligibility, please contact a counselor or an advisor).

**CIS 019B                            Database Creation & Management****(3)***Class Hours: 36 Lecture | 54 Laboratory**P/NP**Transfers to: CSU*

## Database Creation &amp; Management

CIS 019B will teach the student to use a database program on a microcomputer. Students will learn database creation, report generation, updating, editing, and form structure and use.

---

**CIS 021 Desktop Publishing (3)**  
*Class Hours:* 36 Lecture | 54 Laboratory P/NP  
*Advisory(s):* BUS 013A and BUS 013B  
*Transfers to:* CSU

#### Desktop Publishing

CIS 021 teaches the students the application of common sense design techniques used in the production of reports, presentation material, newsletters, forms, manuals, catalogs, advertising materials, and books. Knowledge of word processing techniques and the use of a mouse is highly suggested.

**CIS 034 Introduction to Spreadsheets (3)**  
*Class Hours:* 54 Lecture  
*Advisory(s):* MATH 101  
*Transfers to:* CSU

#### Introduction to Spreadsheets

CIS 034 is an introduction to microcomputer spreadsheets using Microsoft Excel. Primary emphasis will be on the use of the command structure and operation. Topics covered will include spreadsheets design and format, graphs and database functions.

**CIS 035 Advanced Spreadsheets (3)**  
*Class Hours:* 54 Lecture P/NP  
*Prerequisite(s):* CIS 34 or CIS 34A/B  
*Transfers to:* CSU

#### Advanced Spreadsheets

CIS 035 is an advanced spreadsheet course using Microsoft Excel. Primary emphasis will be on the use of the program's advanced features, such as file management, multiple worksheets, data tables and scenario management, and application development with macros using Visual Basic. Students should have a firm understanding of Microsoft Excel prior to taking this course.

**CIS 042 System Analysis and Design (3)**  
*Class Hours:* 54 Lecture  
*Transfers to:* CSU

#### System Analysis and Design

CIS 042 presents a systematic methodology for analyzing a business problem or opportunity, determining what role, if any, computer-based technologies can play in addressing the business need, articulating business requirements for the technology solution, specifying alternative approaches to acquiring the technology capabilities needed to address the business requirements, and specifying the requirements for the information systems solution in particular, in-house development, development from third-party providers, or purchased commercial-off-the-shelf packages.

---