

# COMPUTER INFORMATION SYSTEMS

## **CIS V01 - INTRODUCTION TO ORACLE AND SQL\* PLUS - 3 Units**

Recommended preparation: working knowledge of Windows 95, 98 or 2000

Hours: 2 lecture, 2 lecture-laboratory weekly

This course will introduce students to relational database applications and management using industry-standard SQL (Structured Query Language) in Oracle's powerful SQL\* Plus environment. Students will program in SQL commands, functions, and operators supported by Oracle as extensions to standard SQL. Students will also be introduced to Procedural Language (PL) to create PL/SQL blocks of application code that can be shared in multiple forms, reports and data management applications. Designed for students and professionals seeking Oracle certification.

Fees will be required. Transfer credit: CSU.

## **CIS V02 - INTRODUCTION TO ORACLE FOR EXPERIENCED SQL USERS - 2 Units**

Recommended preparation: CIS V01 or equivalent

Hours: 1 lecture, 2 lecture-laboratory weekly

This course offers experienced students who are proficient in the industry standard Structured Query Language (SQL) programming language advanced concepts of Oracle systems. Students will practice programming in SQL commands, manipulate data functions and set operators. Students will use Procedural Language (PL) to create PL/SQL code that can be used for written subqueries, managing tables, controlling user access and generally learn program management. Designed for students and professionals seeking Oracle certification.

Fees will be required. Transfer credit: CSU.

## **CIS V03 - ORACLE PL/SQL PROGRAMMING - 3 Units**

Prerequisite: CIS V01 or equivalent

Hours: 2 lecture, 2 lecture-laboratory weekly

This course offers the student hands-on, real-world labs, exercises, projects and the opportunity to start developing PL/SQL skills. PL/SQL stands for "Procedural Language (PL) extensions to Structured Query Language (SQL). Students will learn multiple codes in order to program PL/SQL procedures, functions, triggers, packages, and object types in Oracle's SQL\* Plus and Procedure Builder environments. From the use of logic, analytical thinking and quantitative evaluation, students will successfully complete and generate computer outputs. Designed for students and professionals seeking Oracle certification.

Fees will be required. Transfer credit: CSU.

## **CIS V07 - ORACLE FORMS DEVELOPER: BUILD INTERNET APPLICATIONS I - 3 Units**

Prerequisite: CIS V03 or equivalent

Hours: 2 lecture, 2 lecture-laboratory weekly

This course offers the student hands-on, real world labs, exercises, projects and the opportunity to start designing and developing sophisticated data entry and query screens working in a Graphical User Interface (GUI) environment. In this course, the student builds and tests interactive Internet applications that prompt for user input, incorporate graphics and sound, and perform data calculations. A student will use Oracle Forms, part of Oracle's Developer Suite, with the use of Wizards and the Object Navigator to customize Forms with user input items such as check boxes, list items, and radio groups. A student will also learn to create a form using blocks, triggers, and reusable objects and code. Designed for students and professionals seeking Oracle certification.

Fees will be required. Transfer credit: CSU.

## **CIS V08 - ORACLE FORMS DEVELOPER: BUILD INTERNET APPLICATIONS II - 2 Units**

Prerequisite: CIS V07 or equivalent

Hours: 1 lecture, 2 lecture-laboratory weekly

This course offers the student hands-on, real world labs, exercises, projects, and the opportunity to broaden their application building skills using Oracle Forms Developer, a productive development environment for building enterprise-class Internet database applications. In this course, the student creates multiple-form Internet applications and learns to manage multiple transactions across modules. By adding custom menus, reports and charts, the student also learns to enhance applications. Finally, the course teaches the student to enhance the user interface for Web-deployed forms using Java Beans. Designed for students and professionals seeking Oracle certification.

Fees will be required. Transfer credit: CSU.

## **CIS V17 - ORACLE FORMS DEVELOPER: BUILD REPORTS - 3 Units**

Prerequisite: CIS V01 or CIS V02 or equivalent

Hours: 2 lecture, 3 laboratory weekly

This course offers students hands-on, real-world exercises, and the opportunity to design and develop a variety of reports using the Oracle Developer Release in a client-server environment. Through lab exercises in a graphical user interface (GUI), students learn how to retrieve, display and format data in a variety of styles such as tabular, matrix, mailing label and letter reports. Students will also learn how to customize complex reports, embed graphical charts and reports and use the remote reports server. This course is designed for students and professionals seeking Oracle certification.

Fees will be required.

## **CIS V21 - ORACLE APPLICATION DEVELOPER: CERTIFICATION PREPARATION - 1 Unit**

Recommended preparation: working in the information technology industry

Hours: 1 lecture weekly

This course is designed to help the student prepare for and review the theory and skills necessary to pass the Oracle Application Developer certification exams. Only one area of certification will be reviewed (i.e., Oracle SQL and PL/SQL, PL/SQL programming units, developing applications with Oracle Forms, developing advanced applications with Oracle Forms).

Fees will be required.

## **CIS V25 - ORACLE DATABASE FUNDAMENTALS I - 3 Units**

Prerequisite: CIS V02 or equivalent

Hours: 2 lecture, 2 lecture-laboratory weekly

This course is designed to provide a firm foundation in basic administrative tasks of the Oracle Database Administrator (DBA). The course will also provide the necessary knowledge and skills to setup, maintain and troubleshoot the current Oracle Database Release. The student will learn to use administration tools to start up and shut down a database, create a database, manage file and database storage, and manage users and their privileges. In addition, the student will learn to organize the database and to move data into and between databases, under different environments. Hands-on practices help to reinforce key concepts, and students will have an opportunity to troubleshoot real life issues when they are given examples of questions frequently asked of Oracle Worldwide Support. This course is intended as preparation for the Oracle Database Administrator certification exam.

Fees will be required. Transfer credit: CSU.

**CIS V26 - ORACLE DATABASE FUNDAMENTALS II - 3 Units**

Prerequisite: CIS V25 or equivalent

Hours: 2 lecture, 2 lecture-laboratory weekly

This course introduces students to the critical task of planning and implementing database backup and recovery strategies. In hands-on exercises, students will examine backup and recovery techniques and examine various backup, failure, restore, and recovery scenarios, along with backup methodologies based on business requirements. Students will construct a standby database to minimize primary database downtime. Students utilize multiple strategies and Oracle tools such as Recovery Manager (RMAN) to perform backups, and restore and recovery operations. Designed for students and professionals seeking Oracle certification.

Fees will be required. Transfer credit: CSU.

**CIS V43 - INTRODUCTION TO IBM'S UNIX/LINUX AIX-L (ADVANCED INTERACTIVE EXECUTIVE-LINUX) - 2 Units**

Recommended preparation: knowledge of Windows operating systems

Hours: 1 lecture, 3 laboratory weekly

This course offers students hands-on, real world labs and the opportunity to perform everyday tasks using the Advanced Interactive Executive (AIX) operating system. AIX-L is the version of UNIX/Linux that typically runs on IBM's pSeries and RS/6000 systems. Through lecture and lab exercises, students will learn how to use the vi editor, execute common AIX-L commands and manage AIX-L processes. Students will learn to use common AIX-L utilities, write simple shell scripts, and learn how to customize the Common Desktop Environment (CDE). This course is designed for students and professionals seeking IBM certification.

Fees will be required. Transfer credit: CSU.

**CIS V44 - IBM'S UNIX-AIX (ADVANCED INTERACTIVE EXECUTIVE) SYSTEM ADMINISTRATION I - 3 Units**

Recommended preparation: knowledge of Windows operating system

Hours: 2 lecture, 3 laboratory weekly

This course offers students hands-on, real-world labs and the opportunity to perform administrative tasks using the AIX (Advanced Interactive Executive) operating system, the version of UNIX that typically runs on IBM's pSeries and RS/6000 systems. Through lecture and lab exercises, students learn how to install and customize the AIX operating system, software bundles and file sets. Students will learn to perform system tasks: start up, shut down, file management, security, restore system backups, manage physical and logical devices. Designed for students and professionals seeking IBM certification.

Fees will be required. Transfer credit: CSU.

**CIS V45 - IBM'S UNIX-AIX (ADVANCED INTERACTIVE EXECUTIVE) SYSTEM ADMINISTRATION II - 3 Units**

Recommended preparation: CIS V44

Hours: 2 lecture, 3 laboratory weekly

This course offers students hands-on, real-world labs and the opportunity to perform administrative tasks using the AIX (Advanced Interactive Executive) operating system, the version of UNIX that typically runs on IBM's pSeries and RS/6000 systems. Through lecture and lab exercises, students learn how to solve many types of system problems. This course provides advanced topics on system performance, update management and security options. Designed for students and professionals seeking IBM certification.

Fees will be required. Transfer credit: CSU.

**CIS V54 - CISCO ROUTING 2.0 - 4 Units**

Prerequisite: Cisco Certified Networking Associate (CCNA)

Hours: 2 lecture, 6 laboratory weekly

This course provides the student with the knowledge to configure Cisco routers for advanced network deployment. The course also prepares the student for the Cisco Routing 2.0 exam. The Routing 2.0 exam is one of four exams required to become a Cisco Certified Networking Professional (CCNP).

Field trips may be required. Transfer credit: CSU.

**CIS V55 - BUILDING CISCO REMOTE ACCESS NETWORKS - 4 Units**

Prerequisite: CIS V54 or equivalent

Hours: 2 lecture, 6 laboratory weekly

This course provides the student with the knowledge to configure Cisco routers for advanced network deployment in remote access networks. The course also prepares the student for the Building Cisco Remote Access Networks (BCRAN) certification exam. The BCRAN exam is one of four exams required to become a Cisco Certified Networking Professional (CCNP).

Field trips may be required. Transfer credit: CSU.

**CIS V56 - CISCO MULTILAYER SWITCHING - 4 Units**

Prerequisite: CIS V54

Hours: 8 lecture-laboratory weekly

This course is designed to teach students Cisco multilayer networking switching. In an environment that has a combination of bridges and routers, this course will show the student how to upgrade intranet systems by using an approach to networking called multilayer switching. The course also prepares the student for the Cisco Multilayer Switching exam, which is one of four exams required to become a Cisco Certified Networking Professional (CCNP).

Transfer credit: CSU.

**CIS V57 - CISCO CCNP INTERNETWORKING TROUBLESHOOTING - 4 Units**

Prerequisite: CIS V56 or equivalent

Hours: 8 lecture-laboratory weekly

Cisco Internetworking Troubleshooting (CIT) is the last of four exams required to become a Cisco Certified Networking Professional (CCNP). This course provides a comprehensive guide for troubleshooting LANs, and WANs that use TCP/IP, IPX, and AppleTalk protocols. In addition, switched and VLAN network troubleshooting are covered. Labs allow hands-on experience in networking technologies, practices, and troubleshooting skills needed for the 640-506 support exam.

Transfer credit: CSU.

**CIS V58 - CISCO NETWORKING ACADEMY PROGRAM CCNA I - 4 Units**

Recommended preparation: knowledge of current Microsoft operating system

Hours: 8 lecture-laboratory weekly

This course is designed to provide students with the classroom and laboratory experiences, in current and emerging computer internetworking technology. Students completing the academy course series are eligible to take the Cisco Certified Networking Associate (CCNA) certification exam. Instruction includes LANs, WANs, OSI Models, IP addressing, router configuration, accessing and controlling routers, creating configuration files, review of routing concepts and Internet Protocol (IP) routing processing.

Field trips may be required. Transfer credit: CSU.

### **CIS V59 - CISCO NETWORKING ACADEMY PROGRAM CCNA II - 4 Units**

Prerequisite: CIS V58 or equivalent  
Hours: 8 lecture-laboratory weekly

This course will provide students with classroom and laboratory experiences in current and emerging computer internetworking technology and prepare the students for the Cisco Certified Networking Associate (CCNA) exam. Students completing this course are eligible to take the CCNA certification exam. Instruction includes LAN switching, VLANs, LAN design, IGRP, Novell IPX, WAN, WAN design, PPP, ISDN, and Frame Relay.

Transfer credit: CSU.

### **CIS V60 - INTRODUCTION TO COMPUTER NETWORKING - 2 Units**

Hours: 4 lecture-laboratory weekly

This course is designed to help students understand the fundamentals of computer networking. Subjects will include hardware and software installation procedures and system troubleshooting. This is a beginning course for students interested in the networking industry.

Transfer credit: CSU.

### **CIS V61 - MICROSOFT WORKSTATION OPERATING SYSTEM - 3 Units**

Hours: 6 lecture-laboratory weekly

This course will help the student prepare for Microsoft Certification Exam 70-270, "Installing, Configuring, and Administering Microsoft Windows XP Professional." Course topics will include installation, implementing, and administering resources, managing and troubleshooting hardware devices, monitoring and optimization of system performance and reliability, network protocols and services, and implementing, monitoring, and troubleshooting security.

Offered on a credit/no credit basis only. Transfer credit: CSU; credit limitations - see counselor.

### **CIS V62 - MICROSOFT NETWORK OPERATING SYSTEM - 3 Units**

Hours: 6 lecture-laboratory weekly

This course will help the student prepare for Microsoft Certification Exam 70-215, "Installing, Configuring, and Administering Microsoft Windows 2000 Server." Course topics will include installing WIN2K server, resource access, hardware devices and drivers, storage use, network connections, and security.

Offered on a credit/no credit basis only. Transfer credit: CSU; credit limitations - see counselor.

### **CIS V63 - MICROSOFT WINDOWS.NET SERVER - 3 Units**

Hours: 6 lecture-laboratory weekly

This course will help the student to prepare for Microsoft Certification Exam 70-275, "Installing, Configuring, and Administering Microsoft Windows.Net Server." Course topics will include installing WIN2K server, resource access, hardware devices and drivers, storage use, network connections, and security.

Offered on a credit/no credit basis only. Transfer credit: CSU; credit limitations - see counselor.

### **CIS V64 - TCP/IP ON WINDOWS NT - 4 Units**

Hours: 3 lecture, 3 laboratory weekly

This course prepares students to take Microsoft's "Internetworking with TCP/IP on Windows NT" certification exam. Subjects covered include installing and configuring TCP/IP, RAS servers, monitoring TCP/IPO traffic, and troubleshooting.

Field trips may be required. May be taken for a maximum of 2 times.

### **CIS V65 - INTERNET INFORMATION SERVER 4 - 4 Units**

Hours: 3 lecture, 3 laboratory weekly

This course prepares students to take Microsoft's "Internet Information Server 4" certification exam. Subjects covered include installing and configuring Internet Information Server (IIS), configuring and managing Resource Access, monitoring IIS, and troubleshooting.

Field trips may be required. May be taken for a maximum of 2 times.

### **CIS V73 - COMPUTER MAINTENANCE TECHNOLOGY - 2 Units**

Hours: 1 lecture, 3 laboratory weekly

This course will provide the necessary skills needed to maintain, upgrade and troubleshoot personal computer systems. The student will receive hands-on training in installing components such as motherboards, hard drives and Random Access Memory (RAM). Students will learn about operating systems (O/S) and networking components. Students will also learn about connecting accessory equipment such as printers, scanners and modems. Emphasis will be placed upon safety, optimum system operation, and preparing students to succeed as an entry-level computer technician.

Fees will be required. Field trips may be required. Formerly BIS V99.

### **CIS V74 - COMPTIA A+ CERTIFICATION PREPARATION TRAINING - 3 Units**

Recommended preparation: CIS V73 or equivalent

Hours: 6 lecture-laboratory weekly

This CompTIA A+ certification exam is intended for people with at least six months of practical computer servicing experience. There are two parts to the exam, one that measures knowledge about hardware and one about operating systems. The A+ certification is often viewed as an entry-level credential for computer technicians. This course provides instruction to help prepare the student to pass the A+ certification exam.

Formerly CIS V70 & V71.

### **CIS V75 - CISCO CERTIFIED NETWORKING ASSOCIATE (CCNA) EXAM REVIEW - 4 Units**

Prerequisite: CIS V53 or equivalent

Hours: 8 lecture-laboratory weekly

The objective of this course is to help the student pass the Cisco Certified Networking Associate (CCNA) exam. The curriculum is designed as a review of the exam topics. This is not an alternative to the four Cisco Academy semesters; it is an enhancement for those students who have successfully completed the CCNA content courses or equivalent courses.

### **CIS V76 - CISCO WIRELESS NETWORKING - 2 Units**

Prerequisite: CIS V50 or equivalent

Hours: 1 lecture, 3 laboratory weekly

The Cisco Wireless Networking course focuses on the design, planning, implementation, operation, and troubleshooting of Wireless Local Area Networks (WLANs). The primary focus will be on the Aeronet 350 series access points and bridges products.

Field trips may be required. Transfer credit: CSU.

### **CIS V77 - CISCO CERTIFIED NETWORKING PROFESSIONAL (CCNP) EQUIPMENT TRAINING - 2 Units**

Prerequisite: CCNA certification (640-507 Exam)

Hours: 4 lecture-laboratory weekly

This course is designed for students who need practical experience with Cisco routers and switches prior to taking the Routing 2.0 course. This is not an abbreviated version of Routing 2.0. It is a hands-on router class, a review of routing principles and commands, an in-depth look at Open Shortest Path First (OSPF), and router configuration to improve system efficiency.

## **CIS V80 - COMPTIA NETWORK+ CERTIFICATION**

### **PREPARATION - 3 Units**

Recommended preparation: CIS V60 or equivalent

Hours: 6 lecture-laboratory weekly

This course helps prepare the student for the CompTIA Network+ certification exam. A successful candidate understands the layers of the OSI model, can describe the features and functions of network components and has skills needed to install, configure, and troubleshoot basic networking hardware, peripherals and protocols. Network+ certification is considered important industry preparation for employment.

Transfer credit: CSU.

## **CIS V81 - COMPTIA SERVER+ CERTIFICATION**

### **PREPARATION - 3 Units**

Recommend preparation: CIS V74 or equivalent

Hours: 6 lecture-laboratory weekly

This course will help prepare the student for the CompTIA Server+ certification exam. Exam topics include advanced hardware issues, such as RAID, SCSI, Multiple CPUs, SANs, server types, system bus architectures, and disaster recovery, upgrading and security concepts. Server+ certification is considered important industry preparation for employment.

Transfer credit: CSU.

## **CIS V88 - COMPUTER INFORMATION SYSTEMS**

### **WORKSHOPS - .5-10 Units**

Prerequisite: varies with topic

Hours: lecture and/or laboratory as required by unit formula

Designed to meet specific needs of the college and community, as required and requested by persons whose needs in this area are not met by present course offerings.

Fees may be required. Courses with same title may not be repeated; may be taken for a maximum of 4 times.

## **CIS V95 - COMPUTER INFORMATION SYSTEMS**

### **INTERNSHIP I - 1-4 Units**

Corequisite: enrolled in a minimum of 7 units to include internship

Recommend preparation: completion of or concurrent enrollment in one course in the discipline

Hours: 60 per unit

This computer information system internship course offers students who are volunteers (unpaid) an opportunity to obtain work experience related to their field of study. Students are accepted as a result of consultation with a designated faculty member in the discipline and the acceptance of an approved work proposal.

Field trips will be required. May be taken for a maximum of 4 times, not to exceed 16 units total in combination with any other experience/internship courses. Offered on a credit/no credit basis only.

## **CIS V96 - COMPUTER INFORMATION SYSTEMS**

### **INTERNSHIP II - 1-4 Units**

Corequisite: enrolled in a minimum of 7 units to include internship

Recommend preparation: completion of or concurrent enrollment in one course in the discipline

Hours: 75 per unit

This computer information system internship course offers students who are employed in the field an opportunity to expand their work experience related to their field of study. Students are accepted as a result of consultation with a designated faculty member in the discipline and the acceptance of an approved work proposal.

Field trips will be required. May be taken for a maximum of 4 times, not to exceed 16 units total in combination with any other experience/internship courses. Offered on a credit/no credit basis only.