COMPUTER INFORMATION SCIENCE (CIS)

CIS 50 Computer Ethics (2.0 Units)
Computer Ethics is an introduction to the theories and issues of ethical behavior as applied to our rapidly changing, information-oriented, computer-driven society. Various ethical theories are introduced and numerous case histories are presented. Recommended Preparation: Know how to use a personal computer: functions of mouse buttons and control of mouse movement (right click, left click, single click, double click, drag-and-drop, etc.), create, open and save files, install and run applications. Type about 30 WPM to keep up with class assignments.
Lecture Hours: 36.0
Transfer: Not transferable

CIS 91A MySQL Admin A (2.0 Units)
This course is designed to provide students with an introduction to the MySQL relational database management system. Students will learn how to design, install, configure and secure MySQL databases. The student should have prior experience with the fundamentals of databases.
Lecture Hours: 27.0; Lab Hours: 27.0
Transfer: Not transferable

CIS 91B MySQL Admin B (2.0 Units)
This second course in MySQL database administration is designed to provide students with an advanced approach to current database administration issues in enterprise level databases. Topics include: Transactions, Multiple Servers, Replication, Locking and Administration Interfaces.
Lecture Hours: 27.0; Lab Hours: 27.0
Transfer: Not transferable

CIS 101 Computer Literacy (4.0 Units)
This is a survey course which provides an overview of computer technology for multidisciplinary majors. Using laboratory projects supported by the lecture, the student gains "hands-on" familiarity with different operating systems, word processors, spreadsheets, database management systems, programming,networks and the use of the Internet. Recommended preparation: Mouse skills: know difference between, be able to perform, and know when to utilize: left click, right click, single click, double click, and drag and drop motion. Keyboarding skills: nominal typing speeds of about 30 words per minute (WPM). CSU,UC
Lecture Hours: 54.0; Lab Hours: 54.0
Transfer: Transfers to both UC/CSU

CIS 104 Object Oriented Analysis and Design (3.0 Units)
This is a first course in the object-oriented modeling and design, a way of thinking about problems using models organized around real-world concepts. Object-oriented models are useful for understanding and communicating complex system designs. This course is useful for understanding program analysis and design in object-oriented programming language courses.
Recommended Preparation: CIS 101
Lecture Hours: 54.0
Transfer: Transfers to CSU only

CIS 136 Introduction to the Internet (2.0 Units)
This course of instruction is designed for the student or savvy business person who wants to acquire the skills needed to effectively interact and utilize the resources of the Internet and including its main component, the World Wide Web (WWW). By completing this course, a student will become well versed in the understanding and use of browsers and viewers, File Transfer Protocol (FTP), news groups, e-mail, and chat/conversation utilities. They will also be made aware of some of the other concerns relating to using the Internet, such as privacy and security issues. Recommended Prep: Know how to use a personal computer: functions of mouse buttons and control of mouse movement (right click, left click, single click, double click, drag-and-drop, ect.), create, open and save files, install and run applications. Type about 30 WPM to keep up with class assignments.
Lecture Hours: 27.0; Lab Hours: 27.0
Transfer: Transfers to CSU only

CIS 137 Introduction to HTML (3.0 Units)
A course designed for the student or business person who wants to acquire the skills needed to create a presence on the WWW in the form of a web page. Subjects covered include HTML, CSS, and web authoring (design, implementation, and maintenance of web pages.)
Lecture Hours: 36.0; Lab Hours: 54.0
Transfer: Transfers to CSU only

CIS 138 Work EXP Edu Computer Info Systems Information Systems (1-8 Units)
Work Experience Education is a key element of Victor Valley College's comprehensive approach to career development. Work Experience Education is a 16-, 12-, or 8-week course that enables students to receive collegecredit for paid or unpaid work opportunities. This course helps students gain valuable on-the-job work experience while providing practical education, best practices in professional development, and academic guidance throughthe course of their work opportunity.
The combination of practical experience and curricular development empowers students to be more competitive, efficient and valuable employees upon completion of this program and/or their academic program trajectory. The course is ideal for students who are cross-training at their current worksite for upward mobility or seeking career changes, as well as those looking for entry-level occupational training through work-based learning experiences such as through an internship. Work Experience Education transforms community businesses, industries, and public agencies into expanded educational training laboratories. Credit is awarded on the basis of learning objectives completed and the number of hours the student trains.Students must create/complete new learning objectives each semester they enroll. Students may utilize their present work sites. More details are available in the Work Experience Education Office, (760) 245-4271, ext. 2281.The office, located in the Academic Commons, is open Monday-Thursday, 8:00 a.m.-1:00 p.m., 2:00-6:00 p.m., and by appointment. Please refer to the Work Experience Education section in this catalog for more information. CSU
Transfer: Transfers to CSU only

CIS 150 Fundamentals of Networking (3.0 Units)
Fundamentals of Networking presents a broad overview of the fundamentals of networking computers. This course discusses in some detail the various network topologies, architectures, industrial standard, standards-defining organization, and the practical use of networks. This course is designed to prepare students to take the Network+ certification exam from CompTIA. CSU
Recommended Preparation: CIS 101
Lecture Hours: 36.0; Lab Hours: 54.0
Transfer: Transfers to CSU only

CIS 160 Introduction to Network Security: Security + (3.0 Units)
Presents security topics covering general security concepts, communications security, infrastructure security, basics of cryptography, operational and organizational security. Topics include hacking, viruses, cryptography, detection and prevention on both wired and wireless LANs. CSU
Recommended Preparation: CIS 67
Lecture Hours: 36.0; Lab Hours: 54.0
Transfer: Transfers to CSU only

CIS 190 Introduction to the Unix Operating System (4.0 Units)
This course introduces the Unix and Linux operating systems. Topics include the history of Unix, commands and utilities, file system structure, shells, graphical user interfaces, networking, text editing and shell programming. CSU
Recommended Preparation: CIS 101
Lecture Hours: 54.0; Lab Hours: 54.0
Transfer: Transfers to CSU only

CIS 201 Programming Concepts and Methods I (4.0 Units)
Introduces the discipline of computer science using a high level language utilizing programming and practical hands-on problem solving. C-ID: COMP 122. CSU/UC
Recommended Preparation: CIS 101
Lecture Hours: 54.0; Lab Hours: 54.0
Transfer: Transfers to both UC/CSU

CIS 202 Programming Concepts and Methods II (4.0 Units)
Application of software engineering techniques to the design and development of large programs; data abstraction and structures and associated algorithms. C-ID: COMP 132. CSU/UC
Prerequisite(s): CIS 201, Minimum grade C
Lecture Hours: 54.0; Lab Hours: 54.0
Transfer: Transfers to both UC/CSU

CIS 205 Javascript (4.0 Units)
JavaScript is the front-end programming language for web development. The course covers the fundamentals of the JavaScript language, event driven programming, JavaScript data structures and data interchange formats such as JSON and XML and the fundamentals of the Document Object Model (DOM) - the foundational structure for web programming. This course includes coverage of current Javascript libraries such as jQuery, React, and Node. Recommended preparation: experience with at least one programming language and HTML+CSS. CSU
Lecture Hours: 54.0; Lab Hours: 54.0
Transfer: Transfers to CSU only

CIS 206 Programming Java (4.0 Units)
This is a course for programming in Java. The course will cover the basics of the Java programming language and object- oriented programming method. Some of the more advanced topics such as applets programming data structure implementation in Java will also be covered. CSU,UC
Lecture Hours: 54.0; Lab Hours: 54.0
Transfer: Transfers to both UC/CSU

CIS 208 Computer Architecture and Organization (3.0 Units)
Designed to train students to understand microcomputer systems low level (hardware) organizations and architecture through assembly language programming. (Formerly CIS 108). C-ID: COMP 142. CSU/UC
Prerequisite(s): CIS 201
Lecture Hours: 36.0; Lab Hours: 54.0
Transfer: Transfers to both UC/CSU

CIS 221 Programming Concepts & Methodology I Using Python (4.0 Units)
First course in a sequence of courses that is compliant with the standards of the Association for Computing Machinery (ACM). C-ID Comp122 Python is a popular programming language that has taken a primary role in many companies including NASA, Google, Industrial Lights and Magic. Python uses an elegant syntax, making the programs easier to write and read, which also makes it an ideal language for beginning programmers. The foundation that students achieve can be applied to digital animation programs and game programming. No prior programming experience is assumed.
Recommended Preparation: MATH 105 and CIS 101
Lecture Hours: 54.0; Lab Hours: 54.0
Transfer: Transfers to CSU only

CIS 261 Unix System Administration (4.0 Units)
Unix system administrators are responsible for the operation of Unix systems--the most common server platform on the Internet. Learn how to setup, manage, and maintain Unix systems. Topics include: the role of the system administrator in an organization; Unix variants; installation; booting and shutting down; backups; managing users.
Prerequisite(s): CIS 190, Minimum grade C
Lecture Hours: 54.0; Lab Hours: 54.0
Transfer: Transfers to CSU only

CIS 264 Discrete Structures (3.0 Units)
This course will cover logic in computer science as a tool to establish truth through various techniques of proof. The goal of this course is for us to learn formal logic as a theoretical foundation and its application to topics in discrete mathematics and computer science. C-ID: COMP 152. CSU/UC
Prerequisite(s): CIS 201, Minimum grade C
Lecture Hours: 54.0
Transfer: Transfers to both UC/CSU

CIS 280 Fundamentals of Database Management Systems (3.0 Units)
This course provides an in-depth knowledge of several different database management systems (DBMS) and an understanding of the basic relational, network, or hierarchical database structures which they use. Issues of privacy, security, protection, integrity, redundancy, distributed database concepts, data manipulation and query languages are covered.
Lecture Hours: 36.0; Lab Hours: 54.0
Transfer: Transfers to CSU only

CIS 282 Structured Query Language (4.0 Units)
This course covers Structured Query Language using MySQL database management systems. Topics include: concepts of relational databases, DML, DDL, Joins, IF/Case statements, batch operations and locking.
Recommended Preparation: CIS 101 and CIS 280
Lecture Hours: 54.0; Lab Hours: 54.0
Transfer: Transfers to CSU only