**COMPUTER INFORMATION SYSTEMS (CINS)**

See Course Description Symbols and Terms (https://catalog.csuchico.edu/academic-standards-policies/course-description-symbols-terms/) for an explanation of course description terminology and symbols, the course numbering system, and course credit units.

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**CINS 220  PCs and Peripherals**  
3 Units  
**Typically Offered:** Fall and spring  
This course focuses on the hardware and software of the modern PC, currently available peripherals and upgrades, and the basics of networking. Included will be a survey of the pros and cons of different hardware choices for various PCs, peripherals, and networking options. 2 hours activity, 2 hours discussion. (002337)  
Grade Basis: Graded  
Repeatability: You may take this course for a maximum of 3 units  
Course Attributes: Lower Division

**CINS 242  Information Systems Design**  
3 Units  
**Prerequisite:** CSCI 111 with a grade of C or higher.  
**Typically Offered:** Fall only  
Systems analysis and design, and the role of Information Systems in organizations. Emphasis is on the project team design approach. Operational criteria, system feasibility, requirements, and cost trade-offs. Integration of personnel, equipment, hardware, and software. 3 hours discussion. (002377)  
Grade Basis: Graded  
Repeatability: You may take this course for a maximum of 3 units  
Course Attributes: Lower Division

**CINS 370  Introduction to Databases**  
3 Units  
**Prerequisite:** CSCI 211; CSCI 217 or MATH 217, both with a grade of C or higher.  
**Typically Offered:** Fall and spring  
This course provides an introduction to the theory and methodology for database design and implementation. Topics may include a survey/lecture component as well as a project component. The survey component covers entity-relationship modeling, relational algebra and calculus theories, data definition and data manipulation languages such as SQL, file structures, transactions, concurrency control, recovery, tuning, optimization, and object-oriented databases. The project entails requirements definition, design, and implementation of a database application. 2 hours activity, 2 hours discussion. (002338)  
Grade Basis: Graded  
Repeatability: You may take this course for a maximum of 3 units  
Course Attributes: Upper Division

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**CINS 448  Computer Security**  
3 Units  
**Prerequisite:** CSCI 211; CINS 220, CSCI 221 or EECE 237, all with a grade of C or higher.  
**Typically Offered:** Fall and spring  
This course provides a broad overview of some of the more technical aspects of Information Systems Security. The content is designed to prepare students for the Certified Information Systems Security Professional/Associate (CISSP/A) examination from the International Information Systems Security Certification Consortium (ISSEP2), including a discussion of each of the following topics: security management practices; access control systems; telecommunications and network security; cryptography; security architecture and models; operations security; applications and systems development; business continuity planning and disaster recovery planning; law, investigation, and ethics; and physical security. 3 hours lecture. (020232)  
Grade Basis: Graded  
Repeatability: You may take this course for a maximum of 3 units  
Course Attributes: Upper Division

**CINS 465  Web Programming Fundamentals**  
3 Units  
**Prerequisite:** CINS 370 with a grade of C or higher, CSCI 211 and MINS 335, or MINS 325 and MINS 335.  
**Typically Offered:** Fall and spring  
A hands-on project course that examines languages, tools, protocols, and techniques for developing interactive and dynamic web applications. Topics include the model-view-controller pattern, document object model, server side and client side scripting, using a server side database, and web applications security. The course includes several web projects using a web programming framework. 3 hours discussion. (002368)  
Grade Basis: Graded  
Repeatability: You may take this course for a maximum of 3 units  
Course Attributes: Upper Division

**CINS 467  Web and Mobile App Development**  
3 Units  
**Prerequisite:** CINS 370 (with a grade of C or higher), CSCI 211 and MINS 335, or MINS 325 and MINS 335.  
**Typically Offered:** Fall and spring  
A hands-on project course that examines languages, tools, protocols, and techniques for developing robust client-side applications for mobile and web apps. Topics include the model-view-controller, cloud service integration, REST, Progressive Web Apps, app publishing, and application security. The course includes several projects using across-platform programming framework. 3 hours discussion. (002365)  
Grade Basis: Graded  
Repeatability: You may take this course for a maximum of 3 units  
Course Attributes: Upper Division

**CINS 490  Computer Information Systems Capstone**  
3 Units  
**Prerequisite:** CSCI 311 with a grade of C or higher; CINS 465 or CINS 467 with a grade C or higher; Senior Standing.  
**Typically Offered:** Fall and spring  
This capstone course provides a culminating activity in computer information systems. Students work independently to specify, design, develop, test, and document a complete information systems application under faculty supervision. Students present status reports at weekly meetings, and present their finished project at the end of the semester. 9 hours supervision. (020996)  
Grade Basis: Report in Progress: Graded  
Repeatability: You may take this course for a maximum of 3 units  
Course Attributes: Upper Division
CINS 548  Advanced Computer Security  3 Units
Prerequisite: CINS 448 with a grade of C or higher.
Typically Offered: Fall only
This course provides advanced training in the engineering and
management of information systems security, particularly those systems
that play a role in U.S. national security, and is aimed at professionals
who plan to work either as contractors or federal employees in the area
of national security or defense. The course also prepares students for
the Information Systems Security Engineering Professional (ISSEP)
certification test prepared by the International Information Systems
Security Certification Consortium (ISP2) in collaboration with the National
Security Agency. Specific areas of concentration are systems security
engineering; certification and accreditation (CA); technical management;
and U.S. Government Information Assurance (IA) regulations. 3 hours
lecture.  (020234)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Upper Division

CINS 570  Advanced Database Management Systems  3 Units
Prerequisite: CINS 370 with a grade of C or higher or MINS 335.
Typically Offered: Fall only
Course topics include database application programming using a high
performance, high concurrency multi-user database management
system. This course covers the SQL programming language including
Data Definition Language, Data Manipulation Language, and Data
Control Language. The course then focuses on a procedural database
programming language including control structures, composite
datatypes, explicit cursors, exception handling, and writing embedded
SQL applications. 2 hours activity, 2 hours discussion.  (002381)
Grade Basis: Graded
Repeatability: You may take this course for a maximum of 3 units
Course Attributes: Upper Division