

# 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.

## 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 and 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

## CINS 448 Cybersecurity 3 Units

**Prerequisite:** CSCI 211 and CINS 220, CSCI 221 or EECE 237, all with a grade of C or higher; or Classified Computer Science Graduate Standing.

**Typically Offered:** Fall and spring

In line with the National Institute of Standards and Technology (NIST) National Initiative for Cybersecurity Education (NICE) cybersecurity workforce, this course offers a blend of theoretical knowledge and hands-on lab experiences across nine key cybersecurity domains: open source intelligence, cryptography, password cracking, log analysis, network traffic analysis, forensics, web application exploitation, scanning, and enumeration and exploration. The course also readies students for CompTIA Security+ examination. 3 hours lecture. (020232)

**Grade Basis:** Graded

**Repeatability:** You may take this course for a maximum of 3 units

**Course Attributes:** Upper Division; Laptop required

## 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; or Classified Computer Science Graduate Standing.

**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; Laptop required

## 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, or Classified Computer Science Graduate Standing.

**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; Laptop required

## 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 Digital Forensics**

**3 Units**

**Prerequisite:** CINS 448 with a grade of C or higher or Classified Computer Science Graduate Standing.

**Typically Offered:** Fall only

This course provides an understanding of foundational terms, concepts, elements, and the overarching goals that drive a digital forensic investigation. Topics include how to utilize and analyze data with leading open-source digital forensic tools, conduct comprehensive disk and file system analysis, examine and interpret operating system and associated artifacts, evaluate various internet artifacts including browser histories and email data, and analyze files to construct incident timelines based on forensic evidence. This course includes several real-world challenges. 3 hours lecture. (020234)

**Grade Basis:** Graded

**Repeatability:** You may take this course for a maximum of 3 units

**Course Attributes:** Upper Division; Laptop required

**CINS 570 Advanced Database Management Systems**

**3 Units**

**Prerequisite:** CINS 370 with a grade of C or higher, MINS 335, or Classified Computer Science Graduate Standing.

**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