

# CIS R100: INTRODUCTION TO COMPUTER INFORMATION SYSTEMS

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**Originator**

hbouma

**College**

Oxnard College

**Discipline (CB01A)**

CIS - Computer Information Systems

**Course Number (CB01B)**

R100

**Course Title (CB02)**

Introduction to Computer Information Systems

**Banner/Short Title**

Intro to Computer Info Systems

**Credit Type**

Credit

**Start Term**

Fall 2021

**Catalog Course Description**

This course is a comprehensive introduction to computer technology and information systems and their relationship to business and society. Students will be introduced to computer terminology, computer systems, hardware, software, the Internet and World Wide Web, communications and networking, programming languages, information systems, data structures, database management, enterprise computing, computer security, ethics, and privacy, careers in the computer industry, as well as the impact of computers on business and society as a whole.

**Taxonomy of Programs (TOP) Code (CB03)**

0701.00 - \*Information Technology, General

**Course Credit Status (CB04)**

D (Credit - Degree Applicable)

**Course Transfer Status (CB05) (select one only)**

A (Transferable to both UC and CSU)

**Course Basic Skills Status (CB08)**

N - The Course is Not a Basic Skills Course

**SAM Priority Code (CB09)**

C - Clearly Occupational

**Course Cooperative Work Experience Education Status (CB10)**

N - Is Not Part of a Cooperative Work Experience Education Program

**Course Classification Status (CB11)**

Y - Credit Course

**Educational Assistance Class Instruction (Approved Special Class) (CB13)**

N - The Course is Not an Approved Special Class

**Course Prior to Transfer Level (CB21)**

Y - Not Applicable

**Course Noncredit Category (CB22)**

Y - Credit Course

**Funding Agency Category (CB23)**

Y - Not Applicable (Funding Not Used)

**Course Program Status (CB24)**

1 - Program Applicable

**General Education Status (CB25)**

Y - Not Applicable

**Support Course Status (CB26)**

N - Course is not a support course

**Field trips**

Will not be required

**Grading method**

Letter Graded

**Alternate grading methods**

Student Option- Letter/Pass  
Pass/No Pass Grading

**Does this course require an instructional materials fee?**

No

**Repeatable for Credit**

No

**Is this course part of a family?**

No

**Units and Hours**

**Carnegie Unit Override**

No

**In-Class**

**Lecture**

**Minimum Contact/In-Class Lecture Hours**

52.5

**Maximum Contact/In-Class Lecture Hours**

52.5

**Activity**

**Laboratory**

**Total in-Class**

**Total in-Class**

**Total Minimum Contact/In-Class Hours**

52.5

**Total Maximum Contact/In-Class Hours**

52.5

## Outside-of-Class

### Internship/Cooperative Work Experience

Paid

Unpaid

### Total Outside-of-Class

#### Total Outside-of-Class

##### Minimum Outside-of-Class Hours

105

##### Maximum Outside-of-Class Hours

105

### Total Student Learning

#### Total Student Learning

##### Total Minimum Student Learning Hours

157.5

##### Total Maximum Student Learning Hours

157.5

### Minimum Units (CB07)

3

### Maximum Units (CB06)

3

## Student Learning Outcomes (CSLOs)

### Upon satisfactory completion of the course, students will be able to:

- |   |  |
|---|--|
| 1 | Students will be able to describe the impact of computer technology in business in a written document using a word processor.                              |
| 2 | Students will be able to describe the functional relationship of the 5 major components of a computer system in a written document using a word processor. |
| 3 | Students will be able to describe the impact of computer technology on privacy and security in a written document using a word processor.                  |

## Course Objectives

### Upon satisfactory completion of the course, students will be able to:

- |    |  |
|----|--|
| 1  | Identify the components of a computer system   |
| 2  | Describe and demonstrate how to search and authenticate information on the World Wide Web                                  |
| 3  | Identify various types of application software and system software   |
| 4  | Explain the basic features of browser software   |
| 5  | Identify and explain commonly-used input and output devices  |
| 6  | Summarize the major guidelines for System Development using project management techniques                                  |
| 7  | Explain the process of data communications and the various types of networks   |
| 8  | Identify various database management systems and explain data hierarchy  |
| 9  | Analyze the impact of computer technology on security, ethics, and privacy   |
| 10 | Identify various programming languages and explain the information system development process within a business enterprise |
| 11 | Give examples of why computer literacy is vital to success in today's world  |
| 12 | Identify various professions within the computer industry  |

## Course Content

### Lecture/Course Content

1. Introduction to computer concepts
  - a. The components of a computer
  - b. Categories of computers
  - c. The role of technology in society
2. Introduction to the Internet and the World Wide Web
  - a. The history of the Internet
  - b. The World Wide Web and browsers
  - c. Internet services
3. Application software
  - a. Business and enterprise software
  - b. Graphics and multimedia software
  - c. Software for home, personal, and educational use
  - d. Application software for communications
4. The components of the system unit
  - a. System units on desktop computers, notebook computers, mobile devices
  - b. The control unit and arithmetic logic unit of a processor
  - c. Various type of memory:RAM, cache, ROM, flash memory, and Complementary Metal-oxide semiconductor (CMOS)
  - d. Mobile computers and devices
5. Input devices
  - a. The importance of data and the use of input devices
  - b. Use of biometric devices: Fingerprint reader, face recognition systems, voice verification systems
  - c. Scanner and reading devices: RFID, optical scanners, bar code readers
6. Output devices
  - a. Output and output devices
  - b. Types of output: text, graphics, audio, and video
  - c. Green computing with printers
7. Data storage and storage devices
  - a. Introduction to cloud storage
  - b. Storage devices and storage media
  - c. The characteristics of interal hard disk and mobile storage media
8. Operating systems and utility programs
  - a. Introduction to operating systems and their functions
  - b. Features of embedded operating systems
  - c. Introduction to utility programs and their functions
9. Communications and networks
  - a. Uses of computer communications
  - b. Network communications standards
  - c. Communications devices
  - d. Physical transmission media
  - e. Wireless transmission media
10. Database management
  - a. Databases, data, and information
  - b. Database management systems
  - c. Web databases and security
11. Computer security, safety, ethics, and privacy
  - a. Internet and network attacks
  - b. Unauthorized access and use
  - c. Hardware and software theft
  - d. Information privacy
12. Information system development
  - a. The system development cycle
  - b. The major phases of the system development process
  - c. The use of Project Management
13. Programming languages and program development

- a. The purpose of procedural programming languages
  - b. The characteristics of Object-oriented programming languages
  - c. The use of control structures and design tools
14. Enterprise computing
- a. Enterprise-wide technologies
  - b. E-Commerce
  - c. Enterprise hardware and storage
15. Computer careers
- a. Careers in the computer industry
  - b. Preparing for a career in the computer industry
  - c. Certification

### Laboratory or Activity Content

None

### Methods of Evaluation

**Which of these methods will students use to demonstrate proficiency in the subject matter of this course? (Check all that apply):**

Problem solving exercises  
Written expression

**Methods of Evaluation may include, but are not limited to, the following typical classroom assessment techniques/required assignments (check as many as are deemed appropriate):**

Essay exams  
Essays  
Individual projects  
Objective exams  
Problem-Solving Assignments  
Quizzes  
Reports/papers  
Research papers

### Instructional Methodology

**Specify the methods of instruction that may be employed in this course**

Computer-aided presentations  
Class discussions  
Case studies  
Distance Education  
Internet research  
Lecture

**Describe specific examples of the methods the instructor will use:**

**Instructional methodology may include providing PowerPoint presentations that illustrate concepts, principles, terminology and the use to technology in business environments. Case studies may be provided to allow students to apply chapter skills to a variety of business and technology scenarios. Class discussions may be provided to focus on specific business and technology topics.**

### Representative Course Assignments

#### Writing Assignments

1. Students may be required to write a feasibility study for implementing a database management system within a business.

#### Critical Thinking Assignments

**Students may be required to respond to discussion questions regarding applying technology to occupational and business activities. Students may be required to analyze technology and business problems and determine solutions.**

#### Reading Assignments

1. Students may be required to read and study the information in each chapter of the textbook outside of class hours. Chapter study assignments may be assigned at a rate of one chapter each week. The textbook chapters provide information about the basic components of a computer system, the basic components of the Internet, instructions on how to search for information on the World Wide Web, commonly-used input and output devices, various storage media and storage devices, the process of data communications and the various types of networks, various database management systems and data hierarchy, the impact of

computer technology on security, ethics, and privacy, various programming languages and the information system development process, and various professions within the computer industry.

### **Skills Demonstrations**

None

### **Other assignments (if applicable)**

1. Students may be required to use the World Wide Web for research purposes on such topics as the impact of computers on society, ethics, and security.

### **Outside Assignments**

#### **Representative Outside Assignments**

##### **1. Reading**

- a. Students may be required to study the information in each chapter of the textbook.
- b. Students may be required to study material presented on the World Wide Web at sources listed in various chapters in the textbook.

##### **2. Writing**

- a. Students may be required to write a paper demonstrating their ability to describe how technology may be applied to a variety of business applications.

##### **3. Other**

- a. Students may be required to create documents comparing and contrasting technology in business environments.
- b. Students may be required to perform research on technology information provided on the Internet.
- c. Assignments listed in previous sections.

### **Articulation**

#### **C-ID Descriptor Number**

BUS 140

#### **Status**

Approved

#### **Comparable Courses within the VCCCD**

BUS V17 - Computer Applications  
CIS M140 - Intro to Info Systems

**District General Education****A. Natural Sciences****B. Social and Behavioral Sciences****C. Humanities****D. Language and Rationality****E. Health and Physical Education/Kinesiology****F. Ethnic Studies/Gender Studies****CSU GE-Breadth****Area A: English Language Communication and Critical Thinking****Area B: Scientific Inquiry and Quantitative Reasoning****Area C: Arts and Humanities****Area D: Social Sciences****Area E: Lifelong Learning and Self-Development****Area F: Ethnic Studies****CSU Graduation Requirement in U.S. History, Constitution and American Ideals:****IGETC****Area 1: English Communication****Area 2A: Mathematical Concepts & Quantitative Reasoning****Area 3: Arts and Humanities****Area 4: Social and Behavioral Sciences****Area 5: Physical and Biological Sciences****Area 6: Languages Other than English (LOTE)****Textbooks and Lab Manuals****Resource Type**

Textbook

**Description**Shelly G. and Vermaat M. (2018). *Discovering Computers, Complete*. Course Technology - Cengage.**Resource Type**

Other Resource Type

**Description**Podcasts on technological trends.<http://coursecasts.course.com>.

## Distance Education Addendum

### Definitions

#### Distance Education Modalities

Hybrid (51%–99% online)

Hybrid (1%–50% online)

100% online

### Faculty Certifications

Faculty assigned to teach Hybrid or Fully Online sections of this course will receive training in how to satisfy the Federal and state regulations governing regular effective/substantive contact for distance education. The training will include common elements in the district-supported learning management system (LMS), online teaching methods, regular effective/substantive contact, and best practices.

Yes

Faculty assigned to teach Hybrid or Fully Online sections of this course will meet with the EAC Alternate Media Specialist to ensure that the course content meets the required Federal and state accessibility standards for access by students with disabilities. Common areas for discussion include accessibility of PDF files, images, captioning of videos, Power Point presentations, math and scientific notation, and ensuring the use of style mark-up in Word documents.

Yes

### Regular Effective/Substantive Contact

#### Hybrid (1%–50% online) Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Asynchronous Dialog (e.g., discussion board)	<p>Students may respond to discussions regarding the application of technology to business problems such as advertising, financial documents, sales presentations, and inventory databases.</p> <p>Students may respond to discussions regarding the application to technology for occupational use such areas as small businesses, enterprises, human resource management, and inventory control.</p> <p>Students may also communicate by e-mail regarding assignments, assessments, and general information regarding the course.</p> <p>Students may use the Canvas Discussion board to respond to other student responses regarding discussion topics.</p>
E-mail	<p>E-mail, class announcements and various learning management system tools such as “Message Students Who” and “Assignment Comments”, will be used to regularly communicate with all students on matters such as clarification of class content, reminders of upcoming assignments and/or course responsibilities, to provide prompt feedback to students on coursework to facilitate student learning outcomes, or to increase the role of an individual educator in the academic lives of a student. Students will be given multiple ways to email instructor through both the learning management system inbox and faculty provided email accounts.</p>
Face to Face (by student request; cannot be required)	<p>The instructor will hold weekly, scheduled office hours either in person or via-web conferencing, for students to be able to meet and discuss course materials or individual progress. Students can request additional in-person or web conferencing meetings with faculty member as needed. Faculty may encourage online students to form “study groups” in person or online.</p>



Other DE (e.g., recorded lectures)	<p>Faculty will use a variety of ADA compliant tools and media integrated within the learning management system to help students reach SLO competency. Tools may include:</p> <ul style="list-style-type: none"> <li>• Recorded Lectures, Narrated Slides, Screencasts</li> <li>• Instructor created content</li> <li>• OC Online Library Resources</li> <li>• Canvas Peer Review Tool</li> <li>• Canvas Student Groups (Assignments, Discussions)</li> <li>• 3rd Party (Publisher) Tools (MyOpenMath)</li> <li>• Websites and Blogs</li> <li>• Multimedia (YouTube, Films on Demand, 3CMedia, Khan Academy, etc.)</li> </ul>
Synchronous Dialog (e.g., online chat)	<p>Instructor will provide a set time each week where they will be available for synchronous chat and be available in the discussion board and can answer questions in live time.</p>
Video Conferencing	<p>Video tools such as ConferZoom can be used to provide live synchronous or asynchronous sessions with students. ADA compliance will be upheld with Closed Captioning during the session or of the recorded session. Recordings of all live sessions will be made available within the LMS. Video Conferences will be used to facilitate SLOs and student-to-student group meetings will also be encouraged.</p>
Telephone	<p>Students can request for instructor to call or vice versa in order to answer one-on-one questions about course material or student progress.</p>
<b>Hybrid (51%–99% online) Modality:</b>	
<b>Method of Instruction</b>	<b>Document typical activities or assignments for each method of instruction</b>
Asynchronous Dialog (e.g., discussion board)	<p>Students may respond to discussions regarding the application of technology to business problems such as advertising, financial documents, sales presentations, and inventory databases.</p> <p>Students may respond to discussions regarding the application to technology for occupational use such areas as small businesses, enterprises, human resource management, and inventory control.</p> <p>Students may also communicate by e-mail regarding assignments, assessments, and general information regarding the course.</p> <p>Students may use the Canvas Discussion board to respond to other student responses regarding discussion topics.</p>
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Telephone	Students can request for instructor to call or vice versa in order to answer one-on-one questions about course material or student progress.
<b>100% online Modality:</b>	
<b>Method of Instruction</b>	<b>Document typical activities or assignments for each method of instruction</b>
Asynchronous Dialog (e.g., discussion board)	<p>Students may respond to discussions regarding the application of technology to business problems such as advertising, financial documents, sales presentations, and inventory databases.</p> <p>Students may respond to discussions regarding the application to technology for occupational use such areas as small businesses, enterprises, human resource management, and inventory control.</p> <p>Students may also communicate by e-mail regarding assignments, assessments, and general information regarding the course.</p> <p>Students may use the Canvas Discussion board to respond to other student responses regarding discussion topics.</p>
Face to Face (by student request; cannot be required)	The instructor will hold weekly, scheduled office hours either in person or via-web conferencing, for students to be able to meet and discuss course materials or individual progress. Students can request additional in-person or web conferencing meetings with faculty member as needed. Faculty may encourage online students to form "study groups" in person or online.
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**Examinations****Hybrid (1%–50% online) Modality**

Online

**Hybrid (51%–99% online) Modality**

Online

**Primary Minimum Qualification**

COMPUTER INFORMATION SYS

**Review and Approval Dates****Department Chair**

09/12/2020

**Dean**

09/13/2020

**Technical Review**

10/14/2020

**Curriculum Committee**

10/14/2020

**DTRW-I**

MM/DD/YYYY

**Curriculum Committee**

12/09/2020

**Board**

MM/DD/YYYY

**CCCCO**

MM/DD/YYYY

**Control Number**

CCC000544058

**DOE/accreditation approval date**

MM/DD/YYYY