

CS/IS101 : Introduction To Computer and Information Systems

General Information

Author:	<ul style="list-style-type: none"> James Miketta
Course Code (CB01) :	CS/IS101
Course Title (CB02) :	Introduction To Computer and Information Systems
Department:	CSIS
Proposal Start:	Winter 2025
TOP Code (CB03) :	(0702.00) Computer Information Systems
CIP Code:	(11.0103) Information Technology.
SAM Code (CB09) :	Possibly Occupational
Distance Education Approved:	No
Will this course be taught asynchronously?:	Yes
Course Control Number (CB00) :	CCC000239352
Curriculum Committee Approval Date:	04/10/2024
Board of Trustees Approval Date:	06/18/2024
Last Cyclical Review Date:	04/10/2024
Course Description and Course Note:	CS/IS 101 is designed to present the concepts and technology of processing information to students who plan to continue their studies in business information systems or computer science or who plan to work in the field. This course has a hands-on component in which the student learns basic system and application software, Web site development, Internet, and networking. Information competency skills are introduced. Students will focus on the application of concepts and methods through hands-on projects, developing computer-based solutions to business problems.
Justification:	Mandatory Revision
Academic Career:	<ul style="list-style-type: none"> Credit
Author:	No value

Academic Senate Discipline

Primary Discipline:	<ul style="list-style-type: none"> Computer Information Systems (Computer network installation, microcomputer technology, computer applications)
Alternate Discipline:	No value
Alternate Discipline:	No value

Course Development

Basic Skill Status (CB08)	Course Special Class Status (CB13)	Grading Basis
Course is not a basic skills course.	Course is not a special class.	<ul style="list-style-type: none"> Grade with Pass / No-Pass Option

Allow Students to Gain Credit by Exam/Challenge

Pre-Collegiate Level (CB21)

Course Support Course Status (CB26)

Not applicable.

Course is not a support course

Transferability & Gen. Ed. Options

General Education Status (CB25)

Not Applicable

Transferability

Transferable to both UC and CSU

Transferability Status

Approved

C-ID	Area	Status	Approval Date	Comparable Course
BUS	Business	Approved	09/03/2013	BUS 140 - Business Information Systems, Computer Information Systems
ITIS	Information Technology and Information Systems	Approved	08/30/2010	ITIS 120 - Computer Information Systems, Computer Concepts, Information Technology Concepts

Units and Hours

Summary

Minimum Credit Units (CB07)	5
Maximum Credit Units (CB06)	5
Total Course In-Class (Contact) Hours	90
Total Course Out-of-Class Hours	180
Total Student Learning Hours	270

Credit / Non-Credit Options

Course Type (CB04)

Credit - Degree Applicable

Noncredit Course Category (CB22)

Credit Course.

Noncredit Special Characteristics

No Value

Course Classification Code (CB11)

Credit Course.

Funding Agency Category (CB23)

Not Applicable.

Cooperative Work Experience
 Education Status (CB10)

Variable Credit Course

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	5	10
Laboratory Hours	0	0

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	0
Course In-Class (Contact) Hours	
Lecture	90

Studio Hours

0

0

Laboratory

0

Studio

0

Total

90

Course Out-of-Class Hours

Lecture

180

Laboratory

0

Studio

0

Total

180

Time Commitment Notes for Students

No value

Units and Hours - Weekly Specialty Hours

Activity Name

Type

In Class

Out of Class

No Value

No Value

No Value

No Value

Pre-requisites, Co-requisites, Anti-requisites and Advisories

Advisory

ESL151 - Reading And Composition V

Objectives

- Read and critically analyze various academic readings.

OR

Advisory

CABOT105 - Introduction To Office Correspondence

Objectives

- Solve problems and accomplish tasks through written communication.

Entry Standards

Entry Standards

Course Limitations

Cross Listed or Equivalent Course

Specifications

Methods of Instruction

Methods of Instruction Lecture

Methods of Instruction Discussion

Methods of Instruction Multimedia

Methods of Instruction Collaborative Learning

Methods of Instruction Demonstrations

Out of Class Assignments

- Written and hands-on computer activities (e.g. Internet searches for business)
- Lab assignments (e.g. databases, spreadsheets, slide presentations)
- Research projects (e.g. researching recent technology changes in e-commerce)

Methods of Evaluation

Rationale

Exam/Quiz/Test

Midterm examination

Project/Portfolio

Hands-on projects, developing computer-based solutions to business problems

Exam/Quiz/Test

Quizzes

Exam/Quiz/Test

Final examination; written, application, and performance

Textbook Rationale

No Value

Textbooks

Author	Title	Publisher	Date	ISBN
O'Leary, T.	Computing Essentials 2021	McGraw-Hill Publishing	2020	9781260323993

Other Instructional Materials (i.e. OER, handouts)

No Value

Materials Fee

No value

Learning Outcomes and Objectives

Course Objectives

Explain the concept of a network; identify hardware and software needed to create a network; compare and contrast wired vs. wireless networks; describe network security issues.

Describe the Internet and Internet services; describe the evolution of e-business and understand how to do business on the Internet; identify Web development tool and authoring systems; create a simple Web page using Hypertext Markup Language (HTML).

Demonstrate the importance of the technology infrastructure in an organization; identify major hardware components of a computer system; explain how to evaluate hardware components; compare open vs. proprietary platforms.

Describe distinctions between system software and application software; explain common functions of system software; identify types of application software; understand how to evaluate software when planning a system; compare open vs. proprietary software.

Describe ethical concerns associated with information systems including privacy, access, reliability, legal, ethical, and accuracy; identify types of computer crime; select, access, and use appropriate sources.

Use a spreadsheet software package to solve common business problems; demonstrate effective spreadsheet design through correct usage of formulas and functions including absolute vs. relative cell addressing; use financial, logical, date and statistical functions; use lists and data management functions; create appropriate charts and printed reports; work with multiple worksheets.

Use a database software package to solve common business problems; design and build a database (define fields and properties, enter records); design and build simple forms, queries and reports.

SLOs

<i>BUSAD</i> General Business - A.S. Degree Major	Analyze, evaluate, and explain business problems using basic concepts and terminology of accounting and finance.
<i>BUSAD</i> General Business - Certificate	Analyze, evaluate, and explain business problems using basic concepts and terminology of accounting and finance.
<i>ILOs</i> Core ILOs	Communicate clearly, ethically, and creatively; listen actively and engage respectfully with others; consider situational, cultural, and personal contexts within or across multiple modes of communication.
<i>CSIS</i> Information Technology Certificate	Demonstrate installing, configuring and maintaining computer and mobile devices, including diagnosing, resolving and documenting common hardware and software.
<i>CSIS</i> Information Technology - A.S. Degree Major	Demonstrate installing, configuring, and maintaining computer and mobile devices, including diagnosing, resolving, and documenting common hardware and software.
<i>BUSAD</i> Insurance Professional	Discuss loss exposures, personal risk insurance, and types of personal insurance policies.
<i>ACCTG</i> Bookkeeping - Certificate	Identify the standard elements on the Windows 7 desktop and demonstrate basic mouse operations; to understand basic computer terminologies, and become familiar with global information systems to be able to sign on to an account and use common utilities, including e-mail, Gopher, and Web browsers, and searching a variety of databases for information.
<i>ACCTG</i> Bookkeeping - A.S. Degree Major	Identify the standard elements on the Windows 7 desktop and demonstrate basic mouse operations; to understand basic computer terminologies, and become familiar with global information systems to be able to sign on to an account and use common utilities, including e-mail, Gopher, and Web browsers, and searching a variety of databases for information.
<i>BUSAD</i> Management - A.S. Degree Major	Plan, present, and evaluate various types and lengths of speeches and other oral presentations.
<i>BUSAD</i> Management - Certificate	Plan, present, and evaluate various types and lengths of speeches and other oral presentations.
<i>CSIS</i> Computer Science - A.S. Degree Major	Prepare a software project to implement a single scientific, mathematical, business, or technical function.
<i>CSIS</i> Computer Science - Certificate	Prepare a software project to implement a single scientific, mathematical, business, or technical function.
<i>CSIS</i> Computer Information Systems	analyze simple business or technical problems relevant to programming, and prepare solutions to them demonstrate an understanding of the operations and processes of a computer relevant to programming. implement a program in either C/C++ or Java, using objects
<i>CSIS</i> Computer Support Technician	demonstrate an understanding of computer structure and operations possess a basic knowledge of computer operation and capabilities with the skills to troubleshoot problems or aid in user support.
<i>CSIS</i> Computer Software Technician	demonstrate the ability to independently create, save, modify and print a document using a word processing program and appropriate assistive technology
<i>CSIS</i> Web Development - A.S. Degree Major	use industry standard tools and techniques to produce, publish and maintain Web sites and Web content.
<i>CSIS</i> Web Development - Certificate	use industry standard tools and techniques to produce, publish and maintain Web sites and Web content.

<i>ILOs</i> Core ILOs	Analyze and solve problems using critical, logical, and creative thinking; ask questions, pursue a line of inquiry, and derive conclusions; cultivate creativity that leads to innovative ideas.
	Demonstrate depth of knowledge in a course, discipline, or vocation by applying practical knowledge, skills, abilities, theories, or methodologies to solve unique problems.
<i>BUSAD</i> General Business - A.S. Degree Major	Analyze, evaluate, and explain business problems using basic concepts and terminology of accounting and finance.
<i>BUSAD</i> General Business - Certificate	Analyze, evaluate, and explain business problems using basic concepts and terminology of accounting and finance.
<i>ACCTG</i> Accounting	Create, edit, and print worksheets using formulas and statistical, date and time, financial and logical functions to solve business information.
<i>ACCTG</i> Accounting	Create, edit, and print worksheets using formulas and statistical, date and time, financial and logical functions to solve business information.
<i>CSIS</i> Information Technology Certificate	Demonstrate installing, configuring and maintaining computer and mobile devices, including diagnosing, resolving and documenting common hardware and software.
<i>CSIS</i> Information Technology - A.S. Degree Major	Demonstrate installing, configuring, and maintaining computer and mobile devices, including diagnosing, resolving, and documenting common hardware and software.
<i>BUSAD</i> Management - Certificate	Describe and apply the five functions of a manager: planning, organizing, staffing, leading and controlling.
<i>BUSAD</i> Management - A.S. Degree Major	Describe and apply the five functions of a manager: planning, organizing, staffing, leading and controlling.
<i>BUSAD</i> Insurance Professional	Discuss loss exposures, personal risk insurance, and types of personal insurance policies.
<i>ACCTG</i> Bookkeeping - Certificate	Identify the standard elements on the Windows 7 desktop and demonstrate basic mouse operations; to understand basic computer terminologies, and become familiar with global information systems to be able to sign on to an account and use common utilities, including e-mail, Gopher, and Web browsers, and searching a variety of databases for information.
<i>ACCTG</i> Bookkeeping - A.S. Degree Major	Identify the standard elements on the Windows 7 desktop and demonstrate basic mouse operations; to understand basic computer terminologies, and become familiar with global information systems to be able to sign on to an account and use common utilities, including e-mail, Gopher, and Web browsers, and searching a variety of databases for information.
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<i>CSIS</i> Computer Information Systems	analyze simple business or technical problems relevant to programming, and prepare solutions to them demonstrate an understanding of the operations and processes of a computer relevant to programming. implement a program in either C/C++ or Java, using objects
<i>ILOs</i> General Education	apply techniques of analysis and critical thinking to critique real world and theoretical topics and issues
<i>CSIS</i> Computer Support Technician	demonstrate an understanding of computer structure and operations possess a basic knowledge of computer operation and capabilities with the skills to troubleshoot problems or aid in user support.

CSIS Computer Software Technician	demonstrate the ability to independently create, save, modify and print a document using a word processing program and appropriate assistive technology
CSIS Web Development - A.S. Degree Major	use industry standard tools and techniques to produce, publish and maintain Web sites and Web content.
CSIS Web Development - Certificate	use industry standard tools and techniques to produce, publish and maintain Web sites and Web content.
Describe ethical, legal, privacy and security concerns associated with information systems.	
Expected Outcome Performance: 70.0	
ILOs Core ILOs	Analyze and solve problems using critical, logical, and creative thinking; ask questions, pursue a line of inquiry, and derive conclusions; cultivate creativity that leads to innovative ideas.
	Communicate clearly, ethically, and creatively; listen actively and engage respectfully with others; consider situational, cultural, and personal contexts within or across multiple modes of communication.
CSIS Information Technology - A.S. Degree Major	Demonstrate an understanding of ethical concern associated with information technology including access, reliability, legal, ethical, and accuracy; identify types of computer crime; select, access, and use appropriate sources.
CSIS Information Technology Certificate	Demonstrate an understanding of ethical concern associated with information technology including access, reliability, legal, ethical, and accuracy; identify types of computer crime; select, access, and use appropriate sources.
BUSAD Insurance Professional	Discuss loss exposures, personal risk insurance, and types of personal insurance policies.
BUSAD Management - Certificate	Plan, present, and evaluate various types and lengths of speeches and other oral presentations.
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CSIS Computer Science - A.S. Degree Major	Prepare a software project to implement a single scientific, mathematical, business, or technical function.
CSIS Computer Science - Certificate	Prepare a software project to implement a single scientific, mathematical, business, or technical function.
CSIS Computer Information Systems	analyze simple business or technical problems relevant to programming, and prepare solutions to them
	demonstrate an understanding of the operations and processes of a computer relevant to programming.
	implement a program in either C/C++ or Java, using objects
CSIS Computer Support Technician	demonstrate an understanding of computer structure and operations
	possess a basic knowledge of computer operation and capabilities with the skills to troubleshoot problems or aid in user support.
CSIS Computer Software Technician	demonstrate the ability to independently create, save, modify and print a document using a word processing program and appropriate assistive technology
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Course Content

Lecture Content

Overview (2 hours)

Hardware (8 hours)

- Input and output
- Processing and storage
- Digital representation of data
- System configuration, security and troubleshooting

Application Software Integration and Information Competency (12 hours)

- Locating and evaluating information using search engines and online databases applications
- Search Engines: strategy, advanced searching techniques, evaluating sources, intellectual property, plagiarism, and citing sources
- Online Databases: Visible versus invisible Web

Capturing, and formatting information using text editors and spreadsheet applications (12 hours)

- Text Editor: Manipulate data into appropriate format
- Spreadsheet: Import data set for analysis

Analyzing and organizing information using spreadsheets and databases applications (10 hours)

- Spreadsheet: translating data into information, preparation for export to a database
- Database: structuring data for access, updating and reporting

Sharing and publishing information using cloud storage, presentation and Web site development applications (10 hours)

- Cloud Storage: tools, services, access, security, and privacy
- Presentation: tools, formats, and access
- Web Site Development: tools, formats, access, and limitations

Programming Languages (6 hours)

- Categories
- Program development life cycle
- Introduction to programming with HTML and JavaScript

Communications and Networks (4 hours)

Internet and World Wide Web (6 hours)

Databases (4 hours)

- Data hierarchy
- Data models
- Database administration
- Web databases

Information Systems Analysis and Design (4 hours)

E-commerce (4 Hours)

- Business strategies
- Technologies
- Integration with conventional business

Computers and Society (8 hours)

- Security
- Ethics
- Privacy
- Careers

Total Hours: 90

Additional Information

Is this course proposed for GCC Major or General Education Graduation requirement? If yes, indicate which requirement in the two areas provided below.

Yes

GCC Major Requirements

No Value

GCC General Education Graduation Requirements

Communication and Analytical Thinking

Repeatability

Not Repeatable

Justification (if repeatable was chosen above)

No Value

Resources

Did you contact your departmental library liaison?

No

If yes, who is your departmental library liaison?

No Value

Did you contact the DEIA liaison?

No

Were there any DEIA changes made to this outline?

No

If yes, in what areas were these changes made:

No Value

Will any additional resources be needed for this course? (Click all that apply)

- No

If additional resources are needed, add a brief description and cost in the box provided.

No Value