

CS/IS194 : Information Technology Essentials

General Information

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Course Code (CB01) :	CS/IS194
Course Title (CB02) :	Information Technology Essentials
Department:	CSIS
Proposal Start:	Fall 2024
TOP Code (CB03) :	(0701.00) Information Technology, General
CIP Code:	(11.0101) Computer and Information Sciences, General.
SAM Code (CB09) :	Possibly Occupational
Distance Education Approved:	No
Will this course be taught asynchronously?:	No
Course Control Number (CB00) :	CCC000626462
Curriculum Committee Approval Date:	10/25/2023
Board of Trustees Approval Date:	12/19/2023
Last Cyclical Review Date:	10/25/2023
Course Description and Course Note:	CS/IS 194 provides an introduction to the computer hardware and software skills needed to help meet the growing demand for entry-level Information Technology (IT) professionals. The fundamentals of computer hardware and software, as well as advanced concepts such as security, networking, and the responsibilities of an IT professional, are introduced in this class. Students will be prepared to take the CompTIA A+ certification exams. This course includes labs to provide hands-on training.
Justification:	Mandatory Revision
Academic Career:	<ul style="list-style-type: none">Credit

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
	Pre-Collegiate Level (CB21)	Course Support Course Status (CB26)

Allow Students to Gain Credit by Exam/Challenge

Not applicable.

Course is not a support course

Transferability & Gen. Ed. Options

General Education Status (CB25)

Not Applicable

Transferability

Transferable to CSU only

Transferability Status

Approved

Units and Hours

Summary

Minimum Credit Units (CB07)	3
Maximum Credit Units (CB06)	3
Total Course In-Class (Contact) Hours	90
Total Course Out-of-Class Hours	72
Total Student Learning Hours	162

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	2	4
Laboratory Hours	3	0
Studio Hours	0	0

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	0
Course In-Class (Contact) Hours	
Lecture	36
Laboratory	54
Studio	0
Total	90

Course Out-of-Class Hours

Lecture	72
Laboratory	0
Studio	0
Total	72

Time Commitment Notes for Students

No value

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

Prerequisite: None.

Entry Standards

Entry Standards

No value

Specifications

Methods of Instruction

Methods of Instruction Lecture

Methods of Instruction Laboratory

Methods of Instruction Discussion

Methods of Instruction Multimedia

Methods of Instruction Tutorial

Methods of Instruction Collaborative Learning

Methods of Instruction Demonstrations

Methods of Instruction

Guest Speakers

Methods of Instruction

Presentations

Out of Class Assignments

- Hands on projects (e.g. diagnose common computer problems)
- Problem solving assignment (e.g. diagnosing and solving common hardware and software issues)

Methods of Evaluation**Rationale**

Exam/Quiz/Test

Final Examination

Exam/Quiz/Test

Quizzes

Project/Portfolio

Lab Projects

Project/Portfolio

Final Project

Textbook Rationale

No Value

Textbooks**Author****Title****Publisher****Date****ISBN**

Meyers, Mike

CompTIA A+ Certification All-in-One Exam Guide

New York: McGraw-Hill

2023

978-1-264-60990-1

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

No Value

Materials Fee

No value

Learning Outcomes and Objectives**Course Objectives**

Assemble components based on customer requirements.

Install, configure and maintain devices, PCs, and software for end users.

Describe the basics of networking and security/forensics.

Apply troubleshooting skills.

Provide appropriate customer support.

Identify the basics of virtualization, desktop imaging, and deployment.

SLOs

Explain the components of PCs and mobile devices.

Expected Outcome Performance: 70.0

<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. Demonstrate the proper server operation procedures, maintenance procedures and managing risk associated with real world networks.
<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. Demonstrate the proper server operation procedures, maintenance procedures and managing risks associated with real world networks.
<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 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.

Explain the basics of networking, security and forensics.

Expected Outcome Performance: 70.0

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Diagnose, resolve, and document common hardware and software issues.	
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.
	Demonstrate depth of knowledge in a course, discipline, or vocation by applying practical knowledge, skills, abilities, theories, or methodologies to solve unique problems.
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Additional SLO Information

Does this proposal include revisions that might improve student attainment of course learning outcomes?

No

Is this proposal submitted in response to learning outcomes assessment data?

No

If yes was selected in either of the above questions for learning outcomes, explain and attach evidence of discussions about learning outcomes.

No Value

SLO Evidence

No Value

Course Content

Lecture Content

PC/Laptop Hardware (4 hours)

- Microprocessors
- Random Access Memory (RAM)
- Basic Input/Output System (BIOS)
- Motherboard
- Power supplies
- Hard drives
- Troubleshooting

Networking (4 hours)

- Technologies
- Protocols, LANs and WANs
- Wireless
- Internet
- Organization

Printers (4 hours)

- Inkjet
- Thermal
- Laser
- Connectivity

Operating Systems (6 hours)

- Installing and upgrading
- Under the hood
- New Technology File System (NTFS), users and groups
- Maintaining and optimizing
- Command Line Interface
- Troubleshooting

Security (4 hours)

- Analyzing threats
- Concepts and technologies
- Network

Forensics (2 hours)

Mobile Computer and Devices (4 hours)

- Portable computing devices
- Tablets
- Smart phones

Virtualization (4 Hours hours)

Building the right computer (4 hours)

Total Hours: 36

Laboratory/Studio Content

PC/Laptop Hardware (6 hours)

- Microprocessors
- Random Access Memory (RAM)
- Basic Input/Output System (BIOS)
- Motherboard
- Power supplies
- Hard drives
- Troubleshooting

Networking (6 hours)

- Technologies
- Protocols, LANs and WANs
- Wireless
- Internet
- Organization

Printers (3 hours)

- Inkjet
- Thermal
- Laser
- Connectivity

Operating Systems (9 hours)

- Installing and upgrading
- Under the hood
- New Technology File System (NTFS), users and groups
- Maintaining and optimizing
- Command Line Interface
- Troubleshooting

Security (6 hours)

- Analyzing threats
- Concepts and technologies
- Network

Forensics (3 hours)

Mobile Computer and Devices (6 hours)

- Portable computing devices
- Tablets
- Smartphones

Virtualization (9 hours)

Building the right computer (6 hours)

Total Hours: 54