



ILLINOIS VALLEY COMMUNITY COLLEGE

COURSE OUTLINE

DIVISION: Workforce Development

COURSE: CSP 2200 CompTIA A+

Date: Spring 2021

Credit Hours: 4

Prerequisite(s): None

Delivery Method: **Lecture** **3 Contact Hours** (1 contact = 1 credit hour)
 Seminar **0 Contact Hours** (1 contact = 1 credit hour)
 Lab **2 Contact Hours** (2-3 contact = 1 credit hour)
 Clinical **0 Contact Hours** (3 contact = 1 credit hour)
 Online
 Blended

Offered: **Fall** **Spring** **Summer**

IAI Equivalent –**Only for Transfer Courses**-go to <http://www.itransfer.org>:

CATALOG DESCRIPTION:

This course covers the basics for supporting hardware and operating systems along with troubleshooting issues on PCs, mobile devices, and networking configurations. Basic concepts of security including identifying and protecting against security vulnerabilities are discussed. The student can earn CompTIA A+ Core 1 and Core 2 certifications from this course.

GENERAL EDUCATION GOALS ADDRESSED

[See last page for Course Competency/Assessment Methods Matrix.]

Upon completion of the course, the student will be able:

[Choose up to three goals that will be formally assessed in this course.]

- To apply analytical and problem solving skills to personal, social, and professional issues and situations.
- To communicate successfully, both orally and in writing, to a variety of audiences.
- To construct a critical awareness of and appreciation for diversity.
- To understand and use technology effectively and to understand its impact on the individual and society.
- To develop interpersonal capacity.
- To recognize what it means to act ethically and responsibly as an individual and as a member of society.
- To recognize what it means to develop and maintain a healthy lifestyle in terms of mind, body, and spirit.
- To connect learning to life.

EXPECTED LEARNING OUTCOMES AND RELATED COMPETENCIES:

[Outcomes related to course specific goals. See last page for more information.]

Upon completion of the course, the student will be able to:

1. install, configure, maintain, and troubleshoot operating systems
 - a. Competency: install MS Windows workstation (current version)
 - b. Competency: install a Linux distribution
 - c. Competency: Use the operating system tools and features
 - d. Competency: troubleshoot MS Windows workstation, Linux distribution, mobile device using iOS or Android
 - e. Competency: Update operating systems
2. install, configure, and troubleshoot display, multimedia, and storage devices
 - a. Competency: install and configure display devices
 - b. Competency: troubleshoot display devices
 - c. Competency: install and configure multimedia devices
 - d. Competency: install system memory, mass storage devices, removable storage, configure RAID
 - e. Competency: troubleshoot storage devices
3. comprehend network and infrastructure concepts, including troubleshooting network setups
 - a. Competency: learn wired and wireless network concepts
 - b. Competency: troubleshoot network setups and detect errors
4. implement client virtualization and cloud computing
 - a. Competency: configure client-side virtualization
 - b. Competency: learn about cloud computing
5. secure workstations and data and troubleshoot workstation security issues
 - a. Competency: learn about threats and vulnerabilities
 - b. Competency: implement security and data protection policies
 - c. Competency: detect, remove, and prevent malware

- d. Competency: troubleshoot common workstation security issues
- 6. support and troubleshoot laptops and mobile devices
 - a. Competency: troubleshoot common laptop issues
 - b. Competency: connect and configure network connectivity
 - c. Competency: secure mobile devices
- 7. install, configure, and troubleshoot print devices
 - a. Competency: maintain laser, inkjet, impact, and 3D printers
 - b. Competency: install and configure printers
 - c. Competency: troubleshoot print devices
- 8. implement operational procedures
 - a. Competency: create and maintain documentation
 - b. Competency: implement disaster prevention and recovery methods
 - c. Competency: professionalism and communication

MAPPING LEARNING OUTCOMES TO GENERAL EDUCATION GOALS

[For each of the goals selected above, indicate which outcomes align with the goal.]

Goals	Outcomes
First Goal	
To apply analytical and problem solving skills to personal, social, and professional issues and situations	1-8
Second Goal	
To understand and use technology effectively and to understand its impact on the individual and society	1, 2, 4, 6, 8

COURSE TOPICS AND CONTENT REQUIREMENTS:

- Supporting Operating Systems
- Installing, Configuring and Troubleshooting PC Components
- Installing, Configuring and Troubleshooting Display, Multimedia, System Components, and Storage Devices
- Installing, Configuring, and Maintaining Operating Systems
- Network Concepts
- Managing Users and Workstations
- Virtualization
- Security Concepts
- Operating Procedures

INSTRUCTIONAL METHODS:

- Lecture – online, face-to-face, or blended
- Labs – May be one to all of these: virtual, cloud-based, face-to-face hands on

INSTRUCTIONAL MATERIALS:

The Official CompTIA A+ Core 1 & Core 2 Student Guide (Exam 220-1001 and 220-1002) eBook (ISBN: 978-1-64274-228-2) or print (ISBN: 978-1-64274-229-9)

CompTIA Labs for A+ Core 2 (Exam 220-1002 Student License: APL-102-CLBS-20-C)

STUDENT REQUIREMENTS AND METHODS OF EVALUATION:

Develop an understanding and/or a comprehensive knowledge of the items listed as course content

1. Read required material on the topic
2. Attend lecture and lab
3. Complete all assigned labs and homework
4. Join in classroom participation activities

A= 90-100

B= 80-89

C= 70-79

D= 60-69

F= 0-59

OTHER REFERENCES

- CompTIA A+ Certification All-in-One Exam Guide by Mike Meyers
- CompTIA A+ Complete Certification Kit by Quentin Doctor
- Professor Messer CompTIA A+ videos

Course Competency/Assessment Methods Matrix

CSP 2200	Assessment Options																															
For each competency/outcome place an "X" below the method of assessment to be used.	Assessment of Student Learning	Article Review	Case Studies	Group Projects	Lab Work	Oral Presentations	Pre-Post Tests	Quizzes	Written Exams	Artifact Self Reflection of Growth	Capstone Projects	Comprehensive Written Exit Exam	Course Embedded Questions	Multi-Media Projects	Observation	Writing Samples	Portfolio Evaluation	Real World Projects	Reflective Journals	Applied Application (skills) Test	Oral Exit Interviews	Accreditation Reviews/Reports	Advisory Council Feedback	Employer Surveys	Graduate Surveys	Internship/Practicum /Site Supervisor Evaluation	Licensing Exam	In Class Feedback	Simulation	Interview	Written Report	Assignment
	Direct/ Indirect	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	I	I	I	I	D	D						
Assessment Measures – Are direct or indirect as indicated. List competencies/outcomes below.																																
The student will be able to install, configure, maintain, and troubleshoot operating systems				X			X							X			X											X	X			X
The student will be able to install, configure and troubleshoot display, multimedia, and storage devices				X			X							X			X											X	X			X
The student will be able to comprehend network and infrastructure concepts, including troubleshooting network setups				X			X							X			X										X	X				X
The student will be able to implement client virtualization and cloud computing				X			X							X			X										X	X				X

The student will be able to secure workstations and data and troubleshoot workstation security issues					X		X							X		X								X	X			X
The student will be able to support and troubleshoot laptops and mobile devices					X		X							X		X								X	X			X
The student will be able to install, configure and troubleshoot print devices					X		X							X		X								X	X			X
The student will be able to implement operational procedures					X		X							X		X								X	X			X