ISSC221

Course Summary

Course : ISSC221 **Title :** Intermediate Computer Systems
Length of Course : 8 **Prerequisites :** N/A **Credit Hours :** 3

Description

Course Description:

This course is a study of computer systems, computer organization, computer subsystems, and operating systems, This course examines CPUs, motherboards, basic input/output systems, memory subsystems, bus structures, expansion cards, ports, connectivity, interfaces, data storage subsystems, and multimedia interface devices. This course also evaluates computer monitoring, computer systems management, operating systems, networking, and security. This course covers the A+ Certification Essentials curriculum.

Course Scope:

The CompTIA A+ certification is the industry standard for computer support technicians. The international, vendor-neutral certification proves competence in areas such as installation, preventative maintenance, networking, security and troubleshooting. CompTIA A+ certified technicians also have excellent customer service and communication skills to work with clients. This course meets the A+ Certification Essentials of the topical requirements of the DoD 8570.1 Technical I category.

The latest version of the course text, CompTIA A+, is CompTIA A+ Complete Study Guide (2016). Two exams are necessary to be certified: CompTIA A+ Essentials, exam code 220-901; and CompTIA A+ Practical Application, exam code 220-902.

Required resources for your course are provided in a course eReserve. Please access Readings & Resources/eReserves, enter your course number in the 'Search for course eReserves' box, select Go, and then select the course when it appears below the search box. Information included in LibAnswers provides download and print options for offline reading of Library ebooks.

The A+ series are:

CompTIA A+ Essentials measures the necessary competencies of an entry-level IT professional with at least 500 hours of hands-on experience in the lab or field. It tests for the fundamentals of computer technology, networking and security, as well as the communication skills and professionalism now required of all entry-level IT professionals.

CompTIA A+ Practical Application is an extension of the knowledge and skills identified in CompTIA A+ Essentials, with more of a "hands-on" orientation focused on scenarios in which troubleshooting and tools must be applied to resolve problems.

Objectives

After successfully completing this course, you will be able to achieve the following objectives:

(C01) Students should have a general overview of motherboards, the BIOS, expansion slots, and processors and be able to identify them by sight.

(C02) Students should be able to identify various types of memory and cooling systems as found on most computers and describe their functions.

(C03) Students should know the different kinds of storage devices available.

(C04) Students should know the different kinds of storage devices available, and be able to identify the purposes and characteristics of power supplies.

(C05) Students will learn about various input and output peripheral devices as well as different types of adapter cards, cables, and interfaces commonly found in PCs.

(C06) Students will understand the different display types available. They will also know how to adjust display settings and be fluent in various video standards, resolutions, and concepts.

(C07) Students will understand the components and requirements that differentiate specialized computer systems.

(C08) Students will understand network topologies, the devices, cabling, and connectors used in networking, and the tools used in network troubleshooting.

(C09) Explain the properties and characteristics of TCP/IP.

(C10) Explain common TCP and UDP ports, protocols, and their purpose

(C11) Students will learn how to install and configure small networks, such as the ones typically found in small and home offices.

(C12) Students will understand the differences between desktop and laptop architecture. They will also understand features specific to laptops and laptop displays.

(C13) Students will understand the expansion of laptops into other mobile devices. Devices examined will include tablets, phablets, smart phones, e-readers and more.

(C14) Students will learn about printer types and characteristics. They will also learn about installing printers.

(C15) Students learn about troubleshooting models and look at troubleshooting everything from PC components to mobile devices, printers, and networks.

Outline

Week 1: Motherboards, Processors and Memory

Learning Objectives

CO1

C02

Readings

Chapter 1

Assignment

Chapter 1 Questions

Week 1 Discussion

Week 2: Storage Devices and Power Supplies

Learning Objectives

C03

C04

Readings

Chapter 2

Assignment

Chapter 2 Questions

Week 2 Discussion

Week 3: Peripherals and Expansion

Learning Objectives

C05

Readings

Chapter 3

Assignment

Chapter 3 Questions

Week 3 Discussion

Week 4: Display Devices, Custom Configurations

Learning Objectives

C06

C07

Readings

Chapter 4

Chapter 5

Assignment

Chapter 4 Questions

Chapter 5 Questions

Week 4 Discussion

Week 5: Networking Fundamentals

Learning Objectives

C08

Readings

Chapter 6

Assignment

Chapter 6 Questions

Week 5 Discussion

Week 6: Introduction to TCP/IP, nstalling Wireless and SOHO Networks

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Learning Objectives

C09
C10
C11

Readings

Chapter 7

Chapter 8

Assignment

Chapter 7

Questions

Chapter 8 Questions

Week 6 Discussion

Week 7: Understanding Laptops, Understanding Mobile Devices

Learning Objectives

C12
C13

Readings

Chapter 9

Chapter 10

Assignment

Chapter 9 Questions

Chapter 10 Questions

Week 7 Discussion

Week 8: Installing and Configuring Printers, Hardware and Network Troubleshooting

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Learning Objectives

C14

C15

Readings

Chapter 11

Chapter 12

Assignment

Chapter 11 Questions

Chapter 12

Questions

Submit Final Project

Evaluation

Reading Assignments: Each week will require unit readings from the text.

Initial Discussion Post: In the first week (only) students will post an introduction that is necessary for class enrollment by Wednesday at Midnight.

Discussion Assignments: Each week students will post an initial post and two peer reviews to two other students' comments. Rubrics will be posted in the assignments section.

Weekly discussions cannot be made up after the week in question.

Homework Assignments: These will consist of mostly unit review questions, discussion participation and a final project.

Final Project: The final project will be completed following directions in the assignments. It will be submitted in accordance with the APA Style Guide (6th ed.) and will include a title page, abstract, content, conclusion, and references page. These requirements will be more fully described in the assignments section.

Grading:

Name	Grade %
Assignment	40.00 %
Week 1 Summary Review Questions	5.00 %
Week 2 Summary Review Questions	5.00 %
Week 3 Summary Review Questions	5.00 %
Week 4 Summary Review Questions	5.00 %
Week 5 Summary Review Questions	5.00 %
Week 6 Summary Review Questions	5.00 %

Week 7 Summary Review Questions	5.00 %
Week 8 Summary Review Questions	5.00 %
Discussions	40.00 %
Week 1: Motherboards Processors and Memory	5.00 %
Week 2: Storage Devices and Power Supplies	5.00 %
Week 3: Peripherals and Expansion	5.00 %
Week 4: Display Devices and Custom Configurations	5.00 %
Week 5: Networking Fundamentals	5.00 %
Week 6: Introduction to TCP IP and Installing Wireless and SOHO Networks	5.00 %
Week 7: Understanding Laptops and Mobile Devices	5.00 %
Week 8: Installing and Configuring Printers and Hardware and Network Troubleshooting	5.00 %
Final Project	20.00 %
Final Project	20.00 %

Materials

Book Title: CompTIA A+ Complete Study Guide: Exams 220-901 and 220-902, 3rd Ed-E-book available in the APUS Online Library

Author: Docter, Quentin / Dulaney, Emmett / Skandier, Toby

Publication Info: Wiley Lib

ISBN: 9781119137856

Book Title: To find the library e-book(s) req'd for your course, please visit to locate the eReserve by course #.

Author: No Author Specified

Publication Info:

ISBN: N/A

Visit CompTIA

Course Guidelines

Citation and Reference Style

- Attention Please: Students will follow the APA Format as the sole citation and reference style used in written work submitted as part of coursework to the University. Assignments completed in a narrative

essay or composition format must follow the citation style cited in the APA Format.

Tutoring

- Tutor.com offers online homework help and learning resources by connecting students to certified tutors for one-on-one help. AMU and APU students are eligible for 10 free hours* of tutoring provided by APUS. Tutors are available 24/7 unless otherwise noted. Tutor.com also has a SkillCenter Resource Library offering educational resources, worksheets, videos, websites and career help. Accessing these resources does not count against tutoring hours and is also available 24/7. Please visit the APUS Library and search for 'Tutor' to create an account.

Late Assignments

- Students are expected to submit classroom assignments by the posted due date and to complete the course according to the published class schedule. The due date for each assignment is listed under each Assignment.
- Generally speaking, late work may result in a deduction up to 15% of the grade for each day late, not to exceed 5 days.
- As a working adult I know your time is limited and often out of your control. Faculty may be more flexible if they know ahead of time of any potential late assignments.

Turn It In

- Faculty may require assignments be submitted to Turnitin.com. Turnitin.com will analyze a paper and report instances of potential plagiarism for the student to edit before submitting it for a grade. In some cases professors may require students to use Turnitin.com. This is automatically processed through the Assignments area of the course.

Academic Dishonesty

- Academic Dishonesty incorporates more than plagiarism, which is using the work of others without citation. Academic dishonesty includes any use of content purchased or retrieved from web services such as CourseHero.com. Additionally, allowing your work to be placed on such web services is academic dishonesty, as it is enabling the dishonesty of others. The copy and pasting of content from any web page, without citation as a direct quote, is academic dishonesty. When in doubt, do not copy/paste, and always cite.

Submission Guidelines

- Some assignments may have very specific requirements for formatting (such as font, margins, etc) and submission file type (such as .docx, .pdf, etc) See the assignment instructions for details. In general, standard file types such as those associated with Microsoft Office are preferred, unless otherwise specified.

Disclaimer Statement

- Course content may vary from the outline to meet the needs of this particular group.

Communicating on the Discussion

- Discussions are the heart of the interaction in this course. The more engaged and lively the exchanges, the more interesting and fun the course will be. Only substantive comments will receive credit. Although there is a final posting time after which the instructor will grade comments, it is not sufficient to wait until the last day to contribute your comments/questions on the discussion. The purpose of the discussions is to actively participate in an on-going discussion about the assigned content.
- “Substantive” means comments that contribute something new and hopefully important to the discussion. Thus a message that simply says “I agree” is not substantive. A substantive comment contributes a new idea or perspective, a good follow-up question to a point made, offers a response to a question, provides an example or illustration of a key point, points out an inconsistency in an

argument, etc.
- As a class, if we run into conflicting view points, we must respect each individual's own opinion. Hateful and hurtful comments towards other individuals, students, groups, peoples, and/or societies will not be tolerated.

Identity Verification & Live Proctoring

- Faculty may require students to provide proof of identity when submitting assignments or completing assessments in this course. Verification may be in the form of a photograph and/or video of the student's face together with a valid photo ID, depending on the assignment format.
- Faculty may require live proctoring when completing assessments in this course. Proctoring may include identity verification and continuous monitoring of the student by webcam and microphone during testing.

University Policies

Student Handbook

- Drop/Withdrawal policy
- Extension Requests
- Academic Probation
- Appeals
- Disability Accommodations

The mission of American Public University System is to provide high quality higher education with emphasis on educating the nation's military and public service communities by offering respected, relevant, accessible, affordable, and student-focused online programs that prepare students for service and leadership in a diverse, global society.