# American Public University System

The Ultimate Advantage is an Educated Mind

# **Department of Information Technology**

ITCC298: Computer Technology Intermediate Capstone

**Credit Hours: 3** 

**Length of Course: 8 Weeks** 

Prerequisite(s): Completion of a minimum of 51 hours towards

the degree program

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#### **Instructor Information**

Instructor: Email:

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# **Course Description (Catalog)**

This course provides a comprehensive overview of major components of computer technology. The course explores concepts, principles, and practices associated with computer hardware and software, web development, productivity applications, and programming fundamentals. This course provides an opportunity to integrate academic rigor with real world experience; to apply theory to solve real-world problems, to make the learning experiential, to facilitate project-

based learning, and to integrate knowledge and skills with practice. **Prerequisite(s): Completion** of a minimum of 57 hours towards the degree program.

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# Course Scope

This capstone course was built to support the Associate in Computer Technology degree program. The course reviews the major principles of computer technology in order to prepare future computer Technology professionals in the modern enterprise to understand the role of computer technology in respect to technical support, help desk support and IT support. Case studies and assigned projects are utilized, including technology failures and success and lessons learned from them. Throughout the course, students are asked to identify and apply the principles learned in core courses in this program to address assignments.

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## **Course Objectives**

After successfully completing this course, you will be able to:

- 1. Explain the major concepts associated with hardware and software technologies.
- 2. Identify computing requirements appropriate to solve problems using a collaborative team approach.
- 3. Compare and contrast the differences and relationships between usability and userexperience.
- 4. Demonstrate use of current techniques, skills, and tools to determine effective technology use.
- 5. Design a basic computer system using appropriate hardware and computer technologies.
- 6. Design a basic computer system using appropriate software and computer technologies.
- 7. Build a basic computer system using appropriate hardware and computer technologies.
- 8. Build a basic computer system using appropriate software and computer technologies.

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## **Course Delivery Method**

This course delivered via distance learning will enable students to complete academic work in a flexible manner, completely online. Course materials and access to an online learning management system will be made available to each student. Online assignments are due by Sunday evening of the week as noted and include Forum questions (accomplished in groups through a threaded forum), examination, and individual assignments submitted for review by the Faculty Member). Assigned faculty will support the students throughout this eight-week course.

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#### **Course Resources**

No Required Course Textbook—Open-source Resources are used and noted in the Lessons of each week!

Software Required: standard Microsoft Office Suite, which is available online for free.

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#### **Evaluation Procedures**

Students are expected to maintain routine contact with the instructor throughout the course. While the number of contacts may vary according to the specific course and individual student need, the University requires periodic weekly contacts during the semester. Contact will consist of professor notes, forum interaction, and email feedback. The method of discussion will be on-line related to issues concerning forum assignments, lesson assignments, and the final project.

## **TEXTBOOK READINGS**

The main courseware for the course is opened-education resources, used for reading and learning. Review the table at the end of the syllabus to see assigned readings for each week.

#### **FORUM**

The Forum assignments for this course are designed to promote interactivity among students and enhance the online learning process. The Forum provides maximum flexibility because you do not have to be online at the same time as another person and you can read what other students have written.

Forum Timing: For the forum, you must post your work by midnight on **Thursday**, continue to follow your classmates' posts for the remainder of the week, and post the follow-up peer responses prior to midnight on **Sunday**, except for week one. Your follow-up posts can add

additional insight to a classmate's opinions or can challenge their opinions. Use examples from the readings, or from your own research, to support your views, as appropriate. Be sure to read the follow-up posts to your own posts and reply to any questions or requests for clarification. You are encouraged to conduct research and use other sources to support your answers.

Required Participation: Please keep in mind that the forum assignments require you to make at least 1 post to the forum with at **substantive content** about the topic and <u>also respond to at least 2 peers' posts with **substantive content**. Please be advised that there will be point deductions if you do not comply with these requirements of the assignment. Each one of you will have a different and unique experience that we can all learn from. Your participation in the Forums unleashes the power of synergy in our classroom. To facilitate this interaction, please be prompt when posting your forum work for each week; this provides time for the others to actively engage in the dialogue. For practical reasons, when you respond to other learners' posts, please start your response by referencing their name. I will read and grade your participation by reading the forum. There is no need to also post your forum work in the assignments area of the classroom. Refer to the forum and the syllabus for more details on grading.</u>

#### **WEEKLY ASSIGNMENTS**

There will be weekly assignments for this course to reinforce your reading and learning. Complete the weekly assignments required as stated in the Assignments area.

#### **INITIAL/FINAL PROJECTS**

The Initial and Final Projects require you to use your knowledge gained through-out the program apply and demonstrate learning outcomes.

**FINAL GRADE IS BASED UPON**: All work will be graded on a 100-point raw score basis. There are a total of 100 weighted points for this course broken down as follows:

Grade Instruments	Points
Forums (6)	30
Assignments	30
Initial Project	20
Final Project	20
Total	100

## 8 – Week Course Outline

Please see the <u>Student Handbook</u> to reference the University's <u>grading scale</u>.

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Week	Topic(s)	Learning Objective(s)	Reading(s)	Assignment(s)
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1	Major Computer Concepts	<b>CO1</b> : Explain the major concepts associated with hardware and software technologies.	Introduction OER Content Review Power Point Presentation/Video Lecture	Week 1 Forum
2	Computing Requirements	co2: Identify computing requirements appropriate to solve problems using a collaborative team approach.	OER Content Review Power Point Presentation/Video Lecture	Week 2 Forum Week 2 Assignment
3	Usability and User- experience	co3: Compare and contrast the differences and relationships between usability and user-experience.	OER Content Review Power Point Presentation/Video Lecture	Week 3 Forum Week 3 Assignment
4	Effective Technology Use	<b>CO4</b> : Demonstrate use of current techniques, skills, and tools to determine effective technology use.	OER Content Review Power Point Presentation/Video Lecture	Week 4 Forum Week 4 Assignment
5	Hardware Technologies & Computer Design	cos Design a basic computer system using appropriate hardware and computer technologies.	OER Content Review Power Point Presentation/Video Lecture	Week 5 Forum Initial Project Assigned

6	Software Technologies & Computer Design	co6: Design a basic computer system using appropriate software and computer technologies.	OER Content Review Power Point Presentation/Video Lecture	Initial Project Due
7	Hardware Technologies & Computer Development	CO7: Build a basic computer system using appropriate hardware and computer technologies.	OER Content Review Power Point Presentation/Video Lecture	Week 7 Forum Final Project Assigned
8	Software Technologies & Computer Development	computer system using appropriate software and computer technologies.	OER Content Review Power Point Presentation/Video Lecture	Final Project Due

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# **Policies**

Please see the <u>Student Handbook</u> to reference all University policies. Quick links to frequently asked question about policies are listed below.

Drop/Withdrawal Policy
Plagiarism Policy
Extension Process and Policy
Disability Accommodations

## **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. As adults, students, and working professionals, I understand you must manage competing demands on your time. Should you need additional time to complete an assignment, please contact me before the due date so we can discuss the situation and determine an acceptable resolution. Routine submission of late assignments is unacceptable and may result in points deducted from your final course grade. Waiting until the last week to submit assignments is not acceptable and will result in receiving no more than half credit.

#### Netiquette

Online universities promote the advancement of knowledge through positive and constructive debate – both inside and outside the classroom. Forums on the Internet, however, can occasionally degenerate into needless insults and "flaming." Such activity and the loss of good manners are not acceptable in a university setting – basic academic rules of good behavior and proper "Netiquette" must persist. Remember that you are in a place for the rewards and excitement of learning which does not include descent to personal attacks or student attempts to stifle the Forum of others.

- Technology Limitations: While you should feel free to explore the full-range of creative composition in your formal papers, keep e-mail layouts simple. The Sakai classroom may not fully support MIME or HTML encoded messages, which means that bold face, italics, underlining, and a variety of color-coding or other visual effects will not translate in your e-mail messages.
- **Humor Note:** Despite the best of intentions, jokes and <u>especially</u> satire can easily get lost or taken seriously. If you feel the need for humor, you may wish to add "emoticons" to help alert your readers: ;-), :), ©

#### **Disclaimer Statement**

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

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# **Online Library**

The Online Library is available to enrolled students and faculty from inside the electronic campus. This is your starting point for access to online books, subscription periodicals, and Web resources that are designed to support your classes and generally not available through search engines on the open Web. In addition, the Online Library provides access to special learning resources, which

the University has contracted to assist with your studies. Questions can be directed to librarian@apus.edu.

- Charles Town Library and Inter Library Loan: The University maintains a special library with a limited number of supporting volumes, collection of our professors' publication, and services to search and borrow research books and articles from other libraries.
- *Electronic Books:* You can use the online library to uncover and download over 50,000 titles, which have been scanned and made available in electronic format.
- *Electronic Journals:* The University provides access to over 12,000 journals, which are available in electronic form and only through limited subscription services.
- Tutor.com: AMU and APU Civilian & Coast Guard students are eligible for 10 free hours of tutoring provided by APUS. <u>Tutor.com</u> connects you with a professional tutor online 24/7 to provide help with assignments, studying, test prep, resume writing, and more. Tutor.com is tutoring the way it was meant to be. You get expert tutoring whenever you need help, and you work one-to-one with your tutor in your online classroom on your specific problem until it is done.

# Request a Library Guide for your course (http://apus.libguides.com/index.php)

The AMU/APU Library Guides provide access to collections of trusted sites on the Open Web and licensed resources on the Deep Web. The following are specially tailored for academic research at APUS:

- Program Portals contain topical and methodological resources to help launch general research in the degree program. To locate, search by department name, or navigate by school.
- Course Lib-Guides narrow the focus to relevant resources for the corresponding course. To locate, search by class code (e.g., SOCI111), or class name.

If a guide you need is not available yet, please email the APUS Library: <a href="mailto:librarian@apus.edu">librarian@apus.edu</a>.

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#### **Turnitin**

Assignments submitted may be evaluated using Turnitin in the classroom. Turnitin will analyze the paper and report instances of potential plagiarism or academic integrity for you to edit before submitting it for a grade.

## **Selected Bibliography**

Additional references are found in the Lessons Page of the classroom.

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