American Public University System

The Ultimate Advantage is an Educated Mind

School: STEM
Course Number: ITCC498
Course Name: Computer Technology Advanced Capstone
Credit Hours: 3
Length of Course: 8 Weeks
Prerequisite: Completion of a minimum of 111 hours towards the program.

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Course Description (Catalog)

This capstone course is a senior level course designed to allow the student to review, analyze and integrate the work the student has completed toward a degree in Computer Technology. The student will complete an approved academic project that demonstrates mastery of program of study in a meaningful culmination of learning and assesses the student's level of mastery of the stated outcomes of the degree requirements. This course is to be taken after all other Computer Technology courses have been satisfactorily completed. Students must have senior standing in the program and must demonstrate that they have taken all other IT courses in their degree plan prior to registering for this course. (Prerequisite: Completion of a minimum of 111 hours towards degree program).

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 scholarship with practice.

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Course Scope

Information Technology is a practical discipline much like the world of medicine. It is not enough to discuss software applications; one must be also able to produce it. This course allows students to utilize the principles learned in other classes to develop software applications for other clients. This course provides the opportunity to demonstrate the practicum experience.

Please note: This is a capstone course for the Computer Technology degree program. This course provides an opportunity to integrate academic rigor with real world experience and to apply theory to solve real world problems.

This capstone course was built to support the Bachelors in Computer Technology degree program. This course will help students reach a comprehensive understanding of theories and principles in the computer technology academic discipline; use the knowledge gained in individual courses as the foundation to solidify learning outcomes; apply the knowledge to design, develop, and deploy real-world applications and computer technology solutions; experience relevant projects integrating key theories and practices; and reflect upon experiences, knowledge and skills gained from completing core and elective courses in the program.

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Course Objectives

After successfully completing this course, you will be able to

1. Analyze computing requirements appropriate to solve problems.
2. Assess user requirements using a collaborative team approach.
3. Develop IT-based solution proposal to meet organizational and user needs based on approved project.
4. Apply theoretical concepts and practical measures to synthesize and design the solution.
5. Build an enterprise-level computer system using appropriate hardware and software technologies to address a problem.
6. Demonstrate understanding of ethical, legal, security, and social responsibilities as a professional in the technology industry based on assigned case study.
7. Apply current techniques, skills, and tools for application use, web development, network design, database management, and information security.
8. Create technology-based project using analytical, logical, and critical thinking skills.
9. Collaborate on relevant ideas and concepts in a substantive manner, showing a clear understanding.

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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 Discussion questions (accomplished in groups through a threaded discussion), 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

Required Course Textbooks

There are no required textbooks for this course. However, all students are encouraged to review textbooks and supplemental materials used in various Computer Technology courses.

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, discussion interaction, and email feedback. The method of discussion will be on-line related to issues concerning discussion assignments, lesson assignments, and the final project.

READINGS

There is no textbook for this course. Each week you should read the Lesson in the Content area and watch the embedded video. You may also wish to review textbooks and supplemental materials used in various Computer Technology courses that you have previously taken.

DISCUSSION

The Discussion assignments for this course are designed to promote interactivity among students and enhance the online learning process. The Discussion 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.

Discussion Timing: For the discussion, you must post your work by midnight on **Wednesday**, 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 discussion assignments require you to make at least 1 substantive post to the discussion about the topic and also respond substantively to at least 2 peers' posts. 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 Discussions unleashes the power of synergy in our classroom. To facilitate this interaction, please be prompt when posting your discussion 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 discussion. There is no need to also post your discussion work in the assignments area of the classroom. Refer to the discussion and the syllabus for more details on grading.

WEEKLY ASSIGNMENTS

There will be weekly assignments for this course most weeks 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
Discussions (4)	20
Assignments	40
Initial Project	20
Final Project	20
Total	100

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8 – Week Course Outline

Please see the Student Handbook to reference the University's grading scale.

Week	Topic(s)	Learning Objective(s)	Reading(s)	Assignment(s)
1	Computing Requirements	**CO1**: Analyze computing requirements appropriate to solve problems. **CO9:** Collaborate on relevant ideas and concepts in a substantive manner, showing a clear understanding.	Read the Lesson in the Content area and watch the embedded video.	**Week 1 Discussion**
2	User Requirements & Collaborative Team	**CO2:** Assess user requirements using a collaborative team approach. **CO9:** Collaborate on relevant ideas and concepts in a substantive manner, showing a clear understanding.	Read the Lesson in the Content area and watch the embedded video.	**Week 2 Discussion** **Week 2 Assignment**
3	IT-based Solution & User Needs	**CO3**: Develop IT-based solution proposal to meet organizational and user needs based on approved project.	Read the Lesson in the Content area and watch the embedded video.	**Week 3 Assignment**
4	Synthesize And Design the Solution	**CO4**: Apply theoretical concepts and practical measures to synthesize and design the solution.	Read the Lesson in the Content area and watch the embedded video.	**Week 4 Assignment**
5	Technologies & Computer Development	**CO5:** Build an enterprise-level computer system using appropriate hardware and	Read the Lesson in the Content area and watch the embedded video.	**Week 5 Assignment**
		software technologies to address a problem.		

6	Ethical, Legal, Security, and Social Responsibilities	**CO6**: Demonstrate understanding of ethical, legal, security, and social responsibilities as a professional in the technology industry based on assigned case study.	Read the Lesson in the Content area and watch the embedded video.	**Draft Project Due**
7	Applying Techniques, Skills, and Tools	**CO7**: Apply current techniques, skills, and tools for application use, web development, network design, database management, and information security. **CO9:** Collaborate on relevant ideas and concepts in a substantive manner, showing a clear understanding.	Read the Lesson in the Content area and watch the embedded video.	**Week 7 Discussion**
8	Final Project	**CO8**: Create technology-based project using analytical, logical, and critical thinking skills. **CO9:** Collaborate on relevant ideas and concepts in a substantive manner, showing a clear understanding.	Read the Lesson in the Content area and watch the embedded video.	**Week 8 Discussion** **Final Project Due**

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Policies

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. Discussions 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 Discussion of others.

- **Humor Note:** Despite the best of intentions, jokes and especially 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. Tutor.com 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: librarian@apus.edu.

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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.

University Policies

Student Handbook

- Drop/Withdrawal policy
- The University encourages all work to be completed according to the course schedule. The University Late Work Policy can be found in the Student Handbook here.
- 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.

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