American Public University System

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The Ultimate Advantage is an Educated Mind

**School of Science, Technology, Engineering & Math
Course Number: STEM100
Course Name: Introduction to STEM Disciplines
Credit Hours: 3
Length of Course: 8 weeks
Prerequisite: None**

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Instructor & Office Hours**:** See link in classroom too!

Course Description

This course provides you a chance to explore an array of topics and disciplines across science, technology, engineering and mathematics (STEM) and provides a solid exploration of the STEM industry and career opportunities through undergraduate study. You will be introduced to major areas of STEM, covering the fundamental concepts of each discipline. Additionally, you will be introduced to career avenues, expectation of career readiness, career satisfaction, and professional communication. There is an emphasis on developing an understanding of personal interests, skills, and abilities, with a focus on helping you find your passion through self-reflection and self-assessment. Additionally, this course is designed to foster community among students from a variety of majors.

Course Scope

The course is delivered online and is organized into distinct parts. The first part of the course provides a review of the various programs offered in the School of STEM. You will have the opportunity to see the types of assignments, average workload per week, and prerequisite skills needed for the program. In the latter part of the course you will investigate career opportunities afforded by your degree choice; and ensure that you understand the skills needed to get the interview and the job of your choice. Some of these skills will be built into your program of study, others will need to be acquired independently.

Course Objectives

At the conclusion of this course, students will demonstrate the ability to:
Describe the disciplines of the STEM degree programs offered at APUS, along with the concepts, rigor, practical applications, and careers that can be pursued
Ascertain one's own degree of mastery of the prerequisite material needed for different STEM majors.
Explore the interdisciplinary nature of STEM via collaboration.
Finalize degree program selection
Complete a plan of study.
Explore career options and resources for job searches.

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), a team project, and individual assignments submitted for review by the Faculty Member). Assigned faculty will support the students throughout this eight-week course.

Course Resources

Electronic learning resources will be used for this course.

Evaluation Procedures

Name	Points	% of Final Grade
Discussions		
Week 1 Discussion	100	6.66%
Week 2 Discussion	100	6.66%
Week 3 Discussion	100	6.66%
Week 6 Discussion	100	6.66%
Week 7 Discussion	100	6.66%
Week 8 Discussion	100	6.66%
Activities		
Week 1 Fruit DNA	100	6.66%
Week 2 Superfund	100	6.66%
Week 3 Blockly	100	6.66%
Week 4 Code vs Syntax	100	6.66%
Week 5 Ohm's Law	100	6.66%
Week 6 Math Self-assessment	100	6.66%
Week 7 Career Exploration	100	6.66%
Final Team Project Presentation	200	13.30%
Total		
	1,500	100%

8 – Week Course Outline and Grading

The table below shows the points for each assignment.

Week	Deliverable	Points	% of total grade
1	Introduction Forum	100	6.7%
1	Weekly Activity	100	6.7%
2	Forum	100	6.7%
2	Weekly Activity	100	6.7%
3	Forum	100	6.7%
3	Weekly Activity	100	6.7%

4	Weekly Activity	100	6.7%
5	Weekly Activity	100	6.7%
6	Forum	100	6.7%
6	Weekly Activity	100	6.7%
7	Forum	100	6.7%
7	Weekly Activity	100	6.7%
8	Forum	100	6.7%
8	Final Project	200	13.3%
	Total Points	1,500	100%

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

Policies

Please see the Student Handbook 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

Writing Expectations
All written submissions should be submitted in a font and page set-up that is readable and neat. It is recommended that students try to adhere to a consistent format, such as that described below. Typewritten in double-spaced format with a readable style and font and submitted inside the electronic classroom (unless classroom access is not possible and other arrangements have been approved by the professor).
11 or 12-point font in a style such as Arial, Helvetica or Times New Roman.

Citation and Reference Style
Assignments completed in a narrative essay or composition format must follow a widely accepted citation style, such as APA, Turabian or MLA. Please refer to the APUS Online Library for further examples, or contact the instructor with questions.

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.

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 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.

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.