



Course Number, Title and Credits

CSCU 251 - Introduction to Computing Systems Organization - 3 credits

Bulletin Course Description

Students learn the major components and structure of the hardware and software of both a computer and of a networking system. Students will learn to describe the mechanism of information processing, transfer, and control within a digital computing systems and networks. 3 credits.

Mission of the School of Business and Professional Studies

The mission of the School of Business and Professional Studies is to provide adult learners with a relevant, flexible and quality education that inspires innovation and global leadership.

Program Mission

The program mission is housed at the school level and information is entered at the school level template.

Learning Outcomes and Assessment

Learning Outcomes are statements that specify what learners will know, understand, or be able to demonstrate at the end of a learning experience.

Types of Learning Outcomes include:

- Course Learning Outcome – Result of finishing a course.
- Program Learning Outcome – Result of finishing a program.
- Institutional Learning Outcome – Result of finishing a degree at an institution, reflecting the core learning values and experiences of all graduates.

A Signature Assignment is an assignment used to measure a student's mastery of a program or institutional learning outcome. If a course you are taking includes a Signature Assignment, it will be clearly marked (**SIGNATURE ASSIGNMENT**).

[Click here](#) for information on the Program Learning Outcomes (PLOs), the Institutional Learning Outcomes (ILOs), and the Curriculum Map related to this course.

Essential Equipment

All students must have reliable access to a working computer with Internet access throughout each week of the class. Each student will need to be able to access and work in the University's online Learning Management System, Blackboard. For more information about personal computer requirements [click here](#).

Course Learning Outcomes

1. Describe the fundamental concepts of computer systems architecture
2. Convert numbers between different number systems and number systems with different bases
3. Describe data representations
4. Enumerate the structure and functions of computer Central Processing Unit (CPU)
5. Evaluate the structure and functions of computer Memory
6. Evaluate computer Input and Output (I/O) processing and peripheral units
7. Compare and contrast computer networks and data communications
8. Examine various computer Operating Systems (OS)
9. Recognize and describe the File Management of an OS
10. Analyze and describe the internal design of an OS

Required Textbooks



Labsim PC Pro
978-1-935080-42-8
TestOut

All student textbooks are available at the University of Massachusetts Global Bookstore:

<https://www.bkstr.com/umassglobal/home>

Major Study Units

1. Computer Organization and System Architecture
2. Number systems and data representation
3. Assembly-like instructions using Little-man computer model
4. CPU and Memory Design
5. Input and Output Peripherals
6. Networks and Data Communications
7. Operating systems structure and design
8. File Management Subsystems
9. Operating Systems Internal Structure

Instructional Strategies

The fully **online** version of this course requires that each student take personal responsibility for completing all required readings and assignments independently, as well as actively participating in online discussions and collaborative team activities each week as assigned throughout the 8-week term. Online instructional strategies through Blackboard may include threaded discussions, journals, wikis, blogs, readings, videos, links to web research and resources, and the use of audio/video synchronous and asynchronous multimedia tools.

The **blended** class meets on campus each week and that learning environment is extended through weekly online collaborative and independent learning activities. Classroom instructional strategies may include experiential activities, large and small group activities, presentations, and discussions. The online component of the blended course, delivered through Blackboard, may include threaded discussions, journals, wikis, blogs, readings, videos, links to web research and resources, and the use of audio/video synchronous and asynchronous multimedia tools.

Methods of Evaluation for Determining Grades

Assignment Detail for **Fully Online Course:**

Assignments for Fully Online Course - Refer to Rubric(s) in Course Information in Blackboard	Possible Points
SIGNATURE ASSIGNMENT	200

My Dream Computer	
Discussion Board (14 x 15pts)	210
Quizzes (7 x 30pts)	210
Labs (7 x 30pts)	210
Final Exam	170
	Total: 1000

Week by Week Outline for Fully Online Course:

Week	Topics	Assignments
Week 1	LabSim 1.0 Computing Overview LabSim 2.0 PC Technician	<ul style="list-style-type: none"> • Discussions • LabSim Chapter 1 • LabSim Chapter 2 • Quiz 1
Week 2	LabSim 3.0 System Components LabSim 4.0 Peripheral Devices	<ul style="list-style-type: none"> • Discussions • LabSim Chapter 3 • LabSim Chapter 4 • Quiz 2
Week 3	LabSim 5.0 Storage LabSim 6.0 Networking	<ul style="list-style-type: none"> • Discussions • LabSim Chapter 5 • LabSim Chapter 6 • Quiz 3
Week 4	LabSim 7.0 Wireless Networking LabSim 8.0 Printing	<ul style="list-style-type: none"> • Discussions • LabSim Chapter 7 • LabSim Chapter 8 • Quiz 4
Week 5	LabSim 9.0 Mobile Devices LabSim 10.0 System Implementation	<ul style="list-style-type: none"> • Discussions • LabSim Chapter 9 • LabSim Chapter 10 • Quiz 5
Week 6	LabSim 11.0 File Management	<ul style="list-style-type: none"> • Discussions

		<ul style="list-style-type: none"> • LabSim Chapter 11 • Quiz 6
Week 7	LabSim 12.0 System Management LabSim 13.0 Security	<ul style="list-style-type: none"> • Discussions • LabSim Chapter 12 • LabSim Chapter 13 • Quiz 7
Week 8	Final Review Week	<ul style="list-style-type: none"> • Discussion (optional) • Final Exam

Methods of Evaluation for Determining Grades

Assignment Detail for Blended Course:

Assignments for Blended Course - Refer to Rubric(s) in Course Information in Blackboard	Possible Points
SIGNATURE ASSIGNMENT The Signature Assignment must be identified in this chart if there is one in this course.	
	Total:

Class by Class Outline for Blended Course:

Week	Topics	Assignments
Week 1		

Week 2		
Week 3		
Week 4		
Week 5		
Week 6		
Week 7		
Week 8		

Student Performance Requirements

Grades are determined on a straight-scale basis using the following scales.

The following grading scale applies to all undergraduate coursework:					
A	94.0% and above	A-	90.0% - 93.9%	B+	88.0% - 89.9%
B	83.0% - 87.9%	B-	80.0% - 82.9%	C+	78.0% - 79.9%
C	73.0% - 77.9%	C-	70.0% - 72.9%	D+	68.0% - 69.9%
D	63.0% - 67.9%	D-	60.0% - 62.9%	F	59.9% and below

The following grading scale applies to all graduate coursework:					
A	94.0% and above	A-	90.0% - 93.9%	B+	88.0% - 89.9%
B	83.0% - 87.9%	B-	80.0% - 82.9%	C+	78.0% - 79.9%
C	73.0% - 77.9%	F	72.9% or below		

Attendance and Other Class Policies

Requirements for student attendance and participation will be defined by each instructor based on the following policy:

- Monday of the first week is considered the first day of class for online and blended instruction. This includes instruction for fully online classes and online instruction supporting blended classes.
- Regular onsite attendance is expected for student success. If a student misses more than one onsite class or one week of engagement in an online class, the student may, at the discretion of the instructor, fail the course. Students are expected to attend all classes, particularly the first night of class.

- Students who will miss more than one class have the responsibility to discuss their attendance with the instructor in advance. Students should also consider withdrawing from a course if they will be absent more than once. Instructors may, but are not obligated to, accommodate students under extraordinary circumstances, but the student must request accommodation and provide requested supporting documentation.
- If a student misses a portion (e.g., arriving late or leaving early) of an onsite course, the student's grade may be adversely affected. Students who are not in attendance for at least 75 percent of any scheduled class may be considered absent for that class. Students should discuss missing portions of a class with their instructor to determine how their grade may be affected.
- Regular online attendance/participation and engagement is expected for student success in both fully online and blended courses. Online participation is evident through posting to a discussion board, wiki, virtual office or classroom meeting, a drop box, attending a virtual seminar, completing real-time activities or quizzes, or other course-related activities (synchronous or asynchronous).
- Schools and programs may have different attendance policies. Refer to school and program specific information for additional attendance policies.
- Successfully completing the course requires good time management. All assignments should be completed and turned in on time. Unless prior arrangements are made with the instructor, late work will be discounted 10% for each day late; work submitted five (5) or more days late will not be accepted for credit. Points for discussion question threads are earned only in the assigned week; posting after the week ends in a discussion forum is not eligible for credit.

University Academic Writing Standards

Specific writing standards differ from discipline to discipline, and learning to write persuasively in any genre is a complex process, both individual and social, that takes place over time with continued practice and guidance. Nonetheless, UMass Global has identified some common assumptions and practices that apply to most academic writing done at the university level. These generally understood elements are articulated here to help students see how they can best express their ideas effectively, regardless of their discipline or any particular writing assignment.

Venues for writing include the widespread use of e-mail, electronic chat spaces and interactive blackboards. UMass Global is committed to guaranteeing that students can expect all electronic communication to meet Federal and State regulations concerning harassment or other "hate" speech. Individual integrity and social decency require

common courtesies and a mutual understanding that writing—in all its educational configurations—is an attempt to share information, knowledge, opinions, and insights in fruitful ways.

Academic writing (as commonly understood in the university) always aims at correct *Standard English* grammar, punctuation, and spelling.

The following details are meant to give students accurate, useful, and practical assistance for writing across the curriculum of the University of Massachusetts Global.

Students can assume that successful collegiate writing will generally:

- Delineate the relationships among writer, purpose, and audience by means of a clear focus (thesis statements, hypotheses or instructor-posed questions are examples of such focusing methods, but are by no means the only ones) and a topic that's managed and developed appropriately for the specific task.
- Display a familiarity with and understanding of the particular discourse styles of the discipline and/or particular assignment.
- Demonstrate the analytical skills of the writer rather than just repeating what others have said by summarizing or paraphrasing
- Substantiate abstractions, judgments, and assertions with evidence specifically applicable for the occasion whether illustrations, quotations, or relevant data.
- Draw upon contextualized research whenever necessary, properly acknowledging the explicit work or intellectual property of others.
- Require more than one carefully proofread and documented draft, typed or computer printed unless otherwise specified.

Documentation

Any material not original to the student must be cited according to the American Psychological Association (APA) documentation format. Deliberate use of information or material from outside sources without proper citation is considered plagiarism and can be grounds for disciplinary action. See the explanation of Academic Integrity below.

Academic Integrity

As a learning community of scholars, the University of Massachusetts Global emphasizes the ethical responsibility of all its members to seek knowledge honestly and in good faith. Students are responsible for doing their own work, and academic

dishonesty of any kind will not be tolerated. "Violations of academic integrity include, but are not limited to, cheating, plagiarism, or misrepresentation of information in oral or written form. Such violations will be dealt with severely by the instructor, the dean/center director, and the standards committee. Plagiarism means presenting someone else's idea or writing as if it were your own. If you use someone else's idea or writing, be sure the source is clearly documented." Other guidelines for acceptable student behavior are specified in the University Catalog.

UMass Global online library resources: <https://www.chapman.edu/library/umassglobal>

Americans with Disabilities Act Statement

For students who require disability-related services or accommodations to access to their educational experience can register with the Office of Accessible Education (OAE). The Office of Accessible Education (OAE) is committed to ensuring equal educational access and opportunity for all members of our academic community. Students will be provided equitable and reasonable accommodations and services that are in compliance with [Section 504 of the Federal Rehabilitation Act of 1973](#) and the [Americans with Disabilities Act of 1990 \(ADA\)/Americans with Disabilities Act Amendments Act of 2008 \(ADAA\)](#). Registration with OAE is on a voluntary, self-identifying basis. Please visit the [Office of Accessible Education \(OAE\)](#) website for more information about how to register for services, eligibility requirements, and information about potential academic accommodations and services.

UMass Global's Behavioral Intervention Team

The University of Massachusetts Global Behavioral Intervention Team (BIT) addresses situations in which students, faculty, staff, vendors, contractors, or general visitors are displaying behaviors that are concerning, disruptive, or threatening in nature and that potentially impede their own or others' ability to function successfully or safely. The mission of the University Behavioral Intervention Team is to provide a proactive and supportive multidisciplinary team approach to prevention, assessment, and early intervention of situations or individuals that may pose a threat to the safety and wellbeing of themselves or the University community as a whole.

It is the responsibility of faculty, staff, and students to immediately report any situation that could possibly result in harm to anyone at the University to the BIT by calling 949-383-3119, emailing safe@umassglobal.edu, or by filling out the BIT referral form [here](#). For more additional information on the University Behavioral Intervention Team, please visit our website [here](#). A "crisis" is defined as a situation in which a person may pose an

active or immediate risk of violence to self or others. In these cases, the local police should be contacted by calling 911.

UMass Global's Title IX Statement

The University of Massachusetts Global strives to maintain and foster a climate that promotes respect and human dignity. Sexual misconduct and relationship violence in any form is antithetical to the university's mission and core values, violates university policies, and may also violate federal and state law. The office of Title IX is primarily concerned for students' safety and well-being and is tasked with investigating all reports of sexual misconduct experienced by our community members. Title IX prohibits sex-based and gender-based discrimination and harassment, which includes discrimination based on pregnancy and/or pregnancy-related complications, parental status, and marital status. Students expecting or experiencing pregnancy-related complications, that may require educational accommodations, should contact the University's Title IX Coordinator and/or the Office of Accessible Education.

The University and Title IX's prohibition of sex discrimination also covers sexual harassment, sexual violence, and any other form of sexual misconduct. We offer options and resources to all students affected by these issues and are committed to providing a fair, thorough, and prompt investigation and adjudication process. If you or someone you know has been impacted by sexual assault, dating, and domestic violence, stalking, or sexual exploitation, please visit the [University's Title IX Resource Page](#) to access additional resources and information.

UMass Global's staff and faculty are tasked with reporting any possible sex or gender-based discrimination or Title IX violations to the University's Title IX Coordinator at civilrightscomplaints@umassglobal.edu.

[Click on this Link to our University Title IX Policy](#)