

University of Massachusetts Boston | Course Syllabus | FALL 2022

IT 110 - Information Technology Problem Solving

Instructor:

Phone:

Office: By appointment

Email:

REQUIRED TEXTBOOK(s)

CompTIA® IT Fundamentals+ (ITF+) Study Guide Exam FC0-U61 (Second Edition) by Quentin Docter. ISBN: 978-1-119-51312-4

COURSE DESCRIPTION

Several IT concepts are introduced including programming, databases, networking, web servers and how they work together in a modern system. Students work in groups to implement examples of these systems. The course examines the importance of key issues such as security, privacy, and ethics. Students should leave the course with an understanding of the components of modern systems and the scope of knowledge needed to become an IT professional.

PRE-REQUISITES: Completion or placement into MATH 115 or higher

LEARNING OUTCOMES

Upon successful completion of this course, students will:

- Know the core insides of a computer, specifically motherboards, processors, memory and storage • Gain knowledge of customizing their computer experience by adding peripheral hardware • Know how individual hardware components work together
- Discover the types and uniqueness of operating systems installed on a machine • Be able to install and deploy common software applications
- Learn the fundamentals of software development and deployment including code syntax, programming logic and languages
- Discover database concepts and structures and methods of interacting with databases • Learn about key networking technologies on the Internet, wireless networks, routers and configuring connectivity
- Understand common security threats posed by would-be attackers, security frameworks and access control concepts.

COURSE DELIVERY FORMAT

This course meets on campus according to the schedule posted above. The majority of the course content will be delivered through lectures and other activities conducted during class meetings. Online resources may be used to supplement the textbook or provide interaction with the content and/or assessment. The course will also have a portal page which contains the class syllabus, handouts, and important information (particularly in the event of a weather or emergency closing).

INSTRUCTIONAL METHODOLOGIES

Lecture, discussion, use of audio-visual materials and laboratory projects will be the techniques of instruction used in this course.

RESOURCES FOR ASSIGNMENTS:

Assigned readings, videos and tutorials are an important component of this course. Lectures, class and online forum discussions will correspond with assigned readings. Students are responsible for all material covered in the readings. Students are required to read and practice the example projects and exercises at the end of the textbook chapters as well as conduct research (both online and in the school library) to deepen knowledge and understanding of the lessons covered in the course. Individual research and practice before tackling each assignment or project is a proven method for gaining mastery of the course. Remember, practice makes perfect.

GRADING POLICY

- **50%** of the final grade is based on assignments. Students **MUST** complete and submit assignments at the stipulated time to receive maximum credit.
- **20%** of the final grade is based on class attendance and participation. Students **MUST** attend classes at all times and participate in class discussions when the school is open to receive maximum credit. Exceptions can be allowed after due request and approval.
- **15%** of the final grade is based on the mid-term exam.
- **15%** of the final grade is based on the final exam.

A (> 93) A- (90-93)	Excellent to Very Good; comprehensive knowledge and understanding of subject matter; marked perception and/or originality
B+ (87-89.9) B (84-86) B- (80-83)	Good; moderately broad knowledge and understanding of subject matter; noticeable perception and/or originality
C+ (77-79.9) C (74-76) C- (70-73)	Satisfactory; reasonable knowledge and understanding of subject matter; some perception and/or originality
D+ (67-69.9) D (64-66) D- (60-63)	Marginal; minimum of knowledge and understanding of subject matter; limited perception and/or originality
F (< or equal 59.9)	Failing; unacceptable low level of knowledge and understanding of subject matter; severely limited perception and/or originality; absences in excess of allowable limit

GRADES/SUPPORT SERVICES:

Grades are posted within 72 hours after the deadline of assignments. Students are encouraged to regularly check their grades all through the semester – especially after grades have been posted and should immediately notify the instructor of errors in grading. The student should not wait until the end of semester before checking grades. In addition, this course instructor will gladly work with any student experiencing difficulty in the course to review materials and/or make suggestions regarding study techniques. Students may also find it helpful to seek assistance and guidance from their academic advisor or the College's tutoring center. It is in the student's best interest to take action as soon as he or she begins to experience any difficulty with the course material. The student should not wait until just before exams or projects to seek help.

Late Work: Assignments must be turned in on time and by the specified deadline. Except with prior permission and an extension granted by the class professor, late submissions will not be graded.

Academic Integrity: Note that academic dishonesty includes not only cheating, fabrication, and plagiarism, but also includes helping other students commit acts of academic dishonesty by allowing them to obtain copies of your work. In short, all submitted work must be your own.

ATTENDANCE POLICY

Students are expected to attend all classes. Regular attendance is critical to success as a student. The following attendance policy has been established after careful consideration of input from students and faculty.

- Attendance is taken each class meeting.
- Each day that a student misses all scheduled classes counts as an absence; there is no distinguishing between excused and unexcused absences.
- Policy and procedure for late/missed assignments is documented in this syllabus

MAKE-UP POLICY

When a student is absent the student is responsible for making up the material which was missed (lecture notes, assignments). The content, composition, and arrangements for make-up exams is at the discretion of the instructor. No make-ups will be given unless the student provides written documentation justifying the absence. Students who know they will be absent ahead of time should inform the instructor. Absent students capable of completing work on time must send assignments to the instructor's email by the deadline.

CLASS CANCELLATION POLICY

If the need ever arises that the instructor will not be able to attend the class every attempt will be made to contact students in ample time prior to the class meeting time. Class work will be made up at a time that is convenient to all students.

COMMUNICATION WITH INSTRUCTOR

The best means of communication is by email. Use your college-issued email. If you do not have a working College email account, please contact Information Technology.

SPECIAL ACCOMODATIONS:

The College complies with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act. If you are a student who is seeking accommodations based on your disability, please contact the appropriate Disability Support Services Coordinator to discuss reasonable accommodations:

CLASSROOM POLICIES: ETIQUETTE AND PROFESSIONALISM

Students are expected to:

1. VERY IMPORTANT: Turn off cell phones while in class except with prior permission.

Using cell phones in class is distracting to the instructor and disrupts teaching.

Students who violate this policy may drop attendance points. This means you may NOT earn credit for class attendance.

2. Be on time for class.

3. Raise your hand to ask a question.

4. Treat others the way THEY wish to be treated.

5. Refrain from talking over others or the instructor, disturbing the class with electronic devices etc.

6. Audio (not video) taping of lectures is allowed if permission is granted by the instructor.

****COURSE CONTENT**

Lesson	Topic	Assignment
1	Information Technology	Complete assignments/project
2	Core Hardware Components	Complete assignments/project
3	Peripherals and Connectors	Complete assignments/project
4	Computing Devices and the Internet of Things	Complete assignments/project
5	Operating Systems	Complete assignments/project
6	Software Applications	Complete assignments/project
7	Software Development	Complete assignments/project
Midterm Exam/Project		
8	Database Fundamentals	Complete assignments/project
9	Networking Concepts and Technologies	Complete assignments/project
10	Security Concepts and Threats	Complete assignments/project
11	Security Best Practices	Complete assignments/project

12	Business Continuity and Computer Support	Complete assignments/project
Final Exam		

*** This syllabus is subject to change. The professor reserves the right to modify the course at any time -
-- but also to provide students with notice of any change*

SAMPLE

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