



South Portland, Maine 04106

Computer and Information Science

Title: Introduction to Information Technology

Catalog Number: CMIT 100

Credit Hours: 3

Total Contact Hours: 45

Lecture (or Lab): Lecture and lab

Instructor: Glenn W. Hussey

Office Hours – Location:

Contact Information:

By Appointment

ghussey@smccme.edu

Course Syllabus

Course Description

This course introduces a wide variety of concepts encountered in real-world IT work and provides an overview of computer organization and hardware, Windows and Linux operating systems, system administration duties, scripting, computer networks, and computer security. It also gives students insight on IT-related careers such as network and web administration, computer forensics, web development, and software engineering. The course addresses concepts essential to all IT professionals to include operating systems and hardware to information security and computer ethics.

Co-requisite(s), MATH050, ENGL 050, ENGL075

Course Objectives / ACM Learning Outcomes

The Association for Computing Machinery (ACM) Committee for Computing Education in Community Colleges (CCECC), at the direction of the ACM Board, convened a task force to produce curricular guidance for associate-degree programs in Information Technology (IT). In fulfilling its charge, the CCECC identified the body of knowledge as a set of fifty student learning outcomes that constitute core IT competencies for all IT-related associate degree programs. The full list of student outcomes is available for download at <http://www.acmccecc.org/>.

An ability to demonstrate core IT competency in digital media and immersive technology

19. Differentiate among data types, data transfer protocols and file characteristics specific to the targeted use.

An ability to demonstrate core IT competency in networking and convergence

24. Diagram the components of an integrated IT system.

An ability to demonstrate core IT competency in programming and application development

31. Discuss software development methodologies.
32. Summarize the differences among various programming languages.

An ability to read and interpret technical information, as well as listen effectively to, communicate orally with, and write clearly for a wide range of audiences

43. Describe the attitudes, knowledge and abilities associated with quality customer service.
44. Produce technical documentation responsive to an identified computing scenario.

An ability to engage in continuous learning as well as research and assess new ideas and information to provide the capabilities for lifelong learning

46. Discuss significant trends and emerging technologies and their impact on our global society.

An ability to exhibit professional, legal, and ethical behavior

48. Summarize the tenets of ethics and professional behavior promoted by international computing societies.

An ability to demonstrate business awareness and workplace effectiveness

50. Summarize the role of IT in supporting the mission and goals of an organization.

After successfully completing the course, the student will be able to:

1. Describe and identify internal hardware components of a computer
2. Describe the skill sets required to succeed in IT
3. Describe the Internet of Things
4. Illustrate the use of binary in a computer with a focus on IP addresses.
5. Describe the roles of the operating system
6. Describe the types of operating systems
7. Describe the elements of the file system from both the logical and physical perspective
8. Describe the role of the user account and the group
9. Discuss password management
10. Write small scripts for Linux and Windows
11. Describe programming concepts and techniques
12. Differentiate between types of network media
13. Compare network topologies and classifications
14. Describe how to set up a wireless network
15. Discuss hackers, their motives, and security threats
16. Discuss security best practices: device hardening
17. Discuss security best practices: managing users and encryption
18. Discuss database concepts and structures
19. Describe how to work with databases

Topical Outline of Instruction

The following schedule of lecture topics and reading/homework assignments is preliminary and may be changed as the semester progresses depending on availability of the VMware infrastructure. Labs may also be altered to accommodate the online and Zoom schedule this semester. Please review the assignments on Brightspace several times a week. Students are expected to have read the listed material before starting any assessments or completing the labs.

Modules	Module Topics	Readings and Assignments
Module 1	Chapter 1: Introducing Internal Components & Motherboards	Orientation Brightspace Read – Chapter 1 Lecture Videos Complete the Chapter Online Assessment Complete the Discussion Board Complete the Chapter Labs
Module 2	Chapter 2: Peripherals and Connectors	Lecture Videos Read – Chapter 2 Complete the Chapter Online Assessments Complete the Discussion Board Complete the Chapter Labs
Module 3	Chapter 3: Computing Devices and the Internet of Things	Quiz 1 Chapters 1-2 Lecture Videos Read – Chapter 3 Complete the Chapter Online Assessment Complete the Discussion Board Complete the Chapter Labs
Module 4	Operating Systems Chapter 4: Part 1	Lecture Videos

		<p>Read – Chapter 4</p> <p>Complete the Chapter Online Assessment</p> <p>Complete the Chapter Labs</p>
Module 5	Operating Systems Chapter 4: Part 2	<p>Lecture Videos</p> <p>Read – Chapter 4</p> <p>Complete the Chapter Online Assessment</p> <p>Complete the Discussion Board</p> <p>Complete the Chapter Labs</p>
Module 6	Operating Systems Chapter 4: Part 3	<p>Lecture Videos</p> <p>Read – Chapter 4</p> <p>Complete the Chapter Online Assessment</p> <p>Complete the Discussion Board</p> <p>Complete the Chapter Labs</p>
Module 7	Chapter: 5 Software Applications	<p>Lecture Videos</p> <p>Read – Chapter 5</p> <p>Complete the Chapter Online Assessment</p> <p>Complete the Discussion Board</p> <p>Complete the Chapter Labs</p>
Module 8	Chapter 6: Software Development	<p>Quiz 2 Chapters 3 - 5</p> <p>Lecture Videos</p> <p>Read – Chapter 6</p> <p>Complete the Discussion Board</p>

		<p>Complete the Chapter Labs</p> <p>Complete Chapter Online Assessments</p>
Module 9	Chapter 7: Database Fundamentals	<p>Lecture Videos</p> <p>Read – Chapter 7</p> <p>Complete the Chapter Online Assessment</p> <p>Complete the Discussion Board</p> <p>Complete the Chapter Labs</p>
Module 10	Chapter 8: Networking Concepts and Technologies Part 1	<p>Lecture Videos</p> <p>Read – Chapter 8</p> <p>Complete the Chapter Online Assessment</p> <p>Complete the Discussion Board</p> <p>Complete the Chapter Labs</p>
Module 11	Chapter 8: Networking Concepts and Technologies Part 2	<p>Lecture Videos</p> <p>Read – Chapter 8</p> <p>Complete the Chapter Online Assessment</p> <p>Complete the Discussion Board</p> <p>Complete the Chapter Labs</p>
Module 12	Chapter 9: Security Concepts and Threats	<p>Quiz 3 Chapters 6 - 8</p> <p>Lecture Videos</p> <p>Read – Chapter 9</p> <p>Complete the Chapter Online Assessment</p> <p>Complete the Discussion Board</p> <p>Complete the Chapter Labs</p>

Module 13	Chapter 10: Security Best Practices	Lecture Videos Read – Chapter 10 Complete the Chapter Online Assessment Complete the Discussion Board Complete the Chapter Labs
Module 14	Chapter 11: Business Continuity and Computer Support	Start Your Final Project Lecture Videos Read – Chapter 11 Complete the Chapter Online Assessment Complete the Discussion Board Complete the Chapter Labs
Module 15	Final Project and Study for the Final Exam	Complete Your Final Project Quiz 4 Chapters 9 - 11 Study for the Final Exam Respond to the Discussion Board
Module 16	Final Exam	Complete the Final Exam Respond to the Discussion Board

Course Requirements

The student should have Internet access for class communication purposes. You will need a Windows PC/Laptop running Windows 10 or Macintosh client running a recent version of the MAC OS.

Student Evaluation and Grading

A	93 - 100	C+	77 – 79
A-	90 - 92	C	73 – 76
B+	87 - 89	C-	70 – 72
B	83 - 86	D+	67 – 69
B-	80 - 82	D	63 – 66
		F	0 – 62

Measure	% of total	Basis
Chapter Labs	30	Participation
Chapter Quiz	20	Percent Correct
Final Project	15	Rubric
Final exam	20	Percent Correct
Discussion Board	10	Participation- Rubric
Attendance	5	Based on Discussion Board Participation or In-Class Labs

Text, Tools and / or Supplies

Required Text:

CompTIA IT Fundamentals+ (ITF+) Study Guide 9781119513124

Author(s): Docter

Copyright: NA

Publisher: John Wiley & Sons, Incorporated

Attendance Policy

Asynchronous Online Courses:

Attendance in an online course is defined as completing weekly graded work such as a test, discussion board, or assignment. Weekly regular attendance is expected of all students. If you do not complete weekly work, then you have not attended class for that week. **If you miss 2 consecutive weeks of class work, you will be dropped from the course with an AF. If you miss 3 weeks of nonconsecutive class work, you will be dropped from the class.**

Synchronous Online Courses (Zoom):

Regular attendance to the scheduled Zoom sessions is required. Excessive absences will affect the final course grade. Attendance is taken through participation in the Zoom session. Failing to participate in each week's Zoom session constitutes being absent for that week; simply logging into Brightspace or completing coursework does NOT constitute attending class. The attendance policy is applied as follows:

- Two absences throughout the semester = -10 points
- Two or more consecutive absences throughout the semester = Administrative Failure
- Three absences throughout the semester = Administrative Failure

Expectations

Students are expected to engage in all discussion board/assignments. Readings/tasks should be done each week as assigned. Please email me if you have any problems finishing the course work on time or if you need help.

If you have difficulty with your password or accessing the SMCC network, you need to contact the SMCC IT Helpdesk. You should create a helpdesk ticket and notify your instructor of the ticket number. Note that if you wait until the end of the week to request assistance, you will likely miss the Saturday due date for all assignments and will not receive credit.

You should start your labs at the beginning of the week and notify me no later than 3 days before an assignment is due. Please start your assignments early. All assignments and correspondence should be done with your SMCC account.

******* NOTE: Late work is NOT accepted. All due dates are firm. *******

I do not accept late work. All assignments are due for a given week by Saturday at 11:59PM. This provides a full seven days to complete assignments and to take any quizzes or exams. If you miss taking a quiz or exam for any reason, you will NOT be allowed to take it after the due date. There are NO exceptions to this!

Effective time management is critical to succeeding in this class!

End-of-Course Evaluation

Students complete evaluations for each course attended at SMCC. Evaluations are submitted online and can be accessed through the student portal. Students can access the course evaluations beginning one week before the end of classes. The deadline for submission of evaluations occurs Monday at 5 p.m. following the last day of the class. You will receive an e-mail to your student e-mail account when course evaluations are available.

For Classes with any Face- to -Face Component

While the syllabus represents current plans, there may be changes during the semester in response to the on-going Covid-19 pandemic. Depending on the progression of the virus, it is possible that the College may have to suspend face-to-face instruction for part of the semester. If we must stop face to face instruction anytime during the semester, your instructor will contact you via your SMCC email or the Brightspace course homepage to discuss next steps for the course.

School Cancellation Policy

For classes with an in-person component or a scheduled Zoom session (Synchronous Online), class will be canceled in the event of a campus closure due to weather, etc. In these cases, class will continue for that week as asynchronous online with all assignments being due on their normal due date (Saturday Night) and students will use the posted video and/or online resources. Normal asynchronous online classes will not be affected by campus closures.

ADA Statement

Southern Maine Community College is an equal opportunity/affirmative action institution and employer. For more information, please call (207) 741-5798. If you have a disabling condition and wish to request accommodations in order to have reasonable access to the programs and services offered by SMCC, you must register with the Disability Services Coordinator, Sandra Lynham, who can be reached at 741-5923. Further information about services for students with disabilities and the accommodation process is available upon request at this number. Course policies about online testing are modified to suit each individual's accommodations.

The Learning Commons:

The library, tutoring and writing centers, and reference/research assistance (typically located on the second floor of South Portland's Campus Center and in the Midcoast's LL Bean Learning Commons and Health Science Center) will be fully available online during the fall 2021 semester.

Here you can find free academic support through individually scheduled and drop in, online tutoring. You can also find information literacy/research librarians, and professional academic strategy/planning mentoring online. While the physical space of the Learning Commons will not be available at this time, we can also work with you to set up zoom classrooms for small group study. Services are offered by appointment or as drop-in assistance.

To access services:

- Visit My Learning in My Maine Guide or
- Select the "tutoring needed" button if it appears inside your Brightspace course.

Whether On Site or Online, students have consistently reported that the Learning Commons is a friendly, risk-free, and helpful place to seek academic support. It has also been shown that those who make use of the Learning Commons do better in a course than those who do not. We strongly encourage you to take advantage of this valuable and enjoyable resource.

SMCC Pay-for-Print Policy

Each semester students receive a \$20 printing credit. The balance resets at the end of the semester and any remaining credits are removed. The College's pay-for-print system monitors printing on all printers (including those in general access labs, library printers, Tutoring Services, Campus Center Lounge and technology labs). Be sure to log OUT of the system when you've finished your printing, to prevent unauthorized access to your account. Students can check the number of pages they have printed by using

the Printing Balance tool available on SMCC computers (located in the lower right corner of the screen, near the clock). Departments with work study students who need to print documents for the department should contact the Help Desk at 741-5696 to have a special account set up. To find ways to reduce your printing charges, please go to the IT Help tab on My SMCC. If you have questions about the pay-for-printing policy or your printing charges, please contact the Help Desk at 741-5696 or send an e-mail to helpdesk@smccme.edu.

Refunds

Print jobs are eligible for a refund in the event of mechanical or electronic error on the part of the printer, print server, or software used to submit the job. Jobs are not eligible for a refund in cases where the job was not set up correctly, was submitted multiple times, or the student is not satisfied with the result. To request a refund, please bring the offending print to the IT Department in the basement of the Ross Technology Center. Refunds will be granted in the form of a credit to the student's account.

Add-Drop Policy

Students who drop a course during the one-week "add/drop" period in the fall and spring semesters and the first three days of summer sessions receive a 100% refund of the tuition and associated fees for that course. Please note any course that meets for less than the traditional semester length, i.e., 15 weeks, has a pro-rated add/drop period. There is no refund for non-attendance.

Withdrawal Policy

A student may withdraw from a course only during the semester in which s/he is registered for that course. The withdrawal period is the second through twelfth week of the Fall and Spring semesters and the second through ninth week of twelve-week Summer courses. This period is pro-rated for shorter-length courses, usually 75 percent of course meeting times; please check with the Registration Office. To withdraw from a course, a student must complete and submit the appropriate course withdrawal form, available at the Registration Office. This process must be completed either in person or by using SMCC e-mail accounts.

Plagiarism Statement

If an instructor suspects that a student has knowingly committed a violation defined in the Maine Community College System Policy on Student Grade Appeals and Academic Misconduct, the instructor has the authority to review the alleged misconduct and determine the grade that the student should receive for the assignment and the course. The instructor may assign a failing grade for the assignment or course and may require the student to complete additional work for the course. The instructor may consult with the department chair and/or the College's chief academic officer prior to making such decisions. If a student seeks to challenge an instructor's determination, the student should submit a grade appeal. Grade appeal forms are available in the Advising Office on the South Portland Campus or in the administrative offices in the Learning Commons on the Midcoast Campus. An instructor may also

refer the matter to the College's disciplinary officer for review under the procedures of the MCCS Student Code of Conduct