



AN HONORS UNIVERSITY IN MARYLAND

CMSC 201 – Spring 2016
Syllabus

Section 1: Course Information

Course Number	CMSC 201
Course Name	Computer Science I for Majors
Locations	Dependent on Course Section
Term	Spring 2016
Instructors	Jeremy Dixon, Katherine Gibson
Contact Information	See Blackboard
Office Hours	See Blackboard (and by appointment)
Textbooks (recommended)	Python Programming: An Introduction to Computer Science (2nd edition) and/or Think Python: How to Think Like a Computer Scientist (online book)

Section 2: Course Overview

An introduction to computer science through problem solving and computer programming. Selected topics in computer science are introduced through programming projects in the Python language running under a UNIX operating system. The core material for this course includes functions, strings, loops, and files. Programming techniques covered by this course include modularity, abstraction, top-down design, specifications, documentation, debugging, and testing. No prior programming experience is required.

Section 3: Course Objectives

The objectives of this course are to:

- Define key concepts in programming including loops, lists, functions, and selection structures.
- Develop problem-solving skills, especially in the use of computers to solve real-world problems.
- Explain the proper steps in developing an application program.
- Demonstrate the ability to debug your programs such that it runs successfully and meets all requirements of the problem.
- Practice basic programming skills, especially software development using the Python language.
- Use UMBC's UNIX system to create, test and execute Python programs.
- Solve programming problems using a modern coding language such as Python.

Section 4: Grading Criteria

<u>Type</u>	<u>Quantity</u>	<u>Points Per</u>	<u>Subtotal</u>
Homeworks	8	40	320
Projects	2	80	160
Surveys	2	10	20
Labs*	12	10	100
Midterm	1	200	200
Comprehensive Final	1	200	200
Total			1000

* For Labs, the 10 highest scores are used in calculating the final grade.

Grading Scale:

900 - 1000	A	
800 - 899	B	Required for CMSC
700 - 799	C	Required for CMPE
600 - 699	D	
< 600	F	

Section 5: Course Policies

Late Work: No late work will be accepted in this course. All assignments must be submitted by 8:59:59 pm on the day due. The lab assignments are to be done during your weekly discussion session, so attendance is mandatory.

Course Preparedness: You are responsible for all material covered in the lecture, even if it is not in the course web pages. You are responsible for the material in the course web pages, even if it is not covered during lecture.

Section 6: Attendance

You are expected to attend all lectures and your weekly discussion session. Although attendance is not a direct component of your grade, students who attend class generally perform more highly than their non-attending peers. The lab assignments are to be done during your weekly discussion session, so attendance is mandatory.

All discussion sections meet in the Engineering Building (ENG). You **MUST** attend the discussion section you are registered for in order to receive credit for the labs.

Section 7: Communication

All communication with your professor should be through your UMBC email as per the dictation of the Family Educational Rights and Privacy Act (FERPA). Email subject lines must contain the course name, your section number and a meaningful title. (For example, "CMSC 201, Sec 3, HW4 Question" is a good subject line. However, "201 Question" is not.) Course staff may not respond to emails without proper subject lines.

Course material and information about assignments and exams will be posted on Blackboard. It is your responsibility to keep track of deadlines and assignments, and to check Blackboard regularly.

Section 8: Academic and Technology Resources

Students have several avenues for receiving help on homeworks, labs, and with general content. Your first stop should be the TAs: they hold office hours in ITE 240 Monday through Friday. Please note that you may attend the office hours of any TA, not just the TA whose discussion section you attend. If they are unable to help you resolve your questions, try to contact your professor via email. Generally, scheduling an appointment via email is the best way to meet with your professor.

You can also visit the Learning Resources Center (LRC), where you can find tutoring for CMSC 104, CMSC 201, CMSC 202, and CMSC 203 by appointment. Each appointment is 50 minutes once a week, with a small group of other students taking the same course. To sign-up for CMSC tutoring, fill out their [enrollment form](#).

For technology support, you can contact the Technology Support Center (TSC) on the first floor of the Albin O. Kuhn library. For more information, call 410-455-3838 or check out: <http://doit.umbc.edu/tsc/>

Section 9: Students with Accommodations

UMBC is committed to eliminating discriminatory obstacles that may disadvantage students based on disability. UMBC complies with federal legislation for individuals with disabilities (Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and the ADA of 2009) that offers reasonable accommodations to qualified students with disabilities. Student Disability Services (SDS), formerly Student Support Services, is the UMBC department designated to:

- receive and maintain confidential files of disability-related documentation,
- certify eligibility for services,
- determine reasonable accommodations,
- develop with each student plans for the provision of such accommodations, and
- serve as a liaison between faculty members and students regarding disability-related issues.

If you have a documented disability and need to request accommodations, please refer to the SDS website at <http://sss.umbc.edu> or contact the office by phone at 410-455-2459, via email at sss@umbc.edu, or in person in Math/Psychology Room 213. If you require accommodations for this class, make an appointment to meet with your professor to discuss your SDS-approved accommodations.

Section 10: Academic Integrity

CMSC 201 is a difficult course for many students, and requires a substantial amount of time and effort outside of the classroom. Many of you are learning to code for the first time, and will need to learn new ways of thinking about a problem, new methods for solving a problem, and new techniques for analyzing a problem. Doing the assignments, finding (and fixing) errors and bugs, and improving your coding skill are 100% necessary for you to succeed in computer science.

For this reason, CMSC 201 has very strict rules about academic integrity and student collaboration on all assignments. Cases of academic dishonesty will be dealt with *severely*. If your assignment is found to be "**substantially similar**" to that of another student, both you and the other student will receive a grade of 0 for that assignment. Furthermore, all parties concerned will have their prior assignments more closely examined for cheating. A second incident will result in a grade of 'F' for the semester.

We will be using special software to check for cheating. The software is quite sophisticated and has surprised many students in the past. There is no difficulty in comparing every pair of assignments – even assignments submitted to other sections of this course, or from previous semesters.

This is a *non-exhaustive* list of restrictions for completing your assignments in this course. If you have questions about what is acceptable, please contact a professor or TA.

- **You may not look at, access, download, or obtain anyone else's work.**
 - You should think carefully about the assignment, and the assignment you turn in should be entirely a product of your own understanding of the material.
 - You may not look at someone else's code "for reference," even if you put it aside before programming, and even if that person is not a CMSC 201 student.
 - You may not google or search for the solution to an assignment, even if it's "only for reference."
 - You may not copy code other than that provided in the course materials (slides, book, labs, etc.).
 - You may not let someone else explain a solution to you in such detail that they are effectively dictating the code to you line by line. It does not matter if this person has never taken CMSC 201, or if they are not looking at their own code while doing so!
- **You may not show your work to anyone except current CMSC 201 professors and TAs.**
 - You may not email code, in whole or in part.
 - You may not post screenshots of your code, in whole or in part.
 - You may not post code to public repositories or forums, in whole or in part.
 - You may not allow anyone to look at your work, whether it is on your screen, in your notebook, or on printouts.
 - You may not get help from another student with "debugging" your code. (Being able to find and fix your own bugs is an incredibly important skill that is best developed early on.)
 - You may not explain how you solved a problem in such detail that you are effectively dictating the code line by line. Even if you are not looking at your code while doing so!
 - You may not allow anyone to access your files. This means **properly protecting your work**: do not leave your computer unlocked if you step away; do not allow someone to copy code from your monitor; do not give your password to another student.
- **You will be held to UMBC's Undergraduate Student Academic Conduct Policy.**
 - The details of the policy can be found here: <http://www.umbc.edu/policies/pdfs/iii-1.10.03.pdf>

These restrictions may seem overbearing and artificial. After all, in the "real world," computer scientists and programmers work together and collaborate all the time. In both the industry and in many upper-level CMSC classes, discussing solutions, debugging code together, and even using other people's code are all permitted and encouraged. However, these behaviors are **forbidden** in CMSC 201: it is not an upper-level class, and it is not the real world. These restrictions are intended to help you learn!

There are, of course, acceptable ways to collaborate and get assistance in CMSC 201. This is a non-exhaustive list of acceptable means of collaboration. Again, if you have questions about what is acceptable, contact a professor or TA.

- **You should come to office hours for assistance.**
 - Come early and often! The day an assignment is due will be very busy!
 - You may go to any office hours, including those held by a TA other than your own.
 - Part of the learning process of Computer Science is getting stuck – the TAs are there to help answer your questions, and to teach you how to find your own solutions.
 - Make sure you have a specific question, and can explain to the TA what it is you're having trouble understanding and/or what techniques you've already tried to solve your problem.
- **You may work on practice problems and go through the course notes together.**
 - Working with another student on example problems that are not part of the assignment will help you to gain a better understanding of different concepts.
 - Studying with another student can be beneficial. Having a concept explained in a new way, or teaching a concept to someone else will significantly improve your own understanding of the material.

- **You may discuss how to test your code, and what kind of input might cause problems.**
 - We don't always tell you every little thing that could go wrong with your code!
 - If you do this, make sure to make a note of it in your file header, and include the other student's name. (e.g., "Discussed input for part 3 with Dana Scully.")
- **You may compare output from your program and another student's program.**
 - As long as you do not look at each other's code, we encourage you to compare output as a way to test your program.
 - If you do this, make sure to make a note of it in your file header, and include the other student's name. (e.g., "Compared output for part 1 with Fox Mulder.")

(Some material borrowed from the University of Pennsylvania's CIS 110 Collaboration Policy.)