CMSC 201 Syllabus Fall 2020

Section 1: Course Information

Course Number	CMSC 201
Course Name	Introduction to Computer Science I
Locations	On the Web
Term	Fall 2020
Instructors	Eric Hamilton, Marcella Wilson, Al Arsenault
Contact Information	Email: eric8@umbc.edu
Office Hours	Discord to be provided soon.
Textbook	Python Crash Course - Eric Matthes
(highly recommended)	

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

By the end of this course, students should be able to:

- 1. Solve programming problems using a modern coding language such as Python.
- 2. Define key concepts in programming including loops, lists, functions, and selection structures.
- 3. Make use of problem-solving skills, especially in the use of computers to solve real-world problems.
- 4. Explain and apply the proper steps in developing and creating a computer program.
- 5. Demonstrate the ability to debug a program so it runs successfully and solves the problem.
- 6. Use UMBC's UNIX system to create, test, and execute Python programs.
- 7. Transfer the skills learned to achieve success in future courses, projects, and employment.

Section 4: Grading Criteria

	Quantity	Points Per Assignment	Total	
Homework 0	1	10	10	
Homeworks 1-6	6	50	300	
Projects	3	100	300	
Labs	12	10	100 (drop up to 2)	
First Midterm	1	75	75	
Second Midterm	1	75	75	
Final Exam	1	120	120	
Academic Integrity Quiz	1	20	20	
Total			1000	

^{*} For Labs, only the 10 highest scores are used in calculating the final grade.

Grading Scale:

900 - 1000	Α	
800 - 899	В	Required for CMSC & CMPE (entered Fall 2016 or later)
700 - 799	С	Required for CMPE (entered prior to Fall 2016)
600 - 699	D	
< 600	F	

Section 5: Course Structure

Lectures: Professor Arsenault's Youtube Channel

https://www.youtube.com/channel/UCHTFm94enHC 6NHSxZQMiYA?view as=subscriber

Lectures this semester are online, which is not a terrible surprise. The current plan for Section 60 is for the lectures to be held on Webex, live, at the scheduled time (4 - 5:15 pm on Monday and Wednesday). I will record all lectures and post them to my Youtube channel, above. You can ask questions if you join the lecture live, which is one of the primary motivating factors to watch them in real time.

Office Hours: Office hours will be on a discord server. I will provide the link via email, and I'll add it to the syllabus when we're ready to deploy it to all of the students.

When you go into discord, there will be a bot who/which messages you and asks you for your key, so respond to the bot with !auth <<your key>> which is sent in the email.

Go into office hours and go into the room called "waiting room" and there you can type:
 !request [help me for I am lost in the Bugblatter Beast of Traal, or something]

Your TA will see your cry for help, and respond by accepting your request and you will be placed into a voice/video chat with them, also with text and screen sharing capabilities.

Because everything is on a discord server, you may feel like using the DM feature. Ask your TA in your lab section room if it's ok to DM them before doing so.

If you DM a professor, we may respond, but we also may ignore you, so send an email if its important. The reason for this policy is that we can get flooded during project due dates and similar busy times, so DM-ing is not a perfect feature to keep everything straight.

Release of Projects and Homeworks: Release of these assignments will be done through blackboard announcements and probably in the announcement channel on discord as well. They will be links to google documents with the assignment.

Submission will be done through the GL system. We will show you how to log into the system on your first day of class.

Submissions will be due 11:59:59 on Fridays in general, but the due date and time will be listed on the assignment as well. The system is automatic, so late assignments will not be accepted.

If you need an extension, ask before the due date and time. Projects are very challenging to new programmers, and you should expect to take multiple days of work, generally from 5-10 hours sometimes up to 20 hours if you are having difficulty. You have two weeks to complete these projects so you need to seek help early, start early, and work until you get stuck, then put it away until the next day, and repeat.

Structure of Midterms and the Final: The midterm exams and the final exam will be done through blackboard, with a multiple choice/true false section and a section which is coding.

The coding portion of the midterms and final will resemble the homeworks and may be slightly more difficult, but not as involved as the projects.

Section 6: Course Policies

Late Work: No late work will be accepted in this course. All assignments must be submitted by 11:59:59 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 <u>all material</u> covered in the lecture, even if it is not in the course slides or web pages. You are responsible for the material in the course slides or web pages, even if it is not covered during lecture.

Section 7: Academic and Technology Resources

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 the website: http://doit.umbc.edu/tsc/

Section 8: Mental Health Resources

Diminished mental health can interfere with optimal academic performance. The source of symptoms might be related to your course work; if so, please speak with your instructor. However, problems with other parts of your life can also contribute to decreased academic performance. UMBC provides cost-free and confidential mental health services through the Counseling Center to help you manage personal challenges that threaten your personal or academic well-being.

Remember, getting help is a smart and courageous thing to do -- for yourself and for those who care about you. For more resources get the Just in Case mental health resources Mobile and Web App. This app can be accessed on this web page: http://counseling.umbc.edu/justincase

The UMBC Counseling Center is in the Student Development & Success Center (between Chesapeake and Susquehanna Halls). Phone: 410-455-2472. Hours: Monday-Friday 8:30am-5:00pm.

Section 9: Students with Accommodations

If you have any accommodations and want to discuss how they will be implemented during the semester, talk to your professor. Given the COVID semester, it's unlikely that the original accommodations will be completely relevant, but we will work with you to ensure that you have the opportunity to succeed in the class.

For instance, given the way our exams are structured, it isn't likely that you'll need a time extensions since exams are given over multiple days and are open book/open notes. If you're on campus, quiet environments can be provided.

If you have a documented disability and need to request accommodations, please refer to the SDS website at http://sds.umbc.edu or contact the office by phone at 410-455-2459, via email at disability@umbc.edu, or in person in Math/Psychology Room 212.

Section 10: Guided Review Sessions

The department has designated a number of discussion sections as being available only to students with no prior programming experience. In addition to only being open to new programmers, these sections also require that students attend an hour-long guided review session (GRS) with a TA each week. This hour of required guided review is in addition to the hour of required computer lab practice and the two 75-minute lectures each week. The section covers the same material at the same pace, and with the same evaluations (test, homeworks, labs, etc.).

The guided review session (GRS) is required; however, as it is meant to be a review, students are not given a GRS grade each week. Instead, in order to enforce attendance, failure to attend a GRS will result in a zero for that week's lab (even if the student successfully completed the lab). In the interest of fairness, in addition to dropping the two lowest lab grades, the first three GRS absences will be forgiven.

Section 11: Academic Integrity

CMSC 201 is a difficult course for many students, and requires a <u>substantial</u> 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 skills 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, or comparing assignments submitted to other sections of this course, from previous semesters, or code found online.

Nonetheless, being able to collaborate effectively with other programmers is also an important skill, and we want students to start cultivating it early. To that purpose, we will allow collaboration on <u>some</u> assignments; this will be clearly stated both on the assignment page and in the individual assignment documents. Some will be marked "individual work only," which means you are only allowed to solicit help from the TAs, instructors, and tutors. Other assignments will be marked "collaboration allowed," which means that you will be allowed to work with other current CMSC 201 students (even those in other sections). However, in order to foster individual understanding of the material, there are still restrictions on what collaboration "means" in CMSC 201. See Section 13 of the syllabus for more details.

Regardless of if an assignment allows collaboration or not, there are some basic rules and restrictions that you should never violate in completing your work. If you have questions about what is acceptable, please contact an instructor or TA. What follows is a *non-exhaustive* list of restrictions for completing your assignments in this course.

- You may not download or obtain anyone else's work.
 - o 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.

- o You may <u>not</u> google or search for the solution to an assignment, even if it's "only for reference," even if you put it aside before programming, and even if that code is not from another student.
- o You may <u>not</u> copy code other than that provided in the course materials (slides, book, labs, etc.).
- o You may <u>not</u> purchase or otherwise contract someone else to do the assignment (in whole or in part) for you. If we find that you have done so, it will result in an automatic 'F' in the course. (This includes paying a tutor to solve your assignment.)

You may not share or upload the work you do on this course's assignments (homeworks, projects, labs, etc.).

- o You may not email code, in whole or in part. Do not even email code to course staff!
- o You may not post screenshots of your code, in whole or in part.
- o You may <u>not</u> post code to public repositories or forums, in whole or in part.
- o You may <u>not</u> allow anyone to access your files. This means <u>properly protecting your work!</u> 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.

o The details of the policy can be found here: http://www.umbc.edu/policies/pdfs/iii-1.10.03.pdf

You should come to office hours for assistance.

- o Come early and often! The day an assignment is due will be very busy!
- o You may go to any office hours, including those held by a TA or instructor other than your own.
- o 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.
- o 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.

Another good rule of thumb is that you should <u>never touch someone else's keyboard</u>. It can be easy to get carried away -- you just want to help them "fix one thing," but what you end up doing is typing your code into their assignment.

To give you a better idea of the difference between individual work, collaboration, and violating the Academic Integrity policy, we've created a chart with some examples. As always, if you have questions or are unsure if an action would violate the Academic Integrity policy, please ask a TA or instructor.

Action	Allowed for	Allowed for	
	Individual Work	Collaborative Work	
Getting help from an instructor or TA	Allowed	Allowed	
Consulting the official Python documentation	Allowed	Allowed	
You can find it at https://docs.python.org/release/3.3.2/			
Discussing course topics covered by assignments	Allowed	Allowed	
Creating, sharing, or copying notes about course topics	Allowed	Allowed	
Getting or receiving help with using GL or the UMBC Linux system	Allowed	Allowed	
Comparing output from your assignments	Allowed	Allowed	
As long as you do not look at each other's code when it's individual.	Allowed	Allowed	
	Discussing how to test your code		
We don't always tell you every little thing that could go wrong with your code,	Allowed	Allowed	
so working together on this is a great idea.			
Borrowing verbatim from the course slides or book Allowed		Allowed	
You don't need to cite your sources if you use the book or slides. Working together on practice problems or Interactivities	Allowed	Allowed	
vvorking together on practice problems of interactivities	Allowed	Allowed	
Helping someone else debug their code	Not allowed	Allowed	
Planning a general design for your program	Not allowed	Allowed	
Brainstorming general solutions to the assignment	Not allowed	Allowed	
Explaining why you made a specific design decision in your code	Not allowed	Allowed	
Looking at someone else's code on their screen, with their permission	Not allowed	Allowed	
Looking at someone cise 3 code on their screen, with their permission	140t allowed	Allowed	
Looking at someone else's code without their permission	Not allowed	Not allowed	
Looking at someone else's code on your screen	Not allowed	Not allowed	
Copying someone else's code	Not allowed	Not allowed	
Two (or more) people writing a single solution to an assignment	Not allowed	Not allowed	
Collaborating with someone who is not a current CMSC 201 student	someone who is not a current CMSC 201 student		
(This includes siblings, parents, and students from last semester.)			
Giving (or receiving) a detailed explanation of a solution	Not allowed	Not allowed	
Looking for solutions or help online	Not allowed	Not allowed	
Purchasing solutions	Not allowed	Not allowed	
(This includes paying a tutor to help solve your assignment.)	INUL AHUWEU		

Section 12 Academic Integrity – UMBC

Statement of Values for Student Academic Integrity at UMBC

In February 2001, the Faculty Senate affirmed the importance of our values and practices by adopting the Statement of Values for Student Academic Integrity that is placed on most course syllabi:

Academic integrity is an important value at UMBC. By enrolling in this course, each student assumes the responsibilities of an active participant in UMBC's scholarly community in which everyone's academic work and behavior are held to the highest standards of honesty. Cheating, fabrication, plagiarism, and helping others to commit these acts are all forms of academic dishonesty, and they are wrong. Academic misconduct could result in disciplinary action that may include, but is not limited to, suspension or dismissal.

The purposes of higher education are the learning students and faculty undertake, the knowledge and thinking skills developed, and the enhancement of personal qualities that enable students to be strong contributing members of society. In a competitive world, it is essential that all members of the UMBC community uphold a standard that places integrity of each student's honestly earned achievements above higher grades or easier work dishonestly sought.

All members of the UMBC community are expected to make a commitment to academic honesty in their own actions and with others. Academic misconduct can result in disciplinary action that may include suspension or dismissal. The following are examples of academic misconduct that are not tolerated at UMBC:

- **Cheating:** Using or attempting to use unauthorized material, information, study aids, or another person's work in any academic exercise.
- **Fabrication:** Falsification or invention of any information or citation in an academic exercise.
- **Facilitating academic misconduct:** Helping or attempting to help another student commit an act of academic misconduct.
- **Plagiarism:** Knowingly, or by carelessness or negligence, representing as one's own, in any academic exercise, the intellectual or creative work of someone else.
- **Dishonesty:** Lack of truthfulness or sincerity when interacting with the faculty member regarding an academic exercise

To this end, UMBC undergraduate students also adopted the following Undergraduate Honor Statement as it describes the high standards to which everyone in the community will be held:

I hereby assume the responsibilities of an engaged member in a scholarly and civic community in which academic work and behavior are held to the highest standards of honesty. It is my active participation that affirms these principles and gives them true meaning as well as value in my education. I realize that by committing acts of dishonesty I hurt myself and place an indelible mark on the reputation of UMBC. Therefore,

I will not cheat, fabricate materials, plagiarize, or help another to undertake such acts of academic dishonesty, nor will I protect those who engage in acts of academic dishonesty.

For more information on the topic of Academic Integrity, visit: https://academicconduct.umbc.edu/

I. UMBC Policies and Resources for Students during COVID-19

Bookmarks

- UMBC Vision Statement
- Student Safety
- Technology: Access, Requirements, Resources, Support
- COVID-19: Safety Expectations and Guidelines
- Academic integrity in the Online Instruction Environment
- Resources to Help you Succeed in Online Courses
- Enrollment Dates and Deadlines
- Accessibility and Disability Accommodations, Guidance and Resources
- Religious Observances
- Hate, Bias, Discrimination and Harassment
- Sex and Gender Based Violence, Harassment and Discrimination
- Pregnancy

UMBC's Vision Statement

Our UMBC community redefines excellence in higher education through an inclusive culture that connects innovative teaching and learning, research across disciplines, and civic engagement. We will advance knowledge, economic prosperity, and social justice by welcoming and inspiring inquisitive minds from all backgrounds.

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Student Safety

In response to the COVID-19 pandemic, it is understood that some students who are enrolled in classes that have an in-person component may have or develop COVID-19 related health concerns coming to campus to attend those classes this semester. No student shall be compelled to attend class or attend an assessment if they have COVID-19 related health concerns. However, for students enrolled in courses having a physical presence component who anticipate not being able to attend the in-person class sessions due to COVID-19 related health concerns, it is advisable to provide notice to the course instructor at the beginning of the term so that alternate arrangements can be made. Students enrolled in courses with an in-person component who develop COVID-19 related health concerns during the semester should immediately contact the course instructor to discuss alternative instructional arrangements.

Technology: Access, Requirements, Resources, Support

To help ensure that UMBC students are equipped for academic success, the Division of Information Technology (DoIT) provides a wealth of resources and support, including tips for getting online and minimum specifications to consider when purchasing a computer (doit.umbc.edu/students). UMBC does require all students to be technologically self-sufficient, which entails having a reliable personal computer (preferably a laptop with webcam) and Internet access. Since UMBC requires all students to have a computer and Internet access, financial aid may be used to meet this requirement. To learn more, students should contact their financial aid counselor at financialaid.umbc.edu/contact.

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COVID-19: Safety Expectations and Guidelines

Students enrolled in this course are expected to adhere to all UMBC policies, rules, and regulations, including COVID-19 emergency health and safety rules, policies, guidelines, and signage enacted for the UMBC community. For students attending in-person classes, signage, policies, rules, and/or guidelines may include but are not limited to specific requirements for face coverings, physical distancing, and sanitization, in addition to efforts to reduce density efforts that involve reductions in seating and room capacity. Please be aware that UMBC's COVID-19 emergency health and safety rules, regulations, policies, guidelines, and/or signage are subject to change as our public health crisis evolves. Any violation will be subject to disciplinary action and may include but not limited to immediate dismissal from the classroom, removal from the classroom and/or campus, a requirement to work remotely, and/or sanctions and conditions enumerated in the UMBC Code of Student Conduct that may entail suspension or expulsion from UMBC.

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Academic integrity in the Online Instruction Environment

Academic integrity is an important value at UMBC. By enrolling in this course, each student assumes the responsibilities of an active participant in UMBC's scholarly community in which everyone's academic work and behavior are held to the highest standards of honesty. Cheating, fabrication, plagiarism, and helping others to commit these acts are all forms of academic dishonesty, and they are wrong. Academic misconduct could result in disciplinary action that may include, but is not limited to, suspension or dismissal. These principles and policies apply in both face-to-face and online classes. Resources for students about academic integrity at UMBC are available at https://academicconduct.umbc.edu/resources-for-students/.

Resources to Help you Succeed in Online Courses

Many students need additional support to succeed in online courses. Click on the following links for helpful resources:

<u>UMBC's Academic Success Center (ASC)</u> provides a range of resources to support students as they progress toward degree completion. They will continue to offer all of their services online.

The ASC has created a specialized set of <u>Online Learning Resources</u>, including videos and guides to help students succeed while learning online.

In addition, check out the following resources:

- <u>Academic Success Center Resources</u> include: Online tutoring and writing support, supplemental
 instruction/peer-assisted study sessions (<u>SI PASS</u>), placement testing, FYI academic alerts, success courses,
 academic advocacy, academic policy and academic success meetings.
- Tutoring and Writing Center Appointments will be online; students can make appointments using this link.
- <u>SI PASS</u> Supplemental Instruction (SI)/ *Peer Assisted Study Sessions* (PASS). The SI PASS program targets traditionally difficult academic courses, providing regularly scheduled, out-of-class review sessions, happening in Blackboard Collaborate inside your existing Blackboard course.
- Academic Advocates: Advocates work one-on-one with students who need support navigating academic and institutional challenges, no matter how complex the concerns (i.e., personal, academic, or financial).
- Academic Success Meetings Schedule a one-to-one virtual meeting with an Academic Success Center Professional who can help you with time management, study skills, and accessing campus resources.

If you have a question, please contact the ASC at academicsuccess@umbc.edu

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Enrollment Dates and Deadlines

Students must be familiar with the academic policies and enrollment dates and deadlines as published in the <u>Undergraduate Catalog</u> and the <u>Academic Calendar</u>. They are also responsible for managing their course enrollment(s) accordingly.

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Accessibility and Disability Accommodations, Guidance and Resources

The latest language is available on the OEI website here. Mandatory due to legal requirements.

Religious Observances & Accommodations

The latest language is available on the OEI website here.

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Hate, Bias, Discrimination and Harassment

The latest language is available on the OEI website here.

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Sexual Assault, Sexual Harassment, Gender Based Violence and Discrimination

The latest language is available on the OEI website here. Mandatory due to legal requirements.

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Pregnancy

The latest language is available on the OEI website here.