

MONTGOMERY COLLEGE
Department of Mathematics
Rockville Campus

GENERAL COURSE INFORMATION

Title: Discrete Math – CMSC 207 (CRN 22417) / Math 207 (CRN 23418)
Semester: Fall 2021
Course Duration: 30 August 2021 – 15 December 2021
Class Time/Days: Mon Wed 300p-440p via Zoom

INSTRUCTOR INFORMATION

Name: Dr. Jason Lee
Office: Science Center 354H
Office Phone: 240.567.4975
Email: jason.lee@montgomerycollege.edu
Office hours: TBA on Zoom
(You may also request an appointment outside of scheduled office hours.)

COURSE DESCRIPTION

An introduction to discrete structures as they relate to computer science. The course will stress computer science applications and will include relations, functions and algorithms, naive set theory, combinatorics, logic, and mathematical induction.

PREREQUISITE

ENGL 101/101A or appropriate score on English assessment test, and MATH 182. Additionally, students need mathematical maturity, a strong work ethic and a willingness to think deeply about abstract mathematical concepts.

TEXTBOOK

Discrete Mathematics with Applications, 5th Edition by Susanna Epp.

Some online homework will be done on WebAssign. To log in, go to <http://webassign.net> – I will provide you a login and password on the first day of class. You will need to purchase a login code for use on WebAssign.

SECTIONS COVERED

The course will cover Chapters 1-10 of the textbook, along with a few optional topics.

COURSE OUTCOMES

Upon course completion, a student will be able to:

- Apply the mathematical concepts studied to specific problems.
- Demonstrate various proof techniques.
- Apply logic skills to specific arguments.

CALCULATORS

Students may use a four-function calculator for quizzes and exams. No scientific calculators may be used. Here's a simple test: if your calculator has a cosine button, you can't use that calculator.

COMMUNICATION

The **official** means of communication will be through your **Montgomery College email**. We will also use **Blackboard** and **Discord**. Please **check your email, Blackboard, and Discord account daily** for course announcements. If you send me an email, it must be from your Montgomery College email address. You are expected to stay current with the class discussion on Discord, and to respond to Discord messages to you.

VIRTUAL CLASS SESSIONS AND OFFICE HOURS

All class sessions and office hours will be conducted via Zoom. We will also use Discord in these sessions.

QUIZZES AND EXAMS

There will be **three exams** in addition to a **cumulative final exam**. On many non-exam days, there will be a quiz. Quizzes are given promptly at the beginning of class.

During quizzes/exams, you will be expected to set up a webcam or mobile phone to connect to Zoom. The camera should be pointed at your work area, so that your computer screen and your writing area is visible.

Occasionally, there may be a portion of a quiz or exam designed as “take home.” For such assignments, you may consult only with those people who are enrolled in this section of the class. You may not consult with any other person, including the professor, any learning assistant, or tutor.

COURSE FORMAT

Course lectures will be posted to YouTube (<http://youtube.com/hellomathfans>), which you will be expected to view prior to coming to class. You will upload photos of your notes to Blackboard each class day – late submissions on notes are not accepted. Links to the YouTube video are provided on Blackboard. **The primary method of content delivery will be these videos.** In-class time will be spent working on homework in groups. **This is not an online class – you are expected to come to class every day.** Watching the videos is not optional. Our time in class will be primarily spent working on problems in groups. When you are working on problems in class, you will be assigned to work in a group, and you will be expected to participate in collectively solving problems.

GRADING WEIGHTS

Notes from Videos	5%
WebAssign	10%
Other Homework	5%
Quizzes	10%
Exam 1 (Chapters 1, 2, 3, 10)	15%
Exam 2 (Chapters 4, 5, 6)	15%
Exam 3 (Chapters 7, 8, 9)	15%
Final Exam (Cumulative)	25%
Total	100%

GRADING POLICY

Weighted Average	Grade
90 to 100	A
80 to 89.9	B
70 to 79.9	C
60 to 69.9	D
Below 60	F

SPECIAL NOTE ON GRADES

20% of your grade is based on non-quiz/exam work – video notes and homework. If your score on non-quiz/exam material is between 70% and 79.9%, then the highest grade you can receive in the class is a B. If your score on non-quiz/exam material is between 60% and 69.9%, then the highest grade you can receive in the class is a C. If your score on non-quiz/exam material is between 50% and 59.9%, then the highest grade you can receive in the class is a D. If your score on non-quiz/exam material is below 50%, then you will earn an F in the class.

Occasionally you will receive an assignment back with a “star” on it. This means that I’d like you to take the work home, rewrite it on a separate sheet of paper, and resubmit it. All corrections for starred problems are expected to be submitted no more than two class days after you receive it unless you request (and are granted) an extension. If you do not complete a correction on a star problem, the score on that assignment defaults to zero, and the cutoffs for the final grades will be STRICTLY enforced (that is, 89.9% will not get rounded up to an A). In other words, take star problems seriously.

All students will be given a list of things to do on the first day of class. These may include obtaining an MC student identification card, and signing up for Discord. You must complete all of these items to receive any graded material back. If you do not complete all of these items by 25 hours prior to the start of the Final Exam, then you will automatically get an F for the class. (This has never happened, don’t let yourself be the first.)

HOMEWORK

A crucial component of learning mathematics is doing problems. We will have homework assignments on WebAssign. Some assignments must be typeset using the LaTeX programming language, and you may be asked to revise those assignments as needed. It is normal for your LaTeX assignments to require many revisions.

LATE SUBMISSIONS

You may submit ten items (WebAssign, video notes, star problems) late with no penalty. You must request an extension via Discord. Once you have submitted ten items late, no further late submissions will be allowed. You are strongly advised to conserve your late submissions.

ULTIMATE DUE DATE AND BLACKBOARD SUBMISSIONS

Unless otherwise stated, everything you turn in on Blackboard must be a PDF file. Video notes must be submitted as a single PDF file. You are solely responsible for ensuring that your submissions to Blackboard are complete, readable and not corrupt.

All work in this class must be submitted by 25 hours prior to the scheduled start of the final exam. Nothing may be submitted beyond that date, unless otherwise specified.

On the day before the final exam, you may only submit one item on Blackboard (and that one item must be submitted no later than 25 hours before the scheduled start of the final exam). Two days before the final exam, you may only submit two items on Blackboard. On the day that is N days until the final exam, you may only submit N items on Blackboard. Submissions beyond the limit will be ignored.

ATTENDANCE POLICY

You are expected to be on time every class period, and to work throughout the class until the scheduled end of the class. Students that miss a total of three or more classes may be dropped. It is each student’s responsibility to make sure that they have been counted present on the attendance sheet. Being absent includes coming late, leaving early, or being gone during class. Also, it is your responsibility to find out what you missed. DO NOT contact me to find out what you missed! If you must miss all or part of a class, you must let me know in advance.

While I am lecturing, you are expected to be mindfully active. I may ask questions, or create polls for you to answer. You should be prepared to answer as best you can. If you are not responsive to questions, then you will be marked as absent.

When you are working in groups, you are expected to participate with your group by discussing the problems and sharing photos of your work. Your cameras and microphones must be on while working in groups. If you do not meaningfully participate then you will be marked as absent.

CAMERA/MICROPHONE POLICY

All students are expected to have their webcam on during class, and to use their microphone to participate in class discussions. Exceptions can be granted on a case-by-case basis; please contact me to discuss this. If we have not discussed this, you are expected to have your camera on during class.

During quizzes and exams, you will be asked to set up a different camera (typically a mobile phone) to point at your work area. No exceptions will be granted for this.

MAKE-UP POLICY

It is expected that students take all quizzes/exams when scheduled. Once a quiz/exam has been given, its contents are assumed to be public knowledge. ***There are NO make-ups for quizzes/exams. Neither quizzes nor exams will be administered late.*** If you miss an exam, the 0% score will be replaced by your final exam score. If you do not miss any exams, your lowest exam score will be replaced by your final exam score if your final exam score is higher. ***No exam scores are dropped.***

COMPUTER/CELL PHONE POLICY

CELL PHONES ARE NOT TO BE SEEN/USED IN CLASS, and must be left at the front of the room for the duration of the class. If you want a picture of your work on the whiteboards, I will take the picture and send it to you. You may not use your cell phone to take pictures. A student who has a cell phone visible during an exam or a quiz will get a zero on the exam or quiz. You will lose points from your grade every time that you are using a cell phone or have one out. If you must make a phone call or send/receive a text message, please step outside of the room. You may use a computer or a tablet in class, but only for approved purposes related to class.

FINAL EXAM

Our Final Exam will be on Wednesday, 15 December, 245p-445p. The Final Exam is comprehensive.

IMPORTANT DATES

Last day to drop with a full refund: 7 September 2021.

Last day to drop with no grade, or change audit/credit: 21 September 2021.

Last day to withdraw: 16 November 2021. Students registered after this date will receive a letter grade (A,B,C,D,F).

NOTICE THAT CLASS SESSIONS ARE RECORDED

Please be advised that our remote class sessions will be recorded (in video and audio format), capturing student participation in class discussions or activities. Any student profile image used may be captured in the recording. The primary benefit of these recordings is, as permitted by the Family Educational Rights and Privacy Act (FERPA), that a record of each class session may be shared with students currently enrolled in the course as reference material or when they are unable to attend a live class session. Recordings may not be shared with any other parties, without the prior written consent of those captured in the recording. Students, with a profile image, activated camera and/or audio features during a class session, agree to have their profile picture, video image, and/or oral statements recorded during the class session. If you choose not to have your profile picture, video image, or oral participation recorded, 1. do not use a profile image, 2. disable the video feature, and 3. mute the audio component for each class session. This will allow you to share in the learning without being captured in class recordings. These recordings will be deleted at the end of the semester.

INTERNET AND COMPUTER REQUIREMENTS

Montgomery College has set minimum computer and internet requirements for all students:

<https://info.montgomerycollege.edu/offices/information-technology/services/hardware-specifications.html#generalrequirements>

Free Wi-Fi is available at some Montgomery County Library parking lots: <https://www.mymcmedia.org/free-outdoor-public-wi-fi-available-at-10-montgomery-county-library-branches/>

ACKERMAN LEARNING CENTER

This is where students can get **tutoring** and other resources: Rockville Campus, Science West First Floor, 240-567-5200. **Hours** are available on their website: <http://www.montgomerycollege.edu/Departments/mathscriv/>

STUDENT ACCESSIBILITY

Any student who may need an accommodation due to a disability, please make an appointment to see me during my virtual office hours. In order to receive accommodations, a letter from Disability Support Services (DSS) will be needed. If you have not already done so, I encourage any student affected by a physical, psychological or learning disability to contact Disability Support Services (DSS) to determine if academic accommodations are appropriate. Please note that the DSS has strict confidentiality policies and that I am required (and happy) to make accommodations determined by DSS. The DSS new student intake process can be started here: <https://www.montgomerycollege.edu/counseling-and-advising/disability-support-services/index.html>

MISC. SYLLABUS TERMS

Additional terms of the syllabus can be found at <http://cms.montgomerycollege.edu/mcsyllabus/>

The instructor reserves the right to make changes in the syllabus, scheduling of topics, quizzes & exams.

CMSC/Math 207 Schedule Spring 2021 (Second Half)				
Day	Date		Class Topic	Quiz/Exam
Mon	8/30/21		Introduction	
Wed	9/1/21	1	1.1, 1.2, 1.3, 1.4	
Wed	9/8/21	2	10.1, 10.4, 10.5	
Mon	9/13/21	3	2.1, 2.2, 2.3, 2.4	Quiz 1: 1.1, 1.2, 1.3, 1.4
Wed	9/15/21	4	2.5, 3.1, 3.2, 3.3	Quiz 2: 10.1, 10.4, 10.5
Mon	9/20/21	5	3.4, 4.1, 4.2, 4.3	Quiz 3: 2.1, 2.2, 2.3, 2.4
Wed	9/22/21	6	4.4, 4.5, 4.6	Quiz 4: 2.5, 3.1, 3.2, 3.3
Mon	9/27/21	7	4.7, 4.8, 4.10	Quiz 5: 3.4, 4.1, 4.2, 4.3
Wed	9/29/21		Review	
Mon	10/4/21			Exam 1: Chap 1, 2, 3, 10
Wed	10/6/21	8	5.1, 5.2	Quiz 6: 4.4, 4.5, 4.6
Mon	10/11/21	9	5.3, 5.4, 5.6	Quiz 7: 4.7, 4.8, 4.10
Wed	10/13/21	10	6.1, 6.2, 6.3	Quiz 8: 5.1, 5.2
Mon	10/18/21	11	7.1, 7.2	Quiz 9: 5.3, 5.4, 5.6
Wed	10/20/21	12	7.3, 7.4	Quiz 10: 6.1, 6.2, 6.3
Mon	10/25/21		Review	
Wed	10/27/21			Exam 2: Chap 4, 5, 6
Mon	11/1/21	13	8.1, 8.2	Quiz 11: 7.1, 7.2
Wed	11/3/21	14	8.3, 8.4	Quiz 12: 7.3, 7.4
Mon	11/8/21	15	9.1, 9.2	Quiz 13: 8.1, 8.2
Wed	11/10/21	16	9.3, 9.4	Quiz 14: 8.3, 8.4
Mon	11/15/21	17	9.5, 9.6	Quiz 15: 9.1, 9.2
Wed	11/17/21	18	9.7	Quiz 16: 9.3, 9.4
Mon	11/22/21	19	12.1, 12.2	Quiz 17: 9.5, 9.6
Mon	11/29/21		Review	Quiz 18: 9.7
Wed	12/1/21			Exam 3: Chap 7, 8, 9
Mon	12/6/21		Review	Quiz 19: 12.1, 12.2
Wed	12/8/21		Review	
Wed	12/15/21		245p-445p	Final Exam
Everything on this schedule is subject to change.				