MATH 125 - DISCRETE MATHEMATICS I , SPRING 2022
SECTION 002 TR 9:00-10:15AM

Instructor: Simone Mazzini Bruschi

Office:	Exploratory Hall, room 4221
Office hours:	Monday & Wednesday 10:45am-12:15pm
	and by appointment
Email:	sbruschi@gmu.edu
	IMPORTANT: Always start the subject line of email with the code of the course and section (Math 125-002) followed by the specific subject. For instance and email about office hours should have the following subject line: "Math 125-002 Office hours"

Textbook and Materials: *Discrete Mathematics with Graph Theory* 3rd edition, by Goodaire, E. G. and Parmenter, M. M., Prentice Hall, N.J. 3rd Edition, ISBN: 9780134689555

Course Description This course introduces ideas of discrete mathematics and combinatorial proof techniques including mathematical induction, sets, graphs, trees, recursion, and enumeration.

Course Testing schedule:

	Date and Time
Quiz 1	Thursday, February 10
Midterm 1	Thursday, March 03
Quiz 2	Tuesday, March 29
Midterm 2	Tuesday, April 12
Quiz 3	Thursday, April 28
Final	Thursday, May 12 - 1:30pm - 4:15pm

Homework: Homework will be set after each section is completed, and will be posted under the corresponding Blackboard link. Completing the homework assignments is the minimum of work you should be doing outside of class. Homework will not be collected or graded, but completing it is essential. You are encouraged to discuss the homework problems amongst yourselves and to make use of the office hours. All of the odd-numbered questions in the book have solutions in the back and you should attempt as many of those as you fell you need to.

Grading:

Quizzes:	5% for each quiz
Midterm :	25% each
Final Exam:	35%

Your course total (out of 100) will be converted into your letter grade by the following table.

A-, A	$90 - 100$
B-, B, B+	$80 - 89$
C-, C, C+	$70 - 79$
D-, D, D+	$60 - 69$
F	$0 - 59$

$+$ or $-$ may be attached to the grade for *approximately* the upper or lower 2 points.

Technology:

- No Calculator or computer programs will be allowed.

Exams Make up Policy: Quizzes, midterms and the final exam are all scheduled since the beginning of the semester. Please pay attention to these dates when scheduling any other activity/appointment. If you have an emergency, or health issue please let me know as soon as possible (preferably before the exam).

Academic integrity: To promote a stronger sense of mutual responsibility, thrust, and, fairness among all members of the Mason community, and with the desire for greater academic and personal achievement, we, the student members of the university community, have set forth this honor code:

Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work

For the remainder of the code, see: http://oai.gmu.edu/mason-honor-code

Students with Disabilities: All academic accommodations must be made through the Office of Disability Services (ODS) at 703.993.2474. Students must provide a copy of their Faculty Contact Sheet in order to receive accommodations. Note that accommodations are not retroactive. https://ds.gmu.edu

Equity and Inclusion: George Mason University is an intentionally inclusive community that promotes and maintains an equitable and just work and learning environment. We welcome and value individuals and their differences including race, economic status, gender expression and identity, sex, sexual orientation, ethnicity, national origin, first language, religion, age, and disability. Please email me if you have any concerns about any feeling of inequity in this course.

Attendance Policy: Students are expected to attend all classes. If a student misses a class, it is their responsibility to get notes and relevant information on what they missed.

Tutoring Center: GMU Math Tutoring Center: The Math Tutoring Center will be offering online tutoring services to students currently enrolled in undergraduate Math courses at GMU. More information can be found at

http://math.gmu.edu/tutor-center.php

https://science.gmu.edu/academics/department-untis/mathematical-sciences/math-tutoring/tutoring-center-hours-and

Important dates:

Classes Begin - January 24

Last day to drop with no Tuition Penalty - February 07

Last day to drop with Tuition Penalty - February 14

Final Exam - Thursday, May 12, 1:30pm-4:15pm

Weekly tentative schedule:

- Week 1: Statements and Proofs
- Week 2: Logic
- Week 3: Sets
- Week 4: Binary relations and equivalence relations
- Weeks 5 and 6 : Functions, Cardinality and Countability + Midterm 1
- Week 7: Induction and recursion
- Spring Break: 03/14-03/20
- Week 8 : Counting, Permutations, and combinations
- Weeks 9 and 10: Probability and The Binomial theorem
- Weeks 10 and 11: Basic graph theory + Midterm 2
- Week 12: Path and Circuits
- Week 13: Trees
- Week 14: Planar graphs and colouring
- **05/12 Final Exam - 1:30 pm - 4:15pm**