MATH 004-01

MATHEMATICS IN SOCIETY

SUMMER 2023

CLASS INFORMATION: Note that the "R" below is used for Thursday.

SCHEDULED MEETING TIMES					
Type	TIme	Days	Where	Date Range	
Lecture	10:50am – 12:45pm	MW	ICC 102	July 10, 2023 – July 11, 2023	

INSTRUCTOR: Erblin Mehmetaj

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TEXTBOOK:

Mathematical Ideas, 14th Edition, Pearson, Charles D. Miller, Vern E. Heeren, John Hornsby, Christopher Heeren, and Christopher Heeren (2020).

PREREQUISITES: High school algebra

COURSE GOALS: The course provides an overview of mathematical concepts as they relate to various disciplines. Topics will be chosen from set theory, logic, probability, statistics, voting, and graph theory. It is a course for students who require a general overview of mathematics, especially those majoring in liberal arts, the social sciences, business, nursing and allied health fields. This course is not designed to prepare you for any future mathematics course.

PEDAGOGICAL APPROACH: Research has shown that students learn more, and with a deeper understanding, when they are actively involved in the learning process, even though the students may perceive that they learn more from a lecture. Lectures are comfortable while working problems may be stressful. In fact, when struggling on problems, the brain makes the links so that what is learned is retained. As such, much of class-time will be spent working on problems in groups and having whole-class discussions.

To free the time for these activities, students are responsible for watching mini-lectures online prior to each class. Success in this class is highly correlated to how well students adhere to this process. Working in groups is now an important life-skill, which will be done continually in this course. By working in groups, you will share a variety of problem solving styles. By seeing how other people approach problems, students will develop flexibility in their own thinking.

ADDITIONAL INFORMATION ABOUT THE COURSE: Available on the Canvas web page for the course:

http://canvas.georgetown.edu

QUIZZES AND EXAMS: There will be **six quizzes** as well as **three exams**. Your lowest quiz grade will be dropped. Missed quizzes cannot be made up, but can be counted as dropped quizzes.

Use of calculators is also **permitted**.

HOMEWORK POLICY: Homework will be assigned for each class using MyLab and Mastering. Online homework will usually (but not always) be due on Monday at 11:59pm and it will be on the sections covered the week before. After the due time is reached, the correct answers are revealed and the assignment cannot be worked on anymore. You are strongly advised to start working on the homework as soon as it is assigned, while your knowledge of the material is still fresh. This will also help you avoid missing the deadlines.

EXAMS: There will be three exams.

GRADES: The course grade will be based upon the scores on the homework assignments, quizzes, and exams.

Total	100%
Exams 3	20%
Exams 2	20%
Exams 1	20%
Quizzes	20%
Homework	20%

The final grade will be assigned according to the following grading scale: .

Final Grade	Final Score	
A	[94, 100]	
A-	[90, 94)	
B+	[87, 90)	
В	[83, 87)	
B-	[80, 83)	
C+	[77, 80)	
С	[73, 77)	
C-	[70, 73)	
D+	[67, 70)	
D	[60, 67)	
F	[0 - 60)	

STUDENT RESPONSIBILITIES AND CLASSROOM COURTESY: You are responsible for knowing about all announcements made in class related to tests, homework, etc., and for all material covered in class.

Be aware of the University's Honor System; see

http://honorcouncil.georgetown.edu/system for details. If cases of academic dishonesty arise, whether on homeworks or exams, they will be pursued to their conclusion. Assistance of any type (notes in any form, books, etc.) is strictly banned during exams. Using the work of others on exams or homeworks is strictly prohibited. (Note the remarks above banning group work on writing homework solutions.)

Make-up exams are rarely granted. Except under exceptional circumstances (e.g., death of a family member), there are no make-up exams without proper arrangements *made in advance*. It is *not* sufficient to leave a message asking the instructor to call you back; it is not sufficient to send the instructor e-mail; if you must miss an exam, it is your obligation to talk *directly with the instructor in advance*.

Each student must conduct him or herself in a manner that promotes a positive atmosphere, conveys mutual respect, and creates no distractions, thereby allowing all students to focus on our goal: learning calculus. In particular:

- cell phones, texting devices, laptops, and all other potentially distracting devices must be turned off during class;
- everyone should make a serious effort to arrive promptly for the start of class;
- except for serious reasons, once in class everyone should remain in class until the class is over,
- apart from the lecture, students asking the instructor questions, and students responding to the instructor's questions, the class should be silent.

These rules are established to create an atmosphere that optimally enables student academic achievement; it is only fair that violations of these rules may result in significantly less partial credit on the exams of any violators.

While, on rare occasions, students may need to be absent from class for valid reasons, more than a few absences without valid explanations will be interpreted as a sign of an unsatisfactory level of effort. Although attendance will not be taken, frequent absences are usually noticed. Students are expected to put substantial effort into this course, starting with regular attendance, so those who have more than a few absences without valid explanations may receive significantly less generous partial credit on exam. If you do not attend a class, you are responsible for any announcement made, any material covered, and any additional topic introduced during this class. Office hours cannot be used for this purpose.

<u>DISABILITIES:</u> Students with disabilities needing accommodations to fully participate in this class should contact the Academic Resource Center. All accommodations must be approved through the Academic Resource Center prior to being implemented. To learn more about the accommodation process, visit the Academic Resource Center's website at http://academicsupport.georgetown.edu.

HOW TO SUCCEED IN THIS COURSE: practice, practice, practice...

On exams you will have to solve problems that you have not seen before. So, to prepare for exams, practice what you will encounter on the exams: do many, many practice problems.

Material builds up quickly in this course. It is crucial to keep up by working all assigned problems and asking about any you cannot solve. Do not let yourself fall behind, hoping to catch up before exams — this rarely works. It is ultimately far easier and more efficient to stay on top of the material than to cram before the exams.

You are responsible for your own education. You must make sure that you understand what is presented in the lectures and in the text. You must puzzle things out for yourself and ask questions when you get stuck. You must use the problems as self-tests. Lectures only assist in the learning process. The instructor exposes you to the material, explains the flow of ideas, and shows you some examples illustrating the material. The vast majority of learning occurs outside the classroom when you grapple with the ideas presented in the classroom and in the text, and when you apply these ideas yourself to solve problems. The instructor is only a guide; you have to do the hard work.

TITLE IX Statement: Georgetown University and its faculty are committed to supporting survivors and those impacted by sexual misconduct, which includes sexual assault, sexual harassment, relationship violence, and stalking. Georgetown requires faculty members, unless otherwise designated as confidential, to report all disclosures of sexual misconduct to the University

Title IX Coordinator or a Deputy Title IX Coordinator. If you disclose an incident of sexual misconduct to a professor in or outside of the classroom (with the exception of disclosures in papers), that faculty member must report the incident to the Title IX Coordinator, or Deputy Title IX Coordinator. The coordinator will, in turn, reach out to the student to provide support, resources, and the option to meet. [Please note that the student is not required to meet with the Title IX coordinator.]. More information about reporting options and resources can be found on the Sexual Misconduct Website: https://sexualassault.georgetown.edu/resourcecenter.

If you would prefer to speak to someone confidentially, Georgetown has a number of fully confidential professional resources that can provide support and assistance. These resources include:

Health Education Services for Sexual Assault Response and Prevention: confidential email sarp@georgetown.edu

Counseling and Psychiatric Services (CAPS): 202.687.6985 or after hours, call (833) 960-3006 to reach Fonemed, a telehealth service; individuals may ask for the on-call CAPS clinician

More information about reporting options and resources can be found on the Sexual Misconduct Website.

Title IX Pregnancy Modifications and Adjustments Georgetown University is committed to creating an accessible and inclusive environment for pregnant students. At any point throughout their pregnancy students may request adjustments/modifications based on general pregnancy needs or accommodations based on a pregnancy-related complication or medical need. Students may also request accommodations following labor and delivery based on a complication or medical need.

SCS students must complete the Pregnancy Adjustment Request Form (https://titleix.georgetown.edu/title-ix-pregnancy/student-pregnancy/) and submit it to the SCS Deputy Title IX Coordinator at titleixscs@georgetown.edu. Upon receiving the completed form, the Deputy Title IX Coordinator will schedule a meeting with the student to discuss the requested adjustments and implementation process. More information about pregnancy modifications can be found on the Title IX at Georgetown University Website.