Analytic Geometry / Calculus I
ONLINE SYNCHRONOUS LEARNING

Instructor: Shraddha Rajpal

E-mail Address : srajpal4@gmu.edu

Class Hours: MTWR, 5.00 pm to 6:50 pm
Office Hours: Fridays : 9 to 11.00 a.m and by appointment.

Recitations : MTWR : 7.20 pm to 8:10 pm

Textbook: Thomas' Calculus: Early Transcendentals (14th Edition)
         by Joel Haas, Christopher Heil, Maurice Weir

        MyMathLab (MML) Access is required.
        MML comes with an e-book (electronic version of the textbook).
        We will be using MyMathLab throughout the course.

Main Course Goal: Upon successful completion of the course, the students will have developed and demonstrated a solid understanding of limits, derivatives, and integrals of algebraic and transcendental functions (polynomial, rational, exponential, logarithmic, and trigonometric).

Tutoring Center: The Math Tutoring Center is located in the Johnson Center Room 344. For more information, see https://science.gmu.edu/academics/departments-units/mathematical-sciences/math-tutoring/tutoring-center-hours-and.

Disability Services: If you are a student with a disability and you need academic accommodations, you need to contact me (by e-mail) and the Office ofDisability Services. All academic accommodations must be arranged through that office. Phone: 7039932474.

Diversity/Inclusion Statement: George Mason University welcomes and values individuals and their differences including race, economic status, gender expression and identity, sexual orientation, ethnicity, national origin, first language, religion, age, and ability status.

University Honor Code: You are expected to follow the GMU Honor Code.
No collaboration is allowed on exams or quizzes. Any indication that you have worked together, used someone else's ideas/work, copied, or allowed a fellow student to copy your work is a violation of the GMU Honor Code.

Schedule of Exams (may change)

Exam 1:   June 16, 2021
Exam 2:   July 12, 2021

Final Exam: July 22, 2021

Grade Distribution:		
	Final Exam	30%
	Exam 1	20%
	Exam 2	20%
	Quizzes	15%
	Assignments	15%

Assignments include Recitation tasks and MyMathLab homework. MyMathLab homework will be graded for accuracy.

MyMathLab quizzes can be taken on Thursday during the recitations. Date will be announced prior to time . The MyMathLab quizzes have a time limit of about 20 minutes. . <u>Any missed quiz cannot be made up.</u>

Homework Assisgnments will be given on Friday and whole week will be given for completing them. . Homework should be submitted till the due date . No late homework will be accepted. There is a 20% late penalty for each homework submitted within 1 week after the deadline.

<u>All exams must be completed during the given schedule.</u> Exams are conducted with Zoom Proctoring, ID check. Elaborate exam rules will be sent by e-mail a week before each exam.

The Final Exam is comprehensive. You need to study or review all the topics covered in the entire semester. Exam guides/practices will be provided.

Grading Scale
    A+: 98 – 100; A: 93 – 97; A-: 90 - 92; B+: 87 – 89; B: 83 – 86; B-: 80 - 82;
    C+ : 77 – 79; C: 73 – 76; C-: 70 - 72; D: 60 - 69; F: 0 – 59.

Main Course Policies:

• Students are expected to attend all the scheduled lectures via Zoom. Students will prepare to ask questions for the office hours.

• A PDF document for guided notes for each lecture may also be posted on Blackboard. Use these guides to actively take notes during the lecture.

• No makeup exams will be given, unless there is an extremely unusual event that affected the student directly. The instructor reserves the right to give a score of 0 for any missed quiz and any missed exam.

• Students are responsible for all communication, assignments, and assessments in this course. Students are required to attend recitations.

MyMathLab
- MyMathLab is an excellent tool for active learning. You get immediate feedback when you attempt the HW items. There are other resources in MML that will help you learn the material and practice for mastery.

- MyMathLab is not operated by GMU. For technical difficulties, go to https://support.pearson.com/getsupport/s/contactsupport.

Class Web Page / Communication
- I will post announcements, class materials, links and resources, and scores/grades on **Blackboard**. I will also send information via **GMU email** . E-mail is the primary way of reaching me.

Math Help
- The instructor, teaching assistant, and learning assistants are working as a team to help you achieve success and overcome difficulties.
- Instructor's Office Hours: Friday 9 to 11:00 am. You are encouraged to attend theseoffice hours to clarify topics or to get help with some homework items.

Final Note
- This math course will require lots of your time and effort to doall the necessary work for success. Be persistent and positive!

Math 113, Summer 2021

Analytic Geometry / Calculus I
Instructor: **Shraddha Rajpal**

Course Outline (Schedule of Topics)

Week	Content	Sections
1 (6/1 – 6/3)	Functions and Their Graphs Combining Functions; Shifting and Scaling Graphs, Trigonometric Functions	1.1, 1.2, 1.3
2 (6/7 – 6/10)	Exponential Functions, Inverse Functions and Logarithms, Rates of Change and Tangent Lines to Curves, Limits of Functions and Laws of Limits	1.5, 1.6, 2.1, 2.2
3 (6/14 – 6/17)	One-Sided Limits, Continuity, **Exam 1 is on 6/16,** Limits Involving Infinity; Asymptotes of Graphs.	2.4, 2.5, 2.6
4 (6/21– 6/24)	Tangent Lines and the Derivative at a Point The Derivative as a Function. ,Differentiation Rules; Derivative as a Rate of Change , Derivatives of Trig Functions Chain Rule for Differentiation	3.1,3.2, 3.3, 3.4,3.5 ,3.6
5 (6/28 – 7/1)	Implicit Differentiation , Derivatives of Inverse Functions and Logarithms Inverse Trig Functions Linearization and Differentials , Related Rates	3.7, 3.8, 3.9,3.11,3.10
6 (7/6 – 7/8)	Extreme Values of Functions on Closed Intervals , Mean Value Theorem Monotonic Functions and the First Derivative Test	4.1, 4.2 ,4.3
7 (7/12 – 7/15)	**Exam 2 is on 7/12** Indeterminate Forms and L'Hopital's Rule Applied Optimization Antiderivatives , Definite Integrals.	4.5, 4.6, 4.8,5.3
8 (7/19 – 7/21)	Fundamental Theorem of Calculus Indefinite Integrals and the Substitution Method Definite Integrals and the Areas Between Curves	5.4 ,5.5,5.6
9 7/22	**Final Exam on 7/22**	