MATH 113

Analytic Geometry/Calculus I

Spring 2022

Lecture Instructor: Duy Nguyen Email: dnguyet@gmu.edu

Class Location: David King Jr. Hall: Room 1006

Meeting Days and Times: MW - 7:20 pm - 9:10 pm

Office-Hour: MW - 6:00 pm - 7:00 pm

Office Location: Exploratory Hall 4309

Recitation Instructor: Iffat Sarfraz Email: isarfraz@gmu.edu

Class Location: Peterson Hall: Room 1105

Meeting Days and Times for 318 R - 6:20 pm - 7:10 pm

Meeting Days and Times for 319 R - 7:20 pm - 8:10 pm

Office-Hour: TBD

Office Location: TBD

Course home: https://mymasonportal.gmu.edu

Disability Services: https://ds.gmu.edu/

Math Tutoring Center: https://science.gmu.edu/academics/departments-units/mathematical-sciences/math-tutoring/tutoring-center-hours-and

Important Dates:

Description	Dates
Last Day to drop with 100% tuition refund	Mon. Feb 7
Last Day to drop with 50% tuition refund	Mon. Feb 14
Unrestricted Withdrawal Period: 100% Tuition Liability	Tues. Feb 15 - Tues. Mar 1
Selective Withdraw Period (Full Tuition Liability)	March 2 - April 11
Spring Recess (no classes)	Mon. Mar 14 - Sun. Mar 20
Last Day of Class	Sat. May 7
Final Exam	**TBD**

See https://registrar.gmu.edu/calendars for GMU Academic Calendar.

Course Description: This course is to help you acquiring the ability to think logically and precisely.

Textbook: You need an **access code** to access the etext and MyMathLab for **Thomas' Calculus: Early Transcendentals with Integrated Review 14th Edition:** ISBN-13: 9780134439020. You can either purchase the access code at the bookstore or through MyMathLab directly. You will also need **instructor's access code** (nguyen18425) to access homeworks and quizzes on MyMathLab.

Assignments: You will find **homeworks/quizzes** (with the due dates) on MyMathLab (www.pearsonmylabs.com). If you miss a quiz or a homework by the due date, you get zero for the missed homework and/or the missed quiz. No makeups. Though, two quizzes with lowest scores are dropped, and two homeworks with lowest scores are dropped.

Exams: There are two regular exams and the final exam. You are going to be given a study guide for each of the exam. All exams are taken in lecture and in-person.

Grading Scale: All of homeworks and quizzes are combined to weight 40 percent, each exam (either regular or final) is weighted 20 percent.

Computation for Letter Grades:

A	B	C	D	F
$\geq 90\%$	80% - 89%	70% - 79 %	60% - 69%	$< 60\%$

University Honor Code: See https://oai.gmu.edu/ for Academic Integrity.

One final note: I encourage you to ask questions while I lecture. If you do not understand a topic during lecture, or you think that I run over a topic too quickly, please let me know. **I often give extra credits for questions which I consider important questions**.

Schedule is tentative and can be changed if needed:

Week	Dates	Topic	Assignments	Due Dates
1	01/24 - 01/28	Functions and their graphs Combining functions, shifting/scaling graphs 1.1, 1.2	Homework + Quiz (MML)	02/06
2	01/31 - 02/04	Trigonometric/Exponential functions 1.3, 1.5	Homework + Quiz (MML)	02/13
3	02/07 - 02/11	Inverse functions and Logarithms 1.5, 1.6	Homework + Quiz (MML)	02/20
4	02/14 - 02/18	Rate of Change/tangent lines Limit Laws 2.1, 2.2	Homework + Quiz (MML)	02/27
5	02/21 - 02/25	One-Sided Limits 2.4		**02/23**: Exam I
6	02/28 - 03/04	Continuity Limits involving infinity/Asymptotes of Graphs Tangent lines/Derivative at a point 2.5, 2.6, 3.1	Homework + Quiz (MML)	03/13
7	03/07 - 03/11	Derivative of a function Differentiation rules Derivative as a rate of change 3.2, 3.3, 3.4	Homework + Quiz (MML)	03/27
8	03/14 - 03/20	Spring Recess (no classes)		

Week	Dates	Topic	Assignments	Due Date
9	03/21 - 03/25	Derivatives of Trigonometric functions Chain Rule 3.5, 3.6	Homework + Quiz (MML)	04/03
10	03/28 - 04/01	Derivatives of inverse functions/logarithms Inverse trigonometric functions Linearization and Differentials 3.8, 3.9, 3.11	Homework + Quiz (MML)	04/10
11	04/04 - 04/08	Extreme Values Mean Value Theorem Monotonic function 4.1, 4.2, 4.3	(MML)	
12	04/11 - 04/15	Indeterminate forms/L'Hopital's rule 4.5		**04/13**: Exam II
13	04/18 - 04/22	Applied optimization Antiderivatives 4.6, 4.8	Homework + Quiz (MML)	05/01
14	04/25 - 04/29	Definite integrals The fundamental theorem of calculus 5.3, 5.4		
15	05/02 - 05/06	Indefinite integrals and the substitution method 5.5, 5.6		