MATH – 108 - 001: Introductory Calculus with Business Applications, FALL 2022

COURSE INFORMATION:

Instructor: Ermias Kassaye

Lectures: MW 1:30 pm – 2:45 pm, David King Jr Hall 1006

E-mail: ekassaye@gmu.edu

Office Hours: MW 11:00 am—12:00 pm and TR: 5:00PM -6:00 PM or online by appointment

Office: Exploratory Hall 4407

COURSE DESCRIPTION:

Understanding functions, limits, derivative and integral with their applications of differentiation and integration in the real world.

PREREQUISITES:

Math Placement Algebra I 13

COURSE MATERIALS:

Barnett, Ziegler, Byleen, Stocker, Applied Calculus for Business, Economics, Life Sciences, and Social Sciences, 14th edition. ISBN: 9780321925718

An access code for MyMathLab is required for this course. You can either purchase the access code only to access the ebook and MyMathLab **or** purchase the new book with access code. *If you buy a used book, make you have an access code.*

To register: Click the link MyMathLab in Blackboard – Course Content and follow the instructions. (Course ID: kassaye56349)

Please use your official GMU registration name and your GMU email address to register your MML account.

TENTATIVE SCHEDULE (SUBJECT TO CHANGE):

Aug 22-24 (week 1): Course Introduction, Functions and Graphs (1.1, 1.3)

Aug 29-31 (week 2): Linear and Quadratic Functions, Polynomial and Rational Functions (1.4, 1.5)

Sep 5-7 (week 3): Exponential and Logarithmic Functions (1.5, 1.6)

Sep 12-14 (week 4): Limits (2.1, 2.2)

Sep 19-21 (week 5): Review (Sep 19), **Midterm I (Sep 21)**

Sep 26-28 (week 6): Continuity, Rate of Change and the Derivatives (2.3, 2.4, 2.5)

Oct 24-26 (week 7): Derivatives and Applications (2.5, 2.7)

Oct 10: Fall Break

Oct 12 (week 8): Exponential and Log Derivatives, Product/Quotient Rules (3.1, 3.2, 3.3)

Oct 17-19 (week 9): Chain Rule, Implicit Differentiation (3.4, 3.5)

Oct 24-26 (week 10): Review (Oct 24), **Midterm II (Oct 26)**

Oct 31-Nov 2 (week 11): Elasticity of Demand, Derivatives and Graphs (3.7, 4.1, 4.2)

Nov 7-9 (week 12): Derivatives and Graphs (4.4)

Nov 14-16 (week 13): Optimization, Absolute Max/Min (4.5, 4.6)

Nov 21 (week 14): Review and Nov 23-25 (Thanksgiving)

Nov 28-30 (Week 15) Review

Dec 7: Final Exam is scheduled on Wednesday, Dec 7, 1:30pm – 4:15 pm.

GRADING:

Two Midterms: 20% each

MyMathLab Homework: 20%

MyMathLab Quizzes: 20%

Final Exam: 20%

Grade Breakdowns:

A	B	C	D	F
>= 90%	80% - 89%	70% - 79%	60% - 69%	<60%

You will find homework and quizzes on MyMathLab. Late homework and quizzes are accepted with 20% penalty within one week after the original deadline; after one week you will get zero. Usually there will be homework and quizzes every week. You will have infinite number of attempts for your homework and **5 attempts** for quizzes. The lowest homework score and lowest quiz score will be dropped.

There are two midterm exams and one comprehensive final exam. All exams will be taken in class. No make-up exams will be schedule unless you have a documented excused absence. You are allowed to use a simple scientific calculator such as TI 30X IIs.

Advanced Scientific Calculators (e.g., TI 36X Pro) and Graphing Calculators (e.g., TI-83, TI-84) **are NOT allowed.** You are not allowed to use **TI-89, TI-92, TI-Nspire.** Calculators with differentiation/integration function are also **not allowed**.

DISABILITY SERVICES: If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Resources at 703.993.2474. All academic accommodations must be arranged through that office

MATH TUTORING CENTER:

https://science.gmu.edu/academics/departments-units/mathematical/sciences/mathtutoring/tutoring-center-hours-and-

HONOR CODE:

Please see the Office for Academic Integrity (https://oai.gmu.edu/) for a full description of the code and the honor committee process, and the Honor Code Policies of the Department of Computer Science (https://cs.gmu.edu/resources/honor-code/) regarding the course project. GMU is an Honor Code university. The principle of academic integrity is taken seriously and violations are treated gravely. If you rely on someone else's work in an aspect of the course project, you should give full credit in the proper, accepted form. Another aspect of academic integrity is the free play of ideas. Vigorous discussion and debate are encouraged in this course, with the firm expectation that all aspects of the class will be conducted with civility and respect for differing ideas, perspectives, and traditions. When in doubt (of any kind) please ask for guidance and clarification.