George Mason University
MATH-124 – Calculus I, part II (3 credits)
Spring 2022

Instructor: **Ahsan Chowdhury** **Learning Assistants: Unnathi Bukke and Darius Jack**

Email: **achowdh6@gmu.edu**

I reserve email primarily for personal matters. Please read the syllabus and check the syllabus and logistics section of the discussion board prior to emailing me about logistics in this course. Math questions are difficult to resolve over email. Please post a photograph/ of both the problem(so possibly a screen shot), and what you have attempted on a math problem to the discussion board under the relevant unit, or better yet, attend one of the listed office hours, or the math tutoring center.
Email only after you have exhausted these options:

1. Read the syllabus.
2. Look at the announcements on Blackboard.
3. Listen carefully when I'm making announcements in class. This means you have to be on time.
4. If you miss class, ask another student what you missed. This is not a reason for emailing me.

All math questions should be asked in person after class, during office hours or with Learning assistants.

Instructor Policies: I do not accept late work, but I will drop at least one assignment in each category other than tests.

Office Hours & Location: Ahsan: Exploratory Hall 4223 Mon/Wed (11:45-12:45), Thurs (12:30-1:30), and by appointment. Learning Assistants Unnathi Bukke and Darius Jack TBA during the first week of class.

Class Meeting Time and Location: Horizon 5018, Tues/Thurs 10:30 – 11:45 AM

Required Materials:

1. *Thomas' Calculus: Early Transcendentals*, 14th edition, by Hass, Heil Weir. If you already have a book, or had MML access previously, you do not need to buy another one.
2. You need to access MyMathLab through the link on Blackboard. I believe once you open the shrink wrap on your book from the bookstore, you cannot return it due to the code issue. I suggest starting with free access to the ebook, videos, support and homework by clicking the link on Blackboard and following directions. YOU DO NOT NEED A COURSE CODE, follow the prompts provided after clicking on the Blackboard link, and find the option at the bottom for starting with free access for two weeks.
3. **Dry erase markers – bring to class every day. I suggest black, blue and red**.
4. **An old mismatched sock to put the dry erase markers in inside your backpack and to use as an eraser during class. A washcloth and ziplock or pencil pouch will serve the same purpose**.
5. We rarely use calculators in this class. I suggest you do not use them on your homework.

Course Description: This is the second part of a two semester sequence that covers algebra through basic calculus covered in Math 113. Math 124 will review some derivative rules and then proceed to cover uses of derivatives and the beginning of integration. The course requires a serious time commitment, both in attendance and outside time for homework and studying. This course is taught in an active learning classroom. Research has shown that student participation and interaction in the classroom improves learning outcomes.

Attendance:

The best chance of passing this course comes from 1) attending and participating in class, and 2) doing the work. Don't focus on the grade as much as learning the concepts as you will need them moving forward into other Calculus classes you take.

If you miss class, you miss the opportunity for help on the material presented, discussed and worked on that day in class. Regardless of whether you are present or absent from class, **you** are responsible for everything that happens in class (assignments, homework, quizzes, etc.)

There will be collaborative activities in class most, some of which my a be graded. It provides opportunities to interact with the material, deepen your understanding, and provides grades outside of tests.
I understand that sometimes people are sick or have conflicts with class. A reasonable number of absences should not adversely affect your grade. I do not generally track excused or unexcused absences in this course. Please follow GMU COVID protocols and email me if you need to isolate or have a positive test, I will have a place for you to submit that paperwork on Blackboard.

School Closure

In case of school closure, late start, or canceled class, you will have video lecture from me and assignments, so check your email. I try to keep this class on schedule as best I can.

Homework:

Working homework is the most important part of the learning process in this course. Please be sure you have allocated enough time for this course. Most people need a minimum of ten hours per week dedicated to working problems in this course. If your math background has some gaps or you just need more time to process things, plan for that accordingly by planning at least two hours per day to work math problems. Learning math is NOT a passive activity.

Homework is assigned in MyMathLab and by hand. MyMathLab homework will be due once per week and written homework will be assigned in class, usually due by the START of the next class over blackboard. I do not accept late papers.

MyMathLab:

MyMathLab is an online software system that accompanies your textbook. There will be Homework and quizzes due weekly which cover the content from the prior week. There **may** be portions of tests in MyMathLab proctored in the Math testing center, but there will also be written portions of each test.

To sign up:

1. Login to our blackboard course at mymason.gmu.edu
2. Click on "MyMathLab" on the left.
3. If you have a Pearson account, then login. Otherwise, sign up for a new account.
4. Select an option
    a. Use an access code (if you bought a new book, you got one of these).
    b. Buy access online with a credit card
    c. **Get 17 days of temporary access** (look for the tiny blue link at the bottom)
5. YOU DO NOT NEED A COURSE CODE. You will not be prompted for one if you start from the single sign on link on Blackboard.

MyMathLab Technical Support: http://247pearsoned.custhelp.com (available 24 hours a day)
Pearson Customer Service and Technical Support: 800-677-6337.

MML is a computer graded system. If you get problems right, they are marked correct. There is no partial credit on individual questions. The computer system, like most technical systems is picky about inputs, so please check your answers before submitting your work.

MyMathLab Homework is accepted up to three days late for a 20% penalty. MyMathLab quizzes are not accepted late.

In-Class /Quizzes/ Preparation:

You need to prepare for every class. This includes reading the material that we will be covering in lecture, taking notes over your reading and working the examples, and doing any other problems I assign. Sometimes these are pop-quizzes given randomly in class throughout the semester. I also give "quizzes" that are things like checking if you did the preparation work, asking you to work with other people etc. No make-up quizzes are given. One or more quiz grades will be dropped to account for late-adding the course, illness, car trouble, or any other excused or unexcused absences.

Tests & Final Exam:

There are 2 exams in this course, and one comprehensive final exam. There are no make-up exams unless you have a documented excused absence (that is an absence that I consider excused, like being in the hospital). Decisions about excused absences are solely at the discretion of the instructor. Most likely, rather than making up a missed exam, other than the final, that test grade would just be replaced with your final exam. Get good sleep, eat well, hydrate and exercise and stay healthy!

Exam dates are provided on the last page in the schedule. I reserve the right to change exam dates as the semester progresses. The final exam date is given in the schedule on the last page of the syllabus. The final exam date is set by the university so that it will not interfere with any other final exams and that date will not change unless the university changes the exam schedule. There are no make-ups for the Final Exam.

All exams are given to uphold strict academic integrity standards. The following policies are in place for each exam.

1. Unless specified, no collaboration is allowed on the exams. Any indication that you have worked together, used someone else's ideas, copied, or allowed a fellow student to copy your work is a violation of the GMU Honor Code. The exam should be your work and your work only.
2. No calculator is allowed on exams except where noted. No other books, notes, cell phones, computers or aids may be used. Having access to any unauthorized materials, calculators or devices while you are in possession of the exam is a violation of the academic honesty code.
3. Seats are assigned during each exam. Once you receive the exam, you are not allowed to leave the exam room until you are ready to turn the exam in.

Requirements and Grading:

MML/Textbook Homework	20%
MML/In-person quizzes	20%
Exam 1	20%
Exam 2	20%
Final Exam	20%

Scale:

100-90	A
89-80	B
79-70	C
69-60	D
59-0	F
+/-	Added at Instructor discretion

Withdraw & Audit

See the GMU website for important add/drop deadlines: http://registrar.gmu.edu/calendars/

Tutoring:

The Math Tutoring Center is located in the Johnson Center Room 344. Help is available on a walk-in basis. For hours of operation see *http://math.gmu.edu/tutorcenter.htm*

The Volgenau School of Engineering also offers peer tutors.
http://volgenau.gmu.edu/undergraduates/peer-mentors

MyMathLab is also a resource available for this class. In MML there are lecture videos, and step - by-step instructions on how to complete homework problems.

Academic dishonesty and the GMU Honor Code:

You are expected to follow the GMU Honor Code *http://academicintegrity.gmu.edu/honorcode/*

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

Some of the behaviors that will be considered cheating are:

- Communicating with another person during an assessment
- Copying material from another person from any assignment being graded
- Allowing another person to copy from any assignment being graded
- Use of unauthorized assistance on any assignment being graded
- Use of unauthorized notes or books during an assessment
- Providing or receiving a copy of a quiz or exam used in the course
- Use of a cell phone during an assessment

Learning Differences & Special Needs

If you have a learning or physical difference that may affect your academic work, please see me and contact the Office of Disability Services (ODS) at 993-2474, http://ods.gmu.edu . All academic accommodations must be arranged through the ODS. Please submit your accommodation sheet under the Accommodations tab on the left side of Blackboard.

MATH-124 - Calculus (3 credits) Course dates are tentative and subject to change.

All MyMathLab Homework (Fridays) due at 11:59 PM

Week	Class Dates	Topic
1 MML HW due	1/25 & 1/27	Class Introduction/Syllabus/Grade Policy Discussion 3.3/3.5/3.6– Differentiation/Chain Rule Review
		3.6 – The Chain Rule (really hard problems)
2 MML HW due	2/1 & 2/3	3.7 – Implicit Differentiation
		3.7 – Implicit Differentiation 3.8/3.9 – Derivatives of Inverse Functions and Logs
3 MML HW due	2/8 & 2/10	3.8/3.9 – Derivatives of Inverse Functions and Logs
		3.10 – Related Rates
4 MML HW due	2/15 & 2/17	3.10 – Related Rates
		Review for exam (There likely will NOT be a quiz this week due to Exam)
	2/17	**Exam 1: Exams will be taken in class**
5 MML HW due	2/22 & 2/23	4.1 – Maximum and Minimum Values
		4.2 – Mean Value Theorem
6 MML HW due	3/1 & 3/3	4.3 – How Derivatives Affect the Shape of a Graph (1st Derivative Test/Increasing & Decreasing)
		4.4 – How Derivatives Affect the Shape of a Graph (Concavity/POI)
7 MML HW due	3/8 & 3/10	4.4 – Summary of Curve Sketching
		4.5 – Indeterminate Forms/L'Hopital's Rule
8 MML HW due	3/22 & 3/24	4.6 – Optimization
		4.6 – Optimization
9 MML HW due	3/29 & 3/31	3.11 – Linearization and Differentials
		4.7 – Newton's Method
10 MML HW due	4/5 & 4/7	4.8 – Antiderivatives

		Review for exam (There likely will NOT be a quiz this week due to Exam)
	4/7	**Exam 2: Exams will be taken in class**
11 MML HW due	4/12 & 4/14	5.1/5.2 – Areas and Estimating Finite Sums
		5.1/5.2 – Sigma notation/limits of Finite Sums
12 MMLHW due	4/19 & 4/21	5.3 – The Definite Integral (properties)
		5.4 – The Fundamental Theorem of Calculus (Part 2)
13 MML HW due	4/26 & 4/28	5.4 – The Fundamental Theorem of Calculus (Part 1)
		5.5 – Indefinite Integrals and the Substitution Method
14 MML HW due	5/3 & 5/5	5.6 – Definite Integral Substitutions and the Area Between Curves
		Review
15	5/10	Review
		Review
16	**5/17** **10:30am – 1:15pm**	**Cumulative Final Exam in our normal classroom** **No early finals. No late finals. Be there.**