

MATH 124 005 CALCULUS ALGEBRA/TRIGONOMETRY B - FALL 2022
TR 1:30PM-2:45PM

Instructor: Simone Mazzini Bruschi

Office: Exploratory Hall, room 4221

Office hours: Monday 1:30pm-2:30pm & Wednesday 4:30pm-6:30pm
and by appointment. Please email me for in-person or alternate online appointments.

Email: sbruschi@gmu.edu

IMPORTANT: Always start the subject line of email with the code of the course and section (Math 124-005) followed by the specific subject. For instance, an email about office hours should have the following subject line: 'Math 124-005 Office hours'

Textbook and Materials: The textbook is *Thomas' Calculus: Early Transcendentals*, 14th edition, Thomas, Hass, Heil and Weir. We will be using the online homework system MyMathLab which also contains the ebook version of the textbook.

Since this course is an in-person active learning course you will need to attend class daily and participate in group activities.

Material to be Covered We will be covering the second half of chapter 3 and chapters 4 and 5 in the textbook. The tentative schedule at the end of this syllabus has more details.

Course Description This course meets the quantitative reasoning requirement, one of the Foundation requirements of the University General Education program. The goal of the Foundation requirement is to help ensure that students are equipped with the tools and techniques necessary to succeed in college and throughout their lives and careers. The learning objectives for this requirement are:

1. Students are able to interpret quantitative information (i.e., formulas, graphs, tables, models, and schematics) and draw inferences from them.
2. Given a quantitative problem, students are able to formulate the problem quantitatively and use appropriate arithmetical, algebraic, and/or statistical methods to solve the problem.
3. Students are able to evaluate logical arguments using quantitative reasoning.
4. Students are able to communicate and present quantitative results effectively.

Math 124 will review basic differentiation and applications and then proceed to cover integration including transcendental functions.

Learning Assistant We are very lucky to have been assigned one Learning Assistant (LA) for this semester, Simran. She will be available weekly both in class and outside of class to help with questions and problems. Detailed LA office hours will be posted on BlackBoard once they have been set.

Calculators Because this course is designed to be half of Math 113, one of its primary goals is to help students acquire competence with basic algebraic and functional concepts and relationships. Accordingly, we will use calculators sparingly. I encourage you to attempt all homework problems without calculators, though some questions may require one.

Required Technology This course uses BlackBoard as the learning management system. You will need a browser and operating system that are listed compatible or certified with the BlackBoard version available on the myMason Portal. Log in to MyMason at mymason.gmu.edu to access this course.

We will be using the online learning system MyMathLab. In our Blackboard course, there is a tab on the left menu with instructions to sign up. There is also a tab in the left menu linked to our course in MyMathLab.

MyMathLab MyMathLab is a powerful online, homework, tutorial and assessment system that accompanies your new textbook. Students can take assessments, and receive personalized study plans based on their results. In many cases students can also access video clips, PowerPoint presentations, and other animations for each section and from selected exercises. MyMathLab is NOT a program operated by GMU. If you are experiencing technical difficulties using the

program, then you can email or chat with Customer Support directly through the Pearson Education Customer Service website. You could also call the Pearson Customer Service and Technical Support number. Do not call the GMU Help Desk or I.

Course Grades Your final grade will be calculated as follows:

Participation	5%
MML Homework	15%
Worksheets	15%
Quizzes	10%
Midterm exams (15% each)	30%
Final Exam	25%

Homework & Quizzes Homework assignments will be listed on MyMathLab. The homework is broken into each section, however multiple sections may be due each week. Please pay attention to the due dates. Homework will be available on Monday at the beginning of the week and will be due on Sundays at 11:59pm.. For full credit you must submit your solutions to the homework during this designated time period. Homework submitted late will receive a 20% deduction.

Homework assignments are provided with a help menu which includes links to things like videos, practice problems, similar examples, and the link to the textbook section pertaining to the material. You will have unlimited chances to complete each homework problem, so if you miss a question please take advantage of these help menus. **The two lowest grades on your homework assignments will be dropped.**

There will also be many worksheets assigned in this class. You are expected to work on these by hand, without the use of outside help. You may collaborate with your assigned group and with the LAs. You must show all work in order to get credit. Due dates will be given when the worksheet is assigned.

Quizzes will cover material from the homework as well as lecture and will be similar to homework problems. Quizzes will be given through MML a few times throughout the semester. No quizzes will be dropped.

Quiz 1	Week 4
Quiz 2	Week 8
Quiz 3	Week 12

There will be multiple graded assignments every week. Whether it is a quiz, test or worksheet; you are responsible for all assignments and their due dates. Makeups will not be given for assignments that are missed.

Midterm Exams & Final Exam There are 2 midterm exams scheduled in this class. Midterm exams will cover material from the homework as well as the lecture, however exam questions will usually be more challenging than homework and quiz questions.

It is expected that students will take the exams in class at the scheduled time. If you are unable to be in class on the day of a midterm exam you must ask me beforehand (by email only) so that I can determine if your situation warrants a make-up test. **Do not assume you will be given a make-up unless you get confirmation from me.** You must be able to validate your excuse with documentation or you will not be allowed a make-up.

No collaboration is allowed on exams or quizzes. 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 George Mason Honor Code. Once you receive an exam or quiz, you are not allowed to leave the exam room until you are ready to turn the exam in.

Below is the tentative schedule of the midterm exams, any changes will be announced in class or on Blackboard. Exact material to be covered on the tests will be determined the class before the test. The final exam will be cumulative.

Midterm exam 1	Tuesday, September 27
Midterm exam 2	Tuesday, November 01
Final Exam	Tuesday, December 13 - 1:30pm-4:15pm

The midterm exams dates are tentative and subject to change.

Participation This course is designed to be a collaborative course. You are expected to be in class and to participate during every class period. This could be either answering questions during lecture, presenting problems to the class or working with your groups.

Honor Code It is expected that each student in this class will conduct themselves within the guidelines of the Honor Code. All work must be your own and submitted by you as the student registered for the class.

See <https://academicintegrity.gmu.edu> for a copy of the Honor Code.

Cell Phones and Computers Your cell phone should be on silent or vibrate during lecture and I should not see them at all during tests or quizzes.

Obtaining Help There are many outlets available for you to get help in this class. This course is designed to ensure that students are able to keep up with the material, but that does require student communication. In addition to my set weekly office hours, I am very happy to schedule appointments. There will also be weekly LA office hours. Additionally, the Math Tutoring Center is available in person and remotely and is free to all Math 124 students. More information on how to access that tutoring can be found on their website,

<https://science.gmu.edu/academics/departments-units/mathematical-sciences/math-tutoring>.

Accommodations If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Services. All academic accommodations must be arranged through that office. Office of Disability Services Student Union Building I (SUB I), Room 4205 Phone: 703.993.2474

E-mail & Blackboard E-mail is a vital form of communication for an online class. I frequently send announcements through email so make sure that you activate and check your GMU email account regularly. All students are required to use their George Mason email for communication and for MyMathLab. Please put Math 124-005 in the subject field anytime you send me an e-mail. If you want to discuss your grade via e-mail it *must* be done using your GMU e-mail account.

Unscheduled and Late Closings If the university has an unscheduled closing-because of weather or some other unforeseen occurrence you should assume that we will pick up with the schedule where we left off. In particular, if a test was scheduled for a day in which school was canceled or an assignment was due that day you should assume that the test will be given or the assignment will be collected the next time class meets. If the university has a late opening on a class day we will begin class at the time the university opens. A test scheduled for a day the university opens late will be postponed until the next class day. Make sure you check your GMU e-mail account for any announcements.

Tentative Weekly Schedule

(Due to diagnostic test, it will be revised on the second week)

Week 1 August 23 : Trigonometric functions - review

August 25: Exponential and Logarithmic function - review

Diagnostic test through MML about Math 123 content (**bonus 2pts in the final grade for completion**)

Worksheet

Week 2 August 30: Review

September 1: Review

Homework MML: due 11:59pm Sunday 9/4/22

Worksheet

Week 3 September 6: 3.6

September 8: 3.7

Homework MML: due 11:59pm Sunday 9/11/22 (sections 3.6, 3.7)

Worksheet

Week 4 September 13, 15: 3.8, 3.9

Homework MML: due 11:59pm Sunday 9/18/22 (sections 3.8, 3.9)

Quiz 1

Week 5 September 20: 3.10

September 22: Review

Homework MML: due 11:59pm Sunday 9/30/22 (section 3.10)

Week 6 September 27: **Midterm Exam 1**

September 29: 4.1, 4.2

Homework MML: due 11:59pm Sunday 10/2/22 (sections 4.1, 4.2)

Worksheet

Week 7 October 04, 06: 4.2, 4.3, 4.4

Homework MML: due 11:59pm Sunday 10/9/22 (sections 4.3, 4.4)

Worksheet

Week 8 October 11: No class (Monday classes meet)

October 13: 4.5

Homework MML: due 11:59pm Sunday 10/16/22 (section 4.5)

Quiz 2

Week 9 October 18, 20: 4.6, 3.11

Homework MML: due 11:59pm Sunday 10/23/22 (sections 4.6, 3.11)

Worksheet

Week 10 October 25: 4.8

October 27: Review

Homework MML: due 11:59pm Sunday 10/30/22 (section 4.8)

Worksheet

Week 11 November 01: **Midterm exam 2**

November 03: 5.1

Homework MML: due 11:59pm Sunday 11/6/22 (section 5.1)

Worksheet

Week 12 November 08: 5.2

November 10: 5.3

Homework MML: due 11:59pm Sunday 11/13/22 (sections 5.2, 5.3)

Quiz 3

Week 13 November 15: 5.4

November 17: 5.5

Homework MML: due 11:59pm Sunday 11/20/22 (sections 5.4, 5.5).

Worksheet

Week 14 November 22: 5.6

November 24: No Class - Thanksgiving break

Homework MML: due 11:59pm Monday 11/27/2022 (section 5.6).

Week 15 November 29: Review

December 01: Review

Final Exam: Tuesday 12/13/22 1:30pm-4:15pm