

George Mason University
MATH 213 C01 – Analytic Geometry and Calculus III
Course Syllabus – Summer 2023
Horizon Hall 1008 MTWR 10:30am-12:35pm
Recitation: Horizon Hall 1008 T/R 1:30-2:45pm

Instructor: Dr. Timothee Bryan

Email: tbryan5@gmu.edu

Office Hours: Exploratory Hall 4407 Monday - Thursday 9:00-10:00am and by appointment

Course Objectives: Partial differentiation, multiple integrals, line and surface integrals, and three-dimensional analytic geometry.

Mathematics Prerequisite: C or better in Calculus II or Calculus II Honors (114 or 116)

Course Materials: *Thomas' Calculus (Early Transcendentals)* by Hass, Heil and Weir (fourteenth edition, Pearson publisher) with **MyMathLab**. ISBN: 9780134764528

- You need MyLabMath (MML) access.
- Access Code for MyLabMath is included with the purchase of a new book.
- A code with an eBook text can also be purchased.
- If you used this textbook before with MLM access, then your access may continue and you would not need to purchase another access code.
- You can register for free with temporary access for 14 days. At the end of the 14 days you will need to enter your purchased access code or buy one directly from the website with a credit card.

Blackboard: The syllabus, class handouts, and announcements will be posted on Blackboard. Please check Blackboard regularly for any class related information (for homework – please check MLM) as well as your student email, as announcements will also be sent to you via email. Grades for exams will also be posted in the Blackboard Grade Center. Please note that your earned homework scores are given in MLM. Homework grades will be transferred to the Blackboard Grade Center at the end of the semester.

Class Attendance and Participation: It is my firm belief that active student participation improves the course outcomes for both you and me. To encourage your attendance and participation, you will receive participation points throughout the semester for activities such as asking good questions, contributing meaningfully, and completing in-class problems.

- Up to once per day, you can receive a participation point. Receiving 10 points throughout the semester will be considered 100% participation while receiving 8 points will be considered 80% participation, etc. Note: students can earn up to 12 total participation points for extra credit.
- You will be able to track the number of points you've earned on the course Blackboard page.

Recitation Attendance and Participation: Similar to lecture participation, you will receive participation points throughout the semester for activities such as asking good questions, contributing meaningfully, and completing in-class problems.

- Each recitation, you will receive a score of 0, 1, or 2 points for your participation. Receiving 16 points throughout the semester will be considered 100% participation while receiving 8 points will be considered 50% participation, etc. Note: students can earn up to 18 total participation points for extra credit.
- You will be able to track the number of points you've earned on the course Blackboard page.

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Calculator Policy: You are expected to complete the calculus sequence without the use of a calculator. Calculators will not be permitted on exams.

Grading Policy: Your course grade will be computed as a weighted average using the following percentages:

10% Homework (MyMathLab assignments)
10% Participation (as described above)
10% Recitation Grade
20% Test 1, Monday, July 10th
20% Test 2, Thursday, July 21st
30% Final Exam, Friday, July 28th 10:30a-1:15pm

Grading Scale: Your letter grade will be determined as follows:

Score	Grade	Score	Grade	Score	Grade	Score	Grade	Score	Grade
93 – 100 %	A	90 – 92 %	A-	87 – 89 %	B+	83 – 86 %	B	80 – 82 %	B-
77 – 79 %	C+	73 – 76 %	C	70 – 72 %	C-	60 – 69 %	D	0 – 59 %	F

Exams: There will be **no make-up exams**. A missed exam counts as a zero unless a valid excuse from a physician or the Dean's Office is presented to your instructor and accepted. You need to contact your instructor as soon as possible regarding your extenuating circumstance for consideration of an exception.

You are not permitted to use any outside materials, resources, or electronic devices (including but not limited to calculators, mobile phones, smartwatches, etc.) on the exams. Any violation of this policy is a violation of the university's academic integrity policy.

Final Exam: The final exam is comprehensive and will be administered on **Thursday, July 28, 2023**. The final exam is worth 30% of your grade. The date is already set by the university, so please do not make other plans on the date of the final exam such as appointments, early vacation departures, family outings, etc. Such changes are not negotiable. If a student has a conflict with another final exam, the student must contact his/her instructor at least two weeks in advance to have it resolved.

Homework: Homework is accessed through Blackboard but will be done online using MyLabMath [MLM]. Problems can be done in any order. You do not have to do them all at once. Homework assignments are an integral part of the course. DO NOT NEGLECT THEM! Homework assignments must be submitted online according to the due dates on MLM.

- **You need to have access to MML beginning the first day of the course.** You can enroll with free temporary access for 14 days. At the end of the free trial period you will be required to enter the purchased access code.
- Do not wait until the due date to do your HW. "Internet problems," "Broken laptops," "MML down on Friday night," etc. are not valid excuses. However, if there is a persistent MML Server problem which is longer than a day -24 hours-, then HW due time may be changed.

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Late Assignment Policy: Late assignments will not be accepted. If you have an extenuating emergency/situation, please contact your instructor as soon as possible.

Inclement Weather: Check the university webpage in the event of inclement weather. In addition, please check your email and Blackboard for course specific information.

Students with Disabilities: George Mason University values diversity and inclusion; we are committed to a climate of mutual respect and full participation. My goal as your instructor is to create a learning environment that are useable, equitable, inclusive, and welcoming. If there are aspects of the instruction or design of this course that result in barriers to your inclusion or accurate assessment or achievement, I invite you to meet with me to discuss additional strategies beyond accommodations that may be helpful to your success. If you believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS). Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see <https://ds.gmu.edu/>). Since accommodations may require early planning and are not provided retroactively, please contact ODS as soon as possible.

Academic Integrity: Mason shares in the tradition of an honor system that has existed in Virginia since 1842. Mason's Honor System was inaugurated in 1963 when the college was a satellite of the University of Virginia. The code is an integral part of university life. On the application for admission, students sign a statement agreeing to conform to and uphold the Honor Code. Students are responsible, therefore, for understanding the code's provisions. In the spirit of the code, a student's word is a declaration of good faith acceptable as truth in all academic matters. Cheating and attempted cheating, plagiarism, lying, and stealing in academic matters constitute Honor Code violations. To maintain an academic community according to these standards, students and faculty members must report all alleged violations to the Honor Committee. For more information and the complete policy, see <https://catalog.gmu.edu/policies/honor-code-system/>.

Use of Student Work: In compliance with the federal Family Educational Rights and Privacy Act, registration in this class is understood as permission for assignments prepared for this class to be used anonymously in the future for educational purposes.

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Tentative Schedule of Sections: Below is a tentative schedule of the sections we plan on covering. Note that topics may be moved to accommodate explorations, but the **exam dates will NOT change.**

Week	Monday	Tuesday	Wednesday	Thursday
June 25 – July 1	Syllabus / Parametric / Polar	12.1 / 12.2	12.3 / 12.4	12.4 / 12.5
July 2 – July 8	13.1 / 13.2	No Class	13.3 / 13.4	14.1 / 14.2
July 9 – July 15	Exam 1 / 14.3	14.3 / 14.4	14.4 / 14.5	14.5 / 14.6
July 16 – July 22	14.7 / 14.8	14.8 / 15.1	15.1 / 15.2	Exam 2 / 15.2
July 23 – July 29	15.4 / 15.5	15.7	15.7	Final Exam
	Final Exam Friday, July 28 10:30am - 1:15pm			

Week	Topics
Week #1 – Week of 6/25	Parametric and Polar Coordinates; Calculus on Parametric Equations; 3-D Coordinate System; Vectors; The Dot Product; The Cross Product; Lines and Planes in Space
Week #2 – Week of 7/2	Curves in Spaces and Their Tangents; Integrals of Vector Functions; Arc Length; Curvature; Normal and Binormal Vectors; Functions of Several Variables; Limits and Continuity
Week #3 – Week of 7/9	Partial Derivatives; The Chain Rule; Directional Derivatives and Gradient Vectors; Tangential Planes, Linearizations, and Differentials
Week #4 – Week of 7/16	Extreme Values and Saddle Points; Lagrange Multipliers; Double and Iterated Integrals over Rectangles; Double Integrals over General Regions
Week #5 – Week of 7/23	Double Integrals in Polar Form; Triple Integrals in Rectangular Coordinates, Triple Integrals over General Regions; Triple Integrals in Cylindrical and Spherical Coordinates