MATH 114 Analytic Geometry and Calculus II
Section D01, Summer 2023

Lecture: MWF 10:30 a.m. – 12:30 p.m., Peterson Hall 1105

Recitation: W 1:30 p.m. – 2:45 p.m., Peterson Hall 1105

Professor: Aman D'Souza

E-mail: adsouza5@gmu.edu

Office: Exploratory Hall 4206

Office Hours: TR 11:30 a.m. - 12:30 p.m. or by appointment

Prerequisites: C or better in MATH 113.

Course Objectives: To understand and be able to make use of the concepts of methods of integration, infinite series, power series, parametric equations, conic sections, and first–order differential equations.

Textbook: Thomas, G.B. *Calculus Early Transcendentals*, 14th Edition, Pearson Publishing, 2018.

MYMATHLAB ACCESS CODE IS NOT REQUIRED

Grading: Your grade will be determined out of a possible 500 points:

Midterms (2)	200 points (100 points for each test)
Final exam (1)	125 points
Quizzes (10)	100 points (10 points per quiz)
Recitation (10)	75 points (7.5 points per recitation)
Total	500 points

Grades will be assigned according to the following scale:

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

Exams:
There will be two midterms and a cumulative final exam. The final exam will replace your lowest midterm exam grade. The final exam will be on **Friday, July 28 from 10:30 am - 1:15 pm.**

Quizzes:
There will be a total of ten quizzes, one quiz each week. The quizzes will be given in-class and I will let you know beforehand what sections each quiz will cover. The two lowest quiz grades will be replaced with the two highest quiz grades. **If you miss a quiz, you will have to make it up by the end of the following week.**

Recitations:
During recitation, we will be working on a worksheet in small groups and going over it together as a class. To get full points, you need to be actively working on the worksheet. I will not be collecting the worksheets, but they will be a good studying tool for both the weekly quizzes and the exams.

Homework:
Homework will be assigned each class period from the textbook and it is assumed that you will complete the assignment before the next class period. While homework will neither be collected nor graded, it is highly recommended that you complete all suggested homework problems.

Attendance:
The importance of class and recitation attendance cannot be over emphasized. Regular and prompt attendance is a must. In the event that you must miss class, avoid falling behind by completing the missed assignment described in the attached class schedule.

Make–up Exams:
If you are unable to be in class on the day of an exam, you must notify me beforehand to make arrangements for a make-up exam. The make-up exam will be different than the in-class exam. Make-up exams will only be given to students with an acceptable excuse. All excuses require documentation.

Important Dates:

- Tuesday, May 30

  The last day you can add this class and the last day you can drop this class with no tuition penalty.

- Tuesday, June 6

  The last day to drop this class with a 50% tuition penalty.

- Wednesday, June 7 - Tuesday, June 13

  This is the unrestricted withdrawal period.

- Wednesday, June 14 - Tuesday, June 27

  This is the selective withdrawal period. If you stop attending classes and plan to withdraw from the course, it is your responsibility to withdraw from the course.

Students with Disabilities:
If you have a documented learning disability or other condition that may affect your academic performance you should:

1. Make sure this documentation is on file with the Office for Disability Services (SUB 1, Room 4205) to determine the accommodations you need.

2. Inform me so we can discuss your accommodation needs.

Policy on Academic Integrity:
GMU is an Honor Code university. The principle of academic integrity is taken very seriously and violations are treated gravely. **IF A STUDENT IS SUSPECTED OF ACADEMIC DISHONESTY ON ANY EXAM OR QUIZ, THE FOLLOWING PROCESS WILL APPLY**:

> At a minimum, a ZERO on that exam or quiz and the incident reported to the Honor committee.

Obtaining Help:
There are many outlets available for you to get help in this class. The Math Tutoring Center is one that I highly recommend. It is located in the Johnson Center in Room 344 and offers free walk-in tutoring.

E-mail and Blackboard:
E-mail is an effective form of communication outside the classroom. I will send announcements through email so make sure that you activate and check your GMU email account regularly. Even students from outside universities are required to use their George Mason email for communication. Please put Math 114 in the subject field anytime you send me an e-mail. I will be using Blackboard in this class to post class announcements, grades and other important information pertaining to the class.

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The following calendar gives a timetable for the course and the list of sections in the textbook, **with suggested problems provided after each class**. The schedule is subject to change.

Date	Section/Activity	Suggested Problems
May 22	5.5 Indefinite Integrals and the Substitution Method	p.348 # 21, 25, 33, 55, 61
	5.6 Definite Integral Substitutions and the Area Between Curves	p.356 # 9(a), 39, 65, 75, 97
May 24	6.1 Volumes Using Cross Sections	p.377 # 19, 27, 53(a)–(d), 55(a)–(c)
May 26	6.2 Volumes Using Cylindrical Shells, **Quiz 1**	
May 31	6.3 Arc Length	
	6.4 Areas of Surfaces of Revolution	
June 02	7.1 The Logarithm defined as an Integral, **Quiz 2**	
June 05	7.2 Exponential Change & Separable DE	
June 07	8.2 Integration by Parts, **Quiz 3**	
June 09	8.3 Trigonometric Integrals	
June 12	8.4 Trigonometric Substitutions	
June 14	Review for Exam 1, **Quiz 4**	
June 16	**EXAM I**	**5.5–5.6, 6.1–6.4, 7.1- 7.2, 8.2**
June 21	8.5 Integration of Rational Functions by Partial Fractions	
June 23	8.8 Improper Integrals, **Quiz 5**	
June 26	10.1 Sequences	
June 28	10.2 Infinite Series	
June 30	10.3 The Integral Test, **Quiz 6**	
July 03	10.4 Comparison Tests	
July 05	10.5 Absolute Convergence; The Ratio and Root Tests	
July 07	10.6 Alternating Series and Conditional Convergence, **Quiz 7**	
July 10	10.7 Power Series	
July 12	Review for Exam 2, **Quiz 8**	
July 14	**EXAM 2**	**8.3–8.5, 8.8, 10.1–10.6**
July 17	10.8 Taylor and Maclaurin Series	
July 19	10.9 Convergence of Taylor Series, **Quiz 9**	
July 21	10.10 Applications of Taylor Series	
July 24	11.1 Parametrizations of Plane Curves	
July 26	Review for Final Exam, **Quiz 10**	
July 28	**FINAL EXAM**	**Cumulative**