MATH 114 Analytic Geometry and Calculus II Section 003, Fall 2021
Lecture: MW 4:30P–6:20P, DK 1006
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Office: Exploratory Hall 4415 **Office Hours**: MW 3:00P–4:00P, By Appointment

Recitation 305: R 4:30-5:20P, Peterson Hall 1105
Recitation 313: R 5:25-6:15P, Peterson Hall 1105
Jackson Vaughn Williams email: jwill52@gmu.edu

Prerequisites: C or better in MATH 113.

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

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 425 points:

Tests (2)	200 points (100 points for each test)
Final Test (1)	125 points
Worksheets (20)	100 points (5 points per worksheet)
Total	425 points

Tests: There will be two (2) midterm tests and a final exam. It is expected that students will take the test in class at the scheduled time.

Homework: Homework will be assigned each class period 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 assignments.

Worksheets: There will be a total of twenty four (24) worksheets, one worksheet every lecture period (except the first and last lecture period). If you are not in class on the day a worksheet is given there will be no make-up for that worksheet. The four (4) lowest worksheet grades will be dropped

Grading: 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

Attendance: The importance of class 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. Remember that if you missed a lecture session you get a zero as your grade for that class' worksheet.

Make–up Exams: If you are unable to be in class on the day of a test you must notify me beforehand (in person or by-mail) to make arrangements for a make-up test. The make-up test will be different and more difficult than the in-class test. Makeup exams will only be given to students with an acceptable excuse. The only acceptable excuses are **religious holy day, family emergency, school sponsored event, job interviews, or sickness**. All absences require documentation, for example, You must notify me of any religious holy days within the first 2 weeks of the semester. **All other absences will be given a zero for that test. No exceptions!**

Important Dates

August 30: is the last day you can add a class. If your name is not on my class roll then you cannot take this class.

September 07 Last day to drop with no tuition penalty (100% Tution Refund).

September 14 Last Day to Drop with 50% tuition penalty.

September 08–October 27: Selective Withdrawal Period. If you stop attending classes and plan to withdraw from the course, it is your responsibility to withdraw from the course. You will not be able to withdraw yourself from the course after the above dates. **IF YOU DO NOT WITHDRAW BEFORE OCTOBER 27 AND YOU STOP ATTENDING CLASSES YOUR FINAL GRADE WILL BE AN F**.

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

1. Make sure this documentation is on file with Office for Disability Services (SUB I, Rm. 4205; 993-2474;http://ods.gmu.edu) to determine the accommodations you need; and
2. Inform me so we can discuss your accommodation needs.

Cellular Telephones in the Classroom Students must turn off all cellular telephones and other communication devices when in the classroom. Students whose cellular telephones interrupt instruction will be asked to leave the classroom. Emergency personnel only who are on call and must be available by telephone should notify the instructor at the beginning of the course and should place their emergency phones on vibrate mode and answer such calls outside the classroom

Policy on Academic Dishonesty GMU is an Honor Code university; please see the Office for Academic Integrity for a full description of the code and the honor committee process. The principle of academic integrity is taken very seriously and violations are treated gravely. It is the responsibility of each student to ensure that other persons are not permitted access to answers to exams or quizzes or assignments which are required to be the sole work of each student. **IF A STUDENT IS SUSPECTED OF ACADEMIC DISHONESTY ON ANY EXAM OR QUIZ OR ASSIGNMENT REQUIRED TO BE THE SOLE WORK OF THE STUDENT, THE FOLLOWING PROCESS WILL APPLY**:

> At a minimum, a ZERO (0) on that exam or quiz or assignment and incident reported to the Honor committee.

See *academicintegrity.gmu.edu* for a copy of the Honor Code.

Obtaining Help: There are many outlets available for you to get help in this class. The Math Tutoring Center, is in the Johnson Center room 344 and offers free tutoring to Math 114 students. I highly recommend using it. The schedule of the tutoring center can be found at *http://math.gmu.edu/tutorcenter.htm*.

E-mail and Blackboard: E-mail is an effective form of communication outside the classroom. I frequently 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. For privacy purposes, all email communications will only be done using GMU email accounts. I will be using Blackboard in this class to post class announcements, grades and other important information pertaining to the class. You can access this by going to mymason.gmu.edu and logging in using your NetID.

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.

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

Date	Section/Activity	Suggested Problems
Aug 23	6.1 Volumes Using Cross Sections	1-10 odd, 11,13, 21-38 odd, 41,43,49, 53, 55
Aug 25	6.2 Volumes Using Cylindrical Shells	1-21 odd, 23, 25, 27, 31, 33
Aug 30	6.3 Arc Length	1-24 odd, 25, 29
	6.4 Areas of Surfaces of Revolution	1-21 odd
Sept 01	7.1 The Logarithm defined as an Integral	1-52 odd
	7.4 Relative Rates of Growth	1, 5, 7, 9, 15
Sept 08	8.1 Using Basic Integration Formulas	1-44 odd, 47, 51, 53
	8.2 Integration by Parts	1-56, 57, 59, 67, 71, 75
Sept 13	8.3 Trigonometric Integrals	1-68 odd
Sept 15	8.4 Trigonometric Substitutions	1-52 odd, 61
Sept 20	8.5 Integration of Rational Functions by Partial Fractions	1-66 odd
Sept 22	**TEST I**	**6.1–6.4, 7.1, 7.4, 8.1-8.4**
Sept 27	8.6 Integral Tables and Computers	1-56 odd, 62
	8.7 Numerical Integration	1-22 odd, 25, 27
Sept 29	8.8 Improper Integrals	1-68 odd
Oct 04	9.1 Solutions, Slope Fields, and Euler's Method	1-4, 5-6, 7-17 odd
Oct 06	9.2 First-Order Linear Equations	1-20 odd
Oct 14	9.3 Applications	1,2, 5-16 odd
Oct 15	10.1 Sequences	1-100 odd
Oct 18	10.2 Infinite Series	1-76 odd, 79, 89
Oct 20	**TEST II**	**8.5–8.8, 9.1-9.3**
Oct 25	10.3 The Integral Test	1-46 odd, 51, 53, 61, 62
Oct 27	10.4 Comparison Tests	1-56 odd, 58-64
Nov 01	10.5 Absolute Convergence; The Ratio and Root Tests	1-56 odd, 63, 65
Nov 03	10.6 Alternating Series and Conditional Convergence	1-48 odd, 49, 51, 55, 57-82 odd
Nov 08	10.7 Power Series	1-40 odd
Nov 10	10.8 Taylor and Maclaurin Series	1-40 odd
Nov 15	10.9 Convergence of Taylor Series	1-38 odd, 39, 40, 43, 45
Nov 17	10.10 Applications of Taylor Series	1-52 odd
Nov 22	11.1 Parametrizations of Plane Curves	1-18 odd, 19-24, 31, 33, 35
Nov 29	11.2 Calculus with Parametric Curves	1-30 odd, 31, 37, 39
Dec 01	11.3 Polar Coordinates	1-66 odd
Dec 08	**FINAL TEST**	**10.1-10.10, 11.1-11.3**