MATH 114 – A01 Analytic Geometry and Calculus II
Summer 2021

Instructor: ***Gabriela Bulancea***
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Lecture and Recitation Live Sessions: MTWRF 11:30 am – 12:50 pm and 1:30 -2:20 pm
Office Hours: MTWR 2:30 pm - 3:00 pm, or by appointment

Final Exam
Thursday, June 17, 2021, 10:30 am - 1:15 pm

Textbook: *Thomas' Calculus (Early Transcendentals)* by Hass, Heil and Weir (fourteenth edition, Pearson publisher). We cover most of Chapters 6 to 11. We will also use MyMathLab from Pearson, which comes bundled with the book in the various formats.

Prerequisites: C or better in Calculus I (MATH 113).

Broad purpose of the course: At the end of the semester the student should be able to solve various geometry and physics problems that require the use of definite integrals, use techniques of to evaluate integrals, understand infinite series and power series, and be able to identify and graph conic sections and basic parametric and polar curves.

Class Policies

1. **Technology:**

- **The synchronous part of lectures and recitations will be conducted via Blackboard Collaborate or Zoom sessions. The Blackboard sessions will be recorded, and the recordings will be available to you for the duration of the semester. You are expected to attend these live sessions. During lectures I will write on a OneNote Notebook, which you will be able to then access at any time to review lecture notes.**
- **The exams will be administered via Zoom. To be able to take the exams you will need a working webcam.**
- **We will be using the online homework system MyMathLab for which you need to the access code associated with the textbook.**
- **We will be using the Piazza discussion board for posting questions and answers related to the material we discuss in class or to class logistics.**

2. **Teaching and learning method:**

- As a university student, you are responsible for your own learning.
- Lecture, demonstration, discussion, problem-solving, tests, and group tasks will be used to help you learn. **Class attendance and completion of assignments are expected.**
- **Pre-recorded lectures will be posted on the Blackboard page of the course. You should watch these recordings before our live meetings in which we will be discussing the material covered in the corresponding recordings.**
- During the live sessions we will solve additional problems and you will be assigned problems to be worked in class.

3. **Communication:**

- **You will receive daily Blackboard announcements regarding homework, quizzes, exams, and specific readings for the following day.**

- **If you have questions of general interest, please post them on Piazza, so everybody can benefit from having the answer to that question. If you have questions about your academic performance in the class or questions of a confidential nature, please send them to me via email.**

4. **Homework:**

- There will be online homework problems **@** **http://www.mymathlab.com** from each section, which will be graded.
- **MyMathLab:** ***For instructions on how to register see the handout posted on Blackboard.***

5. **Tests:**
   There is a tentative schedule for tests below. You are responsible for keeping up with all information announced in the classroom and on Blackboard. There will be no makeup tests. You may replace your lowest test grade with your final exam percentage.

6. **Class participation:**
   There will be daily in class questions. Your participation to class discussion, Piazza contributions and attendance of office hours will count towards your class participation grade.

7. **Grading:** Grades will be assigned according to the percent system given below:

15% Test 1 Tuesday, May 25
15% Test 2 Thursday, June 3
15% Test 3 Thursday, June 10
25% Final Exam Thursday, June 17
10% Homework
10% Quizzes
10% Class participation: based on your participation to in class activities, Piazza discussion board contributions, office hours attendance.

Grading scale:

A-: 90 - 92;	**A: 92 – 98;**	**A+: 98 – 100**
B-: 80 - 82;	**B: 82 – 88;**	**B+: 88 – 90**
C-: 70 - 72;	**C: 72 – 78;**	**C+ : 78 – 80**
D: 60 - 70;	**F: 0 – 60.**	

8. **Additional Help:**

- ***Office hours***
- ***The Math Tutoring Center will be offering online tutoring via questions/answers posted on Piazza and via Blackboard Collaborate sessions. See http://math.gmu.edu for information about how to access the Tutoring Center and for the current schedule.***

UNIVERSITY POLICIES:

- The University Catalog, http://catalog.gmu.edu, is the central resource for university policies affecting student, faculty, and staff conduct in university academic affairs. Other policies are available at http://universitypolicy.gmu.edu/. All members of the university community are responsible for knowing and following established policies.

- **Honor Code: - It is expected that each student in this class will conduct themselves within the guidelines of the Honor Code. Given the format of the class, it is important to point out that sharing**

with anyone information of any kind about exams or quizzes (either before or during the tests) or using online resources during the exams will result at a minimum in a grade of zero for all parties involved. Violations will also be reported to the university Honor committee where further consequences such as probation or expulsion from the university may be incurred. See http://academicintegrity.gmu.edu/honorcode for a copy of the Honor code.

- **Disability Services:** Reasonable accommodations are available for students who have a documented disability. Please contact Disability Services if you require accommodations.
- **COUNSELING AND PSYCHOLOGICAL SERVICES** (CAPS): http://caps.gmu.edu

Schedule for Math 114 Summer 2021

Day	Sections Covered	Topic
May 17	Review, 5.6	Regions Between Curves
May 18	6.1	Volume by Slicing
May 19	6.2	Volume by Shells
May 20	6.3, 6.4	Length of Curves; Surface Area
May 21	6.5, 6.6, 7.1, 7.2	Physical Applications, Logarithmic and Exponential Functions
May 24	7.3, 7.4	Hyperbolic Functions, Relative Rates of Growth
May 25	***Test 1***, 8.2	Integration by Parts
May 26	8.3, 8.4	Trigonometric Integrals, Trigonometric Substitutions
May 27	8.5	Partial Fractions
May 28	8.6, 8.7	Other Integration Strategies, Numerical Integration
June 1	8.8	Improper Integrals
June 2	9.1, 9.2	Introduction to Differential Equations
June 3	***Test 2***, 10.1	Sequences
June 4	10.2	Infinite Series
June 7	10.3, 10.4	Convergence Tests;
June 8	10.5, 10.6	Convergence Tests
June 9	10.7	Power Series
June 10	***Test 3***, 10.8	Taylor Series
June 11	10.9, 10.10	Convergence and applications of Taylor Series
June 14	11.1, 11.2, 11.3	Parametric Equations, Polar Coordinates
June 15	11.6	Conic Sections
June 16		Review
June 17	Final Exam	