MATH 114 – DL1 Analytic Geometry and Calculus II
Fall 2022

Instructor: ***Gabriela Bulancea***   **E-mail** **gbulance@gmu.edu**   **TA: Frank Pryor, fpryor@gmu.edu**
Lecture **– asynchronous; see the Blackboard page of the course for information**   ***Recitation*** **- synchronous; live sessions: R 7:20 – 8:10 pm and 8:20 – 9:10 pm (use the Zoom link on Blackboard to join)**   ***Office Hours*****: TR 3 - 4 pm, W 4-5 pm, or by appointment (use the Office Hours link on Blackboard)**   **Exams proctored on campus – see schedule below**
Final Exam proctored on campus   **Saturday, December 10, Sunday, December 11 in Lecture Hall 1 – you will need to sign up for one of the available time slots**   **(time slots on Friday, December 9, still to be confirmed)**

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 recitations will be conducted via Zoom sessions (see instructions on Blackboard). You are expected to attend these live sessions.
- The exams will be proctored on campus. Students who are enrolled in fully online programs or live more than 50 miles away from the campus, may request to take the exam proctored online through the GMU Testing Center**. To take the exams online you will need two devices (with working cameras)**, a computer for your exam and a tablet/phone for your zoom call.
- 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 a Harmonize 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. **Expect to work 9-12 hours per week on assignments for this course (this includes watching pre-recorded lectures, answering the Check Your Understanding questions, completing the quizzes and homework assignments).**

- Pre-recorded lectures, discussion, problem-solving, tests, and group tasks will be used to help you learn. Recitation attendance and completion of assignments are expected.
- Pre-recorded lectures will be posted on the Blackboard page of the course in the Learn Here lesson folders. You should watch these recordings before the recitations in which you will be solving problems related to the material covered in the corresponding recordings.

3. **Communication:**

- You will receive weekly Blackboard announcements regarding homework, quizzes, exams, and specific readings for the following week.
- If you have questions of general interest, please post them on Harmonize, 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.
- Students must use their Mason email account to receive important University information, including communications related to this class. I will not respond to messages sent from or send messages to a non-Mason email address.

4. **Recitations:** conducted via live sessions on Zoom. During recitation you will work on problems related to the material covered in the corresponding pre-recorded lectures. During each session, you will be asked to work in groups on assigned problems.

5. **Homework:** There will be online homework problems from each section, which will be graded. **Unless otherwise stated**, all assignments are due by the end of the day for which they are assigned. For purposes of this course, a day is defined as **beginning at 12:01 am** and **ending at 11:59 pm. To access the mymathlab assignments, please use the links posted in each of the Learn Here lesson folders.**
6. **Quizzes:** There will be quizzes posted in each lesson folder. Quiz problems are randomly selected from a pool. You will have 20 minutes to submit your answers to simulate the timed exam environment. You can take each quiz up to 3 times, but questions will vary on each attempt. Only your highest score will be recorded in the grade center. **Your two lowest quiz scores will be dropped in the final grade calculation.**

7. **Tests: The exams will consist of short answer problems and will be proctored on campus; students who are enrolled in fully online programs or who live more than 50 miles away from campus, may request to the take exams proctored online through the Math Testing Center. 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.**

8. **Class participation:** Your contributions to the discussion board and **regular attendance** of office hours will count towards your class participation grade.

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

20% Test 1 Saturday, October 1 in Lecture Hall 1 (2 time slots 10:30 am – 12:30 pm and 12:30 -2:30 pm)*
20% Test 2 Saturday, November 12 in Lecture Hall 1 (2 time slots 10:30 am – 12:30 pm and 12:30 -2:30 pm)*
20% Final Exam Saturday, December 10 and Sunday, December 11 in Lecture Hall 1 (2 time slots 10:30 am -1 pm and 1pm- 3:30 pm)*
10% Homework
10% Quizzes
10% Recitation
10% Class participation: based on your discussion board contributions (Check Your Understanding questions) and regular office hours attendance.

*Additional time slots might be available on the Friday before each of the exams; we can make reservations for rooms for weekdays only after the last day to add, so I will inform you about this after the last day to add.

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.**	

***10.* Additional Help:**

- ***Office hours (use the Office Hours link on Blackboard).***
- ***The Math Tutoring Center (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.** Some kinds of participation in online study sites violate the Mason Honor code: these include accessing exam or quiz questions for this class; accessing exam, quiz, or assignment answers for this class; uploading of any of the instructor's materials or exams; and uploading any of your own answers or finished work. Always consult your syllabus and your professor before using these sites. **Thus, sharing with anyone information of any kind about exams or quizzes before, during, or after taking a test, or using online resources during exams or quizzes 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 at George Mason University** is committed to providing equitable access to learning opportunities for all students by upholding the laws that ensure equal treatment of people with disabilities. If you are seeking accommodations for this class, please first visit http://ds.gmu.edu/ for detailed information about the Disability Services registration process. Then please discuss your approved accommodations with me. Disability Services is located in Student Union Building I (SUB I), Suite 2500. Email:ods@gmu.edu | Phone: (703) 993-2474
- **COUNSELING AND PSYCHOLOGICAL SERVICES** (CAPS): http://caps.gmu.edu
- To support your safety and the safety of everyone in this class, all students are required to complete the Mason COVID Health Check before each class meeting. If you suspect that you are sick, please stay home and contact me about options for making up the missed class.
- George Mason University is committed to promoting and maintaining an equitable and just work and learning environment. We welcome and value individuals and their differences including race, economic status, gender expression and identity, sex, sexual orientation, ethnicity, national origin, first language, religion, age, and disability.

Schedule for Math 114 DL1 Fall 2022

Weeks	Lessons	Assignments	Due Dates
Week 1 **8/22**	**Lesson 1:** Chapter 5 and Section 6.1	• Review Chapter 5 • Read Chapter 6.1 • Watch the Lectures • Check your understanding • Complete Ice Breaker Activity (Introductions) • Complete MyLabMath (MLM) Homework • Complete Weekly Quiz (BB) • Post any course questions (optional) • Attend the recitation	**Due Date: 8/29** **Discussion Assignment** • Initial Post by 8/29 • Replies by 9/6
Week 2 **8/29**	**Lesson 2:** Sections 6.2 and 6.3	• Read Chapter sections 6.2 and 6.3 • Watch the Lectures • Check your understanding • Complete MyLabMath (MLM) Homework • Complete Weekly Quiz (BB) • Lesson Pulse Check Poll (optional) • Attend the recitation	**Due Date: 9/6** **Check Your Understanding Assignment:** • Initial Post by 9/5 • Reply by 9/12
Week 3 **9/5**	**Lesson 3:** Sections 6.4, 6.5, 6.6 and 7.1	• Read Sections 6.4, 6.5, 6.6, and 7.1 • Watch Lesson 3 Lectures • Check your understanding • Complete MyLabMath (MLM) Homework • Complete Weekly Quiz (BB) • Receive a reward (optional; only for those who got perfect score on the quiz). • Attend the recitation	**Due Date: 9/12** **Check Your Understanding Assignment:** • Initial Post by 9/12 • Reply by 9/19

Week 4 **9/12**	**Lesson 4:** Sections 7.2, 7.3 and 7.4	• Read Sections 7.2, 7.3 and 7.4 • Watch Lesson 4 Lectures • Check your understanding • Complete MyLabMath (MLM) Homework • Complete Weekly Quiz (BB) • Post your Exam Review questions (optional) • Attend the recitation	**Due Date: 9/19** **Check Your Understanding Assignment:** • Initial Post by 9/19 • Reply by 9/26
Week 5 **9/19**	**Lesson 5:** Sections 8.2 and 8.3	• Read Sections 8.2 and 8.3 • Review Lesson Lectures • Check your understanding • Complete MyLabMath (MLM) Homework • Complete Weekly Quiz (BB) • Attend the recitation • Pulse Check Poll (optional, not graded)	**Due Date: 9/26** **Check Your Understanding Assignment:** • Initial Post by 9/26 Reply by 10/3
Week 6 **9/26**	**Lesson 6:** Sections 8.4 and 8.5 **Exam 1** **Saturday 10/1 (Friday 9/30 to be confirmed)** • Proctored on campus • covers sections 6.1 through 7.4	• Read Sections 8.4 and 8.5 • Review Lesson Lectures • Check your understanding • Complete MyLabMath (MLM) Homework • Complete Weekly Quiz (BB) • Attend the recitation • Lesson Pulse Check Poll (optional)	**Due Date: 10/3** **Check Your Understanding Assignment:** • Initial Post by 10/3 • Reply by 10/10
Week 7 **10/3**	**Lesson 7:** Sections 8.7 and 8.8	• Read Sections 8.7 and 8.8 • Review Lesson Lectures • Check your understanding • Complete MyLabMath (MLM) Homework • Complete Weekly Quiz (BB) • Attend the recitation	**Due Date: 10/10** **Check Your Understanding Assignment:** • Initial Post by 10/10 • Reply by 10/17

Week 8 **10/10**	**Lesson 8:** Sections 10.1	• Read Section 10.1 • Review Lesson 8 Lectures • Check your understanding • Complete MyLabMath (MLM) Homework • Complete Weekly Quiz (BB) • Attend the recitation	**Due Date: 10/17** **Check Your Understanding Assignment:** • Initial Post by 10/17 • Reply by 10/24
Week 9 **10/17**	**Lesson 9:** Section 10.2	• Read Section 10.2 • Review Lesson Lectures • Check your understanding • Complete MyLabMath (MLM) Homework • Complete Weekly Quiz (BB) • Attend the recitation	**Due Date: 10/24** **Check Your Understanding Assignment:** • Initial Post by 10/24 • Reply by 10/31
Week 10 **10/24**	**Lesson 10:** Sections 10.3 and 10.4	• Read Chapter Sections 10.3 and 10.4 • Review Lesson Lectures • Check your understanding • Complete MyLabMath (MLM) Homework • Complete Weekly Quiz (BB) • Attend the recitation	**Due Date: 10/31** **Check Your Understanding Assignment:** • Initial Post by 10/31 • Reply by 11/7
Week 11 **10/31**	**Lesson 11:** Sections 10.5, 10.6, and 10.7	• Read Chapter Sections 10.5, 10.6, and 10.7 • Review Lesson Lectures • Check your understanding • Complete MyLabMath (MLM) Homework • Complete Weekly Quiz (BB) • Attend the recitation	**Due Date: 11/7** **Check Your Understanding Assignment:** • Initial Post by 11/7 • Reply by 11/14
Week 12 **11/7**	**Lesson 12:** Sections 10.8, 10.9, and 10.10 **Exam 2, Saturday 11/12 (Friday 11/11 to be confirmed)** • proctored on campus • covers sections 8.3 through 10.2	• Read Sections 10.8, 10.9, and 10.10 • Review Lesson Lectures • Check your understanding • Complete MyLabMath (MLM) Homework • Complete Weekly Quiz (BB) • Attend the recitation	**Due Date: 11/14** **Check Your Understanding Assignment:** • Initial Post by 11/14 • Reply by 11/21

Week 13 **11/14**	**Lesson 13:** Sections 11.1, 11.2	• Read Chapter 11.1, 11.2, 11.3, and 11.4 • Review Lesson 13 Lectures • Check your understanding • Complete MyLabMath (MLM) Homework • Complete Weekly Quiz (BB) • Attend the recitation	**Due Date: 11/28** **Check Your Understanding Assignment:** • Initial Post by 11/28 • Reply by 12/3
Week 14 **11/21**	**Lesson 13** Sections 11.3, 11.6	• Read Chapter 11.3, and 11.6 • Review Lesson 13 Lectures • Check your understanding • Complete MyLabMath (MLM) Homework • Complete Weekly Quiz (BB) Attend the recitation	**Due Date: 11/28** **Check Your Understanding Assignment:** • Initial Post by 11/28 Reply by 12/3
Week 15 **11/28**	**Final exam review**	Synchronous review session (recorded)	
Saturday 12/10, Sunday 12/11 **(Friday 12/9 to be confirmed)**		**Final Exam** – proctored on campus; cumulative	