Math 114: Analytic geometry and calculus II

Fall 2020

George Mason University

Course meetings: MW 10:30-12:20, `https://gmu.zoom.us/j/92551084503`

Instructor: Harry Bray, he/him/his, `hbray@gmu.edu`,
virtual office `https://gmu.zoom.us/j/95232379725`

Graduate Teaching Assistant: Julia Vranas

Office hours: By appointment.

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

Course materials: The textbook is

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

We will use MyMathLab from Pearson, which comes bundled with the book in the various formats. This course does **not** require calculators.

Technology

The following software is required for all students:

- Blackboard
- Zoom
- MyMathLab
- Gradescope

Students who opt in to collaboration days may also be expected to use other software; more elaboration to follow.

Course topics and goals:

At the end of the semester, students should be able to solve various geometry and physics problems that are modelled with definite integrals, use techniques to evaluate integrals, understand infinite series and power series, and be able to identify and graph conic sections and basic parametric and polar curves. We cover most of chapters 6 through 11 of the textbook.

Structure of the course:

Students will be introduced to course content via **reading the textbook** and **recorded lecture videos**. Students are expected to view this content *outside of scheduled class time.*

The instructor will host virtual class meetings during the scheduled class meeting time. During these meetings, students will receive additional support with the material and course work. In general, these meetings will **not** be traditional style lecture classes. The virtual class meetings will be hosted on Zoom. Students will need to have Zoom installed on their devices to attend sessions.

Monday classes will have varied content. *Wednesday classes* will be collaboration days. More elaboration on collaboration days will follow.

Students will have additional support at scheduled **Recitation sessions**. These are opportunities for students to deepen understanding and receive support from the teaching assistant.

Grading:

All students will be graded on two midterm exams, one final exam, weekly homework, and regular quizzes. Students will additionally have the option to complete collaborative team assignments during collaboration days. These will be written assignments which will include a collaboration score. Students use class time to collaboratively work through problems with their team which are designed to deepen understanding.

Grade breakdown for students who **opt in** to collaboration assignments:

Assessment	Percentage of final grade
Exam 1	20%
Exam 2	20%
Final	30%
Homework	10%
Quizzes	10%
Collaborations	10%

Grade breakdown for students who **opt out** of collaboration assignments:

Assessment	Percentage of final grade
Exam 1	20%
Exam 2	20%
Final	30%
Homework	10%
Quizzes	20%

The deadline for students to decide whether or not to opt in to collaborative team assignments is **Friday September 4, 2020**. This decision cannot be changed once it has been finalized.

A student's numerical grade is then converted to a final letter grade using the following scale:

A-: 89.5 - 92.49; A: 92.5 - 97.49; A+: 97.5 - 100
B-: 79.5 - 82.49; B: 82.5 - 87.49; B+: 87.5 - 89.49
C-: 69.5 - 72.49; C: 72.5 - 77.49; C+: 77.5 - 79.49
D: 59.5 - 69.49; F: 0 - 59.49.

Exams:

The exams are scheduled on the dates listed below.

Assessment	Date	Time
Exam 1	**Monday September 28**	during class
Exam 2	**Monday November 9**	during class
Final	**Monday December 14**	10:30am – 1:15pm

All students are expected to complete exams as scheduled. **Any conflicts must be communicated to the instructor as soon as possible, and no later than Tuesday, September 15, 2020.** Any accommodation of conflicts is at the sole discretion of the instructor.

The exams will be administered in virtual format. Exams may have both written components submitted via **Gradescope** and **MyMathLab** components.

Homework, Quizzes, and Collaborations:

Students will be expected to complete regular homework and quizzes. Homework and quizzes may involve submission in **MyMathLab** or **Gradescope**. The instructor may schedule quizzes during the scheduled class meeting period, in which case students would be expected to complete the quiz during the designated time period.

Students who opt in to collaborations will be expected to attend the collaboration days, during the scheduled class meeting time on Wednesdays at the virtual classroom **Zoom** link. Attendance and participation will factor into the collaboration score that students receive. The students will collaborate on assigned problems during this time using software for shared whiteboards chosen by the instructor. Students will be supported in this work by the instructor. With their team, students submit a final written output via **Gradescope**.

The deadline for students to decide whether or not to opt in to collaborative team assignments is **Friday September 4, 2020**. This decision cannot be changed once it has been finalized.

Conduct, collaboration, and academic integrity:

You are expected to follow the GMU Honor Code:

`https://oai.gmu.edu/mason-honor-code/`

No collaboration is allowed on quizzes or tests. Any indication that you have worked together, used someone elses ideas, copied, or allowed fellow student(s) to copy your work for these assessments is a violation of the GMU Honor Code. Please make sure

you are clear on which assignments can be done collaboratively. If it is not stated specifically, then collaboration is not allowed.

Some of the behaviors that will be considered cheating include:

- Communicating with another person during an assessment which does not allow for collaboration.
- Copying material from another person from **any assignment being graded** and submitting it as if it is your own individual work.
- Allowing another person to copy from any assignment being graded.
- Use of unauthorized assistance on any assignment being graded.
- Use of unauthorized notes, books, calculators or cellphones during an assessment.
- Providing or receiving a copy of a quiz or exam used in the course.

Services and accommodations: If you have a learning or physical difference that may affect your academic work, please see me and contact the Office of Disability Services (ODS) at 993-2474, `http://ods.gmu.edu`. All academic accommodations must be arranged through the ODS.

Counseling and Psychological Services are available for GMU students: `http://caps.gmu.edu` / 703-993-2380

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