Analytic Geometry and Calculus III

Math 213-001

Fall 2021

This is the web page **http://math.cos.gmu.edu/~wanner/courses/m213f21/index.html**. It will be updated regularly and always contain the latest information on the course. This website is only for general policies concerning the course, as well as for continuously updated syllabus and additional homework and lecture video information. For all other information on the course, including scanned lecture notes, graded homework assignments, etc. please go to Blackboard.

General Information:

Instructor:	Thomas Wanner
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Recitation Instructor:	Joseph Franks
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Grader:	Sarah Boyt
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Lectures:	MW 1:30pm-2:45pm, Horizon Hall 2014
Prerequisites:	Grade of C or better in MATH 114
Textbook:	*Thomas' Calculus, Early Transcendentals*, 14th edition, by J. Hass, C. Heil, M.D. Weir (Pearson, 2018). *There are several versions of this book. The "multivariable" version contains only the material we cover, the stated version covers all of Calculus I through III. Either version is fine, as long as it is the 14th edition. Also, you do not need to purchase MyMathLab access.*
Recitation Sections:	T 10:30am-11:20am (Section 301, CRN 70922), T 11:30am-12:20pm (Section 302, CRN 71745), T 12:30pm-1:20pm (Section 303, CRN 70923), all in Aquia Building 213.

Other Information:

- Syllabus (including test and final exam dates and times)
- Additional Homework Problems (these are for additional practice and do not have to be turned in)
- Youtube links to all the lecture videos (in case you miss class, they are not a replacement for coming to class though!)
- General policies and procedures (including grading policies)
- Relevant official GMU policies

General Policies and Procedures

Math 213-001

Fall 2021

Study Suggestion

While I realize that you have only a limited amount of time available for this class, the following strategy has proven very successful in studying for math classes, and I strongly advise its use: Prepare for the lecture by reading the scheduled section(s) in the textbook; even if you do not understand everything, you will have an overview of what to expect in class. At this point, you should review any section, which might be needed as background for the new material. Then attend the lecture and take your own notes. Afterwards, you should review the textbook and your notes as much as necessary to understand the material; test yourself by working out the examples in the text! If you still have problems, watch the relevant parts of the youtube video for the lecture. At this point, you are ready to do the homework problems for this section as a final test of your understanding. You should realize that this approach actually saves time over the whole semester, since it is easier to do homework problems right after studying the material, and thus reinforcing the lecture.

The purpose of homework is to reinforce concepts introduced in class. Mathematics can only be learned by applying these concepts yourself. Only as a secondary purpose is the homework designed to help your self-evaluation and to prepare you for the tests! Some of the homework problems will be collected and graded, but you should do also all of the additional homework problems and ask about those you have difficulty with.

Additional help is available in the Mathematics Tutoring Center, located in the Johnson Center room 344. Hours are posted on the Tutoring Center website.

Recitations

There are three recitation sections for this course, and you must be enrolled in one of them. You are expected to attend recitations, where homework problems will be reviewed. This is your venue for asking any questions you might have about the additional homework problems and the course material. Please use it! **Due to space constraints in the class room for the recitations, you have to attend the recitation that you are registered for.**

Grading Policies

There will be two tests and one comprehensive final exam. See the syllabus for the dates and times, as well as the material covered by each of them. In addition, every week you have to complete homework assignments on Gradescope, which will be graded and count towards your homework score. All tests and the final exam will be closed book. **The use of calculators, cell phones, or smart watches is not allowed. No make-up tests will be given.** If you miss a test due to a legitimate reason, the final exam will be used in its place. For this, you have to contact me immediately (i.e., on the day of the test!) via e-mail, and provide documentation upon your return. If I do not hear from you before the exam starts, the exam will count zero points. Also, do not arrange to leave before the final exam and expect to take it early. Per university policy, the final exam has to be taken at the published time.

According to university policy, attempts at cheating are considered a serious offense against the student honor code and will be looked upon seriously. The right is reserved to check a picture identification during any of the exams.

Your final grade will be determined from your performance in the weekly homework assignments (some of the lowest scores will be dropped), the two tests, and the final exam. Weights for the various items will be

distributed approximately according to the following schedule:

Homework	Test 1	Test 2	Final exam
100 points	100 points	100 points	200 points

The assignment of your course grade is based on the percentage of total points earned out of these 500 points. The following grading scale may serve as a guideline, although changes are possible:

Score above	90%	80%	70%	60%	otherwise
Letter grade	A-, A, or A+	B-, B, or B+	C or C+	D	F

Both the weight distribution and the grading scale are subject to change by announcement in class.

Syllabus

Math 213-001

Fall 2021

The following table contains a tentative schedule for the course. It will basically cover the material in Chapters 12-16 from the textbook *Thomas' Calculus, Early Transcendentals*, 14th edition, by J. Hass, C. Heil, M.D. Weir (Pearson, 2018) as indicated below. If necessary, some adjustments to the syllabus will be made later and announced in class.

Week	Date(s)	Sections covered in class	Remarks
1	08/23 - 08/27	12.1, 12.2, 12.3	
2	08/30 - 09/03	12.4, 12.5, 12.6	
3	09/06 - 09/10	13.1, 13.2	No class Monday due to Labor Day!
4	09/13 - 09/17	13.3, 13.4, 14.1	
5	09/20 - 09/24	Review, Test	Test 1, Wednesday 09/22
6	09/27 - 10/01	14.2, 14.3	
7	10/04 - 10/08	14.4, 14.5, 14.6	
8	10/11 - 10/15	14.6, 14.7, 14.8	Monday class meets Tuesday due to Fall Break!
9	10/18 - 10/22	14.8, 15.1	
10	10/25 - 10/29	15.2, 15.3	
11	11/01 - 11/05	Review, Test	Test 2, Wednesday 11/03
12	11/08 - 11/12	15.4, 15.5, 15.7	
13	11/15 - 11/19	15.8, 16.1, 16.2	
14	11/22 - 11/26	16.3	Thanksgiving Week!
15	11/29 - 12/03	16.4, Review	
16	12/08	Final Exam	Final exam, Wednesday 12/08, 1:30pm-4:15pm

The following table contains detailed information about the quizzes and tests.

Week	Date	Test	Covered Sections
5	Wednesday 09/22	Test 1	TBA
11	Wednesday 11/03	Test 2	TBA
16	Wednesday 12/08	Final exam, 1:30pm-4:15pm	Comprehensive

Additional Homework Problems

Math 213-001

Fall 2021

The following table contains a list a problems in the book which cover the types of questions that you might encounter in the tests. These problems do not have to be turned in, they are for your practice only. I urge everyone to do all of these problems! If you have any questions concerning a problem, please see me or the TA during office hours.

Week	Date	Section	Problems
1	08/23	12.1	1-15 (odd), 17-21 (odd), 25-29 (odd), 51-55 (odd)
	08/25	12.2	1-11 (odd), 17, 25-27 (odd), 35-37 (odd)
		12.3	1-5 (odd), 9-13 (odd), 27, 33, 47
2	08/30	12.4	1-7 (odd), 15-17 (odd), 23, 31-43 (odd)
	09/01	12.5	1-9 (odd), 21-33 (odd), 39, 41, 47, 49, 57-65 (odd)
		12.6	1, 3, 7
3	09/07	13.1	1-7 (odd), 13-19 (odd), 23-27 (odd)
		13.2	1-11 (odd), 17-21 (odd), 33, 41
		13.3	1-13 (odd)
		13.4	1-5 (odd), 9-11 (odd)
		14.1	1-7 (odd), 13-25 (odd), 53-57 (odd)
		14.2	1, 9-17 (odd), 21, 31, 33, 41-49 (odd)
		14.3	1-17 (odd), 23, 25, 51-57 (odd), 67
		14.4	3-9 (odd), 35-39 (odd)
		14.5	3-23 (odd), 31-35 (odd)
		14.6	3-13 (odd), 27-31 (odd), 35-39 (odd)
		14.7	1-9 (odd), 19-25 (odd), 43, 47-53 (odd)
		14.8	1-15 (odd), 17, 19, 23-29
		15.1	1-21 (odd), 29, 31, 35, 37
		15.2	9-23 (odd), 33-39 (odd), 49, 57-61 (odd)
		15.3	1-7 (odd), 19, 21
		15.4	1, 3, 9-13 (odd), 21, 23-29 (odd)
		15.5	7-11 (odd), 23-27 (odd)
		15.7	23-27 (odd), 43, 65
		15.8	1-9, 13, 15, 19, 21
		16.1	9-15 (odd), 19-25 (odd)
		16.2	1, 3, 11-23 (odd), 27
		16.3	1-9 (odd), 27-31
		16.4	7-15, 27-35 (odd)

Youtube Links

Math 213-001

Fall 2021

Below you can find Youtube links for the lecture videos. Please do not share these links, they are for your class only. This list will be updated throughout the semester.

Chapter	Section	Youtube Link
12	12.1	https://youtu.be/6jrnrCTugCs
	12.2	
	12.3	
	12.4	
	12.5	
	12.6	
13	13.1	
	13.2	
	13.3	
	13.4	
14	14.1	
	14.2	
	14.3	
	14.4	
	14.5	
	14.6	
	14.7	
	14.8	
15	15.1	
	15.2	
	15.3	
	15.4	
	15.5	
	15.7	
	15.8	
16	16.1	
	16.2	
	16.3	
	16.4	
	16.5 - 16.8	

Relevant George Mason
Official University Policies

The following policies apply to all courses at George Mason University:

1. All students taking courses with a face-to-face component are required to follow the university's public health and safety precautions and procedures outlined on the university Safe Return to Campus webpage. Similarly, all students in face-to-face and hybrid courses must also complete the Mason COVID Health Check daily, seven days a week. The COVID Health Check system uses a color code system and students will receive either a Green, Yellow, or Red email response. **Only students who receive a "green" notification are permitted to attend courses with a face-to-face component.** If you suspect that you are sick or have been directed to self-isolate, please quarantine or get testing. Faculty are allowed to ask you to show them that you have received a Green e-mail and are thereby permitted to be in class.

2. Students are required to follow Mason's current policy about facemask-wearing. As of August 11, 2021, **all community members are required to wear a facemask in all indoor settings, including classrooms**. An appropriate facemask must cover your nose and mouth at all times in our classroom. If this policy changes, you will be informed; however, students who prefer to wear masks either temporarily or consistently will always be welcome in the classroom.

3. It is expected that each student will conduct himself or herself within the guidelines of the Honor Code. All academic work should be done with the level of honesty and integrity that this University demands.

4. You are responsible for the accuracy of your own schedule. Check Patriot Web regularly to verify that you are registered for the classes that you think you are. A student who is not registered may not continue to attend class. Faculty are not permitted to grade work of students who do not appear on the official class roster.

5. You are responsible for knowing the last days to drop and add this class.

6. Once the add and drop deadlines have passed, instructors do not have the authority to approve any requests from students to add or drop/withdraw late. It is NOT permissible to drop the class and leave it at that. It needs approval. Late adds (up until the last day of classes) must be reviewed and approved by the department chair of the course being offered. They will be approved only in the case of a documented university error (such as a problem with Financial Aid being processed). All student requests for withdrawals and retroactive adds (after the last day of classes) must be reviewed by the student's academic dean. In the case of students whose major is in COS, this is the office of Undergraduate Academic Affairs in Enterprise.

7. Instructors are required to give the final exam at the time and place published in the Schedule of Classes, as set by the Registrar. It cannot be changed. You need to plan vacation (make plane reservations, etc.) around these published dates.

8. Once final grades have been recorded, instructors cannot accept any work to change that course grade. Grade changes can only be approved when they are due to a calculation or recording error on the part of the instructor.

9. An IN (incomplete) grade is a very special grade that can only be applied for in writing. It can only be given in cases in which a student is passing a course and has a very limited amount of work left to complete the course.

10. Federal law (a law known as FERPA) requires the protection of privacy of student information.

    Therefore, no instructor on campus can speak about a student's record with anyone other than the student. The record includes how a student is doing in a course, whether a student has attended class, information about grades, whether a paper has been turned in. Anything. This prohibition includes parents, siblings, and spouses, anyone.