# Analytic Geometry and Calculus III

## Math 213-005

## Spring 2020

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This is the web page **http://math.cos.gmu.edu/~wanner/courses/m213s20/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 homework information. For all other information on the course, including scanned lecture notes, please go to Blackboard.

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## General Information:

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| **Instructor:** | Thomas Wanner |
| **Office:** | Exploratory Hall 4404 |
| **E-mail:** | twanner@gmu.edu |
| **Web Page:** | http://math.cos.gmu.edu/~wanner/ |
| **Fax:** | (703) 993-1491 |
| **Office hours:** | MW 4pm-5pm, and by appointment |
| **Recitation Instructor:** | David Charles Yablonski |
| **Office:** | Exploratory Hall 4311 |
| **E-mail:** | dyablons@gmu.edu |
| **Office hours:** | TBA |

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|---|---|
| **Lectures:** | MW 5:55pm-7:10pm, Exploratory Hall L003 |
| **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) |
| **Recitation Sections:** | T 7:20pm-8:10pm (Section 314, CRN 15328), T 8:20pm-9:10pm (Section 319, CRN 20502), all in Krug Hall 19 |

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## Other Information:

- Syllabus (including test and final exam dates and times)
- General policies and procedures (including grading policies)

- Homework Assignments
- Relevant official GMU policies

# General Policies and Procedures

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## 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! 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! The homework problems are not collected, but you should do all 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 two recitation sections for this course, and you must be enrolled in one of them. You are expected to attend recitations, where quizzes will be taken and homework problems will be reviewed. **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, eight quizzes will be given during the recitation sections. All quizzes, 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 or quizzes 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 six quizzes (the two 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:

| **Quizzes** | **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.**

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Thomas Wanner, January 6, 2020.

# Syllabus

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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 | 01/21 - 01/24 | 12.1, 12.2 | |
| 2 | 01/27 - 01/31 | 12.3, 12.4, 12.5 | |
| 3 | 02/03 - 02/07 | 12.6, 13.1, 13.2 | |
| 4 | 02/10 - 02/14 | 13.3, 13.4, 14.1 | |
| 5 | 02/17 - 02/21 | 14.2, Review | |
| 6 | 02/24 - 02/28 | Test, 14.3 | Test 1, Monday 02/24 |
| 7 | 03/02 - 03/06 | 14.4, 14.5, 14.6 | |
| 8 | 03/09 - 03/13 | --- | Spring Break! |
| 9 | 03/16 - 03/20 | 14.7, 14.8 | |
| 10 | 03/23 - 03/27 | 15.1, 15.2 | |
| 11 | 03/30 - 04/03 | 15.3, Review | |
| 12 | 04/06 - 04/10 | Test, 15.4, 15.5 | Test 2, Monday 04/06 |
| 13 | 04/13 - 04/17 | 15.7, 15.8 | |
| 14 | 04/20 - 04/24 | 16.1, 16.2 | |
| 15 | 04/27 - 05/01 | 16.3, 16.4 | |
| 16 | 05/04 | Review | |
| 17 | 05/11 | Final Exam | Final exam, Monday 05/11, 4:30pm-7:15pm |

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

| Week | Date | Test | Covered Sections |
|---|---|---|---|
| 2 | Tuesday 01/28 | Quiz 1 | 12.1, 12.2, 12.3 |
| 3 | Tuesday 02/04 | Quiz 2 | TBA |
| 4 | Tuesday 02/11 | Quiz 3 | TBA |
| 5 | Tuesday 02/18 | Quiz 4 | TBA |
| 6 | Monday 02/24 | Test 1 | TBA |
| 9 | Tuesday 03/17 | Quiz 5 | TBA |
| 10 | Tuesday 03/24 | Quiz 6 | TBA |
| 11 | Tuesday 03/31 | Quiz 7 | TBA |
| 12 | Monday 04/06 | Test 2 | TBA |
| 14 | Tuesday 04/21 | Quiz 8 | TBA |
| 17 | Monday 05/11 | Final exam, 4:30pm-7:15pm | Comprehensive |

# Homework Assignments

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The following table will be updated regularly throughout the semester and show the recommended homework problems. I urge everyone to do all of these problems! If you have any questions concerning a problem, please see me during office hours.

| Week | Date | Section | Problems |
|---|---|---|---|
| 1 | 01/22 | 12.1 | 1-15 (odd), 17-21 (odd), 25-29 (odd), 51-55 (odd) |
| | | 12.2 | 1-11 (odd), 17, 25-27 (odd), 35-37 (odd) |
| 2 | 01/27 | 12.3 | 1-5 (odd), 9-13 (odd), 27, 33, 47 |
| | 01/29 | 12.4 | 1-7 (odd), 15-17 (odd), 23, 31-43 (odd) |
| 3 | 02/03 | 12.5 | 1-9 (odd), 21-31 (odd), 33, 39, 41, 47, 49, 57-65 (odd) |
| | | 12.6 | 1, 3, 7 |
| | | 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 | 1-7 (odd), 11-15 (odd), 17, 19, 23, 25 |
| | | 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, 3, 7, 9 |
| | | 16.1 | 9-15 (odd), 19-25 (odd) |
| | | 16.2 | 1, 3, 11-23 (odd), 27 |
| | | 16.3 | 1-9 (odd) |
| | | 16.4 | 7, 9, 27-33 (odd) |

# Relevant George Mason
# Official University Policies

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

1. 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.
2. 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.
3. You are responsible for knowing the last days to drop and add this class.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.

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