



MATH 113 section 003, Fall 2020

Analytic Geometry/ Calculus I

ONLINE Lectures

Instructor: Dr. Sarah Khankan

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Office Hours: M W Th 11am-12pm or by appointment.

Follow the link for online office hours on Blackboard.

Credit Hours: 4

Text(s): Thomas' Calculus: Early Transcendentals with Integrated Review, 14th Edition by Hass, Joel — Heil, Christopher — Weir, Maurice; Textbook ISBN-13: 9780134439020

Prerequisites: C or better in MATH 104 or MATH 105 or specified score on math placement test.

Broad purpose of the course: Upon successful completion of this course, students will be expected to have an understanding and good working knowledge of the concepts of limits, derivatives and integrals of functions (polynomial, rational, exponential, logarithmic, trigonometric).

Disability statement: If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Resources at 703.993.2474. All academic accommodations must be arranged through that office.

Tutoring Center: The Math Tutoring Center will be offering online tutoring services to students currently enrolled in undergraduate Math courses at GMU.

To access the Math Tutoring Center online you need to login to Blackboard, click on the Organizations tab, locate the Math Tutoring Center Organization and self-enroll in this organization.

Students should post their questions in Piazza in the folder corresponding to their course. Please state your questions clearly, consider uploading a pdf file that contains your questions. Tutors will be answering your questions as soon as possible, expect to receive an answer by the following business day, although there might be delays. If you received answers for your

questions and need further clarifications, you can join an active Blackboard Collaborate session.

The Blackboard Collaborate sessions will be running during the weekdays.

Online Exams:

- Exam 1: 09/23/2020 at 8:30am on MML
- Exam 2: 11/02/2020 at 8:30am on MML
- Final Exam: 12/14/2020 at 8:30am on MML

Grade Distribution:

Quizzes	20%
Exam 1	25%
Exam 2	25%
Final Exam	30%

MyMathLab Course ID: khankan17759

Instructions: Make an account on MyMathLab using the access code you obtain when you purchase the book, then enroll in the class page using the Course ID above. Make sure you use your full name as it appears on your Mason ID.

Weekly Quizzes: 10-15 minutes online on MyMathLab. Available every Monday from 10am to 10:30am, unless announced otherwise on Blackboard.

Course Policies:

- Lectures will be recorded and posted on Blackboard twice weekly as a series of videos. Students are expected to watch the videos the same day they are made available and prepare any questions for the office hours.
- A PDF document of each lecture will also be posted on Blackboard.
- Weekly synchronous recitation sessions are available. Attendance is HIGHLY recommended.
- No makeup exams/quizzes will be given.
- Students are responsible for all missed work, regardless of the reason for absence. All class related notes will be posted on Blackboard.

Tentative Course Outline:

The weekly coverage might change as it depends on the progress of the class.

Week	Content	Sections covered
1 (week of 08/24)	<ul style="list-style-type: none"> • Functions and their graphs • Combining functions, shifting and scaling graphs 	1.1, 1.2
2 (week of 08/31)	<ul style="list-style-type: none"> • Trigonometric functions • Exponential functions 	1.3, 1.5
3 (week of 09/07)	<ul style="list-style-type: none"> • Labor Day • Inverse functions and Logarithms 	1.5, 1.6
4 (week of 09/14)	<ul style="list-style-type: none"> • Rate of Change and tangent lines • Limit Laws 	2.1, 2.2
5 (week of 09/21)	<ul style="list-style-type: none"> • One-Sided Limits • EXAM 1 on 09/23/2020 at 8:30 am 	2.4
6 (week of 09/28)	<ul style="list-style-type: none"> • Continuity • Limits involving infinity; asymptotes • Tangent lines and derivative at a point 	2.5, 2.6, 3.1
7 (week of 10/05)	<ul style="list-style-type: none"> • Derivative of a function • Differentiation rules • Derivative as a rate of change 	3.2, 3.3, 3.4
8 (week of 10/12)	<ul style="list-style-type: none"> • Derivatives of Trigonometric functions • Chain Rule 	3.5, 3.6
9 (week of 10/19)	<ul style="list-style-type: none"> • Derivatives of inverse functions and logarithms • Inverse trigonometric functions • Linearization and Differentials 	3.8, 3.9, 3.11
10 (week of 10/26)	<ul style="list-style-type: none"> • Extreme Values • Mean Value Theorem • Monotonic function 	4.1, 4.2, 4.3
11 (week of 11/02)	<ul style="list-style-type: none"> • EXAM 2 on 11/02 at 8:30 am • Indeterminate forms and L'Hopital's rule 	4.5
12 (week of 11/09)	<ul style="list-style-type: none"> • Applied optimization • Antiderivatives 	4.6, 4.8
13 (week of 11/16)	<ul style="list-style-type: none"> • Definite integrals • The fundamental theorem of calculus 	5.3, 5.4
14 (week of 11/23)	<ul style="list-style-type: none"> • Indefinite integrals and the substitution method • Thanksgiving break 	5.5
15 (week of 11/30))	<ul style="list-style-type: none"> • Definite integrals and the substitution method • Review 	5.6
16 (12/14/2020)	<ul style="list-style-type: none"> • FINAL EXAM (cumulative) at 8:30 am 	