



Math 1400-610 Calculus I Fall 2024

Wednesday Aug. 28 – Monday Dec. 9

Professor: Nakia Rimmer MA, MS

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Office Hours: By appointment

Class Location: DRL 3C6

Course objective: This class has a mixture of

- a) synchronous class with organized active learning activities where students can ask questions about the homework and course material
- b) asynchronous delivery of the course material using video. This course covers the same material (applications and techniques of integration, sequences, series and differential equations) as the regular Math 1400 class that is offered in the day classes in the fall or spring. Although the course is titled Calculus I, it is a second semester calculus course (**Calculus II**). It is for students that know limits, derivatives, and beginning integration (up to u-substitution).

Class: Class will meet 2 times per week for 2 hours each session. The time will be from 7-9 pm. Eastern Standard Time (EST) Mondays and Wednesdays.

The class sessions will be in two different formats: a) an active lecture format and b) office hour/recitation format where students get to ask questions on the material. I teach with the aid of a digital tablet program to serve as a whiteboard. I will use the whiteboard to work out problems with you.

Class Webpage: The class webpage will be kept on the Canvas learning management system. All registered students will have access to the site starting the day before class begins.

Text: This class will not use a traditional text. Consider my notes and the course videos to be the text.

Optional Supplemental Text: *Calculus II Workbook*, N. Rimmer.

ISBN 978-1-7324159-0-4. Available in the Penn bookstore, online through LuLu.com

<https://tinyurl.com/y792haw6> or can be purchased directly from me.

See the first part of the workbook on Google book search <https://tinyurl.com/y77el7mt>

Your Grade:

Grade Calculation Formula	
Prep Quiz	7%
Practice Problems	7%
Quizzes	60%
Final Exam	26%

Prep Quiz: 7% of your course grade, 20 Canvas quiz questions per Unit for a total of 100 problems. It is graded for correctness automatically using Canvas. You can enter each quiz multiple times, there is no time limit. Be sure to keep a log of your correct answer because we keep the highest score on each “submitted” quiz. If you come out of the quiz or you submit the quiz, Canvas won’t remember your answers.

Practice Problems: 7% of your course grade, 15-20 Canvas quiz questions per Unit. It is graded for correctness automatically using Canvas. You can enter each quiz multiple times, there is no time limit. Be sure to keep a log of your correct answer because we keep the highest score on each “submitted” quiz. If you come out of the quiz or you submit the quiz, Canvas won’t remember your answers.

Quizzes: 60% of your course grade

We will have 9 total quizzes. These quizzes will have 3 questions and will cover 2-3 topics. They will be graded for correctness. We will drop the lowest quiz out of every group of 3 called a quiz cyle. **There will be no makeup quizzes.** You are allowed to use the front of a single 8.5"x11" sheet of paper for handwritten notes. No other materials or resources (books, calculators, websites, etc.) are allowed.

Final Exam: 26% of your course grade

There will be a comprehensive cumulative final exam given on the last day of the course that will have 10 questions (think of it as 3 quizzes). You will have 100 minutes to answer the data entry questions and write up your work for them. See the quiz section above for the policies governing the final.

Get Help : Before it’s too late, please seek out help. One definition of too late is after you receive a low quiz 1 score. The hardest part of the course is keeping up with the pace. Each class meeting will cover about two sections of material. If you miss a class, then you will find it hard to catch up. Each section builds off the previous one so waiting until the weekend to catch up might be impractical. Be sure to ask lots of questions.

Are you ready?

This is not a first semester calculus class like its name suggests. This shouldn’t be the first calculus course you have ever taken. This is a second semester calculus course; it starts with integration applications and techniques. So, you need to have a good grasp of integration (what it is, how to use the Fundamental Theorem of Calculus, and how to use substitution) before the class starts. You also need to know how to find limits and derivatives. If you find that you are weak in some areas but are willing to

work hard to overcome it, then I recommend staying in the course and giving it your all.

YOU ARE IMPORTANT TO ME

This is not merely my job, it is my vocation -- my calling. I will be your guide, no matter what your situation, where you come from, or how different from me or others you may think you are. For example, if you are not a native english speaker and you find my diction or mode of speech confusing, do not hesitate to ask me to repeat something I say. Or, let's say, if you are a FGLI student (1st-generation and/or low-income) or if you identify as LGBT+, please know that I am one of many allies that you have on this campus, and I will strive to make my course a place where you have the freedom to learn unobstructed.

Academic Dishonesty

Cheating is absolutely not tolerated in this class. You may be tempted -- that's okay, everybody is tempted. You may think that the odds of getting caught are low. Maybe yes, maybe no. You may think that cheating hurts nobody: that is wrong. *It hurts the honest students, and I will not allow that.* Know now that if you are caught engaging in academic dishonesty, you will be penalized to the maximum extent possible. If you cheat, you will fail in life, and you will fail this course.

Summary

I want you to succeed in this course and go on to rock your future classes as a calc star. The best way for this to happen is (1) you work like crazy to learn well, and (2) I work like crazy to teach well. I've got (2) covered, and I and my team are going to help you with (1).

Smile

Life can get hard -- but don't despair. There's much more to life than classes and grades.

Important Dates Fall 2024

- Tuesday, August 27th - First day of classes
- Monday, September 2nd - Labor Day No Classes
- Tuesday, September 10th - Course selection period ends (The last day to add a class)
- Wednesday, October 2nd - Beginning of Rosh Hashanah (sunset) [Penn Policy regarding religious and secular holidays](#)
- Thursday, October 3rd and Friday October 4th - Fall Break No Classes
- Monday, October 7th - Drop period ends (The last day to drop a class)
- Friday, October 11th - Beginning of Yom Kippur (sunset) [Penn Policy regarding religious and secular holidays](#)
- Friday, October 25th - Grade type change deadline (The last day to switch between Pass/Fail and Grade)
- Monday, November 4th - Last day to withdraw from a course
- Tuesday, November 5th - Election Day [Penn Policy regarding religious and secular holidays](#)
- Tuesday, November 26th and Wednesday, November 27th - Follow Thursday/Friday Schedule
- Thursday, November 28th and Friday November 29th - Thanksgiving Break No Classes
- Monday, December 9th - Last Day of Classes
- Tuesday, December 10th and Wednesday December 11th - Reading Days
- Calculus Common Final Exams: Schedule available on October 4, 2024. Posted on [Path@Penn](#) in the section details panel for each course
- [Registrar's Final Exam Website](#)
- [The College Calendar](#)
- [Penn's Three-Year Academic Calendar](#)

Material Covered in Math 1400:

Math 1400 Topics Covered		
Unit 1	Functions and Exponents	A
	Taylor Series	B
	Convergence and Expansion Points	C
	Limits	D
	L'Hopital's Rule	E
	Orders of Growth and Big-O Notation	F
Unit 2	Derivatives and Differentiation Rules	G
	Linearization and Optimization	H
	Indefinite Integrals	I
	ODEs	J
	Substitution	K
	Integration by Parts	L
Unit 3	Partial Fractions	M
	Trig Substitution	N
	Other Trigonometric Integrals	O
	Definite Integrals	P
	Fundamental Theorem of Calculus	Q
	Improper Integrals	R
Unit 4	Volume	S
	Advanced Volume	T
	Arc Length and Surface Area	U
	Probability	V
	Expectation and Variance	W
	Sequences	X
Unit 5	Infinite Series; nth Term Divergence Test	Y
	Integral and Comparison Tests	Z
	Ratio and Root Tests	AA
	Alternating Series, Conditional Convergence, Power Series	BB
	Taylor Series Revisited	CC
	Series Approximation and Truncation	DD

	Covers
Quiz 1	A, B, C
Quiz 2	D, E, F
Quiz 3	G, H, I
Quiz 4	J, K, L
Quiz 5	M, N, O
Quiz 6	P, Q, R
Quiz 7	S, T, U
Quiz 8	V, W, X
Quiz 9	Y, Z, AA
Final Exam	A through DD

MATH 1400 Evening Course Schedule

August/September			September/October		
Monday		Wednesday	Monday		Wednesday
		28 A B	30 J K Quiz 3		2 K L
2 NO CLASS LABOR DAY		4 C D	7 L M		9 N O Quiz 4
9 D E Quiz 1		11 E F	14 N O		16 O P
16 F G		18 G H Quiz 2	21 P Q Quiz 5		23 Q R
23 H I		25 I J	28 R S		30 S T Quiz 6
November			December		
Monday		Wednesday	Monday		Wednesday
4 T U		6 U V	2 BB CC		4 CC DD Quiz 9
11 V W Quiz 7		13 W X	9 FINAL EXAM		
18 X Y		20 Z AA Quiz 8			
25 AA BB		27 NO CLASS DAY BEFORE THANKSGIVING BREAK			

If you have any questions regarding the course, email Professor Rimmer at rimmer@math.upenn.edu