



FORDHAM UNIVERSITY

THE JESUIT UNIVERSITY OF NEW YORK

Applied Calculus I, Spring 2023

Math 2001 sections R02, R03, & R04



This is an elementary course in calculus intended primarily for nonscience majors. Topics include derivatives of polynomial, rational, exponential, and logarithmic functions; curve sketching; optimization problems; and definite integrals.

3 hours/week, 3 credits.

Meetings

Math 1203-R02 (43797)	Mondays & Thursdays 2:30-3:45 pm	FMH 312
Math 1203-R03 (43798)	Mondays & Thursdays 4:00-5:15 pm	FMH 312
Math 1203-R04 (43799)	Tuesdays & Fridays 1:00-2:15 pm	JMH 406

Contact Information

Instructor: John Adamski, PhD
Email: adamski@fordham.edu
Office: JMH 418
Office Phone: 718-817-0427
Office Hours: Tuesdays & Fridays 2:30-4:30pm

Website

All lecture notes, take-home quizzes, solutions, other course documents, and an up-to-date class schedule can be found at the website below. Please bookmark it and check it regularly for updates.

<https://johnadamski.com/spring2023/1203.html>

Textbook

We will be closely following the text *Brief Applied Calculus* by James Stewart and Daniel Clegg. You are expected to read and understand all sections of this book listed in the syllabus. Sign up for digital access to the textbook via the publisher's website by going to <https://www.getenrolled.com> and carefully entering the class key that corresponds to the section in which you are enrolled.

Section	Class Key
R02	fordham 5842 1405
R03	fordham 5942 5608
R04	fordham 0447 7616

When creating your account, please use your full name as it appears on your Fordham ID. After entering your class key and creating an account, you will have free access to the digital textbook and online homework until Tuesday, January 31. After that, you will need to purchase access for the rest of the semester for approximately \$105.

[This video](#) provides a 5-minute tutorial on using the digital textbook and completing online homework assignments.

Homework

Online homework exercises from the digital textbook will be assigned after every class and due at the beginning of the next class. It is important to complete the assigned exercises before the next class so that you are prepared for the next lesson. Please try to keep up with this tight schedule. If you miss a deadline for online homework, you can request an automatic 3-day extension, or even several, without penalty. However, no extensions will be granted after an assignment is more than 14 days past due. Please note that it is perfectly fine to request an extension and submit an online assignment a little late because you were waiting to ask a question in class or during office hours. You are encouraged to ask questions about assignments in class!

In addition, 6 take-home quizzes will be posted to our class website and due approximately every 2 weeks, when problems will be discussed in class and solutions will be posted online. Please turn in physical copies of your work. If you complete your work digitally, please turn in a printed copy. Incomplete work will be accepted and partial credit will be given, but late quizzes will not be accepted. Your work will be graded by an upper-level undergraduate math major and returned to you with comments within approximately 1 week.

Please *do not email me your quiz*. If you cannot come to class to physically turn in your quiz, you can put it in my mailbox inside JMH 407 before class or give it to a classmate to turn in for you at class. In the rare case that you legitimately cannot turn in a physical copy of your quiz, you can email me your work as a single scanned PDF with a file size less than 10 MB. It must be sent before the beginning of class on the day that the assignment is due.

Grades

Online homework grades will be visible through the publisher's website. All other grades will be posted to Blackboard throughout the semester. At the end of the course, your final grade will be calculated as follows.

- 10% Homework Average, H
- 20% Quiz Average (lowest dropped), Q
- 20% Exam 1, E_1
- 20% Exam 2, E_2
- 30% Final Exam, F

$$\text{Course Grade} = .1H + .2Q + .2E_1 + .2E_2 + .3F$$

Course grades will be converted to letter grades according to [Fordham's grading policies](#).

Course Grade	Letter Grade	Quality Description	GPA
$[92.5, \infty)$	A	Excellent; honors-level work, outstanding	4.00
$[89.5, 92.5)$	A-	Still excellent	3.67
$[86.5, 89.5)$	B+	Very good; high level of performance	3.33
$[82.5, 86.5)$	B	Good; solid and above average level	3.00
$[79.5, 82.5)$	B-	Good; still above average	2.67
$[76.5, 79.5)$	C+	Average level of performance	2.33
$[72.5, 76.5)$	C	Satisfactory; acceptable level of performance	2.00
$[69.5, 72.5)$	C-	Minimally acceptable	1.67
$[59.5, 69.5)$	D	Passing, but unsatisfactory; below average performance	1.00
$(-\infty, 59.5)$	F	Failure; inferior performance	0.00

Exams will be taken in-class with paper and pencil/pen without the assistance of notes or formula sheets. Calculators are not allowed on exams, but may be required for some homework questions.

Attendance

I want to help you all succeed in this course. I want you all to help each other succeed in this course. We can't do that if we don't all come to class and participate. So please attend every

class. It is both the simplest and most important thing you can do. I will keep attendance records.

Resources

- You can come to my office hours or make an appointment by email to meet with me at another time.
- The Math Department operates a Math Help Room at each campus. They are free, and you do not need an appointment. Just drop in anytime they are staffed. The Rose Hill location is JMH 410, and the Lincoln Center location is Lowenstein 810/812. Here is a link to the [Math Help Room schedules](#). Note that even when there are no faculty members around, the Math Help Room remains open for students looking for a good space to study.
- Students looking for additional assistance outside of the classroom are encouraged to consider working with a peer tutor through Knack. Tutors are paid by Fordham – students do not pay. To view available tutors and get started, visit fordham.joinknack.com.

Academic Integrity

From the university's website:

A university, by its nature, strives to foster and recognize originality of thought, which can be recognized only when people produce work that is theirs alone, properly acknowledging information and ideas that are obtained from the work of others. It is therefore important that students must maintain the highest standards with regard to honesty, effort, and performance.

As a Jesuit, Catholic university, Fordham is committed to ensuring that all members of the academic community strive not only for excellence in scholarship but also for integrity of character. In the pursuit of knowledge and personal development, it is imperative that students present their own ideas and insights for evaluation, critique, and eventual reformulation. As part of this process, each student must acknowledge the intellectual contributions of others.

By being enrolled at Fordham University, students are bound to comply with the [University Code of Conduct](#), which includes, but is not limited to the [Standards of Academic Integrity](#). For more information, see [Undergraduate Academic Integrity Policy](#).

Disabilities

Under the Americans with Disabilities Act, all members of the campus community are entitled to equal access to the programs and activities of Fordham University. If you have (or

think that you might have) a disability that may impact your participation in the activities, coursework, or assessment of this course, you may be entitled to accommodations through the Office of Disability Services. You can contact them at disabilityservices@fordham.edu, 718-817-0655, or by visiting the lower level of O'Hare Hall (Rose Hill campus) or Lowenstein 408 (Lincoln Center campus).

Whether or not you have documentation for accommodations, your success in this class is important to me. If there are aspects of this course that are not accessible to you, please let me know as soon as possible so that we can work together to develop strategies to meet both your needs and the requirements of the course.

Schedule

Class	Date R02/R03	Date R04	Topic
1	Th 01/19	Tu 01/17	1.1 Functions and their Representations, 1.2 Combining and Transforming Functions
2	Mo 01/23	Fr 01/20	1.3 Linear Models and Rates of Change, 1.5 Exponential Models
3	Th 01/26	Tu 01/24	1.6 Logarithmic Functions, 2.1 Measuring Change
4	Mo 01/30	Fr 01/27	2.2 Limits
5	Th 02/02	Tu 01/31	2.3 Rates of Change and Derivatives
6	Mo 02/06	Fr 02/03	2.4 The Derivative as a Function
7	Th 02/09	Tu 02/07	3.1 Shortcuts to Finding Derivatives
8	Mo 02/13	Fr 02/10	3.2 Introduction to Marginal Analysis
9	Th 02/16	Tu 02/14	Review
10	Tu 02/21	Fr 02/17	Exam 1 (all sections listed above)
11	Th 02/23	Fr 02/24	3.3 The Product and Quotient Rules
12	Mo 02/27	Tu 02/28	3.4 The Chain Rule
13	Th 03/02	Fr 03/03	3.5 Implicit Differentiation and Logarithms
14	Mo 03/06	Tu 03/07	3.6 Exponential Growth and Decay
15	Th 03/09	Fr 03/10	4.1 Related Rates
16	Mo 03/20	Tu 03/21	4.2 Maximum and Minimum Values
17	Th 03/23	Fr 03/24	4.2 Derivatives and the Shapes of Curves
18	Mo 03/27	Tu 03/28	4.4 Asymptotes, 4.5 Curve Sketching
19	Th 03/30	Fr 03/31	4.6 Optimization
20	Mo 04/03	Tu 04/04	Review
21	Th 04/13	Tu 04/11	Exam 2 (sections 3.1-6, 4.1-6)
22	Mo 04/17	Fr 04/14	5.1 Cost, Area and the Definite Integral
23	Th 04/20	Tu 04/18	5.2 The Fundamental Theorem of Calculus
24	Mo 04/24	Fr 04/21	5.4 Integration by Substitution
25	Th 04/27	Tu 04/25	6.1 Areas Between Curves
26	Mo 05/01	Fr 04/28	Review
27		Tu 05/02	Review
**	Tu 05/11		Final Exam 9:30-11:30 am (all sections listed above)
**		Fr 05/12	Final Exam 1:30-3:30 pm (all sections listed above)
**	Mo 05/15		Final Exam 1:30-3:30 pm (all sections listed above)