

THE DEPARTMENT OF MATHEMATICAL SCIENCES

MATH 135: Calculus for Business

Fall 2025 Course Syllabus

NJIT Academic Integrity Code: Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at: NJIT Academic Integrity Code.

Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university. If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at dos@njit.edu

COURSE INFORMATION

Course Description: Intended for students with majors offered by SOM. An introduction to mathematics of business, principles of differential and integral calculus, and optimization.

Number of Credits: 3

Prerequisites: MATH 107 with a grade of C or better or MATH 110 with a grade of C or better or NJIT placement.

Course-Section and Instructors:

Course-Section	Instructor
Math 135-003	Professor E. Ikheloa

Office Hours for All Math Instructors: [Fall 2025 T/F : 12 Noon - 1 PM, Room 212; ei39@njit.edu](#)

Required Textbook:

Title	<i>Finite Mathematics and Calculus with Applications</i>
Author	M. Lial, R. Greenwell, N. Ritchey
Edition	11th
Publisher	Pearson
ISBN #	9780137419333

Notes	w/ MyMathLab
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University-wide Withdrawal Date: The last day to withdraw with a W is **Monday, November 10, 2025**. It will be strictly enforced.

COURSE GOALS

Course Objectives: An introduction to mathematics of business, principles of differential and integral calculus, and optimization.

Course Assessment: The assessment of objectives is achieved through homework, quizzes, and common examinations with common grading.

POLICIES

DMS Course Policies: All DMS students must familiarize themselves with, and adhere to, the **Department of Mathematical Sciences Course Policies**, in addition to official **university-wide policies**. DMS takes these policies very seriously and enforces them strictly.

Grading Policy: The final grade in this course will be determined as follows:

Homework	10%
Quizzes	20%
Midterm Exam I	20%
Midterm Exam II	20%
Final Exam	30%

Final Grade = $0.10 * \text{Homework} + 0.20 * (\text{Quizzes} + \text{Midterm Exam I} + \text{Midterm Exam II}) + 0.30 * \text{Final Exam}$

Your final letter grade will be based on the following tentative curve.

A	90 - 100	C	65 - 74
B+	85 - 89	D	55 - 64
B	80 - 84	F	0 - 54
C+	75 - 79		

Attendance Policy: Attendance at all classes will be recorded and is **mandatory**. Please make sure you read and fully understand the **Math Department's Attendance Policy**. This policy will be strictly enforced. Each class is a learning experience that cannot be replicated through simply "getting the notes."

Religious Observance: NJIT is committed to supporting students observing religious holidays. Students must notify their instructors in writing of any conflicts between course requirements and religious observances, ideally by the end of the second week of classes and no later than two weeks before the anticipated absence.

Homework: Homework is an expectation of the course.

Calculus is learned by solving problems. Homework assignments are completed online. The online assignments can be completed at <https://mlm.pearson.com/northamerica/mymathlab/>. In order to access the online assignments you need to have a student access code. Access codes are included with a new book that is bundled with MyMathLab; codes can be purchased separately from the textbook at the campus bookstore or online at the course website. If you buy a new book from another source make sure it is bundled with MyMathLab.

NOTE: Homework Assignments are DUE frequently (at least weekly) at the dates and times specified online and by your instructor.

How to get started with MyMathLab

http://m.njit.edu/Undergraduate/UG-Files/MML_Getting_Started.pdf http://m.njit.edu/Undergraduate/UG-Files/Technology_Tips.pdf

Quiz Policy: Every week there will be a short quiz on the topics presented the previous week. There are no make-up quizzes. In case of an excused absence, the quiz will not be included in the final grade.

Exams: There will be two midterm exams held in class during the semester and one comprehensive final exam. Exams are held on the following days:

Midterm Exam I	Lecture 12
Midterm Exam II	Lecture 22
Final Exam Period	12/15 - 12/20, 2025; Location : TBA

The final exam will test your knowledge of all the course material taught in the entire course. Make sure you read and fully understand the [Math Department's Examination Policy](#). This policy will be strictly enforced.

Makeup Exam Policy: There will be **NO MAKE-UP QUIZZES OR EXAMS** during the semester. In the event an exam is not taken under rare circumstances where the student has a legitimate reason for missing the exam, the student should contact the Dean of Students office and present written verifiable proof of the reason for missing the exam, e.g., a doctor's note, police report, court notice, etc. clearly stating the date AND time of the mitigating problem. The student must also notify the Math Department Office/Instructor that the exam will be missed.

Cellular Phones: All cellular phones and other electronic devices must be switched off during all class times.

ADDITIONAL RESOURCES

Math Tutoring Center: Located in the Central King Building, Lower Level, Rm. G11 (See: [Fall 2024 Hours](#))

Further Assistance: For further questions, students should contact their instructor. All instructors have regular office hours during the week. These office hours are listed on the Math Department's webpage for [Instructor Office Hours and Emails](#).

Accommodation of Disabilities: The Office of Accessibility Resources and Services (OARS) offers long term and temporary accommodations for undergraduate, graduate and visiting students at NJIT.

If you need accommodation due to a disability, please contact the Office of Accessibility Resources and Services at oars@njit.edu, or visit Kupfrian Hall 201 to discuss your specific needs. A Letter of Accommodation Eligibility from the office authorizing student accommodations is required.

For further information regarding self identification, the submission of medical documentation and additional

support services provided please visit the Office of Accessibility Resources and Services (OARS) website at:

<https://www.njit.edu/accessibility/>

Important Dates (See: [Fall 2025 Academic Calendar, Registrar](#))

Date	Day	Event
September 1, 2025	Monday	Labor Day
September 2, 2025	Tuesday	First Day of Classes
September 8, 2025	Monday	Last Day to Add/Drop Classes
November 10, 2025	Monday	Last Day to Withdraw
November 25, 2025	Tuesday	Thursday Classes Meet
November 26, 2025	Wednesday	Friday Classes Meet
November 27 to November 30, 2025	Thursday to Sunday	Thanksgiving Recess - Closed
December 11, 2025	Thursday	Last Day of Classes
December 12, 2025	Friday	Reading Day 1
December 13, 2025	Saturday	Saturday Classes Meet
December 14 to December 20, 2025	Sunday to Saturday	Final Exam Period

Course Outline

Lecture	Lecture #	Sections	Topic	Homework
1	1 Tuesday 9/2	R3	Rational Expressions	# 12, 15, 22
		R4	Equations	# 9, 19, 26, 30, 31
		R5	Linear Inequalities	# 7, 11, 14, 18, 22
	2 Friday 9/5	3.2	Solving Linear Programming Problems Graphically	# 11, 13, 41
		3.3	Applications	# 1, 5, 6, 9

			Sensitivity Analysis - Project	P. 148 - 151
2	3 Tuesday 9/9	10.1	Properties of Functions	# 31, 33, 46, 47 56, 58, 59
	4 Friday 9/12	10.3	Polynomial and Rational Functions	# 31, 34, 40, 45, 47
	5 Tuesday 9/16			# 18, 28, 41, 44, 48
3		10.4	Exponential Functions	
	6 Friday 9/19	10.5	Logarithmic Functions	# 12, 22, 24, 26, 32, 34, 37, 38,
4	7 Tuesday 9/23	10.6	Growth and Decay	# 15, 18, 19, 23
	8 Friday 9/26	11.1	Limits	# 36, 37, 47, 55, 56
5	9 Tuesday 9/30	11.1	Limits (Continued)	# 49, 50, 61, 62
	10 Friday 10/3	11.2	Continuity	# 15, 16, 19, 31, 48,
6	11 Tuesday 10/7		Exam Review	self/group -Study
	12 Friday 10/10		MIDTERM EXAM 1	Location: Lecture Hall 12
7	13 Tuesday 10/14	11.4	The Definition of the Derivative	# 1-4, 17, 18,
	14 Friday 10/17	11.5	Graphical Differentiation	# 15, 17, 19
			A Model for Drugs Administered Intravenously - Project	P. 661- 663
8	15 Tuesday 10/21	12.1	Techniques for finding Derivatives	#11, 14, 30, 44, 57, 58
	16 Friday 10/24	12.2	The Product Rule and the Quotient Rule	# 5, 11, 15, 23, 50
9	17 Tuesday 10/28	12.3	The Chain Rule	# 27, 33, 38, 41, 59

	18 Friday 10/31	13.1	Increasing and Decreasing Functions	# 9, 17, 27, 33
10	19 Tuesday 11/3	13.2	Relative Extrema	# 17, 27, 51, 56
	20 Friday 11/7	13.3	Concavity and Second Derivative Test	# 59-62 67, 71
11	21 Tuesday 11/11		Exam Review	Self/group - Study
	22 Friday 11/14		MIDTERM EXAM 2	Lecture Hall 12
12	23 Tuesday 11/18	14.2-14.3	Applications of Extrema	14,2 # 14-20 14.3 13-17
	24 Friday 11/21	15.1	Antiderivatives	# 13, 27, 39, 43
13	25 Tuesday 12/2	15.2	Substitution	# 9, 13, 19, 33
14	26 Friday 12/5	15.4	The Fundamental Theorem of Integral Calculus	# 11, 20, 27, 33
	27 Tuesday 12/9	16.2	Average Value of a Function	#28-35
15	28 Friday 12/12		Catch Up/Review	Self/group - Study
	29 12/14 - 12/20		FINAL EXAM	Location: TBA

*Updated by Professor E. Ikheola - 2025
Department of Mathematical Sciences Course Syllabus, Fall 2025*