NJIT New Jersey's Science & Technology University

THE COLLEGE OF SCIENCE AND LIBERAL ARTS

THE DEPARTMENT OF MATHEMATICAL SCIENCES

MATH 135: Mathematics for Business
Fall 2020 Course Syllabus

NJIT Academic Integrity Code: All Students should be aware that the Department of Mathematical Sciences takes the University Code on Academic Integrity at NJIT very seriously and enforces it strictly. This means that there must not be any forms of plagiarism, i.e., copying of homework, class projects, or lab assignments, or any form of cheating in quizzes and exams. Under the University Code on Academic Integrity, students are obligated to report any such activities to the Instructor.

COURSE INFORMATION

Course Description: Intended for students with major 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 135-001	Professor P. Rana Concepcion

Office Hours for All Math Instructors: Fall 2020 Office Hours and Emails

Required Textbook:

Title	*Introductory Mathematical Analysis for Business, Economics, and the Life and Social Sciences*
Author	E. F. Haeussler, Jr., R. S. Paul, R. J. Wood
Edition	13th
Publisher	Pearson
ISBN #	978-0321643728
Notes	w/ MyMathLab

University-wide Withdrawal Date: The last day to withdraw with a **W** is **Monday, November 9, 2020**. 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.

DELIVERY MODE

Classes will be conducted via Converged Learning Mode at their regular scheduled times.

Attendance: Instructor will be checking attendance during all class meetings. Interaction during virtual group meetings and office hours will be required of all students.

Office Hours: Instructors will use Canvas or WebEx to conduct Office Hours.

Quizzes: Quizzes will take place on canvas with the use of the using Lockdown browser and Respondus Monitor. Exams: Both exams and final exam will be taken using Lockdown browser and Respondus Monitor or ProctorU.

Fall 2020 Note: In the event of NJIT transitioning to online instruction during the semester due to the current pandemic, all policies detailed in the syllabus will remain in effect except those changes instituted by the Department of Mathematical Sciences or the University. In particular, the NJIT Academic Integrity Code continues to apply. Students who lack the technology needed to participate in online learning should contact the Dean of Students office as soon as possible.

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	15%
Quizzes	15%
Midterm Exam I	20%
Midterm Exam II	20%
Final Exam	30%

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. Students are expected to attend class. Each class is a learning experience that cannot be replicated through simply "getting the notes."

Homework Policy: 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 WWW.MYMATHLAB.COM. In order to access the online assignments you need to have a student access code. Access codes are included with 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

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	October 6, 2020
Midterm Exam II	November 5, 2020
Final Exam Period	December 15 -21, 2020

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 2020 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.

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

Accommodation of Disabilities: Disability Support Services (DSS) offers long term and temporary accommodations for undergraduate, graduate and visiting students at NJIT.

If you are in need of accommodations due to a disability please contact Chantonette Lyles, Associate Director of Disability Support Services at 973-596-5417 or via email at lyles@njit.edu. The office is located in Kupfrian Hall, Room 201. A Letter of Accommodation Eligibility from the Disability Support Services office authorizing your accommodations will be required.

For further information regarding self identification, the submission of medical documentation and additional support services provided please visit the Disability Support Services (DSS) website at:

- https://www.njit.edu/studentsuccess/accessibility/

Important Dates (See: Fall 2020 Academic Calendar, Registrar)

Date	Day	Event
September 1, 2020	T	First Day of Classes
September 5, 2020	S	Saturday Classes Begin
September 7, 2020	M	Labor Day
September 8, 2020	T	Monday Classes Meet
September 8, 2020	T	Last Day to Add/Drop Classes
November 9, 2020	M	Last Day to Withdraw
November 25, 2020	W	Friday Classes Meet
November 26-29, 2020	R - Su	Thanksgiving Recess - University Closed
December 10, 2020	R	Last Day of Classes
December 11 & 14, 2020	F & M	Reading Days
December 15 - 21, 2020	T - M	Final Exam Period

Course Outline

Lecture	Lecture #	Sections	Topic
1	1	0.5	Factoring
		0.6	Fractions
		0.8	Quadratic Equations
	2	7.1	Linear Inequalities
		7.2	Linear Programming
2	3	2.1	Functions
	4	2.2	Special Functions
3	5	4.1	Exponential Functions
	6	4.2	Logarithmic Functions
4	7	5.1	Compound Interest
	8	10.1	Limits
5	9	10.2	Limits (Continued)
	10		Exam Review
6	11		**MIDTERM EXAM 1**
	12	10.3	Continuity
7	13	11.1	The Derivative
	14	11.2	Rules for Differentiation
8	15	11.3	The Derivative as a Rate of Change
	16	11.4	The Product Rule and the Quotient Rule

9	17	11.5	The Chain Rule
	18	13.1	Relative Extrema
10	19	13.2	Absolute Extrema on a Closed Interval
	20		Exam Review
11	21		**MIDTERM EXAM 2**
	22	13.3	Concavity
12	23	13.6	Applied Maxima & Minima
	24	14.2	The Indefinite Integral
13	25	14.3	Integration with Initial Conditions
14	26	14.7	The Fundamental Theorem of Integral Calculus
	27	15.4	Average Value of a Function
	28		**Catch Up/Review**
	29		***FINAL EXAM REVIEW***