MATH 135: Calculus for Business
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: An introduction to mathematics of business, principles of differential and integral calculus, and optimization. Effective From: Fall 2013.

Number of Credits: 3

Prerequisites: Intended for students with major offered by SOM. Prerequisite: Math 107 with a grade of C or better or Math 108 with a grade of C or better or NJIT placement.

Course-Section and Instructors

Course-Section	Instructor
Math 135-102	Professor M. Potocki-Dul

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

University-wide Withdrawal Date: Please note that the last day to withdraw with a W is March 30, 2015. It will be strictly enforced.

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:

Quizzes	15%
Homework	10%
Midterm Exam I	15%
Midterm Exam II	15%
Midterm Exam III	15%
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.

Homework Policy: There will be a few homework assignments to complete during the semester. The assignments and their due dates will be given in class.

Calculus is learned by solving problems. Homework assignments are completed online. The online assignments can be completed at WWW.MYMATHLAB.COM or WWW.COURSECOMPASS.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. In addition, on the first day of class your course instructor will give you an additional code needed to access the online assignments. **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:

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 three midterm exams held in class during the semester and one comprehensive final exam.

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. Please note that calculators, cellular phones, beepers, and all other electronic devices may **NOT** be used during any exam.

Makeup Exam Policy: There will be NO MAKE-UP EXAMS during the semester. In the event the Final Exam is not taken, under rare circumstances where the student has a legitimate reason for missing the final exam, a makeup exam will be administered by the math department. In any case the student must notify the Math Department Office and the Instructor that the exam will be missed and present written verifiable proof of the reason for missing the exam, e.g., a doctors note, police report, court notice, etc., clearly stating the date AND time of the mitigating problem.

ADDITIONAL RESOURCES

Math Tutoring Center: Located in Cullimore, Room 214 (See: Spring 2015 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.

Important Dates (See: Spring 2015 Academic Calendar, Registrar)

Date	Day	Event
January 20, 2015	T	First Day of Classes
Jnuary 26, 2015	M	End of Add/Drop Period
March 15 - 22, 2015	S - S	Spring Recess
March 30, 2015	M	Last Day to Withdraw
April 3, 2015	F	Good Friday - University Closed

May 5, 2015	T	Last Day of Classes		
May 6 & 7, 2015	W & R	Reading Days		
May 8 - 14, 2015	F - R	Final Exam Period		

Course Outline

Week #	Lecture	Section #	Topic	Assignment
1	1	2.1	Functions	p.86: #5-29, 31, 37, 39, 45-49
		2.2	Special Functions	p.90: #17-22, 29-33
2	2	4.1:	Exponential Functions	p.184: #1-4, 11, 13-16, 18-31, 47-49
3	3	4.2	Logarithmic Functions	p.191: #1-8, 17-56, 58, 59, 61, 63
		5.1	Compound Interest	p. 212: #1-10, 13, 19-21
4	4	5.2	Present Value	p.216: #1-13
	5	5.4	Annuities	p.227: #5-16, 18-20, 22
5	6	10.1	Limits	p.467: #1-4, 9-34, 37-40
		10.2	One-Sided Limit	p.475: #1-54
			EXAM 1 - REVIEW	
			MIDTERM EXAM 1	
6	7	10.3	Continuity	pg. 481, #1-34
	8	10.3	Continuity	pg. 481, #1-34
7	9	11.1	The Derivative	pg. 499, #3-25; Bonus 15, 17, 18, 22
	10	11.2	Rules for Differentiation	p.507: #1-88
8	11	11.2	Rules for Differentiation	p.507: #1-88
	12	11.3	Derivative as a Rate of Change	p.516: #3, 10, 13-26, 32-39, 41- 42, 45
9	13	11.4	The Product and Quotient	p.525: #1-4, (maybe 5, 6, 11, 12), 20-22, 25, 27, 32?, 49-51, 54-56, 58, 71
	14	11.5	Rules The Chain Rule	p.532: #1-38, 41-44, 55-73; all skipped problems considered bonuses
			EXAM 2 - REVIEW	
			MIDTERM EXAM 2	
10	15	11.5	The Chain Rule	p.532: #1-38, 41-44, 55-73; all skipped problems considered bonuses
11	16	13.1	Relative Extrema	p.586: #1-18, 35, 37, 53-61, 68, 69, 71
	17	13.2	Absolute Extrema on a	pg. 590, #1-8, 12

			Closed Interval	
12	18	13.3	Concavity	p.596: #1-15 (skip 11), 17-20 (skip 19), 23-24
	19	13.3	Concavity	p.596: 35, 37-39, 42-43, 45, 47-48, 53
13	20	13.6	Applied Maxima & Minima	p.616: #1-7, 11-13, 15, 18-19, 21-22, 24, 27, 30
	21	14.2	Indefinite Integral	p.636: #1-20, 23-31, 33, 37-47, 49, 50, 52
			REVIEW FOR EXAM #3	
			MIDTERM EXAM 3	
14	22	14.3	Integration (initial cond.)	pg. 641, #1-4, 9-16, 21
	22	14.7	The Fundamental Theorem of Calculus	p.665: 1-18, 20, 27, 59-60, 61, 63
	23	15.4	Average Value of a Function	p.707: 1-5, 7-10
15	24	7.1	Linear Inequalities	p.298: 9-23 odd
	25	7.2	Linear Programming	p.305: 1-11 odd
16	26		REVIEW FOR FINAL EXAM	
FINALS			**FINAL EXAM**	**MAY 8 - 14, 2015**