



THE COLLEGE OF SCIENCE
AND LIBERAL ARTS

THE DEPARTMENT OF MATHEMATICAL SCIENCES

MATH 238: General Calculus II

Summer 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: Topics include applications of integral calculus and an introduction to ordinary differential equations. Effective From: Spring 2013.

Number of Credits: 3

Prerequisites: Math 138 with a grade of C or better or math 139 with a grade of C or better or Math 111 with a grade of C or better. A continuation of Math 138.

Course-Section and Instructors

Course-Section	Instructor
Math 238-450	Professor N. Aly

Office Hours for All Math Instructors: [Summer 2020 Office Hours and Emails](#)

Required Textbook:

Title	<i>Calculus: Concepts & Contexts</i>
Author	Stewart
Edition	4th
Publisher	Cengage Learning
ISBN #	978-0495557425
CafeScribe ISBN	978-1111432584
Technology	Calculators are not permitted in this course.

Withdrawal Date: Please see the [Summer 2020 Academic Calendar](#) for the last day to withdraw based on the summer session you are registered for.

TRANSITION TO ONLINE INSTRUCTION

This course will be conducted remotely.

Lectures will be conducted during the regularly scheduled dates/times and lecture materials will be posted to Canvas.

The grade breakdown/key dates are subject to change as the summer session progresses.

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:

Midterm Exam	35%
Homework and Quizzes	20%
Final Exam	45%

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

A	88 - 100	C	68 - 72
B+	83 - 87	D	58 - 67
B	78 - 82	F	0 - 57
C+	73 - 75		

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.

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

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./

Midterm Exam	TBA (Tentatively June 10th)
Final Exam	July 13, 2020

Makeup Exam Policy: To properly report your absence from a midterm or final exam, please review and follow the required steps under the DMS Examination Policy found here:

- http://math.njit.edu/students/policies_exam.php

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, Room G11, See: (**Summer 2020 Hours**)

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 Fenster Hall Room 260. 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: [Summer 2020 Academic Calendar](#), [Registrar](#))

Date	Event
May 18, 2020	First Day of Classes
May 18, 2020	Last Day to Add/Drop Classes for FIRST, MIDDLE, AND FULL
May 25, 2020	University Closed for Memorial Day
June 22, 2020	Last Day of FIRST SUMMER SESSION
June 29, 2020	First Day of FTF AND SECOND SUMMER SESSION
July 4, 2020	University Closed for Independence Day
July 13, 2020	Last Day of MIDDLE SUMMER SESSION
August 3, 2020	Last Day of FULL AND SECOND SUMMER SESSIONS
August 12, 2020	Last Day of FTF SUMMER SESSIONS

Course Outline

Section	Topic
3.1 - 3.7	Review on derivatives and differentiation methods
4.2-4.4	Review of Graphing Functions
4.5	Indeterminate Forms and l'Hopital's Rule
4.8	Antiderivatives
5.1	Area
5.2/5.3	The Definite and Indefinite Integrals
5.5	Solving Integrals using the Substitution Method
5.6	Integration by Parts
5.7	Additional Techniques of Integration (Trigonometric Integrals, Trigonometric Substitution, Partial Fractions)
5.9	Approximation Methods for Areas
5.1	Improper Integrals
	CATCH UP AND REVIEW FOR MIDTERM EXAM
	MIDTERM EXAM
6.1	More About Areas (Areas Between Curves)
6.2 - 6.3	Volumes (Disc, Shell, Washer)
6.4	Lengths & Surface Areas (Applications of Integrals)
8.1	Sequences

8.2 - 8.4	Series (Integral Test, Comparison Tests, Root/Ratio Tests, Conditional Convergence, Alternating Series Test)
8.5	Power Series
8.6 - 8.7	Taylor and Maclaurin Series
	Calculus with Parametric Curves
	CATCH UP AND REVIEW FOR FINAL EXAM
	FINAL EXAM (JULY 13, 2020)

Updated by Professor N. ALY - 4/21/2020
Department of Mathematical Sciences Course Syllabus, Summer 2020
