

MATH 112-W01: Calculus II

Winter 2019 - 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 integration, applications of integration, series, exponential and logarithmic functions, transcendental functions, polar coordinates, and conic sections. Effective From: Spring 2012.

Number of Credits: 4

Prerequisites: Math 111 with a grade of C or better or Math 132 with a grade of C or better.

Course-Section and Instructors

Course-Section	Instructor
Math 112-W01	Professor J. Ratnaswamy

Days, Times, and Locations:

Days	Times	Locations
M, T, W, R, F	9:00AM - 11:45AM	CKB 315
M, T, W, R, F	12:45PM - 3:15PM	CKB 315

Required Textbook:

Title	<i>Thomas' Calculus: Early Transcendentals</i>
Author	Thomas
Edition	14th
Publisher	Pearson
ISBN #	978-0134768496
Notes	w/ MyMathLab

University-wide Withdrawal Date: Please note that the last day to withdraw with a W is Wednesday, January 8, 2020. It will be strictly enforced.

COURSE GOALS

Course Objectives

- Students should (a) learn about limits and their central role in calculus, (b) learn about derivatives and their relationship to instantaneous rates of change, (c) understand many practical applications of derivatives, (d) gain experience in the use of approximation in studying mathematical and scientific problems, (e) learn about integrals: their origin in the area problem and their relationship to derivatives.
- Students should gain an appreciation for the importance of calculus in scientific, engineering, computer, and other applications.
- Students should gain experience in the use of technology to facilitate visualization and problem solving.

Course Outcomes

- Students have improved logical thinking and problem-solving skills.
- Students have a greater understanding of the importance of calculus in science and technology.
- Students are prepared for further study in mathematics as well as science, engineering, computing, and other areas.

Course Assessment: The assessment of objectives is achieved through quizzes and examinations.

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	25%
Midterm	35%
Final	40%

Your final letter grade will be based on the following tentative curve. **NOTE:** This course needs to be passed with a grade of C or better in order to proceed to subsequent courses such as Math 211, Math 213, or Math 222.

A	88 - 100	C	65 - 71
B+	83 - 87	D	60 - 64
B	77 - 82	F	0 - 59
C+	72 - 76		

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:

Midterm Exam	January 6, 2020
--------------	-----------------

Exams will occur during class time. 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 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

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: [Winter 2019-20 Academic Calendar](#), [Registrar](#))

Date	Day	Event
December 26, 2019	R	Winter Session Classes Begin
December 28, 2019	Sa	Last Day to Add/ Drop
Dec. 31, 2019 & Jan. 1, 2020	T & W	No Classes/ University Closed
January 8, 2020	W	Last Day to Withdraw
January 17, 2020	F	Last Day of Winter Session/ Final Exams

Course Outline

Day	Date	Section
Thurs	12/26	5.6, 6.1, 6.2
Fri	12/27	6.3, 6.4, 6.5, 7.3
Mon	12/30	8.1, 8.2, 8.3, 8.4
Thurs	1/2	8.5, 8.6, 8.7
Fri	1/3	8.8, REVIEW
Mon	1/6	MIDTERM EXAM
Tues	1/7	10.1, 10.2
Wed	1/8	10.3, 10.4
Thurs	1/9	10.5, 10.6

Fri	1/10	10.7, 10.8
Mon	1/13	10.9, 10.10
Tues	1/14	11.1, 11.2, 11.3
Wed	1/15	11.4, 11.5
Thurs	1/16	REVIEW
Fri	1/17	FINAL EXAM

*Updated by Professor J. Ratnaswamy - 12/24/2019
Department of Mathematical Sciences Course Syllabus, Winter 2019-20*
