



JOHN CABOT UNIVERSITY

COURSE CODE: "MA 198-1"
 COURSE NAME: "Calculus I"
 SEMESTER & YEAR: Spring 2022

SYLLABUS**INSTRUCTOR:** Sara Munday**EMAIL:** smunday@johncabot.edu**HOURS:** MW 4:30 PM 5:45 PM**TOTAL NO. OF CONTACT HOURS:** 45**CREDITS:** 3**PREREQUISITES:** Prerequisite: Placement or completion of MA 197 with a grade of C- or above**OFFICE HOURS:** By appointment**COURSE DESCRIPTION:**

This is a Standard Calculus course using an intuitive approach to the fundamental concepts in the calculus of one variable: limiting behaviors, difference quotients and the derivative, definite integrals, antiderivative and indefinite integrals and the fundamental theorem of calculus.

SUMMARY OF COURSE CONTENT:

This course will explore the fundamental topics of Calculus, such as limits, continuity, differentiation and antidifferentiation, with examples oriented towards business and economics applications of maximization, minimization, optimization and decision-making problems. Particular emphasis and continual reinforcement will be given to developing the ability to analyze and find solutions of real world problems in mathematical terms. Registration into the course is by placement or by completion of MA197 with a grade of C- or higher.

LEARNING OUTCOMES:

This is a Standard Calculus course using an intuitive approach to the fundamental concepts in the calculus of one variable: limiting behaviors, difference quotients and the derivative, definite integrals, antiderivative and indefinite integrals and the fundamental theorem of calculus.

The students at the end of the course will be expected to have developed some geometric intuition for functions and for solving problems. The focus of the course is absolutely NOT on doing calculations, I am not interested in the "right answer", I am interested in the student making clear that they understand what they are doing. It is clear when someone is simply moving symbols about on a page, as it is clear when someone has basically the right idea but has perhaps forgotten some of the algebra they ought to already know.

TEXTBOOK:

Book Title	Author	Publisher	ISBN number	Library Call Number	Comments
Calculus, 10th international edition	Ron Larson and Bruce Edwards	CENGAGE Learning	978-1-285-09108-2		

REQUIRED RESERVED READING:

NONE

RECOMMENDED RESERVED READING:

NONE

GRADING POLICY**-ASSESSMENT METHODS:**

Assignment	Guidelines	Weight
Final Exam	The final exam will be comprehensive, but more weighted towards the latter half of the course (namely, curve sketching, antiderivatives, area problems, techniques of integration, improper integrals).	40%
Quizzes	There will be three spot quizzes during the course of the semester. That means the quizzes WILL NOT BE ANNOUNCED in advance. Each quiz will be graded out of 10% and the lowest grade will be dropped.	20%
Midterm Exam		40%

-ASSESSMENT CRITERIA:

AWork of this quality directly addresses the question or problem raised and provides a coherent argument displaying an extensive knowledge of relevant information or content. The student demonstrates complete, accurate, and critical knowledge of all the topics, and is able to solve problems autonomously.

BThis is highly competent level of performance and directly addresses the question or problem raised. There is a demonstration of some ability to critically evaluate theory and concepts and relate them to practice. The work does not suffer from any major errors or omissions and provides evidence that the student uses clear logic in their arguments.

CThis is an acceptable level of performance and provides answers that are clear but limited, reflecting the information offered in the lectures. Mathematical statements are properly written most of the time.

DThis level of performances demonstrates that the student lacks a coherent grasp of the material. Important information is omitted and irrelevant points included. Many mistakes are made in solving the problem raised. In effect, the student has barely done enough to persuade the instructor that they should not fail.

FThis work fails to show any knowledge or understanding of the subject matter. Most of the material in the answer is irrelevant.

-ATTENDANCE REQUIREMENTS:

Attendance is mandatory, according to university policy. Any student wishing to make up an exam must obtain permission from the Dean's Office.

ACADEMIC HONESTY

As stated in the university catalog, any student who commits an act of academic dishonesty will receive a failing grade on the work in which the dishonesty occurred. In addition, acts of academic dishonesty, irrespective of the weight of the assignment, may result in the student receiving a failing grade in the course. Instances of academic dishonesty will be reported to the Dean of Academic Affairs. A student who is reported twice for academic dishonesty is subject to summary dismissal from the University. In such a case, the Academic Council will then make a recommendation to the President, who will make the final decision.

STUDENTS WITH LEARNING OR OTHER DISABILITIES

John Cabot University does not discriminate on the basis of disability or handicap. Students with approved accommodations must inform their professors at the beginning of the term. Please see the website for the complete policy.

SCHEDULE

Session	Session Focus	Reading Assignment	Other Assignment	Meeting Place/Exam Dates
Week 1-2	Limits and their properties	Chapter P-1		
Week 3-4-5	Differentiation and applications	Chapter 2-3		
Week 6-7	Transcendental functions	Chapter 5		
Week 9-10-11-12-13	Integration and applications	Chapter 4-7-8		
Week 14	Differential equations	Chapter 6		