

NORTHWESTERN CONNECTICUT COMMUNITY COLLEGE

COURSE SYLLABUS

Course Title: Calculus I

Course #: MAT 254

The course will explore in detail the concepts encountered in a traditional Calculus I class: limits, derivatives and integrals. The course will include differentiation and integration techniques and the application of differentiation and integration to modeling real like situations. The use of a graphing calculator is required in the course (TI-83 plus or TI-84 plus). 4 credits

Prerequisite: C or better in Precalculus (Mat 186) or equivalent.

Goals: It is the goal of the course to:

1. Cause the student to be an active learner.
2. Aid the student to develop increased confidence in their ability to conceptualize and perform mathematics.
3. Enhance the student's understanding of fundamental principles underlying calculus.
4. Prepare the students to apply calculus to other disciplines.
5. Inspire students to continue the study of mathematics.
6. Provide an experience wherein students enjoy learning and applying mathematics.

Outcomes

1. Demonstrate the concepts of limits and continuity both numerically and graphically.
2. Demonstrate the application of the basic rules of differentiation on algebraic, exponential, logarithmic and trigonometric functions.
3. Apply the principles of the derivative to real world problems of optimization and rates of change using numerical methods and linear approximations.
4. Demonstrate the application of the basic rules of integration using the process of antidifferentiation, using terminology, and using numerical integration techniques.
5. Compute distance from velocity formula using numerical methods.
6. Apply the principle of integration using formulas, construction of approximating sums, and then limits to obtain a definite integral.
7. Apply the principle of integration to projectile motion and basic physics applications.

College Policies

Plagiarism: Plagiarism and Academic Dishonesty are not tolerated at Northwestern Connecticut Community College. Violators of this policy will be subject to sanctions ranging from failure of the assignment (receiving a zero), failing the course, being removed/expelled from the program and/or the College. Please refer to your “Student Handbook” under “Policy on Student Rights,” the Section entitled “Student Discipline,” or the College catalog for additional information.

Americans with Disabilities Act (ADA): The College will make reasonable accommodations for persons with documented learning, physical, or psychiatric disabilities. Students should notify Dr. Christine Woodcock, the Counselor for Students with Disabilities. She is located at Green Woods Hall, in the Center for Student Development. Her phone number is 860-738-6318 and her email is cwoodcock@nwcc.edu.

School Cancellations: If snowy or icy driving conditions cause the postponement or cancellation of classes, announcements will be made on local radio and television stations and posted on the College’s website at www.nwcc.edu. Students may also call the College directly at **(860) 738-6464** to hear a recorded message concerning any inclement weather closings. Students are urged to exercise their own judgment if road conditions in their localities are hazardous.

Use of Electronic Devices: Some course content as presented in Blackboard Learn is not fully supported on mobile devices at this time. While mobile devices provide convenient access to check in and read information about your courses, they should not be used to perform work such as taking tests, quizzes, completing assignments, or submitting substantive discussion posts.

Sexual Assault and Intimate Partner Violence Resource Team: NCCC is committed to creating a community that is safe and supportive of people of all gender and sexual identities. This pertains to the entire campus community, whether on ground or virtual, students, faculty, or staff.

Sexual assault and intimate partner violence is an affront to our national conscience, and one we cannot ignore. It is our hope that no one within our campus community will become a victim of these crimes. However, if it occurs, NCCC has created the SART Team - Sexual Assault and Intimate Partner Violence Resource Team - to meet the victim’s needs.

SART is a campus and community based team that is fully trained to provide trauma-informed compassionate service and referrals for comprehensive care. The team works in partnership with The Susan B. Anthony Project to extend services 24 hours a day, 7 days a week throughout the year.

The NCCC team members are:

Ruth Gonzalez, Ph.D.	860-738-6315	Green Woods Hall Room 207
Susan Berg	860-738-6342	Green Woods Hall Room 223
Kathleen Chapman	860-738-6344	Green Woods Hall Room 110
Michael Emanuel	860-738-6389	Founders Hall Annex Room 308
Seth Kershner	860-738-6481	Library
Jane O’Grady	860-738-6393	Founders Hall Annex Room 212
Robin Orloski	860-738-6416	Business Office Room 201
Patricia Bouffard, Ex-Officio	860-738-6319	Founders Hall Room 103
Savannah Schmitt		Student Representative

At NCCC we care about our students, staff and faculty and their well-being. It is our intention to facilitate the resources needed to help achieve both physical and emotional health.