



# Calculus I - Math 2413.021 Hybrid

## Course Syllabus: Fall 2018

“Northeast Texas Community College exists to provide responsible, exemplary learning opportunities.”

**Dr. Leah Reagan, Professor of Mathematics**

**Office: Humanities Building, 128 B**

**Phone: 903-434-8290**

**Email: [lreagan@ntcc.edu](mailto:lreagan@ntcc.edu) (email is the fastest way to reach me)**

**\*\*Professor will respond within 24 hours.**

<u>Online Office Hours:</u>	Monday	Tuesday	Wednesday	Thursday		
<b>Professor checks email multiple times daily and will respond promptly.</b>	10:00 – 11:00 1:30 – 3:30	10:00 – 11:00 2:30 – 4:30	10:00 – 11:00 1:30 – 3:30	10:00 – 11:00		

*The information contained in this syllabus is subject to change without notice. Students are expected to be aware of any additional course policies presented by the instructor during the course.*

**Catalog Course Description (include prerequisites):** Calculus I is a standard first course in the calculus. Topics include differentiation of algebraic and trigonometric functions, differentiation formulas, applications of the derivative, mean value theorem, maxima/minima, points of inflection, curve sketching, antiderivatives, definite and indefinite integrals, upper and lower sums, and the fundamental theorem of calculus. Prerequisite: MATH 2412 (Precalculus) or its equivalent.

**Required Textbook(s):**

Larson/Edwards, Calculus, 11th Edition Binder Text , and WebAssign Passcode:

In the effort to save students money, your course materials are delivered through Exclusive Access. You have already paid for your course materials with your tuition and fees. Below is the required course materials:

1-285-85848-4 LARSON / CALCULUS BINDER TEXT W/WEBASSIGN

To access your course materials, click on the Course Materials Access link within the Start Here folder on Blackboard.

For additional information on Exclusive Access, please access the textbook information provided on the portal (student tab, click on Academics then Textbooks.)

**Recommended Reading(s):**

None

**Student Learning Outcomes:**

Upon successful completion of this course, students will:

2413.1 Determine the limit of a function graphically, numerically, and analytically.

2413.2 Calculate derivatives using the definition of the derivative as the limit of a difference quotient.

2413.3 Calculate derivatives of algebraic, trigonometric, and implicit functions.

2413.4 Apply methods of calculus to graph polynomial, rational, and trigonometric functions.

2413.6 Problem-solve a broad base of application problems involving differentiation including but not limited to Rolle's Theorem and the Mean Value Theorem.

2413.7 Calculate and apply antiderivatives of algebraic and trigonometric functions.

2413.8 Understand the relationship between antiderivative and integral by way of the Fundamental Theorem of Calculus.

**Core Curriculum Purpose and Objectives:**

Through the core curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world; develop principles of personal and social responsibility for living in a diverse world; and advance intellectual and practical skills that are essential for all learning.

Courses in the foundation area of mathematics focus on quantitative literacy in logic, patterns, and relationships. In addition, these courses involve the understanding of key mathematical concepts and the application of appropriate quantitative tools to everyday experience.

**College Student Learning Outcomes:**Critical Thinking Skills

**CT.1** Students will demonstrate the ability to 1) analyze complex issues, 2) synthesize information, and 3) evaluate the logic, validity, and relevance of data.

Communication Skills

**CS.1** Students will effectively develop, interpret and express ideas through written communication.

Empirical and Quantitative Skills

**EQS.1** Students will manipulate numerical data or observable facts by organizing and converting relevant information into mathematical or empirical form

**EQS.2** Students will analyze numerical data or observable facts by processing information with correct calculations, explicit notations, and appropriate technology.

**EQS.3** Students will draw informed conclusions from numerical data or observable facts that are accurate, complete, and relevant to the investigation.

**SCANS Skills:** N/A

**Course Outline:**

Submission of homework problems will be determined on a section-by-section basis. Changes on individual problem sets may be made in class. Select sections will be given through WebAssign.

Section 1.1

Section 1.3

Section 1.4

Section 1.5

Section 2.1

EXAM #1

Section 2.2

Section 2.3

Section 2.4

Section 2.5

Section 2.6

Section 3.1

EXAM #2

Section 3.2

Section 3.3

Section 3.4

Section 3.5

Section 3.6

Section 3.7

Section 3.9

EXAM #3

Section 4.1

Section 4.2

Section 4.3

Section 4.4

COMPREHENSIVE FINAL -

**Evaluation/Grading Policy:**

Three major 100 point examinations, evenly spaced throughout the semester, for a total worth of 45% of the final grade. Homework will be worth 25%. Quizzes will be worth 10% of your final grade. A comprehensive final examination will contribute 20% points to the final grade.

3 Major Exams

45% (READ INFO BELOW)

Homework Grade	25%
Quizzes	10%
Comprehensive Final Exam	<u>20%</u>
TOTAL	100%

Make-up exams will not be given unless the student has coordinated with the instructor at least two days prior to the exam. Late work will incur a penalty of 10 points per day, unless otherwise indicated by the instructor.

#### Grading System

"A"	90-100%
"B"	80-89%
"C"	70-79%
"D"	60-69%
"F"	< 60%

#### Other Course Requirements

A graphing calculator is required for this course. TI 84, 89, or Voyage 200.

#### Student Responsibilities/Expectations:

Regular and punctual attendance at all scheduled classes is expected. Attendance is necessary for successful completion of course work. Excused absences may be permitted at the discretion of the instructor for illness, official college activities, or personal emergencies. The student is responsible for initiating procedures for make-up work. All other missed assignments will not be accepted unless otherwise stated and is completed to the satisfaction of the instructor. Students absent on an exam day must have informed the instructor prior to missing the exam. If the instructor is not informed prior to missing the exam, the exam will not be made up and have a zero placed in the gradebook.

#### NTCC Academic Honesty Statement:

"Students are expected to complete course work in an honest manner, using their intellects and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. NTCC upholds the highest standards of academic integrity. This course will follow the NTCC Academic Honesty policy stated in the Student Handbook."

#### Academic Ethics

The college expects all students to engage in academic pursuits in a manner that is beyond reproach. Students are expected to maintain complete honesty and integrity in their academic pursuit. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. Refer to the student handbook for more information on this subject.

#### ADA Statement:

It is the policy of NTCC to provide reasonable accommodations for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to arrange an appointment with a College counselor to obtain a Request for Accommodations form. For more information, please refer to the NTCC Catalog or Student Handbook.

**Family Educational Rights And Privacy Act (Ferpa):**

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's educational records. These rights transfer to the student when he or she attends a school beyond the high school level. Students to whom the rights have transferred are considered "eligible students." In essence, a parent has no legal right to obtain information concerning the child's college records without the written consent of the student. In compliance with FERPA, information classified as "directory information" may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student's name, permanent address and/or local address, telephone listing, dates of attendance, most recent previous education institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.

**Other Course Policies:**

There will be no cell phone usage in the classroom. Students will be warned if using a phone during class. A student will be removed from class if the disruption continues.

The college's official means of communication is via your campus email address. I will use your campus email address, Blackboard, and WebAssign to communicate with you outside of class. Make sure you keep your campus email cleaned out and below the limit so you can receive important messages.