



## Math 2413.021 HY “Hybrid” Calculus I

Course Syllabus: Fall 2017 Thursday 11:00-12:50 UHS-151

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

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Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
	Online Appointment	11:00-12:20	9:30-10:50 1:30-2:50	9:30-11:00 1:30-2:50	Online Appointment	Everyday

*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, 10th Edition or 11<sup>th</sup> if it is more cost efficient

**Publisher:** Brooks/Cole

**ISBN Number:** 1-3054-1246-X

**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.

Section 1.1 – 1.5; 2.1 – 2.3; Multiples of 7 through 70  
EXAM 1

Section 2.4 – 2.6; 3.1 – 3.5; Multiples of 7 through 70  
Exam 2

Section 3.6 – 3.9; 4.1 - 4.4; Multiples of 7 through 70  
COMPREHENSIVE FINAL

### **Evaluation/Grading Policy:**

Two major 100 point examinations, evenly spaced throughout the semester, for a total worth of 50% of the final grade. The average of a series of special assignments, online engagements, and homework exercises will be worth 25% of the final grade. A comprehensive final examination will contribute 25% to the final grade.

2 Major Exams

50%

Homework Grade	25%
Comprehensive Final Exam	25%
TOTAL	100%

Students are expected to attend class on the day of the exam. 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 for whatever reason for the absence, 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 textbook and graphing calculator are required for this course.

#### 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 request accommodations. An appointment can be made with Shannin Garrett, Academic Advisor/Coordinator of Special Populations located in the College Connection. She can be reached at 903-434-8218. For more information and to obtain a copy of the Request for Accommodations, please refer to the [NTCC website - Special Populations](#).

**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.

**NTCC Campus Carry Policy:**

Please review the [Campus Carry Policy](#) at the provided link.

**Other Course Policies:**

The college's official means of communication is via your campus email address. I will use your campus email address and Blackboard to communicate with you outside of class. Make sure you keep your campus email cleaned out and below the limit so you can receive communication. Students are expected to be respectful to classmates and professor at all times.