



## Math 2414.085 “Online” Calculus II

### Course Syllabus: Summer 2018

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

**Dr. Jackie Johnston**

**Office:** MS120

**Phone:** 903-434-8305

**Email:** jjohnston@ntcc.edu

Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
	Online	Online	Online	Online	Online	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):** Prerequisite Math 2413-Calculus I. This is a second course in calculus. Topics include: Differentiation and integration of exponential, logarithmic and inverse trigonometric functions, integration of the trigonometric functions, various techniques of integration including u-substitution, parts, partial fractions, trigonometric substitution, rationalizing substitutions, approximate integration, applications of the integral to area, volume, surface area, and arc length, infinite limits, L'Hopital's Rule, indeterminate forms, improper integrals, sequences, series, and convergence/divergence tests for infinite series.

**Required Textbook(s):**

Larson, Calculus, 10<sup>th</sup> Edition, 2014

**Or**

Larson, Calculus, 11<sup>th</sup> Editions, 2018

**Publisher:** Brooks/Cole CENGAGE Learning

**ISBN: 10<sup>th</sup> Edition 9781285057095**

**ISBN: 11<sup>th</sup> Edition 9781337275347**

**Recommended Reading(s):** None

**Student Learning Outcomes:**

Upon successful completion of this course, students will:

- 2414.1 demonstrate an understanding of the fundamental theorem of calculus
- 2414.2 determine various integrals and derivatives of algebraic, logarithmic, exponential, trigonometric, and inverse trigonometric functions.
- 2414.3 employ numerous techniques of integration including u-substitution,

integration by parts, integration by partial fractions, trigonometric substitution, and rationalizing substitutions.

2414.4 utilize integrals to find area, volume, surface area, and arc length.

2414.5 apply L'Hopital's rule to indeterminate forms and infinite limits.

2414.6 solve improper integrals.

2414.7 determine convergence/divergence of sequences/ series.

### **Objectives:**

Through the 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.

### **SCANS Skills:**

N/A

### **Online Delivery:**

This is a distance learning course. It is identical to classroom courses in terms of learner outcomes, course objectives and instructor expectations. A student desiring to enroll for this course must possess the following: Access to the internet, an e-mail address, a general knowledge of browser settings, file attachments, uploading and downloading files, word processing packages, the ability to conduct on-line research and learn independently and the ability to use Blackboard discussion board, chat and email.

**Evaluation/Grading Policy:**

Make-up exams will coincide with the final exam unless the student proactively arranges with the instructor prior to the exam. Late work will not be accepted unless coordinated in advance with instructor. Two evenly spaced major exams worth 50% of the final grade and a comprehensive final exam worth 25% of the final grade will be administered. A daily grade consisting of special assignments, online participation, and homework will be worth 25% of the final grade.

Exam 1	100 points
Exam 2	100 points
Final	100 points
Daily Grade	100 points
TOTAL	400 points

"A"	360 - 400 points
"B"	320 - 359 points
"C"	280 - 319 points
"D"	240 - 279 points
"F"	Below 240 points

**Assignments:**

Sections 4.1-4.5; 5.1-5.7; Exam I

Sections 7.1-7.4; 8.1-8.6; Exam II

Sections 8.7-8.8; 9.1-9.8; Final Exam (Comprehensive)

Specific problems will be assigned via Blackboard.

**Other Course Requirements:**

A TI 83/84 graphing calculator is required. If you have any questions regarding an appropriate graphing calculator, please contact me before purchasing.

**Student Responsibilities/Expectations:**

Regular online attendance, discussion board participation, chat engagement and timely email correspondence via Blackboard are expected. All approved makeup work will be in conjunction with the final exam.

**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:**

Online etiquette is expected in the respectful response to any classmate or professor communication.

The college's official means of communication is via your campus email address. I will use your campus email address and Blackboard email 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.

Students are expected to be respectful toward classmates and professor at all times!