Calculus II – MATH 2414.001

Course Syllabus: Spring 2021

"Northeast Texas Community College exists to provide personal, dynamic learning experiences empowering students to succeed."

Instructor: Dr. Paula A. Wilhite

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	Monday	Tuesday	Wednesday	Thursday	Friday	Online
Office Hours	11:00 – 12:00 1:30 – 4:00	3:00 – 5:00	11:00 – 12:00 1:30 – 4:00	3:00 – 5:00	By appointment	As needed

This syllabus serves as the documentation for all course policies and requirements, assignments, and instructor/student responsibilities.

Information relative to the delivery of the content contained in this syllabus is subject to change. Should that happen, the student will be notified.

Course Description: This is a standard second course in calculus. Topics include differentiation and integration of transcendental functions; parametric equations and polar coordinates; techniques of integration; sequences and series; improper integrals. Four hours credit.

Prerequisite(s): MATH 2413 or equivalent with a grade of "C" or better

Student Learning Outcomes:

2414.1 Use the concepts of definite integrals to solve problems involving area, volume, work, and other physical applications.

2414.2 Use substitution, integration by parts, trigonometric substitution, partial fractions, and tables of anti-derivatives to evaluate definite and indefinite integrals.

2414.3 Define an improper integral.

2414.4 Apply the concepts of limits, convergence, and divergence to evaluate some classes of improper integrals.

2414.5 Determine convergence or divergence of sequences and series.

2414.6 Use Taylor and MacLaurin series to represent functions.

2414.7 Use Taylor or MacLaurin series to integrate by conventional methods.

2414.8 Use the concept of polar coordinates to find areas, lengths of curves, and representation of conic sections.

Program 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.

Evaluation/Grading Policy:

Homework Assignments*	10%
Quizzes**	20%
Projects	10%
Exam 1	10%
Exam 2 (Proctored)	20%
Exam 3	10%
Final Exam (Proctored)	20%

Minimum requirements for Final Course Grade:

"A" 90%
"B" 80%
"C" 70%
"D" 60%
"F" Below 60%

* Online assignments are graded homework exercises posted on the website WebAssign.
* Homework problems can each be reworked up to three times.
* The last grade earned for each homework assignment will be posted for the final grade.

** Quizzes must be taken according to class schedule.
**The lowest quiz grade will be dropped. The highest quiz grade will be doubled.

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Required Instructional Materials:
Larson/Edwards, Calculus, 11th Edition, 2018
Loose-leaf textbook with WebAssign access code

Publisher: Brooks/Cole, Belmont, CA

ISBN Number-13: 978-133-760-4741 (Loose-leaf textbook with WebAssign access code)
Note: The NTCC Bookstore link is at www.ntcc.edu

Optional Instructional Materials: None

Minimum Technology Requirements:
Graphing Calculator is required. TI-84 is preferred, but other models may be approved by the instructor.

Required Computer Literacy Skills:

1) Communicate via email;
2) Saving and reloading saved files;
3) Navigate Blackboard to access posted materials and WebAssign assignments.

Course Structure and Overview:
This is a 16-week face-to-face course where students are required to access graded activities on WebAssign via the Blackboard Learning Management System. A typical class involves general participation by all students in discussions involving mathematical principles and the algorithms to apply these principles. Students are required to complete online homework in addition to weekly in-class quizzes and over the course of the semester, three exams and a final exam. It is very important students keep up with course materials and assignments since this is a very fast-paced, intense course. Students are expected to watch posted instructional videos, read course textbook, and complete online assignments located in the Learning Management System, Blackboard by due dates.

Communications:
Emails will be responded to within 24 hours during the week and 48 hours on the weekend.

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

Institutional/Course Policy:
No late work will be accepted. It is the student's responsibility to check Blackboard for important information/announcements regarding the course. Students should be working on course material via Blackboard every week. Do not wait until the last minute to complete and submit assignments in case of technology issues.

Alternate Operations During Campus Closure and/or Alternate Course Delivery Requirements
In the event of an emergency or announced campus closure due to a natural disaster or pandemic, it may be necessary for Northeast Texas Community College to move to altered operations. During this time, Northeast Texas Community College may opt to continue delivery of instruction through methods that include, but are not limited to, online through the Blackboard Learning Management System, online conferencing, email messaging, and/or an alternate schedule. It is the responsibility of the student to monitor NTCC's website (http://www.ntcc.edu/) for instructions about continuing courses remotely, Blackboard for each class for course-specific communication, and NTCC email for important general information.

Additionally, there may be instances where a course may not be able to be continued in the same delivery format as it originates (face-to-face, fully online, live remote, or hybrid). Should this be the case, every effort will be made to continue instruction in an alternative delivery format. Students will be informed of any changes of this nature through email messaging and/or the Blackboard course site.

NTCC Academic Honesty/Ethics Statement:
NTCC upholds the highest standards of academic integrity. The college expects all students to engage in their academic pursuits in an honest manner that is beyond reproach using their intellect and resources designated as allowable by the course instructor. Students are responsible for

addressing questions about allowable resources with the course instructor. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. This course will follow the NTCC Academic Honesty and Academic Ethics policies stated in the Student Handbook. Refer to the student handbook for more information on these subjects.

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 the Academic Advisor/Coordinator of Special Populations located in Student Services and can be reached at 903-434-8264. For more information and to obtain a copy of the Request for Accommodations, please refer to the special populations page on the NTCC website.

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.

Tentative Course Timeline (*Note* instructor reserves the right to make adjustments to this timeline at any point in the term):

Course Schedule: (Subject to Change)

Weeks	**Topics**	**Assignments**	**Due Dates** (Due by 11:59pm CST)
Week 1: 1/18/21 – 1/24/21	Ch. 4 Integration: Sections 4.4 – 4.5		
Week 2: 1/25/21 – 1/31/21	Ch. 5 Logarithmic, Exponential, and Other Transcendental Functions: Section 5.1 – 5.2	Weekly quiz 1/28/2021 WebAssign online assignment	1/31/2021
Week 3: 2/1/21 – 2/7/21	Ch. 5 Logarithmic, Exponential, and Other Transcendental Functions: Sections 5.3 – 5.4	Weekly quiz 2/4/2021 WebAssign online assignment	2/7/2021

Week 4: 2/8/21 – 2/14/21	Ch. 5 Logarithmic, Exponential, and Other Transcendental Functions: Sections 5.5 / Exam 1	Weekly quiz 2/11/2021 WebAssign online assignment	2/14/2021
Week 5: 2/15/21 – 2/21/21	Ch. 5 Logarithmic, Exponential, and Other Transcendental Functions: Sections 5.6 – 5.7	Weekly quiz 2/18/2021 WebAssign online assignment	2/21/2021
Week 6: 2/22/21 – 2/28/21	Ch. 5 Logarithmic, Exponential, and Other Transcendental Functions: Section 5.8 Ch. 7 Applications of Integration Section 7.1	Weekly quiz 2/25/2021 WebAssign online assignment	2/28/2021
Week 7: 3/1/21 – 3/7/21	Ch. 7 Applications of Integration Section 7.2 Ch. 8 Integration Techniques and Improper Integrals Sections 8.1, 8.2	Weekly quiz 3/4/2021 WebAssign online assignment	3/7/2021
Week 8: 3/8/21 – 3/14/21	Ch. 8 Integration Techniques and Improper Integrals Section 8.3 Exam 2	Weekly quiz 3/11/2021 WebAssign online assignment	3/14/2021

3/15/21 – 3/21/21	**Happy Spring Break!**		
Week 9: 3/22/21 – 3/28/21	Ch. 8 Integration Techniques and Improper Integrals Sections 8.4 / 8.8	Weekly quiz 3/25/2021 WebAssign online assignment	3/28/2021
Week 10: 3/29/21 – 4/4/21	Ch. 7 Applications of Integration Section 7.3 Ch. 9 Infinite Series Sections 9.1/9.2	Weekly quiz 4/1/2021 WebAssign online assignment	4/4/2021
Week 11: 4/5/21 – 4/11/21	Ch. 7 Applications of Integration Section 7.3 Ch. 9 Infinite Series Sections 9.1/9.2	Weekly quiz 4/8/2021 WebAssign online assignment	4/11/2021
Week 12: 4/12/21 – 4/18/21	Ch. 9 Infinite Series Sections 9.3/9.4/9.5	Weekly quiz 4/15/2021 WebAssign online assignment	4/18/2021

Week 13: 4/19/21 – 4/25/21	Ch. 9 Infinite Series Sections 9.6 - 9.8 Exam 3: 7.3, 9.1 – 9.6	Weekly quiz 4/22/2021 WebAssign online assignment	4/25/2021
Week 14: 4/26/21 – 5/2/21	Ch. 10 Conics, Parametric Equations, and Polar Coordinates: Sections 10.2 – 10.3	Weekly quiz 4/29/2021 WebAssign online assignment	5/2/2021
Week 15: 5/3/21 – 5/9/21	Ch. 10 Conics, Parametric Equations, and Polar Coordinates: Sections 10.2 – 10.3	TBA	N/A
Week 16: 5/10/21 – 5/16/21	Final Exam		5/11/2021