

Repetitio est mater studiorum
(*Repetition Is the Mother of Learning*)
Latin wisdom

Interest increases as a result of success,
and success is the outcome of hard work.
Professor Yaroslav Tagamlizki

Eastern Connecticut State University
MAT 244-01, Calculus II with Technology, Fall 2019

Instructor: Christian Yankov

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Time and Place: **MF** 10:00-10:50 am, and **W** 9:00-10:50 am, Goddard 223.

Text: Strang and Herman, *Calculus, Volume 2*, published by OpenStax/INDICO, **ISBN: 978-1-938168-06-2**. This is an open source textbook. An electronic version of the book may be downloaded free of charge at <https://openstax.org>.

Calculator: An advanced graphics calculator **TI-89** is required for this course (no cell phone calculators). Calculator use may be restricted on exams.

Office hours: **M and F** 9:00-10:00 am, and 1:00-2:00 pm, **W** 1:00-2:00 pm.

Prerequisites: MAT 243.

Course topics: This is the second course in a three semester calculus sequence. It focuses on two related areas: methods and applications of integration, and infinite series and representation of functions by power series. Topics in integration include Riemann sums, indefinite and definite integrals, the Fundamental Theorem of Calculus, applications to geometry (area, volume, arc length) and to real-life problems, and techniques of integration. The course concludes with the study of sequences and series, convergence tests, and power series representation of functions (Taylor series). Use of an approved graphing calculator is required throughout the course.

Goals and Objectives: By the end of the class you should be able to:

- Find indefinite integrals of functions.
- Understand the definition and meaning of the definite (Riemann) integral.
- Apply the Fundamental Theorem of Calculus to evaluate definite integrals.
- Understand and apply various methods and techniques for evaluating indefinite and definite integrals: substitutions, partial fractions, integration by parts.
- Apply integration techniques to finding lengths, areas and volumes of geometric figures in the plane and space.
- Learn basic methods for numerical integration.
- Use TI-89 to compute indefinite and definite integrals.
- Understand the definitions of number sequences and series and their convergence/divergence.
- Apply various tests for convergence/divergence.
- Understand the definition of power series and their importance for representing functions.
- Communicate ideas thoughtfully and clearly both in writing and orally.
- Work cooperatively with classmates.

Class format: Each class meeting will consist of a lecture and include related problem solving. We will also study the use of an advanced calculator in solving calculus problems.

Attendance: It is expected that you be there on time for each and every class. If for some reason you should miss a class, then it is your responsibility to find out from a friend what has been covered and assigned and make it up.

Homework: Homework is assigned online through *WebAssign*. Registration instructions for WebAssign will be handed out in a separate info sheet. There will be one online assignment each week due every Sunday at 11:59pm, unless communicated otherwise, or an extension is granted. I cannot stress enough the importance of doing the homework. It is a critical factor in building and reinforcing your knowledge, as well as helping you identify your weak points. It will also be a part of your grade for the class, as explained below.

Course Assessment Policy: Early in the semester the department will evaluate your Calculus I skills. You are required to complete the online MAT 244 Maple TA assessment for your course section. Your instructor will provide instructions for completing this assessment. (This assessment is part of the overall Mathematics Program Assessment and will be used to provide feedback to the department on students' mathematical skills at various stages of the Mathematics Program. In addition, the assessment will provide you with a review of prerequisite material for this course.) It will be counted as a homework toward your grade. Students who do not successfully meet the Assessment Requirements will receive a course grade one letter grade lower than the earned course grade.

Problems and questions regarding technical aspects of the Maple TA Assessment (such as: "I can't access the assessment", or "My password doesn't work") should be directed to John Tyszka tyszka@easternct.edu. Problems related to mathematics (such as properly entering mathematical expressions), should be directed to either Dr. Davis, davisma@easternct.edu, or to your professor.

Exams: There will be two longer exams throughout the semester. Their dates will be announced at least a week in advance.

Final Exam: There will be a cumulative final on **Wed., Dec. 11, 2019, 11:00-1:00 pm**.

Evaluation: Homework will account for 15% of your grade, the two longer exams will account for 25% each, and the final exam will account for the remaining 35%.

Grades: The ranges for the grades are the following:

A-, A	90% and above
B-, B, B+	80% - 89%
C-, C, C+	70% - 79%
D, D+	60% - 69%

How to get help: You should come see me during my office hours, if you have difficulties with the subject matter. You can get free tutoring at the Mathematics Achievement Center (MAC), located on the first floor of the E. J. Smith Library, Room 107. Please visit www.easternct.edu/mathematics/departments-index/mathematics-achievement-center/ or call 465-0383 for the schedules of the MAC. If you feel you need help, do not wait until an exam is imminent.

Make-ups: Make-ups for exams are strongly discouraged and might be allowed for truly exceptional reasons only, and with my prior permission.

Inclement weather: For cancellation of classes due to bad weather follow the messages on the university weather hot line at (860) 465-4444, or 1-800-578-1449, or visit the website <http://www.easternct.edu/easternalert/>

Eastern uses also the local radio and TV station broadcasts to announce cancellations. If you are subscribed to Eastern Alert, you should also be notified via that channel, as well.

Weather Closing Policy: In the event of a delayed opening of the University, any class that would have at least 45 minutes of meeting time remaining after the announced opening time will meet starting at the announced opening time. Any class meeting that would have fewer than 45 minutes of meeting time after the announced opening time will not meet. For example, if opening the campus is delayed until 10 a.m., classes running from 9:30-10:45 a.m. would meet from 10-10:45 a.m.

In the event of an early closing of the University, any class that would have at least 45 minutes of meeting time prior to the announced closing time will meet until the announced closing time. Any class meeting that would have fewer than 45 minutes of meeting time before the announced closing time will not meet. For example, if we were to close the University early at 3 p.m., classes running from 2-3:15 p.m. would meet from 2-3 p.m.

Students with disabilities: Eastern Connecticut State University is committed to following the requirements of the Americans with Disabilities Act and Section 504 of the Rehabilitation Act. If you are a student with a disability (or think you may have a disability), and require adaptations or accommodations, or assistance evacuating a building in the case of an emergency, please contact the Office of AccessAbility Services (OAS) at 860-465-0189 to discuss your request further. Any student registered with the OAS should contact the instructor as soon as possible for assistance with classroom accommodations. Please note that accommodations are not retroactive, and must be communicated through a Letter of Accommodation which is drafted by the OAS.

Classroom Etiquette: The use of cell phones, or headphones is inappropriate in class. Cell phones should be turned off (or on vibrate for emergencies) and stored off the class desk. No food is allowed during class.

Academic Misconduct: Students should read and understand Eastern's Academic Misconduct Policy, which can be found in the student handbook or at the following website:

<http://www.easternct.edu/academicmisconduct/>

All violations will be handled under the procedures established in this policy.

Disclaimer: *The instructor reserves the right to make changes to this syllabus during the semester as necessary.*