Math 1452 Calculus II

Instructor: Dr. Angela Peace
Office Hours: MATH 243, Tuesday 1-2:00, Thursday 10:00-12:00
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Text: *Calculus* by Strauss/Bradley/Smith/Toda, 7th ed.

COVID-19 update: All classes are cancelled the week of March 23rd, 2020 and the course will transition to an online course starting March 29, 2020. Details about virtual meetings, lectures, and online exams will be posted on blackboard. The date of exam 2 had been moved to Thursday April 2nd. The date of Exam 3 has been moved to Tuesday April 28th. The date of the Final exam will remain the same.

The Most Important Part of This Syllabus: Calculus II is the most difficult lower division math class. In order to make a C or better, you should

- Spend **8 hours or more per week** studying and doing homework for this class.
- Attend every class and do all the homework. Do not use your calculator to cheat yourself out of the practice you need doing the Chapter 7 integrals by hand.
- Memorize the Derivative, Integral, and Trig Rules. You cannot work the problems unless you know them thoroughly.
- While you are ultimately responsible for doing the work necessary to learn this material, I'm always here to help. Stop by my office hours or send me an email whenever you have questions.
- You can only learn this material by working **actively** (actually doing problems), **deeply** (thinking carefully about each problem – what you did and why you did it), and **repeatedly** (working all the homework and re-working problems before the exams to get plenty of practice). It's a lot like learning to make free throws. You can't just sling the ball toward the goal 50 times and call that enough practice. You have to pay attention to what works and what doesn't and why that is.

TTU Core Curriculum Student Learning Outcomes for Mathematics

- Apply arithmetic, algebra, geometry and statistics to solve problems.
- Represent and evaluate basic mathematical information numerically, graphically, and symbolically.
- Use mathematical and logical reasoning to evaluate the validity of an argument.
- Interpret mathematical models such as formulas, graphs, tables and schematics, and draw inference from them.

Students graduating from Texas Tech University should be able to demonstrate the ability to apply quantitative and logical skills to solve problems. This course satisfies core curriculum math requirements.

Expected Learning Outcomes	Methods for Assessment
Set up and evaluate integrals to find areas and volumes and to solve real world problems	Exam I, Homework, Class Discussion, Final Exam
Evaluate integrals by hand using a variety of techniques including substitutions, parts, partial fractions, and hyperbolic trigonometry	Exam II, Homework, Class Discussion, Final Exam
Analyze the convergence of sequences, series, and power series	Exam III, Homework, Class Discussion, Final Exam
Solve elementary problems in vector analysis	Homework, Class Discussion, Final Exam

Major Course Requirements: There will be 3 in-class exams, each accounting for 18% of your course grade. Another 15% of the grade will be derived from online homework and 6% from weekly in-class quizzes. The remaining 25% will consist of your score on the comprehensive departmental final exam. The grading scale is

Percentage	Grade
90-100	A

80-89	B
70-79	C
60-69	D
Below 60	F

Schedule	
Lecture	**General Description of the Subject Matter**
Week 1-5	Using integrals to find areas and volumes and to solve real world problems
Week 6-9	Evaluating integrals by hand
Week 10-14	Analyzing the convergence of sequences, series, and power series
Week 15-16	Vector analysis and review

Exam Schedule:
Exam 1: Thursday Feb 20
Exam 2: ~~Thursday March 26~~ Thursday April 2 (online)
Exam 3: ~~Thursday April 23 Tuesday~~ April 28 (online)
Final Exam: Monday May 11th 4:30-7:00 pm, (online)

Calculators: No calculators or other electronic devices may be used on any exam, and the exam problems will be designed to avoid complicated arithmetic. The WebWork problems in chapter 6 may occasionally require unpleasant arithmetic, and it is fine to use a calculator for help with those. However, you should avoid using the calculator for more than simple calculations; in particular, you must learn to do the integrals in chapter 7 by hand.

Attendance: You are responsible for all material covered and announcements made in lecture, via email, and on the web. It is critical that you come to every class.

Homework: Homework will be assigned through WebWork. You will also be given a list of suggested problems in the textbook which will not be collected or graded but are nonetheless essential in preparing for the exams. You should spend **at least** 8 hours per week doing homework. You are encouraged to work with other students; however, your work must be essentially your own.

No homework will be accepted late. Waiting until the night the homework is due to begin working on it is extremely risky. You may not have time to ask questions if you get confused, and you might run into technology trouble. There are no extensions for homework due dates, even if your computer breaks or your internet connection goes down just before the deadline.

However, when I calculate your final homework grade, I will drop 20 points. This is part of the reason there are no extra credit opportunities, bonuses, test corrections, or make up assignments.

Missed Assignments or Exams:
In general, no missed in-class activities will be made up and no homework will be accepted after the deadline (except for documented university absences as required by TTU OP's). If you miss one of the 3 exams, your grade on the final can be used to replace one missed exam, but only with my permission for a valid, documented emergency or as required by TTU OP's.

Academic Integrity:
http://www.depts.ttu.edu/opmanual/OP34.12.pdf
It is the aim of the faculty of Texas Tech University to foster a spirit of complete honesty and high standard of integrity. The attempt of students to present as their own any work not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offenders liable to serious consequences, possibly suspension.

“Scholastic dishonesty” includes, but it not limited to, cheating, plagiarism, collusion, falsifying academic records, misrepresenting facts, and any act designed to give unfair academic advantage to the student (such as, but not limited to, submission of essentially the same written assignment for two courses without the prior permission of the instructor) or the attempt to commit such an act.

You are expected to maintain the highest standards of academic integrity in this course. Any violation will be punished to the fullest extent. In particular, no calculators, notes, formula sheets, books, or other outside resources may be used on exams. You may (and are encouraged to) discuss homework problems with each other and with tutors at the math tutoring center, but you may not use any work done completely by another person or copy from the web or the student solution guide. For example, suppose you are working with a friend or tutor on a homework problem and they discover the answer. You may not copy their answer or their work. If however, they explain the problem to you, and you **completely** understand every detail (meaning you could work a similar problem completely on your own), then you may re-write the solution as you understand it and the solution would now be considered your own.

Observance of Religious Holy Day:
https://www.depts.ttu.edu/opmanual/OP34.19.pdf
"Religious holy day" means a holy day observed by a religion whose places of worship are exempt from property taxation under Texas Tax Code §11.20. A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. A student who is excused may not be penalized for the absence; however, the instructor may respond appropriately if the student fails to complete the assignment satisfactorily.

Accommodation for Students with Disabilities:
https://www.depts.ttu.edu/opmanual/OP34.22.pdf
Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor’s office hours. Please note: instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, please contact Student Disability Services in West Hall or call 806-742-2405.