

Math 1452 Calculus II

Instructor: Dr. Angela Peace

Office Hours: Tuesday 1:30-3:00pm, Friday 8:30-10:00am

Email: a.peace@ttu.edu

Text: *Calculus* by Strauss/Bradley/Smith/Toda, 7th ed.

Materials: Computer (not just a tablet or phone) with a microphone and webcam and a stable, fast internet connection, Zoom, and Chrome

Virtual Meeting Space: <https://zoom.us/j/99604406706>

Join Zoom Meeting

Meeting ID: 996 0440 6706

Online Homework: <https://webwork.math.ttu.edu/webwork2/f20anpeacem1452s011/>

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

- Attend and actively participate in virtual office hours in Zoom
- Ask me or your learning assistant whenever anything isn't perfectly clear. While you are responsible for doing the work necessary to learn this material, you should never feel like you have to "teach yourself." I'm always here to help.
- Expect to spend **at least 8 hours per week outside of class** doing homework and studying for exams
- Watch the video lectures carefully and as many times as necessary to understand them. The great advantage of an online class is that you don't have to frantically copy notes from the board because you can re-watch the lectures.
- Check your email and discussion board daily. Save all emails for future reference.
- Do all the homework, both the WebWork and the part you scan and upload to Blackboard. Do not use your calculator to cheat yourself out of the practice you need doing integrals by hand.
- Memorize the Derivative, Integral, and Trig Rules.
- Check your system using the practice Proctorio exam at the beginning of the semester and before each exam. Make sure you understand how to take the exam (scanning your work, uploading it twice, etc). You do not want to be stressed out because of computer problems or risk not receiving credit for the exam because you didn't follow the exam instructions.
- 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, Final, Homework, Discussion Board
Evaluate integrals by hand using a variety of techniques including substitutions, parts, partial fractions, and hyperbolic trigonometry	Exam II, Final, Homework, Discussion Board

Analyze the convergence of sequences, series, and power series	Exam III, Final, Homework, Discussion Board
Solve elementary problems in vector analysis	Final, Homework, Discussion Board

Assignment	Topic	Due Date
1	6.1 – Area Between Curves Activities in the “Start Here” Section in Blackboard	Friday, August 28
2	6.2 – Volume	Tuesday, Sept 1
3	6.3 - Polar Coordinates and Polar Area	Friday, Sept 4
4	6.4 – Arc Length	Tuesday, Sept 8
5	6.5 – Engineering Problems Part 1	Friday, Sept 11
6	6.5 – Engineering Problems Part 2	Tuesday, Sept 15
7	Exam 1	Friday, Sept 18
8	7.1 – Review of Integration	Tuesday, Sept 22
9	7.2 - Integration by Parts	Friday, Sept 25
10	7.3 – Trig Substitution	Tuesday, Sept 29
11	7.4 – Partial Fractions	Friday, Oct 2
12	7.5, 7.8 – Review of Integration Techniques, Hyperbolic Trig	Tuesday, Oct 6
13	7.7 – Improper Integrals	Friday, Oct 9
14	8.1 – Sequences	Tuesday, Oct 13
15	Exam 2	Friday, Oct 16
16	8.2 – Series	Tuesday, Oct 20
17	8.3 – Divergence Test	Friday, Oct 23
18	8.4 – Comparison Tests	Tuesday, Oct 27
19	8.5 – Ratio and Root Tests	Friday, Oct 30
20	8.6 – Alternating Series	Tuesday, Nov 3
21	Review of Series	Friday, Nov 6
22	8.7 – Power Series	Tuesday, Nov 10
23	8.8 – Taylor Series	Friday, Nov 13
24	Exam 3	Tuesday, Nov 17
25	9.1, 9.2, 9.3, 9.4 - Vectors	Friday, Nov 20
26	Final Exam	Friday, Dec 4

Major Course Requirements: There will be 3 exams, each accounting for 20% of your course grade, and a comprehensive final exam account for 25% of your course grade. These exams must be taken using Proctorio inside Blackboard. The remaining 15% will consist of your score on the homework assignments, which include both the problems you complete in WebWork and the assignments you upload to Blackboard. The grading scale is

Percentage	Grade
90-100	A
80-89	B
70-79	C
60-69	D
Below 60	F

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.

Video Lectures: It's much better to watch the videos carefully before you begin the homework. Watching the videos and taking careful notes may seem like a waste of time when you're being graded on the homework, but you'll actually finish the homework much faster if you take the time to watch the lectures first.

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 exams will be made up and no homework will be accepted after the deadline (except for documented university absences as required by TTU OP's).

ELearning Testing Information:

All students must review the syllabus and the requirements including the online terms and video testing requirements to determine if they wish to remain in the course. Enrollment in the course is an agreement to abide by and accept all terms. Any student may elect to drop or withdraw from this course before the end of the drop/add period.

Online exams and quizzes within this course may require online proctoring. Therefore, students will be required to have a webcam (USB or internal) with a microphone when taking an exam or quiz. Students understand that this remote recording device is purchased and controlled by the student and that recordings from any private residence must be done with the permission of any person residing in the residence. To avoid any concerns in this regard, students should select private spaces for the testing. The University library and other academic sites at the University offer secure private settings for recordings and students with concerns may discuss location of an appropriate space for the recordings with their instructor or advisor. Students must ensure that any recordings do not invade any third party privacy rights and accept all responsibility and liability for violations of any third party privacy concerns. Setup information will be provided prior to taking the proctored exam. For additional information about online proctoring, you can visit the [online proctoring student FAQ](#).

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 is 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, 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 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.

Potential for Pandemic Modifications:

In the event of emergency, including, but not limited to, changes in the global pandemic situation, any portion of this syllabus may be modified, including, but not limited to, the required course equipment and materials, the course schedule, and the grading policy. You will be notified if that becomes necessary.

I have read this syllabus and understand it completely. In particular, I will follow the recommendations under the heading "The Most Important Part of This Syllabus".

Signed

Date

Attachment A: Illness-Based Absence Policy

If at any time during this semester you feel ill, in the interest of your own health and safety as well as the health and safety of your instructors and classmates, you are encouraged *not* to attend face-to-face class meetings or events. Please review the steps outlined below that you should follow to ensure your absence for illness will be excused. These steps also apply to not participating in synchronous online class meetings if you feel too ill to do so and missing specified assignment due dates in asynchronous online classes because of illness.

1. If you are ill and think the symptoms might be COVID-19-related:
 - a. Call Student Health Services at 806.743.2848 or your health care provider. After hours and on weekends contact TTU COVID-19 Helpline.
 - b. Self-report as soon as possible using the [Dean of Students COVID-19 webpage](#). This website has specific directions about how to upload documentation from a medical provider and what will happen if your illness renders you unable to participate in classes for more than one week.
 - c. If your illness is determined to be COVID-19-related, all remaining documentation and communication will be handled through the Office of the Dean of Students, including notification of your instructors of the period of time you may be absent from and may return to classes.
 - d. If your illness is determined not to be COVID-19-related, please follow steps 2.a-d below.
2. If you are ill and can attribute your symptoms to something other than COVID-19:
 - a. If your illness renders you unable to attend face-to-face classes, participate in synchronous online classes, or miss specified assignment due dates in asynchronous online classes, you are encouraged to visit with either Student Health Services at 806.743.2848 or your health care provider. Note that Student Health Services and your own and other health care providers may arrange virtual visits.
 - b. During the health provider visit, request a “return to school” note;
 - c. E-mail the instructor a picture of that note;
 - d. Return to class by the next class period after the date indicated on your note.

Following the steps outlined above helps to keep your instructors informed about your absences and ensures your absence or missing an assignment due date because of illness will be marked excused. You will still be responsible to complete within a week of returning to class any assignments, quizzes, or exams you miss because of illness.