

MATH 173: CALCULUS II

INSTRUCTOR: DANNY LARA

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Class Room: Virtual

Virtual Office Hours: T-F 1:00pm -2:00pm

COURSE DESCRIPTION

We will look into anti derivatives and their associated interpretation. We will begin with a motivating example to establish the need to find the area under a curve. We will state the definition of the Riemann Integral using Riemann sums, explore the Fundamental Theorems of calculus, and apply their interpretations in real world problems.

Once we establish the Second Fundamental Theorem of calculus, we will spend some time learning techniques of integration. These techniques include substitution, integration by parts, and numerical methods of integration. We will then proceed to explore the various applications of integrals.

Applications of integrals include finding areas between curves and the volumes of solids of revolution We will also derive a way to find the exact length of a curve. We will explore concepts in physics (like density and work) and in statistics to get some physical interpretations of these concepts. We will then introduce differential equations, interpret their solutions, and learn to set up models.

TEXTBOOK AND MATERIALS

- The textbook use for the course is *Active Calculus 2.1*. Active calculus is a free open textbook, no purchase required.
- Zoom Access (if possible): Office hours will be hosted on Zoom. You will need to download to your computer, tablet, or phone. If you haven't used Zoom before, CWU has created a Zoom Tutorial handout to help you get started. [Click here for the tutorial handout](#). Feel free to reach out to me with any questions!
- You will need the following login information to access Zoom drop-in hours this quarter
 - **meeting id:** 817 098 6799
 - **or just click on this link.** The link is also on the front page on the canvas course and under the office hours tab.
 - **password:** limsup
 - *If you don't have access to zoom, the discussion boards (see canvas) will be your next best alternative.*

GRADED COURSE WORK

Grades are done via a point system. Everyone starts with zero points at the beginning of the semester. Complete assignments to earn points.

Homework (300 points). There will be 10 homework assignments, each worth 30 points. Homework will be hosted on [WebWork](#). Webwork is an open source online homework system for math and science courses. Homework will be assigned at the beginning of the week and due the next. Homework grade will be based on completion.

Quizzes (500 points). There will be 10 quizzes, each worth 50 points. Each quiz will have 3 attempts and only the highest grade will count. It is strongly recommend that you work on these on your own so that you can check for understanding. Quizzes will be assigned weekly but you have until the end of the quarter to complete them.

Discussions (100 points). There will be 10 discussions, each worth 10 points. Each week there will be required discussion to motivate the ideas for the week. Each discussion will outline the objective and its grading criteria. It is strongly recommended that you view the discussions by midweek since they require some peer to peer responses.

Modeling Projects (150 points). There will be 3 modeling projects, each worth 50 points. In these projects, you can use the math you have learned to apply it to real world problems!

Final Exam (100 points). There is one final exam due during finals week.

GRADING POLICY

The grade point breakdown is as follows.

Letter Grade	Points
A	≥ 930
A -	≥ 900
B+	≥ 870
B	≥ 830
B -	≥ 800
C +	≥ 770
C	≥ 730
C-	≥ 700
D+	≥ 670
D	≥ 630
D-	≥ 600
F	< 600

Accommodations. I am understanding of the need to set up academic adjustments due to disabilities. Bring a copy of your *Confirmation of Eligibility for Academic Adjustments* to set up proper accommodations. If you need testing accommodations, let me know ahead of time (at least 48 hours prior to the exam date). Students with disabilities should contact Disability Services to discuss a range of options to removing barriers, including accommodations. Disability Services is located in Hogue 126. Call (509) 963-2214 or email ds@cwu.edu for more information.

Student Expectations. As a student, you have certain expectations of me. These include knowing the material, answering emails, be present during office hours and so on. In return I expect all students to turn in work on time and invest time learning the material. Due to the Global Pandemic, this may become difficult at times. Send me an email about your situation for deadline extensions.

In compliance with RCW 28B.137.010, Central Washington University makes every effort to deal reasonably and fairly with students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. Students must present written notice to their instructor within the first two weeks of class listing the specific dates on which accommodations are required. Contact the Dean of Student Success at (509) 963-1515 for further information or questions.

Professionalism. CWU expects every member of the university community to contribute to an inclusive and respectful culture for all in its classrooms, work environments, and at campus events. As a student in this course, you are expected to treat your professors, fellow students, and other people affiliated with your work at CWU with respect, regardless of their sex, race and color, religion and creed, national origin, sexual orientation, gender identify and gender expression, disability and use of assistive devices or a service animal, and veteran or military status.

Academic Honesty. Consult university policies (CWUP 5-90-040(22), CWUR 2-90-040(22), and WAC 106-125-020) for student conduct, cheating, plagiarism, and other academic expectations. CWU's policies and recommendations for academic misconduct will be followed, leading to disciplinary action up to and including failing the course.

Disability Support Services. Central Washington University is committed to creating a learning environment that meets the needs of its diverse studentbody. If you anticipate or experience any obstacles to learning, contact Disability Services to discuss a range of available options to removing barriers, including accommodations. Student Disability Services is located in Hogue 126. Call (509)963-2214 or email ds@cwu.edu (<mailto:ds@cwu.edu>) for more information.