MATH 173-002 CALCULUS II
FALL 2020 (Sept 9 to Nov 13)

Instructor: Dr. Sooie-Hoe Loke   Zoom Office Hours: MTWTh 1:30-2PM and by email
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Contacting the Instructor: The best way to contact me is via direct email or message using the Canvas inbox. I will do my best to respond within 24 hours (or sooner) during the work week. We can also meet via Zoom during my scheduled office hours.

Required Text: Jon Rogawski and Colin Adams, Calculus: Early Transcendentals (3rd Edition). W.H. Freeman & Company (2015). This course will cover material from Chapters 5, 6, and 7 of the text.

Course Prerequisites: Calculus I (MATH 172) is a formal prerequisite for this course. You must know the basic rules for differentiation: sum rule, product rule, quotient rule and chain rule. You must also know the formulas for the derivatives of the basic functions, including powers, roots, exponentials, logarithms, trigonometric, and inverse trigonometric functions (arcsin, arccos, and arctan). In addition, basic algebra skills are crucial. You must be able to manipulate algebraic expressions, powers and rational expressions. You should be able to solve linear, quadratic, exponential, logarithmic and trigonometric equations.

Learning outcomes: Upon successful completion of this course, the student will understand:
- the concept of definite integral and basic properties of integrals;
- how integrals can be approximated by Riemann sums and by other numerical approximation schemes;
- the concept of antiderivative and its applications;
- the Fundamental Theorem of Calculus;
- analytical methods for constructing antiderivatives, including integration by parts and various substitution methods;
- the various interpretations of the integral as displacement, area, volume, work, density, center of mass, probability distributions and densities;

Course Assessment: Your overall grade will be determined by the following:

- WeBWorK assignments: 30%
- Quizzes: 25%
- Three Exams: 45%; tentative dates: Oct 1, Oct 22, Nov 17

Course grades will be assigned based upon the following scale:

93-100%=A   90-92.9%=A-   87-89.9%=B+   83-86.9%=B   80-82.9%=B-   77-79.9%=C+   73-76.9%=C
70-72.9%=C-   67-69.9%=D+   63-66.9%=D   60-62.9%=D-   below 60%=F

Course structure:
Every week, lecture videos will be posted on Canvas via Panopto. Go to the Canvas course page and click "Panopto Recordings" on the left navigation menu. The corresponding slides will be posted on Canvas under "Files". After you're done with each video, please work on the corresponding worksheet for the lecture. These worksheets are designed to supplement the lecture and should be completed before you attempt the WeBWorK assignments. There will be either a quiz or an exam on most Thursdays.

Required calculator: A scientific or graphing calculator is required.

WeBWorK Assignments:

Weekly assignments will be given using the online homework system WeBWorK. WeBWorK can be accessed from any computer with internet connection and a web browser. The link to the login page for the course is https://webwork.math.cwu.edu/webwork2/Math173Loke/. Login to WeBWorK for the first time using your **CWU student ID number as both your username and password**. You may change your password after your first login. If you can't login, please email Dr. Loke as soon as possible. These WeBWorK assignments must be completed by 11PM every Wednesday. WeBWorK checks answers and provides immediate feedback, so you can be sure that you are completing problems correctly. In general, you will have unlimited attempts at a particular problem; the exception is if a problem is multiple-choice, in which case you will have limited attempts. Many of the problems contain randomly generated numbers, so your problem may not be identical to a classmate's. Late submissions will not be accepted, however, the lowest homework score will be dropped.

Quizzes: There will be quizzes given on Thursdays during weeks without an exam. The problems will be taken from or be very similar to the ones found in WeBWorK assignments and worksheets. The lowest quiz score will be dropped. The quizzes are closed-book, closed-note, and closed-internet. It would be considered cheating to make use of those resources. You are also not allowed to share any information about the content of the quiz with others. You will be asked to sign an integrity statement at the beginning of each quiz.

Quizzes will be given via the "Quizzes" feature in Canvas. The quizzes will be made available from 6AM to 11PM on Thursday during weeks without an exam. Please note that once you begin, the quiz will not be paused even if you navigate away from the quiz. Make sure that you have a calculator and have plenty of scratch papers**.** Each quiz should take no longer than 30 minutes and I will provide some extra time so that you can **scan** and upload your quiz on Canvas as a pdf file. If Canvas is temporarily down in the middle of your exam or if there are other technological difficulties, please email your quiz to me. Your work should be clear, in a logical order, and provide sufficient explanation to receive full credit.

Many smartphones have built-in functions to convert pictures to pdf files. In addition, here is a list of some apps with scanning capability: Adobe Scan, Cam Scanner, Microsoft Office Lens, Tiny Scanner.

Exams: Exams follow a similar format as quizzes, but it will be at least twice as long. Any changes to the tentative exam schedule will be announced in advance. Make-up arrangements must be made at least one business day prior to an exam unless you can document an unexpected circumstance beyond your control that prevented you from taking the exam.

General Course Policies: Daily work is expected and considered necessary for success.

All work handed in for the course must be written neatly, legibly, clearly, using correct mathematical notation, and with sufficient explanation. A good rule of thumb is to write your solution so that a classmate who knows roughly what's going on in the course but doesn't know how to do this particular problem can understand your solution. As a side benefit, this makes it much more likely that you will be able to understand your solution when you go back to study for exams or the final! The bottom line: for any written work handed in for the course, such as quizzes and exams, you must show all pertinent work.

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.

Diversity Statement: 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.

Disability Support Services: CWU is committed to creating a learning environment that meets the needs of its diverse student body. Students with disabilities should contact Disability Services to discuss a range of options to removing barriers, including accommodations: Hogue Hall 126, (509) 963-2214, ds@cwu.edu

Religious Holiday Absences: In compliance with RCW 28B.137.010, CWU 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.

Expectations for Student Conduct: Students in this class are expected to interact with students and the professor professionally. Instances of disruptive conduct, obstructive conduct, or harassment will be referred to the Dean of Student Success.

COVID-19 Statement and Resources:

Due to COVID-19 and under the directive and mandate of public health officials and the president of Central Washington University, students must adopt face covering protocol before entering any classroom or building at CWU until further notice. Students must also follow the social distancing placement marks in buildings and classrooms. If you do not have a face covering Central Washington University can provide one for you. If you have not yet received your CWU-supplied facial covering, please go the SURC Information Desk. Please do so prior to the start of your first class.

Stress and other life circumstances that may be out of your control can make learning and focusing difficult. If you find stress or other mental health concerns make academics difficult, Central has resources to support you. I encourage you to reach out to the following resources as soon as you notice you're struggling:
- CWU Counseling Center: https://www.cwu.edu/medical-counseling/counseling-clinic
- Mental Health Crisis Support outside normal business hours:1-800-273-8255, Text HOME to 741741 or call 911.
- Wellness Center: https://www.cwu.edu/wellness/ 509-963 -3213
- Student Rights and Responsibilities: https://www.cwu.edu/student-rights/office-student-rights-responsibilities

The instructor reserves the right to change the policies contained in this syllabus as dictated by developments during the quarter. Changes will be announced via email and on Canvas.