COURSE SYLLABUS

Course Info: Math 171 Section 005C - Calculus I — Spring 2020
MWF 8:30 – 10:10 a.m. — Room 2848

Instructor: Professor Carrie Tirel **Office Location:** Room 2841

E-Mail: tirelc@uwosh.edu **Office Phone:** 832-2638

Office Hours: Mondays & Wednesdays 10:20 – 11:50 a.m.
Tuesdays & Thursdays 1:30 – 2:45 p.m.
Or by appointment

Prerequisites: Grade of C or better in Math 108 or 104 and 106 or placement via placement test score.

Text: *Calculus (Early Transcendentals)* by James Stewart, 8th Edition
Other Required Materials: WebAssign license
(These are available as a bundle with ISBN #9781305616691.)

Calculator: You are expected to have a TI-89, Voyage 200, or Nspire CAS graphing calculator. We will not spend much time in class on instruction about your calculator, but I will try to help you out of class if necessary.

Canvas and email: A Canvas site will be maintained for this course and will be utilized, along with email, as a means of instructor-student communication. To access it, go to canvas.uwosh.edu and log in with your NetID and password. **You are expected to check your university email account and Canvas daily.**

Topics Covered: 1) **Limits**: algebraic computation; graphical interpretation; connection to slope and velocity; relationship to continuity and differentiation; L'Hôpital's Rule.
2) **Derivatives**: differentiation formulas, including chain rule and derivatives of arbitrary elementary functions; higher order derivatives; implicit differentiation; differentials; applications, including related rates, optimization and curve sketching.
3) **Integrals**: Definite and indefinite; substitution; applications, including volume of solids of revolution, arc length and work.

Learning Outcomes: Upon successful completion of the course, you should be able to:

- Communicate problem solutions, interpretations, and ideas and techniques of calculus in clear and well-organized written form, including the proper use of notation.
- Understand the concepts of limit and continuity and compute limits of functions.
- Understand the definition of the derivative and interpret derivative graphically and as instantaneous rate of change.
- Use differentiation rules to compute derivatives of elementary functions as well as their inverses, compositions, arithmetic combinations, and implicitly defined functions.
- Apply derivatives to curve sketching, optimization problems and computing limits.
- Understand the definition and fundamental idea of the definite integral.
- Understand the fundamental theorem of calculus and use it to calculate definite integrals.
- Find antiderivatives of standard elementary functions.
- Evaluate antiderivatives using the method of substitution.
- Apply definite integrals to compute areas and volumes.

Objectives/Expectations:

- The objective of this course is more than just getting you to reproduce what has been shown to you in the classroom. We will aim for greater command of the material, especially the ability to apply what you have learned to new situations.
- **Most of learning takes place outside the classroom** – **math is not a spectator sport!** Expect to spend **at least 10 hours per week** outside of class time on this course.

Course Work: These are the types of course activities planned for the semester:

Pre- and In-Class Work: In a typical week, you will be required to read through an average of three sections' worth of the course packet (handed out in class and also available on Canvas) and fill in the examples by following along with a video (on Canvas). Then, rather than a traditional lecture, we will use most of our class time for examples, some presented by the instructor and others by small groups of students. Your participation and engagement in these pre- and in-class activities will make up a portion of your final grade (see the "Grading Policy" below).

WebAssign Homework: For each section of the textbook covered, there will be an associated homework set on WebAssign. **You are responsible for monitoring the deadlines for these assignments; I will rarely announce them in class.**

Take-Home Quizzes: Approximately every other week, you will hand in a take-home quiz via Canvas. Take-home quizzes will include some exercises similar to homework problems, in addition to one or two applied problems that will require deeper thought and a more significant time investment. You should expect to spend several hours on a take-home quiz, spread out over the week you are given to complete it.

In-Class Exams: This course involves two types of mathematics. The first involves traditional symbol manipulation skills. The second depends heavily on your ability to learn concepts behind these skills and apply those to problems. Consequently, there will be two kinds of in-class assessments:

Proficiency Tests (PT's): You will take three Proficiency Tests. To pass each of them you must earn **80%** on it, with **no partial credit given**. **Calculators are not allowed on Proficiency Tests**. You will be given three chances to pass each of these tests. You will have a lot of time on these exams, but you will have to know the mathematics involved and be able to use it. If you pass a Proficiency Test the first time with a 100% score you will receive **10 bonus points** toward your final grade. These are the **tentative** dates for the proficiency tests this semester:

February 26 **April 1** **April 29**

Mini-Midterms: These 60-minute assessments are focused on your ability to display an understanding of the concepts, and to set up and solve applied problems. There will be three Mini-Midterms during the semester, the third of which will include a cumulative portion. The Mini-Midterms will be given on or around these **tentative** dates:

March 11 **April 15** **May 13**

Grading Policy: The following components will make up your **provisional grade (PG):**

Proficiency Tests – 50 points each
Mini-Midterms – 100 points each
WebAssign Homework – 100 points
In-Class and Take-Home Quizzes – 100 points
Class Participation & Engagement – 50 points

The percentage you earn on the above items will determine your PG according to the following scale:

93	90	87	83	80	77	73	70	67	63	60	59↓
A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F

Your **final course grade** will be computed as follows, depending on how many Proficiency Tests you've passed:

Pass all 3 PT's within three attempts:	Course Grade = PG
Pass only 2 PT's within three attempts:	Course Grade = lower of B and PG
Pass only 1 PT within three attempts:	Course Grade = lower of D and PG
Pass 0 PT's within three attempts:	Course Grade = F (regardless of PG)

Make-up and Late Work Policy: You must be in class to earn credit for all pre- and in-class work; there will be no make-up opportunities or exceptions to this policy.

I will grant you **one** 2-day extension on a take-home quiz during the semester--use it wisely! This extension must be requested **via email** in advance of the due date in order to be used. Other or additional late take-home quizzes will be accepted up to two days late, with a 15% penalty for each day it is late. I will not accept a take-home quiz more than two days after the due date.

WebAssign assignments have an automatic extension feature, which grants 2 additional days to complete your work, with a 20% deduction, as long as you request the extension within 2 days of the original due date. This should provide sufficient flexibility for the completion of this work.

In the event that an *emergency* prevents you from attending an in-class assessment, you must 1) contact me (via email or office phone) **before the quiz or exam is to take place**, 2) provide adequate proof of your inability to attend, and 3) reschedule **as soon as possible**.

Classroom Etiquette: In order to foster an environment conducive to your own learning and that of others, cell phones, laptop computers, and music players must be turned off and **put away** during class. **Cell phone calculators may not be used on exams.**

Attendance: Attending class regularly is in your own best interest. Although I will not formally take attendance, you are responsible for all homework, quizzes, and exams, whether or not you are in class when they are announced and/or modified.

Academic Misconduct: All suspected incidents of academic misconduct will be handled using the UW System rules, Chapter 14 (from UWS 14.03). The definition of "academic misconduct" can be found in UWS 14.03. UWS 14 is available to all students in the library; additionally, all students received a copy of this policy during their orientation.

Disclosure Statement: Students are advised to see the following URL for disclosures about essential consumer protection items required by the Students Right to Know Act of 1990: https://uwosh.edu/financialaid/consumer-information/.

Accommodations: The University of Wisconsin Oshkosh supports the right of all enrolled students to a full and equal educational opportunity. It is the University's policy to provide reasonable accommodations to students who have documented disabilities that may affect their ability to participate in course activities or to meet course requirements.
Students are expected to inform Instructors of the need for accommodations as soon as possible by presenting an Accommodation Plan from either the Accessibility Center, Project Success, or both. Reasonable accommodations for students with disabilities is a shared Instructor and student responsibility.
If you are a student with a disability and have an Accommodation Plan, please let me know as soon as possible.
If you have a learning or any other disability that may warrant an accommodation and do not yet have one, please contact Jeri Kukurich (kukurichje@uwosh.edu) in the Solution Center. She can help arrange testing if you are not sure if you have a learning disability or if you do not have documentation. You can find more information at this link: https://www.uwosh.edu/deanofstudents/Accessibility-Center/student-resources.
In fairness to other students, I cannot provide accommodations without the proper paperwork, but please let me know if you are in the process of obtaining accommodations.

A Note on the Nature of the Course: You are enrolled in a 5-credit math course which meets only three days a week. Nevertheless, it is expected that you will be dedicating **at least 10 hours per week** outside the classroom **to this class alone**. There will be work required of you prior to each class period that is crucial that you complete in order to get the most out of our class time. **You are much more likely to find success and enjoyment in the course if you are prepared to commit to the demands of it.**

A Word of Encouragement: This class is likely to be very different from others you have had. It will be challenging, but I sincerely believe that you are capable of being successful in the course. Please know that **I am here to help you**; contact me in person or via email, or just stop by my office, when you have questions, concerns, or just want to discuss your ideas.

As your Instructor, I reserve the right to make changes to this syllabus and the course/homework/exam schedule based on the learning pace of the class, and/or other unanticipated circumstances. I will communicate any changes to you as soon as they are made.