MATH 111   **Applied Calculus**   **SPRING 2022**
M,T,W,Th: 1 – 1:50 pm

INSTRUCTOR: Dr. Kavita Bhatia

E-mail address: kbhatia@uwsp.edu

OFFICE HOURS: M, T, Th 10 am – 11 am by appointment. You may connect with me during office hours by Zoom. The link is available on the course Canvas page.

COURSE FORMAT: This course will be delivered in the point to point (P2P) using Zoom. Some of you will be in the classroom with me, while others will be connecting remotely via Zoom. All lectures will be recorded and recordings will be available on the course Canvas page. You will use your UWSP account to login to the course from the Canvas Login Page. If you have not activated your UWSP account, please visit the Manage Your Account page to do so.

REQUIRED MATERIALS:
- **Textbook:** *Applied Calculus for the Managerial, Life, and Social Sciences: A Brief Approach*, 10th Ed., by S. T. Tan. Topics include most of those in Chapters 1 – 6 and a selection from Chapters 7 and 8. An e-book is available with your Webassign account. You may purchase or rent a hard copy of the book from Cengage, if you wish.
- **Calculators:** A scientific or graphing calculator is required and should be brought to class daily. The TI graphing calculators are most familiar to me. One like the TI-83+ or TI-84 can be a helpful tool for understanding concepts and working homework problems. Computers, phones, and calculators with a "QWERTY" keyboard are not allowed during exams or quizzes, and sharing is not permitted. **Cell phone calculators will not be allowed on exams and quizzes.**

PREREQUISITES: Math 107 (College Algebra) or a suitable placement test.

GENERAL COURSE GOALS: In addition to achieving the Quantitative Literacy learning outcomes of the university's General Education Program, students will develop communication skills, and problem-solving approaches to applied problems in fields such as biology, natural resources, and social science, using the central concepts of introductory differential and integral calculus.

LEARNING OUTCOMES: Students will be able to
1) find limits, derivatives, and integrals from graphs and from formulas.
2) determine when limits, derivatives, or integrals are useful in applied problems.
3) use rules for finding derivatives and integrals and identify which rules apply.
4) identify features of a graph using derivatives.
5) optimize a function or value using derivatives, and construct a conclusion using quantitative justification.
6) use the Fundamental Theorem of Calculus to relate derivatives & integrals to each other.
7) find exact area under a curve and area between two curves, and estimates for these areas.
8) communicate their conclusions and justifications using mathematical notation and language and using English sentences. This includes the use of mathematical terminology.

ATTENDANCE: You are expected to attend all classes and participate in class discussions. In the event of an absence, you are responsible for making up the material that you missed.

GRADING POLICY: Your course grade will be computed as follows:

Quizzes	16%
Attendance and Participation	4%
Exams (3 x 20%)	60%
Final Exam	20%
Total	**100%**

The above distribution may change at the discretion of the instructor.

GRADING SCALE: Grades will be assigned according to the scale below:

93%--100%	A	77%--79%	C+
90%--92%	A-	73%--76%	C
87%--89%	B+	70%--72%	C-
83%--86%	B	67%--69%	D+
80%--82%	B-	60% -- 66%	D
		59% or less	F

HOMEWORK : Homework will be assigned at the end of every class period. You are expected to work on the assigned problems. Homework will be spot checked periodically.

QUIZZES: There will be a quiz most Thursday's. There will be NO make-up on the quizzes. The problems will be very similar to the homework problems. The quiz with the lowest score will be dropped.

EXAMS: There will be three in class exams and a two-hour final. All exams will be proctored. Tentative exam dates are listed in the calendar at the end of the syllabus. The final exam will be comprehensive. **It is scheduled for May 18, Wednesday from 10:15 am to 12:15 pm.**

TUTORING-LEARNING CENTER (TLC): The Tutoring-Learning Center promotes and supports the academic environment by providing free, confidential, student-centered academic support. The TLC offers one-on-one tutoring services via Zoom, and one-on-one academic coaching appointments. **New this year: The DUO Center** in Room 107 will offer tutoring for qualifying students, with professional tutors in Writing and Math.

ACCOMMODATION OF RELIGIOUS BELIEFS: Any student who cannot be present for a scheduled exam due to a religious observance will be provided with an alternative way of fulfilling that course requirement, provided the student notifies me ahead of time.

ACADEMIC MISCONDUCT: Academic integrity and honesty are central to the mission of this institution. All students are expected to know the UWSP Community **Rights & Responsibilities** and the **Student Academic Standards and Disciplinary Procedures** found on the Dean of Students webpage at http://www.uwsp.edu/dos/Documents/CommunityRights.pdf.

I am available to help you whenever you need any help. Please do not wait to get help if you are having trouble. The only way to learn mathematics is by doing it. **So work hard and do not fall behind.**

Tentative Weekly Schedule – Spring 2022

Week	Approximate text sections to discuss this week	Events this week
1. Jan. 24 – 27	1.1 – 1.4, 2.1	
2. Jan. 31 - Feb.3	2.2 – 2.4	
3. Feb. 7– 10	2.6, 3.1	
4. Feb. 14 – 18	3.2, 3.3	
5. Feb. 21 – 24	3.4, 3.5, Review	**Exam 1** Thursday, Feb 24
6. Feb. 28 **-** March 3	4.1, 4.2	
7. March 7 – 10	4.3, 4.4	
8. March 14 – 17	4.4, 4.5	
March 21 – 25		*Spring Break, no classes this week*
9. March 28 – 31	5.1, 5.2, 5.3	
10. April 4 – 7	5.4, 5.5, 5.6	
11. April 11 – 14	Review, 6.1	**Exam 2** Tuesday, April 12
12. April 18 – 21	6.2, 6.3	
13. April 25 – 28	6.4, 6.5	
14. May 2 – 5	6.6, 7.1 Review	**Exam 3** Thursday, May 5
15. May 9 – 12	Optional topics, Review	
16. May 16 - 20	**FINALS WEEK**	

Final Exam: Wednesday, May 18 from 10:15am – 12:15 pm.

"Do not worry about your difficulties in mathematics; I can assure you mine are still greater."

- Albert Einstein