MATH 109 Mathematics for the Social & Management Sciences FALL 2023

INSTRUCTOR: Dr. Kavita Bhatia

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OFFICE HOURS: By appointment. All office hours will be conducted via Zoom. Link for office hours is available on the Course Home page in Canvas.

COURSE DESCRIPTION: The study systems of linear equations, matrices, linear programming, exponential growth and decay, mathematics of finance, and differential calculus with emphasis on applications. 4 credits

COURSE STRUCTURE: This course will be delivered entirely online through the course management system Canvas. You will use your UWSP account to log in 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.

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

REQUIRED MATERIALS:

- Textbook: *Mathematical Applications for the Management, Life and Social Sciences*, 12th Ed., by Harshbarger & Reynolds (Published by Cengage). **ISBN**: 978-1-337-62534-0. The text is available as a rental at the campus bookstore. Topics include most of those in Chapters 1 – 3, 5 - 6, and 9 - 11.
- Calculators: A scientific or graphing calculator is required. 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.**
- Course technology requirements: View this website to see minimum recommended computer and internet configurations for Canvas. You will also need access to the following tools to participate in this course: Webcam, Microphone, a stable internet connection (don't rely on cellular)

COURSE LEARNING OUTCOMES

Students will be able to:

- apply knowledge of various functions: linear, quadratic, exponential, logarithmic, and their properties to application settings.
- apply the basics of differential calculus to optimization problems.
- solve systems of linear equations by using matrices.

- solve problems in mathematics of finance.

You will meet the outcomes listed above through a combination of the following activities in this course: Discussions, quizzes, assignments, exams and projects.

GENERAL EDUCATION PROGRAM LEARNING OUTCOMES

The course fulfills the QL requirements for Gen-Ed. The QL learning Outcomes are noted below
Quantitative Literacy Learning Outcomes
Students will be able to:

1. Select, analyze, and interpret appropriate numerical data used in everyday life in numerical and graphical format.
2. Identify and apply appropriate strategies of quantitative problem solving in theoretical and practical applications.
3. Construct a conclusion using quantitative justification.

GRADING POLICIES

Graded Course Activities

Click the **Grades** link in Canvas to access the gradebook and view feedback from your instructor. Click the **Syllabus** link to see a chronological listing of assignments. Overall assignments and accompanying points are listed below:

Description	**Percentage**
Discussions	10
Quizzes	10
Assignments	8
2 Exams (17.5% each)	35
Project	12
Final Exam	25
Total Points Possible	100

Late Work Policy

Be sure to pay close attention to deadlines—there will be no make-up on discussions, quizzes, exams or late work accepted without a serious and compelling reason and instructor approval.

Letter Grade Assignment

Final grades assigned for this course will be based on the percentage of total points earned and are assigned as follows:

Percentage	**Letter Grade**
93%--100%	A
90%--92%	A-
87%--89%	B+
83%--86%	B
80%--82%	B-
77%--79%	C+

73%--76%	C
70%--72%	C-
67%--69%	D+
60% -- 66%	D
59% or less	F

HOMEWORK: Homework will be assigned on every section. Be prepared to spend 1-2 hours on each day's assignment. Selected problems from the homework will be included in the weekly discussions.

QUIZZES: Quizzes will be given periodically. Please refer to the Tentative schedule for dates. There will be **NO** make-up on the quizzes. However, I will drop the lowest quiz score.

DISCUSSIONS: You will have weekly group discussions. You will be presenting selected problems from the homework. The lowest two discussion scores will be dropped.

ASSIGNMENTS: There will be two assignments during the semester, one before exam1 and the other before exam 2. The assignments will help you to review the material on the unit and help you to get ready for the exams.

STUDY SESSIONS: There will be study sessions every Wednesday held via Zoom where you can ask questions on the material. Sessions will be recorded and available to the whole class.

PROJECT: You will have a project in lieu of an exam on the Mathematics of Finance unit.

EXAMS: There will be two in class exams and a two-hour final. Tentative exam dates are listed in the calendar at the end of the syllabus. Exams will be proctored by **Honorlock**. ***You will need to have your webcams on for the exams.*** You can find more information about Honorlock here.
The final exam will be comprehensive.

STUDENT EXPECTATIONS
In this course you will be expected to complete the following types of tasks.

- Scan and take pictures of your work
- upload documents to Canvas to submit an assignment
- view online videos
- participate in online discussions
- complete quizzes/tests online
- use math apps from the phone and/or computer

TUTORING SUPPORT: The Tutoring-Learning Center (TLC) helps students in all disciplines become more effective, confident learners. We believe all learners benefit from sharing work with knowledgeable, attentive tutors. The TLC offers four tutoring services:

- **Academic Coaching:** Build skills in studying, time management, test-taking, online learning, and more.
- **Course Content:** Practice problems, deepen understanding, and prepare for exams in natural resources, STEM, World Languages, and more.
- **Reading/Writing:** Brainstorm and refine papers, essays, lab reports, citations, résumés, scholarship applications, personal writing, and more.
- **Tech Essentials:** Develop computer literacy and learn to use UWSP-related applications such as Canvas, Microsoft 365, and Zoom.

To **make an appointment,** students can self-schedule using Navigate, contact us at tlctutor@uwsp.edu or 715-346-3568, or stop into CCC 234.

STEM TUTORING

The STEM Tutoring Program on the Stevens Point campus is offering FREE tutoring during Fall 2023. These services are available to students from all three campuses.

- The **STEM Drop-In Tutoring Center in CBB 190, next to Starbucks**

Students do not need to make an appointment or register in advance; you can simply "drop-in" when there are tutors available for your class. The drop-in schedule can be found here .

- **STEM One-on-One Tutoring in CCC 205**

Students can sign up to meet with a tutor on a weekly, recurring basis by making an appointment through Navigate.

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 cases of academic misconduct will be treated according to the procedures laid out in UWS 14. UWS 14 allows for disciplinary sanctions that range from an oral reprimand to suspension or expulsion from the University.

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.**

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