

MTH-197 – Linear Algebra Course Syllabus

Course Code:

MTH-197

Course Title:

Linear Algebra

Course Description:

This is an introductory course in linear algebra, with proofs. Topics include proof techniques, systems of linear equations, matrix algebra, vector spaces including abstract spaces like P_n , linear independence and span, bases and dimension, linear transformations and their matrices, rank theorems, isomorphism, eigenvalues and eigenspaces, diagonalization, inner product spaces, orthogonal matrices, Gram-Schmidt orthogonalization, and various applications including least squares approximation and QR factorization.

Prerequisites:

Academic Reading and Writing Levels of 6; Academic Math Level 7 or MTH 192 minimum grade "C"

Outcomes and Objectives:

[Please refer to the MTH-197 Master Syllabus](#)

Required Text and Materials:

Please confirm edition with [WCC Website](#) or go to the WCC Bookstore and use the Find the Course Materials feature to view the required and recommended course materials: <https://washtenaw.bncollege.com/course-material/course-finder>

Title: A First Course in Linear Algebra by Robert Breezer (No cost OER textbook)

Course Overview and Structure:

Minimum Computer Literacy Skills and Technology Requirements

- Reliable internet access.
- A computer or other device that can run a web browser like Chrome, Safari, or Firefox.
- Zoom software installed on your device (available as a free download)
- Smartphones will work but students will have a much better user experience on a tablet, or better yet, a laptop or desktop computer with a larger screen than a smartphone.

Time Commitment

To meet the due dates on the schedule, expect to spend 8 - 12 hours per week for this 4-credit course.

Expectations and Availability of Instructor

I will usually respond to messages within 24 hours. You should make a habit of checking messages on a regular basis as well.

Email Communication

- Please send emails from your WCC account to be in compliance with [federal privacy regulations](#).
- Provide a clear subject line that includes the course name, section number, and the assignment name.
- Always include your first and last name in the email message.

Strategies for Success:

- Print out the course schedule and follow it as well as checking for new announcements within the Blackboard course a few times per week.
- Begin assignments before the due date so you can ask questions and have time to troubleshoot any technical issues.
- Stay in touch by email if you have any questions, concerns, or conflicts that may interfere with your academic success.

Grading and Final Course Grade:

Quizzes

- There are 14 quizzes on Blackboard: a Course Orientation quiz, and 13 quizzes on the material in the lectures and book.
- Quizzes are open notes and open book, but you must do your own work without anyone else's help.
- Each quiz will be worth 10 points.
- The quiz questions are multiple choice or multiple answer (like multiple choice except there can be more than one correct answer and you choose all the answers you think are correct). Partial credit is programmed into the incorrect answers based on likely mistakes that would lead to those incorrect answers.
- Quizzes cannot be completed after their due date on the course schedule, and there will be no extensions on quiz due dates. If a student doesn't take a quiz by the due date, their score for that quiz will be 0. The lowest quiz score will be dropped, so there will be a total of 13 quizzes that count
- towards the final grade.

Exams

- There will be 2 unit exams, and a cumulative final exam, all on Blackboard. Unit exam 1 will cover modules 1, 2, and 3. Unit exam 2 will cover modules 4 and 5. The final exam will cover modules 1, 2, 3, 4, 5, 6, 7, and 8.
- Exams will be open notes and open book, but you must do your own work without anyone else's help.

Determining Your Grade:

Your grade in the course will be based on 13 quizzes, 2 unit exams, and a final exam. Quizzes will be worth 10 points each, and exams will be worth 100 points each.

Due Dates for Exams and Quizzes

All quizzes and exams in the course will be due by 11:59 pm on the due dates listed on the course schedule. They will become unavailable after 11:59 pm on the due date.

Extensions on Exams

Extensions on exams will only be given in extraordinary circumstances at the instructor's discretion. Ordinary but unexpected circumstances will not be considered extraordinary. Examples of ordinary circumstances are being scheduled to work, or having a family situation come up that requires attention.

It's wise to plan some extra time to take the exam to account for unexpected things that may come up. For example if an exam is due Sunday night, plan to take it Friday during the day or evening, with a backup time scheduled for Saturday in case something comes up on Friday that prevents you from taking it. If your grade in the course is important, it's good to take steps like this to safeguard it. Leaving an exam until the last minute is a sign that the grade is not a relatively high priority, so arguments that it is will be difficult to make after the fact.

Academic Integrity:

Plagiarism and other forms of academic dishonesty will result in discipline according to the [WCC Student Rights & Responsibility guidelines](#). Always complete your own work using your own words. If you do use information, ideas, or words from other sources, credit that source using MLA or APA format.

Accommodation of Special Needs:

[Learning Support Services Department](#) provides support to students who may need accommodation for documented disabilities, or other learning need. WCC will work with you to accommodate any of your individual learning needs, however, I need to know of any requests in advance in order to make the necessary arrangements.

WCC Student Policies and Support Information:

Review the material within the Washtenaw Community College Student Policies and Support Information for additional policies and procedures that affect you and your course. Find this information [on this shared page](#).