

MATH 3720 - Linear Algebra and Matrix Theory

Fall 2026 Syllabus, Section 01, CRN 40508,

Credit hours: 3

Instructor

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Public Instructor Information

Instructor Title: Assistant Professor

Instructor Professional Qualifications:

Ph. D., Mathematics, University of Western Ontario

Master's, Mathematics, University of Western Ontario

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Course Description

3720. Linear Algebra and Matrix Theory. Matrices; matrix operations; linear transformations; applications. Prereq.: "C" or better in either MATH 1570, MATH 1571, MATH 1571H, MATH 1581, MATH 1581H, or MATH 1585H. 3 s.h.

Course Readings

Group	Title	Author	ISBN
Required	Linear Algebra and Applications: An Inquiry- Based Approach	Alayont, Feryal, and Steven Schlicker	

You can find it at <https://scholarworks.gvsu.edu/books/21/>.

The following textbook is not required, but you may want to consider it as supplemental material: Poole, David. Linear Algebra: A Modern Introduction, 2015. A copy is available at Maag Library.

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Tentative Course Schedule

Week of	Reading(s)	Proposed Topic	Due/To Prepare for Class
8/24	Sections 1, 2	Systems of Linear Equations	
8/31	Sections 2,3	Systems of Linear Equations	
9/7	Section 4	Vector Operations	
9/14	Section 5	Lines and Planes	
9/21	Section 6	Linear Combinations and Span	
9/28	Section 12	Linear Combinations and Span	
10/5	Sections 7, 8	Matrices	
10/12	Sections 10	Inverse of a Matrix	
10/19	Section 11	Matrix Subspaces	
10/26	Section 13	Rank	

11/2	Sections 35, 36	Linear Transformations
11/9	Sections 16, 21	Determinants
11/16	Sections 9, 14	Eigenvalues
11/23	Section 17	Eigenspaces
11/30	Section 18	Diagonalization
12/7	Final Exam Week	

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.