

# Syllabus for Math 3260 sec. 57 (CRN: 82347)

Fall 2017

**Instructor:** L. R. Ritter

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**Office Hours:** M & W 10 am–11 am, T & R 10:50 am–11:30 am and by appointment

**Course Home Page** [http://facultyweb.kennesaw.edu/lritter/Ritter3260\\_F2017.php](http://facultyweb.kennesaw.edu/lritter/Ritter3260_F2017.php)

**Course Description** This is a three hour first course in Linear Algebra. Topics covered will include the theory and solution of linear systems of equations, matrix operations, vector spaces, bases, subspaces, linear transformations, inner product spaces, eigenvalues, and diagonalization. We will meet for lecture two times weekly TR 12:30–1:45 pm in D113. Students are expected to attend all lectures and to keep up with course assignments.

**Prerequisites:** A grade of C or better in Math 1190, or approval of the math department chair

**Course Materials:** Text: *Linear Algebra and its Applications* 5<sup>th</sup> Edition by David Lay, Steven Lay, and Judi McDonald (ISBN 978-0-321-19991-1), Homework: MyMathLab with Course ID ritter68213, Calculator: A calculator capable of performing matrix arithmetic and operations will be needed.

**Learning Outcomes:** Upon completing this course, students will be able to

1. determine whether a linear system is consistent and find general solutions of systems via elimination or matrix operations;
2. perform matrix operations including inversion and computing determinants as well as identify rank, nullity, and various spaces associated with a matrix;
3. identify vector spaces and describe bases, subspaces, dimension, and associated coordinates;
4. identify inner product spaces, use inner products, determine if vectors are orthogonal, perform orthogonal projections, and apply the Gram-Schmidt process;
5. use the characteristic equation of a matrix to find eigenvalues and eigenvectors and perform matrix diagonalization.

**Grading and Evaluation:** Your course grade will be the weighted average of your score on 3 midterm exams, one final exam, and a homework/in-class assignment grade. The grades will be weighted as follows:

Table 1: Grade Weights

Exam I	Exam II	Exam III	Homework	Final
(R 9/14)	(R 10/19)	(R 11/16)	(regularly)	(T 12/5)
20%	20%	20%	20%	20%

A = 90%–100%, B = 80%–89%, C = 70%–79%, D = 60%–69%, F = 0%–59%

**Homework & In Class Work:** Homework will be completed using the MyMathLab software that accompanies the text. You must purchase and enroll in this class with Course ID ritter68213. On occasion you will have brief in class worksheets (likely completed in groups of 3 or so). These in class assignments will be included in the homework grade. The two lowest homework/in class work grades will be dropped. The remaining will be averaged to produce the 20% grade item. Due dates for online homework will be set in MyMathLab. **Late homework will not be accepted.**

**Exams:** We will have three midterm exams each worth 20% of the semester grade. The exam dates are shown in the grade table 1 as well as the important dates table 2 at the end of this syllabus. You will need a calculator with matrix operation functions; **NO device with internet access may substitute for a calculator.** All three midterm exams are mandatory. Except in the case of an excused absence (see attendance and make-up policy), a missed exam will be assigned a grade of zero. We will have one comprehensive final during the time designated by the University. The final is 20% of the semester grade. The final exam grade may be substituted for the lowest midterm exam score **provided** your semester homework grade is at least 75%.

**Attendance and Make-up Policy:** Regular class attendance is critical to academic success. Hence I strongly encourage you to attend all classes and keep up with assignments and course events. An unexcused absence will result in a grade of zero for any graded item missed that day. That said, I will excuse an absence if (1) I am informed as soon as possible (via email or voicemail), and (2) there is a good reason. Good reasons include (but are not limited to) your illness or the illness of someone who depends on you, an academic or University sports commitment, a legal obligation, or an unforeseen travel issue. Reasons that are not excusable include

(but are not limited to) over sleeping, or working on a project for another class.

**Missing an Exam:** All exams are mandatory. In order to be excused from an exam, you must notify me in advance (or as soon as circumstances allow), and provide documentation (e.g. doctor's note, order to appear, notification from a faculty adviser) of your reason for missing the exam. If you meet both of these criteria, I will allow your grade on the final exam to substitute for the missed exam.

**Academic Integrity** Every KSU student is responsible for upholding the provisions of the Statement of Student Rights and Responsibilities, as published in the Undergraduate and Graduate Catalogs. Section II of the Statement of Student Rights and Responsibilities addresses the University's policy on academic honesty, including provisions regarding plagiarism and cheating, unauthorized access to University materials, misrepresentation/falsification of University records or academic work, malicious removal, retention, or destruction of library materials, malicious/intentional misuse of computer facilities and/or services, and misuse of student identification cards. Incidents of alleged academic misconduct will be handled through the established procedures of the Department of Student Conduct and Academic Integrity (SCAI), which includes either an "informal" resolution by a faculty member, resulting in a grade adjustment, or a formal hearing procedure, which may subject a student to the Code of Conduct's minimal one semester suspension requirement.

**Notice on Course Withdrawal:** Students are solely responsible for managing their enrollment status in a class; nonattendance does not constitute a withdrawal. Per university policy, I will assign a grade of WF to all students who do not complete the semester, where not completing the semester is defined as ceasing to attend class and participated in graded items during or prior to the last two weeks of the semester. I am required to report the last date of attendance when assigning a grade of WF. **My compliance with this policy may affect your financial aid.**

**Students with Disabilities** I will attempt to accommodate all students with special needs to the best of my ability, but it is the responsibility of the student to make their needs known to me. Students with disabilities who believe they may need accommodations in this class are encouraged to contact the counselor working with disabilities at 678-915-7244 (Marietta) or 470-578-2666 (Kennesaw) as soon as possible to better assure that such accommodations are implemented in a timely fashion. (Additional contact information email: [sds@kennesaw.edu](mailto:sds@kennesaw.edu) and webpage: <http://studentsuccess.kennesaw.edu/sds/index.php>).

**Cell Phone, Tablet, Laptop Policy** Unless otherwise stated, use of cell phones, laptops, or tablets is **not allowed during class**. Any student who must be repeatedly asked to refrain from texting or surfing the web will be invited to leave. **At no time will still or video photography be allowed during class.**

Table 2: Important Dates

Aug. 14	First Day Fall Term	Sept. 4	Labor Day Holiday
Sept. 14	Exam 1	Sept. 7	Dr. McGuire's presentation
Oct. 19	Exam 2	Oct. 4	Withdrawal Deadline
Nov. 16	Exam 3	Nov. 20–24	Fall Break
Dec. 4	Last Day of Classes		
Dec. 5	Final Exam	1:00 pm–3:00 pm	D113

Dr. McGuire's presentation, *Metacognition: The Key to Acing Courses*, is (at the time of this writing) scheduled for 6:45 pm in Prillaman HS2010.