MAS 4105 (3247) Linear Algebra 1 - Fall 2017

Time: MTWF 6th period (12:50-1:40 pm) **Instructor:** Jean A. Larson,

Place: 184 Norman Hall Office: 406 Little Hall Web: http://people.clas.ufl.edu/jal/mas4105/ Email: jal at ufl dot edu

Phone: (352) 294-2316

Tentative Office hours: Monday and Friday 8th, Wednesday 3rd, and by appointment.

TA: Raghu Pantangi, 489 Little Hall, pvrt1990 at ufl dot edu, office hours to be arranged.

Linear Algebra, 4th edition, by Friedberg, Insel, and Spence. We will Required Text: cover most of chapters 1-6.

Prerequisites: Grade of C or better in Calculus 3, and C or better in MHF 3202.

Course Objectives: MAS 4105 is a 4 credit course that emphasizes theoretical aspects of linear algebra. The course serves both as a transition for the mathematics majors from a study of techniques into more conceptual mathematics and as a coherent foundation in linear algebra for engineering and science majors. The student is expected to develop the ability to reason through and coherently write up proofs of theorems, and, to a lesser extent, to understand, develop, and apply computational algorithms (computational skills are stressed more in MAS 3114, Computational Linear Algebra). Specific topics include vector spaces, linear transformations, linear equations and matrices, determinants, inner products, eigenvalues, projections, and least squares.

Written work and participation: Exercises from the book will be assigned and discussed in class. You are expected to invest a significant amount of work and thought outside the classroom for every hour in class. Strive to write in a clear and coherent fashion, neat on the page, with no spelling or grammar mistakes. Some homework problems will be turned in and graded. You must work alone of these graded problems. You should be prepared every day to participate in class discussions. Up to 5 participation bonus points can be earned.

Academic Honesty: The course will be conducted in accordance with the University honor code and academic honesty policy, which can be found on the following web site: https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/

Assessment:

Quizzes: There will be 20 unannounced 2-point quizzes given throughout the semester. The best 16 scores will determine your guiz total.

Exams: (Written medical documentation is required for makeup exams) There will be four 40-point exams:

- Exam 1: September 13 (Wednesday)
- Exam 2: October 11 (Wednesday)
- Exam 3: November 3 (Friday)
- Exam 4: December 4 (Monday)

200 Total Points:

Four 40-point tests: 160 16 2-point quizzes: 32 Homework: 8 points

Requirements for make-up exams, assignments, and other work in this class are consistent with university policies and can be found at:

https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Grades will be assigned according to the scale below:

| Grade | A | A- | B+ | В | B- | C+ | C | D | E |
|---------|---------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|----------|
| Percent | 90-100% | 87.0-89.99% | 84.0-86.99% | 80.0-83.99% | 77.0-79.99% | 74.0-76.99% | 70.0-73.99% | 60-69.99% | 0-59.99% |

See the current UF policy on assigning grade points: https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Classroom Accommodation: Students with disabilities requesting classroom accommodation should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc) by proving appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Course Evaluations: Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results.