# MATH 3110-004, Fall 2018 Linear Algebra

Time: 8:00am - 9:15am; Tu,Th. Location: M102, Martin Hall Instructor: Dr. Hui Xue Office: O-020 Martin Hall Phone: (864) 656-2332 (Office) Email: huixue@clemson.edu

## Office Hours:

Drop in 1:00pm-2:00pm, TWTh, or by appointment.

# Required Material:

- Textbook: "Linear Algebra and Its Applications", by David C. Lay, Judi J. McDonald, 5th edition, Pearson.
- MyMathLab: We will be using the online homework system MyMathLab. You will need to register for MyMathLab through Canvas. You can find the instruction under Files.

# **Course Contents:**

We will cover topics in sections: 1.1-1.9 (except 1.6), 2.1-2.3, 3.1-3.3, 4.1-4.6, 5.1-5.3, 6.1-6.2. Other sections may be covered if time permits

#### Learning Outcomes:

Upon completion of the class students will be able to:

- understand how to solve a linear equations system  $A\mathbf{x} = \mathbf{b}$
- understand vector spaces, linear independence and dependence
- understand matrix operations and matrix inverse
- understand determinants and Cramer's rule
- understand eigenvalues and eigenvectors
- understand how to diagonalize a matrix
- understand inner product and orthogonal projection

**Test Dates:** There will be two in-class tests and one cumulative final:

Test 1: October 2; Test 2: November 13; Final: December 14, 7pm-9pm.

Grading Policies: The grading in this class will be as follows:

- Two in-class tests 25% each
- Homework 10%
- Class participation 10%
- Final exam 30%

The following grading scale will be used: A 90-100, B 80-89, C 70-79, D 60-69, F 0-59

Make-up Policy: There will be No make-up for missed homework, qiuz or exam.

## **Attendance Policy:**

You are expected to be regular and punctual in your class attendance. You are expected to be in your seat at the beginning of the period and to remain through the period until dismissed. If the instructor is late, the class should begin a review of homework problems. After 25 minutes, the class may leave.

### Academic Integrity:

As members of the Clemson University community, we have inherited Thomas Green Clemson's vision of this institution as a high seminary of learning. Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form.

#### Title IX:

Clemson University is committed to a policy of equal opportunity for all persons and does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender, pregnancy, national origin, age, disability, veterans status, genetic information or protected activity (e.g., opposition to prohibited discrimination or participation in any complaint process, etc.) in employment, educational programs and activities, admissions, and financial aid. Thus includes a prohibition against sexual harassment and sexual violence as mandated by Title IX of the Education Amendments of 1972. This policy is located at http://www.clemson.edu/campus-life/campus-services/access/title-ix/. Mr. Jerry Knighton is the Clemson University Title IX Coordinator. He also is the Director of Access and Equity. His office is located at 111 Holtzendorff Hall, (864) 656-3181 (voice) or (864) 565-0800 (TDD).