

MATH 2311

(Linear Algebra)

Section 1 MWF 11:00-11:50am SR 325

Instructor: Dr. Lance L. Littlejohn

Office: SR 316B

Office Hours: Tuesdays (1:30-2:30pm); Wednesdays (9:00-10:00am); Fridays (9:00-10:00am)

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Textbook: Linear Algebra and Its Applications, Third Edition, David C. Lay, Addison-Wesley, 2003

Prerequisites: A grade of C or better in MTH 1322.

Attendance: Attendance for each class is expected. You should be aware of the attendance policy as stated in the Baylor catalog. Should you miss a class for whatever reason, you are still responsible for the material discussed and any assignments made. Also, please get to class on time.

Grading Policy: Your final grade is based on three components: Quizzes (10%), 3 Midterm Exams (each worth 20%) and a Comprehensive Final Exam (worth 30%). Further details are listed below on each of these components.

Homework: No homework will be collected – but each student is urged to keep up with the homework that is assigned after each class. Weekly quizzes – see below - will instead be given to make sure that students are keeping up to date on a daily basis.

Quizzes: Weekly quizzes will be given to make sure that students are keeping up to date on a daily basis. There will be at least 11 quizzes given during the course of the semester and **your best 10 quizzes will count for a total of 10% of your final grade**. Usually, these quizzes will be given on Fridays but sometimes, due to a tight schedule, a quiz may be postponed until the following Monday. **NO MAKEUP QUIZZES WILL BE GIVEN.**

Midterm Tests: There will be three midterm tests (see attached schedule for approximate test dates). **Each of these three midterms will be worth 20% of your final grade.** I am *tentatively* scheduling the following dates for each of our midterm examinations:

Midterm 1: September 26 (Wednesday)

Midterm 2: October 31 (Wednesday)

Midterm 3: November 30 (Friday)

Comprehensive Departmental Final: The comprehensive departmental final will be worth **30% of your final grade**. This exam will be given on **Thursday, December 6 from 9:30-11:30am**. **NO CHANGES CAN BE MADE IN THE FINAL EXAM TESTING SCHEDULE, PLEASE PLAN ACCORDINGLY.** If you have a conflict with the final exam time, you should drop the course and take it another semester.

Grading Scale: A 90-100%, B+ 85-89%, B 80-84%, C+ 75-79%, C 70-74%, D 60-69%, F below 59%.

Course Objectives: The purpose of this course is to study the theory and applications of linear algebra. Thus we will

- (1) Study systems of linear equations and how to solve them,
- (2) Study matrices and how to compute with them,
- (3) Develop the theory of vector spaces and how they relate to matrices and systems of linear equations ,
- (4) Develop the language of linear transformations, and
- (5) Develop the important theorems of linear algebra.

Please be sure that all cell phones are in the OFF position during class.

FINAL EXAM: December 6, 9:00am-11:00am

Sec 1.1 and 1.2

p 11 4,7,8,9,11,14,17,21,23,24,25,

p 25 1,11,13,17,21,22,23,24,25

Sec 4.4 and 4.5

p 260 3,7,9,12,13,19-21,23,25,27

Sec 1.3 and 1.4

p 37 2,4,5,8,9,12,14,16,17,19,23,24,25,26,29

p 47 1-5,7,11,13,14,17,21,22,23,24,25,26,29,30,37,38,39

Sec 4.5 and 4.6

p 269 3,7,9,13,14,15,17,18,20,26,28

Sec 1.4, 1.5, and 1.7

p 55 2,6,11,12,29,30,31,32,35,36

p71 1,3,5,7,9,11,13,15,17,19,21-24,26-28,33-38

Sec 5.1 and 5.2

p 308 6,8,14,16-18,21,22,25,29,30

p 317 11-18,20-22

Sec 1.7 and 1.8

p 80 3,5,7,9,12,13-16,21,22,30,33,34,37

Sec 5.3

p 325 2,4,6,12,15,17,20-25,27,28

Sec 1.9 and 2.1

p 90 2,3,5,11,13,15,19,22-24,33

p 116 1,4,5,7,9,10,17,18,20,21,23-25

Sec 6.1 and 6.2

p 382 3,5,7,10,17-20,24,27,29,31

Sec 2.1 and 2.2

P 126 3,7,9,10,11,13,17,19,21,31,32

Sec 2.2 and 2.3

Sec 6.2 and 6.3

**p 132 2,3,4,7,8,13,15,17,20,27,28
29,33**

p 400 2,4,8,10,11,17

Sec 2.3 and 3.1

p 190 3,7,11,15,19,21,23,25,27,29,33-37,40

Sec 3.1 and 3.2

p 199 1,2,3,7,15,17,19,23,25,27,28,31,33,35,39

Sec 4.1

p 223 1-3, 7,11,13,17,23,24,33

Sec 4.1 and 4.2

p 234 1,5,9,11,15,17,21,24-26, 28,33

Sec 4.2 and 4.3

p 243 1,4,5,7,10,17-22,24,33

Sec 4.3 and 4.4

p 253 3,7,13,15,16,18,19,27,29,32,33

p 392 4,6,9,10,12-14,17,21-24,26-

Sec 6.3 and 6.4

p 407 9-11,17,18,24

Sec 6.4 and 6.5

p 416 1,2,9,13, 15, 25

Sec 6.5 and 7.1

p 454 8-12,19,21,22,25-30

Sec 7.1 and 7.2

p 462 1, 3,8,11,26

Quadratic Forms

Final Review