

MATH 3013 002, SPRING 2009, SYLLABUS

FACULTY: WEIPING LI
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1. BASIC COURSE INFORMATION

Prerequisites: Math 2145

Textbook and Content: *Linear Algebra* by J. Fraleigh and R. Beauregard, 3rd Edition.

Algebra and Geometry of finite dimensional linear spaces, linear transformations, algebra of matrices, eigenvalues and eigenvectors. Chapter 1-7, 10(optional).

Class Time: 11:30 am - 12:20pm. Start on Monday January 12, 2009.

Class Room: HES 029.

Office Hours: MWF 10:30am -11:30 noon. **BY APPOINTMENT.** Highly recommended to take full and consistent advantage on my office hours. Feel free to call/email/fax me at any time or use D2L. Please do not hesitate to seek any appropriate out-of-class help from me in your efforts to master the subjects.

SYLLABUS ATTACHMENT:

<http://osu.okstate.edu/acadaffr/aa/syllabus.htm>

2. EXAMS, QUIZZES AND GRADE

Your grade will be determined by the scores on the 3 fifty-minute tests each of which is worth 100pts. Quizzes and Homework is worth 100pts and the final exams is worth 200pts. Your final grade will be $E' s + Q + F$:

510-600 as **A**; 450-509 as **B**; 390-449 as **C**; 330-389 as **D**; 0-329 as **F**.

The cutoff might be lower slightly at the end of the term, but this is not guaranteed. If you can not take an hour test because of medical reason or other emergency, please notify me **IN ADVANCE** or hand in your **written proof** for excuse. Make-up exams will be scheduled **ONLY** in those cases with **proofs**.

Date: January 13, 2009.

WWW address:<http://www.math.okstate.edu/~wli/>.

Quizzes: Each quiz will be picked from your homework problems. No make-up quizzes will be given. Your two lowest quiz or homework scores will be dropped.

First Exam: February 20;

Second Exam: March 27;

Third Exam: April 24;

Final Exam: Friday May 8, 10:00am – 11:50am.

2.1. **Attendance Policy.** Attendance is not a part of your grade in the course, but it is **VERY HIGHLY RECOMMENDED**. You are responsible for all material covered in class and all assignments. Experience has shown a definite correlation between poor class attendance and low grades.

2.2. **Main Office.** Main office of Math Department 401 MS, phone number: 405-744-5688. Fax number: 405 – 744 – 8275.

2.3. **Homework.** Please **DO THE HOMEWORK**. The purpose of homework is to provide a way for you to practice and get feedback on what you are doing. I suggest that you first read each section and try the assigned problems on your own. Then discuss your solutions with others in the class. Finally re-read your solutions and make corrections as needed. *Practice makes perfect.*

Remember to use the tutors to help you learn. Not to do the homework for you.

2.4. **General Comments.** To succeed in college, each student must take responsibility for his or her own learning. Thinking of attending college as your job. Just as you arrive at work on time and finish an assigned work on time, so should you attend class every day and finish all your daily homework.

(i) Please be advised that **Doing your homework on time is absolutely essential** for you to get better grade. Quiz and exam problems will be largely chosen from your homework problems.

(ii) On average you should expect to spend two hours studying outside of class for every hour in class. Some student will require more. It is best to do this on a regular basis after *every class* if possible. The learning of mathematics is cumulative, and keeping up with the work is necessary in order to follow our class discussion. Our mind absorbs new ideas best in smaller, regular doses.

(iii) Your study time **SHOULD** start with the book and your class notes with pencil in hand to work out the calculations. The homework problems are not identical to the book

examples and can require considerable thoughts. Give each problem a serious effort before seeking help.

(iv) Ask for help whenever you feel you need it from your instructor, from your classmates and any other sources.

3. COURSE TENTATIVE SCHEDULE (SUBJECT TO SLIGHT CHANGE) FOR MATH 3013

Week 1: 1.1-1.2; Week2: 1.3-1.4; Week 3: 1.5-1.6; Week 4: 1.7-1.8; Week 5: 2.1-2.2; Week 6: 2.2-2.3(2.4); Week 7:3.1-3.2; Week 8: 3.3-3.4; Week 9: 3.5; Week 10:4.1-4.2; Week 11:4.2-4.3; Week12: 5.1-5.2; Week13: 5.3, 6.1-6.2; Week14:6.3-6.5; Week15: 7.1-7.2 (There are slightly shift due to the exams); Last Week: Review for Final.

4. HOMEWORK

Up to some changes during the semester.

§1.1: 1-15(odd),10, 26,32, 21-27(odd), 31-35(odd), 39, 42;

§1.2: 1-15(odd), 8, 30, 23-35(odd), 37,39,40;

§1.3: 1-21(odd), 20, 35, 36, 38, 42, 43; §1.4: 1-11(odd), 13-27(odd), 25-51(odd), 10, 40, 44-51;

§1.5: 1-25(odd), 20; §1.6: 1-15(odd), 17-31(odd), 32, 35-37, 38;

§1.7(optional): 1-19(odd), 20, 21, 25; §1.8(optional): 1,4, 8, 10,11,13, 3-9(odd).

§2.1: 1-25(odd), 10, 22; 27-33; §2.2: 1-11(odd), 2;

§2.3: 1-29(odd), 12,16; §2.4: 2,3,5,6,8,13-16;

§2.5: 1, 6, 7, 10, 11, 13, 17, 22, 36, 38, 40.

§3.1: 1-17(odd), 12,16,18; §3.2: 1-9(odd), 12, 24, 11-25(odd), 26,28;

§3.3: 1-11(odd), 12, 19, 21, 22; §3.4: 1-11(odd), 10,20(a), 20(b), 17-25(odd), 27,29, 34;

§3.5: 1-15(odd),14-17. §4.1: 1-43(odd); §4.2: 1-21(odd), 18, 27, 29;

§4.3: 1-9(odd), 18, 19, 20, 29-33(odd), 35, 38. §5.1: 1-15(odd), 17-23(odd), 20, 24;

§5.2: 1-7(odd), 9-13(odd), 14, 21($m = 2$); §5.3: 1-13(odd).

§6.1: 1-23(odd), 10, 14, 20, 22; §6.2: 1-25(odd); §6.3: 1-19(odd), 22, 24.

§7.1: 1-23(odd); §7.2: 1-19(odd), 20.

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