MATH 310 Linear Algebra Spring 19

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Course Webpage: http://www.math.uic.edu/~awanou/Math310 (syllabus, Blackboard, my teaching statement, study guides, sample exams and other resources)

Office hours: M 1:00 pm - 1:50 pm, W 1:00 pm - 1:50 pm and by appointments, for example: F 03:00 pm - 03:50 pm.

Office information: SEO 1221, phone (312) 413-2167

Course information: Lectures M W F 4:00PM – 4:50PM F004 LCF

Textbook: Linear Algebra and its Applications, Addison-Wesley 5th edition, David C. Lay, Steven R. Lay, Judy J. McDonald

Course goal and objectives: Matrices, Gaussian elimination, vector spaces, LUdecomposition, orthogonality, Gram-Schmidt process, determinants, inner products, eigenvalue problems, diagonalization of symmetric matrices, applications to differential equations and Markov processes.

Prerequisite and corequisites: Grade of C or better in MATH 181.

Exam dates: Midterm Exam I W Feb 20, Midterm Exam II F Mar 22, Final exam (to be determined)

Grading: Quizzes and homework 20 %, Midterm Exam I 20 %, Midterm Exam II 20 %, Final Exam 40 %

Missing an exam is permitted only for the most compelling reasons. Except in extraordinary situations, permission should be obtained in advance from the instructor to miss an exam; otherwise you will be awarded a zero.

Grade distribution: The grade cut-offs for the course are: 85 % A, 70 % B, 55 % C, 40 % D

Incompletes will only be approved if you have been making satisfactory progress in the course and are unable to complete the work for the course because of illness or some other compelling reason. The expectation of a poor grade is NOT sufficient justification. Attendance: In order to successfully complete the course, your active involvement in learning is essential. Therefore, a serious commitment on your part to attend both the lectures and the discussion/problem sessions is a basic requirement of that.

A percentage of below 75 % in lecture will result in a drop of one letter grade for the course as a consequence. Below 50 % attendance will result in an automatic F for the course.

Appeals: Students that know ahead of time that they have an existing or potential conflict with the class must inform their instructor in the first week of the semester.

Furthermore, students can appeal during week 2, as well as week 4. Note: no appeals will be accepted after the final exam or at any other time!

In cases when the instructor cannot determine whether or not the reason is compelling, the instructor will forward the appeal to the director of undergraduate studies, who will decide.

Homework: Homework for the course is assigned for every lecture. Homework problems can be found in the section webpage https://www.math.uic.edu/math310. Most quizzes will be based on the assigned homework.

Quizzes: The quizzes will be given during your regular lecture time on randomly chosen days. They will typically consist of one or two questions based on recent material with the purpose of keeping you involved and active in the lectures, and of letting you know if you are following the concepts. There will be no make-up quizzes given, but your worst two quizzes will be dropped when computing your quiz totals. Remember that quizzes will also be used for your attendance check.

Calculators: Calculators will not be permitted on exams or quizzes.

Drop and Withdrawals: F March 22 is the deadline to request a grade of W.

Academic Honesty and Civility in the Classroom: Academic honesty and mutual respect (student with student and instructor with student) are expected in this course. Mutual respect means being on time for class and not leaving early, (if you have to leave, arrange to sit near the door and leave quietly), being prepared to give full attention to class work, not reading newspapers or other material in class, not using cell phones, pagers or other electronic devices during class time, no sleeping, no eating, not bringing children to class, not talking to classmates outside of group work, not copying the solutions of the home works from unnamed sources and not looking at another student's work during exams. Please avoid any behaviour that may

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distract others' attention. You should refrain from resting your feet on the seats and from chewing gum. Your cell-phone need to be switched off and do not send/receive text messages.

Academic misconduct and incivility in the classroom, as defined by the Student Disciplinary Policy, will not be treated lightly.

Doing well in the class After each lecture, reread the material, review your class notes and do as many of the assigned exercises as you can before the following class. In doing homeworks, you should document carefully the kind of algebra mistakes you make. Most students need to go over the most difficult problems several times and you may find that you need to do additional exercises. It is also a good idea to review your notes repeatedly, partly to identify areas of confusion, partly to review. You must stay on top of the material from day one. If you do not understand a concept or technique seek help immediately. You should consult your book or ask a fellow student. You could also seek help through office hours. Experience has shown that students who take advantage of these opportunities regularly tend to do better in the course. Help for MATH 310 is available in the Mathematical Sciences Learning Center. Please bring to my attention early any concerns about class pace, material, sections, quizzes and homework.

Disability services: If you have any condition, such as a physical or learning disability, which will make it difficult for you to carry out the work as I have outlined it or which will require academic accommodations, please notify me within the first two weeks of class.

Religious Holidays:

Students who wish to observe their religious holidays shall notify the faculty member by the tenth day of the semester of the date when they will be absent unless the religious holiday is observed on or before the tenth day of the semester. In such cases, the student shall notify the faculty member at least five days in advance of the date when he/she will be absent. The faculty member shall make every reasonable effort to honor the request, not penalize the student for missing the class, and if an examination or project is due during the absence, give the student an exam or assignment equivalent to the one completed by those students in attendance. If the student feels aggrieved, he/she may request remedy through the campus grievance procedure. http://www.uic.edu/depts/oae/docs/ReligiousHolidaysFY20122014.pdf

Grievance Procedures:

UIC is committed to the most fundamental principles of academic freedom, equality of opportunity, and human dignity involving students and employees. Freedom from

 4 discrimination is a foundation for all decision making at UIC. Students are encouraged to study the University's "Nondiscrimination Statement". Students are also urged to read the document "Public Formal Grievance Procedures". Information on these policies and procedures is available on the University web pages of the Office of Access and Equity: www.uic.edu/depts/oae.

Disclaimer: This syllabus provides a general guide for the course: deviations may be necessary. Deviations from the textbook should be expected.

Tentative schedule: https://www.math.uic.edu/math310 Suggested homework: https://www.math.uic.edu/math310