

MATH 2331-01
FALL 2009
LINEAR ALGEBRA
T Th 10:00am – 11:30pm, SR 634

YULIYA GORB

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Office Hours: Tue. 11:25pm-12:30pm, Thur. 11:25pm-12:30pm, and/or by appointment
e-mail: gorb@math.uh.edu, webpage: http://www.math.uh.edu/~gorb/math2331_f09.html

Differential Equations (3 credits) – Linear ordinary differential equations, solutions in series, solutions using Laplace transforms, systems of differential equations.

PREREQUISITE: MATH 1432.

TEXTBOOK:

Gilbert Strang, *Introduction to LINEAR ALGEBRA*, 4th ed, Wellesley – Cambridge Press, 2009, ISBN 978-0-9802327-1-4.

HOMEWORK: Homework problems will be assigned every week and usually are due on Thursday in the lecture. The homework problems and the due date will be posted in the course webpage (see above). You are expected to do **all** the assigned homework problems, however only selected problems from homework will be graded. **Late homework will not be accepted.** If for some reason you can not be in class and turn in your HW in due day, you may drop it off **before** the class on due day in my mailbox in PGH 651 (please, do not slide them under the door of my office).

Collaboration on homework is allowed, but you have to write your ENTIRE solution by yourself. Similarly written homeworks will receive no credit. When you turn in your homework do not forget to put **your name** on it, **homework number** and **staple** all the sheets. **All work must be shown.** No credit would be given for the answer that is not supported by any work.

EXAMINATIONS: Two midterm examinations will be given during regular class hours on:

EXAM I – October 13, 2009 (Tuesday)	EXAM II – November 12, 2009 (Thursday)
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and a three-hour comprehensive final examination on Thursday, December 17, at 11:00am-2:00pm in a room to be announced by me closer to the date of the exam.

No collaboration on the midterms and on the final is allowed. **The use of books, cell phones, calculators or notes of any sort during exams is not permitted.**

GRADING POLICY: Grades will be assigned on the basis of 450 points, distributed as follows:

EXAM I = 100 pts EXAM II = 100 pts HW = 100 pts FINAL EXAM = 150 pts TOTAL = 450 pts (100%)
All homework assignments are **mandatory**, although, only **10** the best scores would count in the final grade (i.e. a few worst grades will be dropped at the end).

If by the end of the semester your current grade is A you may skip the final exam and get an A for the course (in such a case: HW scores after the 2nd midterm cannot be dropped).

GRADING:

A : 90-100%	B : 80-89.99%	C : 70-79.99%	D : 60-69.99%	F : 0-59.99%
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MAKEUP POLICY: No makeup exams or HW! If you have a reasonable (documented) excuse (e.g. sickness with a proper paper from a doctor) to miss an exam, your final grade will be adjusted based on your final exam performance. If a document is not presented such an adjustment will not be made and you get zero exam score.

ATTENDANCE AND CLASS PARTICIPATION: The material covered in the course is fairly difficult. So your presence during each class is strongly encouraged. If you miss class for some reason, please do read the relevant material from the book before you come to the class the next day. Class participation and attendance might be taken into account if the final grade falls on the borderline.

OFFICE HOURS: Please feel free to ask any questions related to the course material during the class. There might be other students in the class who have the same questions. Do not hesitate to contact me if you have problems or questions about any aspect of this course. I strongly encourage you to see me during my office hours if you have any questions and concerns regarding the course material or grades. If you can not make my office hours you should ask for an appointment. However, no questions about how to solve some particular problem from HW should be asked via email. For this, please, see me personally during my office hours listed above or ask your question before or after class if I am available.

IMPORTANT DATES of FALL 2009:

<u>Classes Begin</u>	Monday	August 24
Labor Day (no classes)	Monday	September 07
Midterm I	Tuesday	October 13
Last day to drop a course	Wednesday	November 04
Midterm II	Thursday	November 12
Thanksgiving Holiday (no classes)	Wednesday-Saturday	November 25-28
<u>Classes End</u>	Saturday	December 05
Makeup days for cancelled classes/Reading period	Monday-Tuesday	December 07-08
Final Exam	Thursday	December 17

TENTATIVE COURSE DESCRIPTION:

- Vectors, Matrices and Linear Equations
- Elimination, Inverse Matrices, Solving Linear Equations
- Vector Spaces and Subspaces, Nullspace, Rank, Independence
- Orthogonality, Projections
- Determinants, Cramer's Rule
- Applications
- Numerical Linear Algebra
- Complex Vectors and Matrices

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