Syllabus for MATH 4571, Advanced Linear Algebra, Section 01

Northeastern University, Summer 1 2018

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Office hours: Tuesdays and Wednesdays 4pm – 5.30pm.

Meeting times and location: MTWR, 1.30pm – 3.10pm at Ryder Hall 203.

Optional Textbook: Finite-Dimensional Linear Algebra by Mark S. Gockenbach

Course objectives: This is a second course in Linear Algebra. We will review, as necessary, some of the material covered in the first course in Linear Algebra. We will be using the Gockenbach's book most of the time, but additional material will be added from other sources.

The tentative topics for this semester are the following:
- Fields and Vector Spaces
- Matrix Algebra
- Linear Transformations
- Eigenvalues
- Rational Canonical Forms and Jordan Canonical Forms
- Inner product spaces and Unitary spaces

Some additional topics will be covered if time permits.

Web materials: All class announcements, material, and grades will be posted on Blackboard.

Homework: Homework will be assigned, but will not be collected. It is strongly advised that you do all of assigned homework since the tests will closely resemble the homework problems.

Presentation: Each student is expected to present the solution to a problem assigned to him/her during the semester. Presentations will take place on June 20 and June 21.

Tests and final exam:

There will be three tests and a cumulative final exam in this course. The tests are 65-minute in-class tests. There will be NO make-up tests. Tests will be given on the following dates: May 17, May 31 and June 14.

Date, time and location of the final exam are to be determined. **Check for exam schedule conflicts as soon as possible**. Only two finals at the same time or three in one day is a University recognized legitimate reason to be excused from taking the final at the scheduled time. Students with such a conflict should complete a final exam conflict form, available on the registrar's website.

Grading: The course grade will be determined as follows:
Final exam: 40%
Tests: 45% (15% each)
Presentation: 10%
Attendance: 5%

Letter grades are determined numerically:

$A \geq 93$,	$92 \geq A- \geq 90$,	$89 \geq B+ \geq 87$,	$86 \geq B \geq 83$,	$82 \geq B- \geq 80$,
$79 \geq C+ \geq 77$,	$76 \geq C \geq 73$,	$72 \geq C- \geq 70$,	$69 \geq D+ \geq 67$,	$66 \geq D \geq 63$,
$62 \geq D- \geq 60$,	$F \leq 59$			

The grade I (Incomplete) will be given only if you have a good attendance record, have missed the final exam for a good reason, and otherwise are doing passing work. An incomplete is given at the discretion of the instructor.

Additional resources:

The Mathematics Department Tutoring Center is in Room 540B, Nightingale Hall. This peer tutoring is free. Peer Tutoring appointments can be booked via MyNEU under TUTORING. Although you can walk in, it is really best to sign up in advance. Tutoring requests are scheduled by students in real-time and confirmed by email. Next-day appointments must be booked by 9:00 pm the previous day. It is expected that tutoring services in the Mathematics Department Tutoring Center will begin shortly after the start of classes. See http://www.northeastern.edu/csastutoring/setting-up-appointments/ For more information about peer tutoring.

Issues with the course/instructor: If you have issues with this course and/or instructor which you are not comfortable discussing with your instructor, you should contact the Teaching Director, Prof. D. Massey, at d.massey@northeastern.edu .

Academic honesty: Collaboration on quizzes, tests and final exam is not allowed. From Student Code of Conduct (see http://www.northeastern.edu/osccr/academicintegrity): "A necessary prerequisite to the attainment of the goals of the University is maintaining complete honesty in all academic work. Students are expected to present as their own only that which is clearly their own work in tests and in any material submitted for credit. Students may not assist others in presenting work that is not their own. ... Offenders are subject to disciplinary action." For more on Academic Integrity see: http://www.northeastern.edu/registrar/courses/cat1213-univ-proc.pdf

Note the following dates:

May 20: last day to withdraw without a W
May 21: last day to elect pass/fail for Summer 1-18 classes
May 24: last day to file a final exam conflict form
May 28: Memorial Day observed, no classes
June 24: last day to withdraw with a W

Important:

1) Any student with a disability is encouraged to meet with the instructor during the first week of classes to discuss accommodations. The student must bring a current Memorandum of Accommodations from the Disability Resource Center (DRC).

2) If you are an athlete and have conflicts with an important class activity (quiz, mid-term, or final), you should let your instructor know before the end of second week of classes. You should also bring an official letter from the Office of Athletics.

3) All electronic devices (mobile phones, laptops etc.) should be turned off during class time, quizzes, tests and final exam.

Syllabus: Syllabus is subject to change**.** It is your responsibility to be aware of any changes the instructor may make to the syllabus as they are announced in class. Students are responsible for all information given when they are absent.

TRACE: Please complete the TRACE evaluations at the end of the course.

June 25-26: final exams