EK 102, Section E1 – SYLLABUS
Professor Tasso Kaper
Starts March 14, 2016, Second Half of the Spring Semester
MW 10:00-12:00, CAS316

COURSE OVERVIEW: We will study a number of fundamental topics in linear algebra, including vectors, matrices, the geometric actions of matrices on vectors, systems of linear equations, method of elimination, Cramer’s rule, matrix operations, determinants, ranks of matrices, column-, null- and row-spaces, condition numbers, inverses of matrices, eigenvalues and eigenvectors, orthogonality, projections, and least squares. The emphasis throughout will be on methods for calculating these fundamental quantities and understanding their geometric interpretation. All topics will be motivated by problems from engineering and science.


LECTURES: Mondays and Wednesdays, 10:00-12:00, in CAS 316. Your attendance is required at all lectures, and I expect a minimum of eight course-topic-related questions per lecture from the class.

DISCUSSION SECTIONS: There are two discussion sections. You must be enrolled in one of these and attend the discussion hour every week in order to take this class. The dates and times are Friday 10-11 (EPC 206) and Friday 12-1 (EPC 203).

TEACHING FELLOW: Han Wang. hanwang@math.bu.edu MCS 237.

COURSE WEBSITE: http://math.bu.edu/people/tasso/ek102

THE N WAYS YOU CAN REACH ME: Math Department, 111 Cummington St., Rm 140-B, email: tasso@math.bu.edu, 1-617-353-9552, mailbox in the main Department Office. Email is best. It is a handy method for asking all manner of short questions or if you want me to think carefully about a longer question.

OFFICE HOURS: You are encouraged to come with any questions. I will be available on a first-come first-served basis during my office hours on Mondays 2:30-4:00 pm or by appointment.

HOMEWORK: Homework assignments will be made every week. You may, and are encouraged to, discuss problems with fellow students, but the written work you turn in must be your own.

EXAMS: There will be an in-class midterm exam given 10:00-12:00 on Monday, April 11. The final exam will be held 9:00-11:00 am on Wednesday, May 4.
EXAMINATION POLICY: This policy applies to the midterm exam and to the final exam. All exams are open minds, closed book, and closed notes. “Crib” sheets are not permitted. Nor is any type of communication with any animate or inanimate object outside the classroom. Calculators and slide rules, however, are permitted, though not required.

SEVERE WEATHER CONDITIONS POLICY: If for any reason, the University is closed on a class or exam day, the following policy is in effect. If the University is closed on the announced exam day, then the exam is automatically rescheduled for the next course meeting time.

GRADING POLICY: The homework grade is worth 30%; the midterm exam is worth 35%; and, the final is worth 35% of your grade.

UNIVERSITY POLICY ON W GRADES: Please be aware that, if you wish to withdraw from the course and not receive a W on your transcript, then you must do so before the end of week 3.

MATH TUTORING: Mathematics and Statistics Department (111 Cummington Mall), Room B24, Mondays-Thursdays 10-4 and Fridays 10-2. This service is provided free of charge. Also, Professor Diane Meuser will hold Math Help Sessions every Tuesday evening 7:30 – 10:30 pm in the Rich Hall Cinema Room. This is also free and open to all students in mathematics courses.

PRONUNCIATION: My last name is pronounced “Kah-per,” as if you have a tongue depressor in your mouth.

ACADEMIC CODE: You are to rely only on your own ideas and knowledge in solving the problems on exams. Communication with or via any other object — animate or inanimate — in any form is not permitted. Violations of the Academic Conduct Code will be dealt with according to the rules of the Code.