
Lectures: TuTh: 02:40 - 04:00 PM, 218 SST  
Instructor: Mark Pekkér, 201N SST, ph. 824-6470 (Dept.)  
Office hours: MW: 4:30 - 6:00, TuTh: 4:00 - 5:30 or by appointment.  
Final: November 30, Thursday 3:00-5:30 PM

Policy: Regular homeworks assigned (may or may not be collected), including some simple programming assignments, and quizzes (from homework problems). You may do and turn in computer program in a group of two. No late homework will be accepted! Grade composition: homework assignments and quizzes 40%, Mid-term exam 25%, Final exam 35%. Make-ups: If you miss a test due to a documented illness, family emergency or other extreme circumstance, the weight of your remaining grades will be adjusted to compensate, provided I receive a written excuse within a reasonable amount of time after the missed test.

There will be few simple programming assignments in MATLAB. MATLAB is available on campus in several computer labs. Alternatively, a Student version of MATLAB can be purchased in the campus bookstore. Links to online MATLAB tutorials will be available from http://uah.edu/faculty/pekker (click MA508).

Prerequisites. MA 244 and MA 238. No credit given to those who have successfully completed MA 544.

Course Goals. After completing this course, you should:

- be familiar and know about matrix theory and its applications that are essential to its use in contemporary mathematics, applied mathematics, engineering, and sciences
- understand and know the core topics of linear algebra, based on vector spaces and linear transformations, canonical forms for matrices
- understand how and have a strong enough background to be able to solve systems of equations and finding eigenvalues and eigenvectors, to apply those to systems of linear differential equations, use of computer software such as MATLAB.

Contents of the course.

1. Review of matrix algebra (Ch. 1)
2. Introduction to vector spaces (Ch. 2)
3. Similarity (Ch. 3)
4. Matrix calculus (Ch. 4)
5. Normed vector spaces (Ch. 5)

6. Unitary similarity (Ch. 6)

7. Singular value decomposition (Ch. 7, if time left)

Withdrawal Policy. The student is responsible to determine the dates for withdrawing from the course. The student should be familiar with those policies and dates set by the university. Class non-attendance does not constitute withdrawal nor does notification to the instructor. Any student failing to follow the established procedure for withdrawal will continue to be enrolled in the class and may receive a failing grade in that course.

Accommodation for Students with Disabilities: Any student with a disability that will require special attention or accommodation should inform the instructor as soon as possible, preferably within the first week of class.

Student Behavior: Students are expected to behave in a courteous and respectful manner towards their fellow students. You should strive to be on time for class, and refrain from talking or doing any other activity that could be disruptive to the class. Turn off your cell phone! Ringing cell phones are always a distraction.

Grievance Procedure: Any problems that you encounter should be brought to the attention of your instructor. If you do not feel comfortable talking to me, or if you are not satisfied with my decision, you may appeal through the administrative chain given below:

1. Math Department Chair: Dr. Boris Kunin, SST 258A, tel. 824-6470.
2. Associate Dean of the College of Science: Dr. Emanuel Waddell, MSB C207, tel. 824-6844, email adeancos@uah.edu.

See the Student Handbook for more information about the grievance procedure.

Academic Misconduct: All acts of dishonesty in any work constitute academic misconduct. This includes, but is not limited to cheating, plagiarism, fabrication of information, misrepresentation, and abetting any of the above. Academic misconduct will not be tolerated and may result in a failing grade in the course. Consult the Student Handbook for further description of Academic misconduct and penalties.

UAlert Emergency Notification System: UAHuntsville has implemented the UAlert emergency notification system. UAlert allows you to receive time-sensitive emergency messages in the form of e-mail, voice mail, and text messages.

Everyone who has a UAHuntsville e-mail address will receive emergency alerts to their campus e-mail address. In order to also receive text and voice message alerts, you are asked to provide up-to-date phone contact information. Participation in UAlert text and voice messaging is optional, but enrollment is strongly encouraged. You can’t be reached through UAlert unless you participate. The information you supply is considered confidential and will not be shared or used for purposes other than emergency notification.

To review your UAlert account, add or update phone and alternate e-mail addresses, and set the priority for your contact methods, please visit the UAlert web site: http://ualert.uah.edu.