

Department of Mathematics and Statistics
MAT 335 — Matrix Algebra and Linear Algebra — Spring 2012

Course Description: The algebra of matrices and its application to problems in Euclidean spaces and elementary linear transformations. (3 credit hours)

Prerequisites: Prerequisite: MAT 308.

Course Objectives: The student will learn how to solve systems of linear equations and get an introduction to underlying theoretical concepts such as vectors, matrices, linear transformations and vector spaces.

Instructional Activities: Lectures and problem solving.

Field, Clinical, Laboratory Experiences, Resources: None.

Instructor: Dubravko Ivanišić [pronunciation: DOO-brahv-ko EE-vahn-shich] Ivanišić is the last name.

Phone & e-mail: 809-3552, divansic@murraystate.edu

Office: Faculty hall 6A-1 (in the Department of Mathematics and Statistics annex)

Course webpage: (A link to this has also been placed on Blackboard.)

<http://campus.murraystate.edu/academic/faculty/divansic/12spring/335home.html>

Office Hours: Ask me or check the webpage.

Textbook & Content Outline: H. Anton & R. Busby, Contemporary Linear Algebra. We plan to cover chapters (or portions of chapters) 1–4, 6, 7 and 9.

Homework: To promote a continuous effort in the course, homework problems will be assigned. Typically, a section will be assigned once we have covered it and selected problems will be discussed in class. The list of homework problems may be found on the webpage. A smaller portion of the homework problems is to be written up and handed in. In order to succeed in the course you will need to work on all the problems, since test problems will be based on *all* problems assigned for homework and those done in class, not just the ones you hand in.

The problems that you hand in should be reasonably neat and all the sheets should be stapled together. You do not have to write the statement of the problem, but should write brief explanations in words where necessary and should follow rules of “mathematical grammar” when writing. Points will be taken off if these guidelines are not followed or if the homework is late.

Don’t fall behind: The course deals with pretty simple concepts, but many of them will be new, thus requiring a lot of your attention and time. This makes for a fairly challenging course, so make sure you are up to date from the very beginning.

Mathematics is best learned by doing — to acquire proficiency it is essential that you do many homework problems. Expect to spend at least two hours of study time for every hour of class time. Finally, if some things aren’t clear to you, see me for help as soon as possible and not the day before the exam...

Attendance: Students are expected to adhere to the MSU Attendance Policy outlined in the current MSU Bulletins. Attendance is strongly encouraged every day, and roll will be taken. If you missed six or fewer classes during the semester, you get 3% bonus points. Note that you are not penalized for missing a class (the points are in excess of your total grade), so an absence is counted as such regardless of the reason (“excused” or not).

Participation in class: is strongly encouraged, as your questions indicate what points need to be addressed in more detail. We will go over some homework in class. You are expected to have worked the problems at home in order to both ask and answer questions on the homework. To encourage participation, a portion of your final course grade will be based on how active you are in class. In order to earn points, you need to be able to answer a homework question when called on.

Exams: There will be three exams whose dates will be announced well in advance. **On most exams calculators will not be allowed.**

Final exam: is comprehensive and will be held on Thursday, May 10th at 10:30AM in our usual classroom.

Grading procedure: For your final grade, each of the three exams is worth 27%, homework is worth 14% and participation in class is worth 5% of the total. Your final exam grade replaces your poorest exam grade if it is better, so if you are happy with your exam scores during the semester, you don't have to take it. (Note that getting a good grade on the final is more difficult than on a regular exam, since it covers the whole semester.) No extra credit work will be given to repair your grade. The final grade scale is approximately

90%–100%=A, 80%–89%=B, 70%–79%=C, 60%–69%=D, 0%–59%=E.

Make-ups: Make-ups for exams will be given only in cases of illness, field trips or other unavoidable circumstances. You will need to provide written verification of the reason for your absence in advance and as soon as possible. If you are unexpectedly absent from an exam, contact me by phone or e-mail **that same day** and arrange to take a make-up. The make-up should occur *soon*, which typically means “before I return the exam”. Make-ups for other graded work will be given at my discretion. Asking for a make-up more than once makes it less likely that I will grant it.

Academic honesty policy: Cheating, plagiarism (submitting another persons material as ones own), or doing work for another person which will receive academic credit are all impermissible. This includes the use of unauthorized books, notebooks, or other sources in order to secure or give help during an examination, the unauthorized copying of examinations, assignments, reports, or term papers, or the presentation of unacknowledged material as if it were the students own work. Disciplinary action may be taken beyond the academic discipline administered by the faculty member who teaches the course in which the cheating took place. Note: Faculty reserve the right to invalidate any examination or other evaluative measures if substantial evidence exists that the integrity of the examination has been compromised.

Non-Discrimination Policy Statement: Murray State University endorses the intent of all federal and state laws created to prohibit discrimination. Murray State University does not discriminate on the basis of race, color, national origin, gender, sexual orientation, religion, age, veteran status, or disability in employment, admissions, or the provision of services and provides, upon request, reasonable accommodation including auxiliary aids and services necessary to afford individuals with disabilities equal access to participate in all programs and activities. For more information, contact the Director of Equal Opportunity, 103 Wells Hall. 270-809-3155 (voice), 270-809-3361 (TDD).