MAS 3105-0002—Applied Linear Algebra I, Fall 2016

INSTRUCTOR: Dr. Ettore Aldrovandi http://www.math.fsu.edu/~ealdrov EMAIL: aldrovandi@math.fsu.edu OFFICE: 215 LOV. OFFICE HOURS: M: 1:00-2:00pm, T: 11:00am-12:30pm, and T: noon-1:30pm.

Website. Under the courses tab at blackboard (http://campus.fsu.edu).

Schedule. Monday, 2:30–3:20pm, and Tuesday and Thursday, 2:00–3:15pm in HWC 2400.

Prerequisites. Calculus w/ Analytical Geometry II (MAC2312 or equivalent) with a C- or better.

Text. Linear Algebra and its applications by David Lay, 5th Edition, Addison-Wesley (ISBN:0321982614)

Content. A selection of topics from chapters 1–6 of the text, plus a few additional items from chapter 7.

- **Objectives.** The main goal of the course is to introduce students to the theoretical and computational components of the discipline, emphasizing the applicability of the methods and techniques discussed.
- **Expectations.** This course is paced so as to cover a substantial amount of material. Attendance and regularly doing homework are essential to succeed in this course. I will be illustrating the main concepts in each section, but you are still required to thoroughly read each covered section on your own to reinforce your learning. You are definitely encouraged to ask questions about the material.
- Exams. There will be three midterms and a final exam:

Midterm 1: Thursday, Sep. 22nd Midterm 2: Thursday, Oct. 20th

Midterm 3: Thursday, Nov. $17^{\rm th}$

Final exam: Tuesday, Dec. 13th, 5:30–7:30pm, same location as class meetings.

The final exam will be cumulative, with emphasis on the material not covered by the midterms.

Homework. Success in the course is highly correlated with regular attendance and punctual completion of homework. Homework problems will be posted on the course site on Blackboard. Some problems will be collected for grading: the course site lists the due dates for each assignment. As a general rule, homework will be due on Thursday. Homework should be written neatly and are to be turned in at the end of class on their due date (I recommend doing homework problems daily at the same pace as the lectures).

You must write your name, course, and section number at the top of each homework. The papers must be stapled. Loose papers cannot be accepted. If you expect to miss a class, you may give your homework to a classmate to turn in. **No late homework will be accepted.** However, the three lowest homework grades will be dropped.

Projects. There will be 4 or 5 small project assignments, involving a computer algebra system. The assignments and relative resources will be posted on the course site on Blackboard. An in-class demonstration will be given during the first week of class. You can work in groups of two students (at most), but you can also choose to work alone. Each group will hand in just one copy of the assignment. Your completed assignment should include the printout of relevant computer input and output, as well as any required additional analysis.

Grading scheme. Your final grade will be computed as follows:

- Midterms: 50% (20% each—the lowest midterm grade will count for 10%)
- Final: 30%
- Homework: 10%
- Projects: 10%

Letter grades will be determined from numerical grades as follows. A: 90-100%; B: 80-89%; C: 70-79%; D: 60- 69%; F: 0-59%. Plus or minus grades may be assigned in a manner consistent with standard University practice. This includes factors such as class attendance and participation. <u>Partial credit</u> will be awarded only when part of a solution is completely correct. Students with incomplete assignments at the end of the course will be given the earned final grade. A grade of I will not be given to avoid a grade of F or to give additional study time. Failure to process a course drop will result in a course grade of F.

- **Exam policy.** No makeups. An absence may be excused given sufficient evidence of extenuating circumstances and in accordance with the University policy stated below. In such a case, extra weight will be attached to the other exams. Barring emergencies, the matters leading to a possible excused absence should be discussed with the instructor well in advance. An unexcused absence will result in a grade of zero.
- **Course attendance.** Students are expected to attend class regularly. A student absent from class bears the full responsibility for all subject matter and information discussed in class. Attendance (and participation) will be useful to make decisions in borderline cases.

Other situations are discussed under "University Attendance Policy" below.

- **Class etiquette.** Please be punctual and arrive to class on time. In order to have a good collaborative environment, I ask you put away your devices and/or you keep them silent or, better, in the "off" position. Other than in class, I encourage you to ask questions via email. If you do so, when writing an email, you must include your course number, section and name in the message, so that I can give it the required attention. If your question concernes class material, I might answer to the entire class (with your permission), as the answer may benefit everyone in the class.
- Tutoring. Tutoring is available for this course via ACE Tutoring at the Learning Studio in the William Johnston Building. Appointments may be made, and drop-ins are welcome for one-on-one and group tutoring. Please contact the ACE Learning Studio at tutor@fsu.edu, 850-645-9151, or find more information at http://ace.fsu.edu/tutoring.
- **University Attendance Policy.** Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.
- Academic Honor Policy. The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "... be honest and truthful and... [to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy, found at http://fda.fsu.edu/Academics/Academic-Honor-Policy.)
- Americans With Disabilities Act. Students with disabilities needing academic accommodation should: (1) register with and provide documentation to the Student Disability Resource Center; and (2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class.

This syllabus and other class materials are available in alternative format upon request.

For more information about services available to FSU students with disabilities, contact the:

Student Disability Resource Center 874 Traditions Way 108 Student Services Building Florida State University Tallahassee, FL 32306-4167 (850) 644-9566 (voice) (850) 644-8504 (TDD) sdrc@admin.fsu.edu http://www.disabilitycenter.fsu.edu/