MAT 531 – Second Course in Linear Algebra

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The course will cover Chapters 1,2,5, and 6 in the textbook, as well as additional topics. Thematically, the course will be similar to MAT 331. However, it is not intended to be an immediate continuation of MAT 331, but rather aims to reintroduce important concepts of linear algebra in a more abstract, coordinate-free setting. Consequently, the focus of the course will be on proofs and concepts, not on calculations.

The course will cover the following topics:

- Abstract vector spaces and bases
- Linear transformations and their matrix representations
- Eigenvalues and eigenvectors of linear transformations
- Inner product spaces
- Applications

More information can be found below:

- Text: Linear Algebra, by Friedberg, Insel, and Spence, Fourth Edition, Prentice Hall, 2003.
- Classes: Tu and Th, 3:30 4:50, 115 Carnegie
- Office Hours: Tu 5 PM 6 PM and Th 10 AM 11:30 AM, or by appointment
- Midterm Exam: Tuesday, March 3, 2015
- Final Exam: TBA
- **Grading:** Homework and Midterm Exam count 30% each, Final Exam counts 40%
- Calculator Policy: Calculators are not allowed in the exams
- Students with disabilities: If you believe that you need accommodations for a disability, please contact the Office of Disability Services(ODS), http://disabilityservices.syr.edu, located in Room 309 of 804 University Avenue, or call (315) 443-4498 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible for coordinating disability-related accommodations and will issue students with documented Disabilities Accommodation Authorization Letters, as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as possible. Related link:

http://disabilityservices.syr.edu/faculty-staff/syllabus-statement/

- **Religious observances policy:** SU religious observances policy recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to a religious observance provided they notify their instructors before the end of the second week of classes. Students have access to an online notification form through MySlice that they can use to notify their instructors. Related link: http://supolicies.syr.edu/studs/religious_observance.htm
- Academic Integrity: Syracuse Universitys Academic Integrity Policy holds students accountable for the integrity of the work they submit. Students should be familiar with the

policy and know that it is their responsibility to learn about course-specific expectations, as well as about University policy. The University policy governs appropriate citation and use of sources, the integrity of work submiYed in exams and assignments, and the veracity of signatures on attendance sheets and other verification of participation in class activities. The policy also prohibits students from submitting the same written work in more than one class without receiving written authorization in advance from both instructors. The presumptive penalty for a first offense by an undergraduate student is course failure, accompanied by a transcript notation indicating that the failure resulted from a violation of Academic Integrity Policy. The standard sanction for a first offense by a graduate student is suspension or expulsion. For more information and the complete policy, see http://academicintegrity.syr.edu. Related links: The Academic Integrity Policy: http://academicintegrity.syr.edu/academic-integrity-policy/ Twenty Questions and Answers about the Academic Integrity Policy: http://academicintegrity.syr.edu/twenty-questions/ What does academic integrity mean?: http://academicintegrity.syr.edu/what-does-academic-integrity-mean/

Course Webpage: https://smwehrli.expressions.syr.edu/teaching/mat-531-spring-2015