Instructor: Dr. Peter Horn, Assistant Professor of Mathematics email: pdhorn@syr.edu Office: 304D Carnegie Phone: 3-1493 Office hours: Tuesday 8:30 - 10:00 am, Wednesday 10:30 am - 12:00 pm, or by appointment Course website: http://blackboard.syr.edu/

**Course supervisor**: Dr. Gregory Verchota, Professor of Mathematics, **email**: gverchot@syr.edu Office: 229A Physics

Please inform your instructor of any problems that you have with this course. Problems not satisfactorily resolved with your instructor should be brought to the attention of the course supervisor without delay.

Lecture: MW 2:15 - 3:35 pm, 311 Carnegie

**Course description**: Linear equations, n-dimensional euclidean space, linear independence, bases, linear transformations, matrices and determinants, eigenvalues and eigenvectors, geometric aspects. Chapters 1, 2, 3, 5, and 6 will be covered. Chapter 4 will be included if time permits.

Prerequisites: MAT 286 or MAT 296

**Course restrictions:** Credit will not be given for both MAT 331 and 485.

- **Text**: *Linear Algebra and its Applications* by David C. Lay, 4th edition, Addison-Wesley
- **Calculator policy**: Symbolic calculators (e.g. TI-89 or TI-92) are not allowed. Calculators with matrix functions (e.g. TI-83 or TI-84) are not allowed. Cell phone calculators are not allowed. Standard scientific calculators are allowed in quizzes and exams, but students may need to show work for full credit.
- **Grading policy**: Your course grade will be based on two midterm exams (25% each), homework and quizzes (25% combined), and the comprehensive final exam (25%). I can provide no exact formula for converting numerical grades into letter grades, but here is my interpretation of letter grades:

	F	D	С	В	А
fa	ailing	deficient	average	good	great

All judgements concerning grades are final. Sometimes a grader will make a clerical error. If a clerical error occurs, you must notify me within one week of the date the assignment was returned. After this deadline, no changes will be considered.

**Final exam date**: The final examination covers the entire course. It is a two-hour exam and will be given on Wednesday, Dec. 12, 2012, between the hours of 8:00 am and 2:30 pm. The exact time and location of your final examination will be announced in class. The final examination is given at the announced

time and at no other time. Do not make plans to leave campus before 2:30 pm on Wednesday, Dec. 12, 2012.

**Exam policy**: Two midterm exams will be held in class and are tentatively scheduled for September 24 and October 29.

Makeup exams will not be given. The grade for an exam missed due to a valid medical or religious absence will be replaced by the section on the final exam which covers the material on the missed exam. An exam missed for an invalid reason will receive an F on that exam.

**Homework and quiz policy**: Homework will be assigned on Wednesdays and collected the following Wednesday. Homework assignments will posted on Blackboard and collected and returned in class. If you miss class when I return homework, you may collect it during office hours. I encourage students to discuss homework together, but you must write up and turn in your own solutions.

Quizzes may be given at any time in class with or without notice, so attend and be prepared. A quiz grade will count as a homework assignment. An absence on quiz day will result in an F on that quiz. If you miss a quiz for a valid medical or religious reason, that quiz grade will be replaced by your average grade on other homework and quizzes.

**Attendance policy**: Regular attendance is highly recommended, but roll will not be taken formally. You are responsible for all announcements made in class or on Blackboard, whether or not you attend class. Unexcused absences during quizzes, exams, or homework collection will result in your receiving an F on that quiz, exam, or assignment. Excused absences will be given for medical or religious reasons if the following conditions are met.

If you miss class for a medical reason, you must bring a note from your medical provider to get credit for any work you missed. Please do so as soon as possible. Quiz and midterm exam grades missed for a medical reason will be handled as described above. Missed homework will be handled as missed quizzes.

If you will miss class for a religious reason, **you must notify me within the first two weeks of the semester**. Homework must be turned in before your religious absence. Missed quizzes and midterm exams will be handled as described above.

**Disability policy**: If you believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS), 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.

You are also welcome to contact me privately to discuss your academic needs although I cannot arrange for disability-related accommodations.

- **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 are religious observance provided they notify their instructors before the end of the second week of classes. For fall and spring semesters, an online notification process is available through MySlice (Student Services -> Enrollment -> My Religious Observances) from the first day of class until the end of the second week of class.
- Academic integrity: Syracuse University sets high standards for academic integrity. Those standards are supported and enforced by students, including those who serve as academic integrity hearing panel members and hearing officers. The presumptive sanction for a first offense is course failure, accompanied by the transcript notation "Violation of the Academic Integrity Policy". The standard sanction for a first offense by graduate students is suspension or expulsion. Students should review the Office of Academic Integrity online resource "Twenty Questions and Answers About the Syracuse University Academic Integrity Policy" and confer with instructors about course-specific citation methods, permitted collaboration (if any), and rules for examinations. The Policy also governs the veracity of signatures on attendance sheets and other verification of participation in class activities. Additional guidance for students can be found in the Office of Academic Integrity resource: "What does academic integrity mean?"

Any form of cheating will not be tolerated in this course. First offenses in cheating will result in a failing grade on that assignment, and subsequent offenses will be reported to your dean.

- **Getting help**: I will be holding regular office hours and will make appointments with students having class conflicts with my scheduled office hours. In addition, the Mathematics Department offers regular math clinics. These will be set up by the second week of the semester and a schedule of the clinics will be posted outside the math office and on the department's website.
- **How to succeed**: Here are a few basic suggestions for how to succeed in this course.

1. It is absolutely essential that you understand how to solve the assigned homework problems and, more importantly, how and why the skills and techniques presented in the course are used in solving the assign problems. Quiz and exam questions will be similar to these problems.

2. Ask questions in lecture, recitation and/or at the clinic about anything that is not completely clear. Don't hesitate to bring questions to your instructors during office hours.

3. Every day, read and study the sections in the textbook covered in the lecture. Learning mathematics takes time! Read carefully and work through all the examples in complete detail. It can be helpful to try to work through an example on your own before reading the solution. 4. Stay caught up. Mathematical concepts build on each other cumulatively and you need to stay on top of the material at every stage. If you are having difficulty, don't expect that the problem will take care of itself and disappear later. Contact your course instructor or your recitation instructor immediately and discuss the problem!

5. Form a study group. Many students benefit from a study group to work through challenging problems and to review for exams. You should attempt the problems ahead of time by yourself and then work through any difficulties with your study partners. Explaining your reasoning to another student can help to clarify your own understanding.

6. You should expect to work hard. Don't get discouraged if you find some of the material very difficult. Be persistent and patient! If you follow the above suggestions, your experience in this course will be a rewarding one.

**Use of student work:** In compliance with the federal Family Educational Rights and Privacy Act, registration in this class is understood as permission for assignments prepared for this class to be used anonymously in the future for educational purposes