

# Spring 2016 MAT531- 001(Draft)

Linear Algebra

Room: OS 2006

5:00 PM – 6:15 PM Tuesday and Thursday

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**Instructor: Dr. Xin Lu**

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**Phone:** 910-962-3673

**Office:** OS1007C

**Office Hours: M-Th** 10:00AM-11:00 AM

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## Text

*Linear Algebra*, 4th ed., by Friedberg, Insel, and Spence (2003)

## Course Catalog Description:

MAT 531. Linear Algebra (3) Prerequisite: Permission of department.  
Theory of vector spaces, linear mappings and matrices. Determinants, eigenvalues, canonical forms, the Cayley-Hamilton Theorem, inner product spaces and positive definite matrices.

## Student Learning Outcomes

Upon completing MAT 531, students should be able to:

- demonstrate knowledge of the definitions and basic concepts of linear algebra;
- demonstrate proficiency in utilizing the core theorems of linear algebra;
- demonstrate sound conceptual understanding of linear algebra through the construction of mathematically correct proofs.

## Homework, Tests and Grading:

- **Tests:** 20% each, 40% in total
- **Homework and quizzes:** 20%
- **Final Exam:** 40%

The final grade will be assigned according to:

$90\% \leq \mathbf{A} < 92\%$ ;	$92\% \leq \mathbf{A} \leq 100\%$ ;	
$80\% \leq \mathbf{B} < 82\%$ ;	$82\% \leq \mathbf{B} < 87\%$ ;	$87\% \leq \mathbf{B} < 90\%$ ;
$65\% \leq \mathbf{C} < 75\%$ ;	$75\% \leq \mathbf{C} < 77\%$ ;	$77\% \leq \mathbf{C} < 80\%$ ;
<b>F:</b> below 65%.		

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### Test and Final Exam Dates:

**TEST 1: Thursday, February 18**

**TEST 2: Thursday, April 14**

**FINAL EXAM: Tuesday, May 3, 7:00PM – 10:00 PM**

**Incompletes:** A grade of **I** (incomplete) is given only if approved documented circumstances beyond the student's control (e.g. medical, legal) render the student unable to complete the course work, and only if there is a reasonable possibility of passing the course. The grade **I** is not given simply failing to meet the course requirements.

**Attendance:** Being on time and regular class attendance are some aspects expected, as well as a respectable presence. Class attendance is one aspect that could help or harm the final grade of a student whose final average is on the borderline between two grades. A student who has **two or less** absences will have an opportunity to replace a low test score and the detail of the replacement will be announced after TEST 2 is done.

**Religious Observance Policy:** In accordance with North Carolina G.S. 116-11(3a), you are entitled to two excused absences for religious observances per academic year. In order to preserve your right to make up any tests or other work missed for religious observance required by your faith, you must inform the Registrar in writing of your intended absence before the end of the first week of class.

**Academic Honor Code and Seahawk Respect Compact:** Please refer to Section V in your student handbook and Dean of Students' website (<http://www.uncw.edu/stuaff/doso/>) about Academic Honor Code for the definition and procedures about academic dishonesty offenses. The Seahawk Respect Compact (<http://www.uncw.edu/diversity/src.html>) expresses the core values essential to an open, respectful learning and working environment.

**Disability Services:** If you have a disability and require accommodations for this course, you need to inform me of this in writing within the first week of class or as soon as possible. If you have not already done so, you must register with the Office of Disability Services in Westside Hall (EXT. 2-7555) and obtain a copy of your Accommodation Letter. **YOU MUST PROVIDE A COPY TO ME.** You should then meet with me, as soon as possible, to make mutually agreeable arrangements based on the recommendations of the Accommodation Letter and

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resources available. YOU ARE RESPONSIBLE FOR ADHERING TO THE REQUIREMENTS AND PROCEDURES OUTLINED FOR YOU. More information and resources are available at <http://www.uncw.edu/stuaff/disability/>.

**The UNCW Statement on Diversity in the University Community:** As an institution of higher learning and excellence, the University of North Carolina Wilmington represents a rich diversity of human beings among its faculty, staff, and students and is committed to maintaining a campus environment that values that diversity. Accordingly, the university supports policies, curricula, and co-curricular activities that encourage understanding of and appreciation for all members of its community and will not tolerate any harassment or disrespect for persons because of race, gender, age, color, national origin, ethnicity, creed, religion, disability, sexual orientation, political affiliation, marital status, or relationship to other university constituents.

**Zero Tolerance Policy:** UNCW practices a zero tolerance policy for violence and harassment of any kind. For emergencies contact UNCW CARE at 962-2273; Campus Police at 962-3184; or Wilmington Police at 911. For University or community resources visit: <http://www.uncw.edu/safe-relate/campusResources.htm>. Violence prevention information and resources are available at <http://www.uncw.edu/safe%2Drelate/>.

**Cell Phones, PDAs, Laptops:**

Please silence your cell phone and do not make calls, access applications or text during class. If you have a personal, urgent matter for which you need to be on call, please let me know in advance and/or quietly step outside. In addition, please do not have any PDAs or laptops/netbooks/iPads, etc. open or powered on during lectures.

**Emergency Hotline:** (910) 962-3991 or toll free (888) 657-5751