I. Locator Information:
Instructor: Dr. Asitha Kodippili  
Office Phone: 910 672 1518
Course # and Name: MATH 251 – Linear Algebra
Office Location: Science & Tech 237 419
Semester Credit Hours: 3
Office hours: Locator Card in Black Board
Day, Time and Room Class Meets: MWF 8:00 – 8:50, Science & Tech 237
Total Contact Hours for Class: 40
Email address: akodippili@uncfsu.edu
MathXL (www.mathxl.com) Course ID: XL1S-81ZY-201Z-2QG2

FSU Policy on Electronic Mail: Fayetteville State University provides to each student, free of charge, an electronic mail account (username@uncfsu.edu) that is easily accessible via the Internet. The university has established FSU email as the primary mode of correspondence between university officials and enrolled students. Inquiries and requests from students pertaining to academic records, grades, bills, financial aid, and other matters of a confidential nature must be submitted via FSU email. Inquiries or requests from personal email accounts are not assured a response. The university maintains open-use computer laboratories throughout the campus that can be used to access electronic mail.

Rules and regulations governing the use of FSU email may be found at http://www.uncfsu.edu/documents/policy/general/FSUE-mailFINAL.pdf

II. Course Description: This course provides a study of such topics as vectors, matrices, matrix operations, system of linear equations, Gauss-Jordan elimination, determinants, vector spaces and subspaces, linear independence, bases, linear transformations, rank and kernel, eigenvalues and eigenvectors, diagonalization, inner products, Euclidean spaces and Gram-Schmidt process. Prerequisite: MATH 130 or MATH 131 or consent of the department.

III. Disabled Student Services: In accordance with Section 504 of the 1973 Rehabilitation Act and the Americans with Disabilities Act (ACA) of 1990, if you have a disability or think you have a disability to please contact the Center for Personal Development in the Spaulding Building, Room 155 (1st Floor); 910-672-1203.

IV. Title IX – Sexual Misconduct: Fayetteville State University (University) is committed to fostering a safe campus environment where sexual misconduct — including sexual harassment, domestic and dating violence, sexual assault, and stalking - is unacceptable and is not tolerated. The University encourages students who may have experienced sexual misconduct to speak with someone at the University so that the University can provide the support that is needed and respond appropriately. The Sexual Misconduct policy can be found at the following link: http://www.unfcsu.edu/Documents/Policy/students/SexualMisconduct.pdf

Consulting with a Health Care Professional - A student who wishes to confidentially speak about an incident of sexual misconduct should contact either of the following individuals who are required to maintain confidentiality:

Ms. Pamela C. Fisher  
Licensed Professional Counselor  
Spaulding Building, Room 165  
(910) 672-387  
psmith@uncfsu.edu

Ms. Linda Melvin  
Director, Student Health Services  
Spaulding Building, Room 121  
(910) 672-1454  
lmelvi10@uncfsu.edu

Reporting an Incident of Sexual Misconduct - The University encourages students to report incidents of sexual misconduct. A student who wishes to report sexual misconduct or has questions about University policies and procedures regarding sexual misconduct should contact the following individual:

Ms. Victoria Ratliff  
Deputy Title IX Coordinator for Students  
Spaulding Building, Room 155
Unlike the Licensed Professional Counselor or the Director of Student Health Services”, the Deputy Title IX Coordinator is legally obligated to investigate reports of sexual misconduct, and therefore cannot guarantee confidentiality, but a request for confidentiality will be considered and respected to the extent possible.

Students are also encouraged to report incidents of sexual misconduct to the University’s Police and Public Safety Department at (910) 672-1911.

V. Textbook:  *Lay: Linear Algebra and its applications, 4e.*

MathXL is required for the course.

VI. Student Learning Outcome - Upon completion of this course, students will be able to:

- Use matrices to solve linear systems
- Add and multiply matrices, find inverses, transposes, and evaluate determinants
- Apply Cramer’s Rule
- Use the concepts of length, dot product, cross product and linear independence
- Solve geometric problems using vector space methods
- Represent linear transformations with matrices
- Use the concepts of vector spaces, vector basis and dimension
- Understand inner products of vectors and their applications.
- Understand eigenvalues and eigenvectors, and their applications.
- Understand the properties of complex vector spaces.

VII. Course Requirements and Evaluation Criteria

a) **Grading Scale:** Final grade will be established on the basis of the grading scale below:

- **A** 90-100%
- **B** 80-89%
- **C** 70-79%
- **D** 60-69%
- **F** Below 60%
- **FN** Failing due to non-attendance and/or excessive absences.

b) **Attendance Requirement:** The FSU Attendance Policy of the 2014-15 University Catalogue will be strictly enforced. Students are expected to attend all class meetings, laboratories, and other instructional sessions for all courses in which they are enrolled. Students are also expected to arrive to class on time and remain in class for the entire scheduled period. When students must miss class(es) for unavoidable reasons - i.e., illness, family emergencies, or participation in official university sponsored activities – they are responsible for informing faculty of the reasons for the absences, in advance if possible, and completing all missed assignments. Faculty members will indicate in their syllabi the conditions for making up missed assignments, as well as any penalties for unexcused absences or tardiness. During the first half of the semester/term, faculty will assign an interim grade of "EA," Excessive Absences, for students whose class absences exceed 10% of the total contact hours for the class. Students who receive EA interim grades must either withdraw from the class or resume attendance. Students who resume attendance must consult with the instructor about completion of missed assignments. The EA is not a final grade, so students who are assigned an interim grade of EA, but do not withdraw from the class, will receive a final grade based on the evaluation criteria for the class.

c) **Graded Assignments:**

- **Homework** 25%
- **Tests (drop the lowest score out of 4 tests)** 45%
- **Class Attendance & Participation** 05%
- **Final Exam** 20%

d) **Policy of Missed or Late Assignments:**
Homework: All the homework assignments have due dates. However, students can open any past due homework assignment and still improve the grade until 04/30/2015 (Last day of Classes).

Tests: Makeup test will be given only if the student’s absence is excused.

e) Other - Dishonesty on graded assignments will not be tolerated!!! Students must neither give nor receive any assistance on any work to be graded. The University's cheating policy will be applied for any violations. The minimum penalty will be a grade of zero (0) on the assignment.

Please note: If these evaluation criteria must be revised because of extraordinary circumstances, the instructor will distribute a written amendment to the syllabus.

VIII. Academic Support Resources

- All class documents (syllabus, instructors’ locator card etc.) will be posted on the Blackboard system. http://blackboard.uncfsu.edu/
- Academic Support Centers
  
  There are a few Academic Support Centers on campus, such as Integrated STEM Academic Success (ISAS) http://www.uncfsu.edu/isas/tutorial-services, and the Mathematics Support Center (part of the University College Learning Center) http://www.uncfsu.edu/learning-center/math-support), which offer free student tutoring.

IX. Course Outline and Assignment Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Section / Topic</th>
<th>Homework due</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 4</td>
<td>Discussion about the syllabus;</td>
<td></td>
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<tr>
<td></td>
<td>Chapter 1: Selected topics based on course description in the catalog</td>
<td></td>
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<tr>
<td></td>
<td>Review Test 1 &amp; TEST 1</td>
<td>02/06/2015</td>
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<tr>
<td>5-8</td>
<td>Chapter 2: Selected topics based on course description in the catalog</td>
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<tr>
<td></td>
<td>Chapter 3: Selected topics based on course description in the catalog</td>
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<tr>
<td></td>
<td>Review Test 2 &amp; TEST 2</td>
<td>03/04/2015</td>
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<tr>
<td></td>
<td>Midterm Break</td>
<td></td>
</tr>
<tr>
<td>9 -12</td>
<td>Chapter 4: Selected topics based on course description in the catalog</td>
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<tr>
<td></td>
<td>Chapter 5: Selected topics based on course description in the catalog</td>
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<tr>
<td></td>
<td>Review Test 3 &amp; TEST 3</td>
<td>04/04/2015</td>
</tr>
<tr>
<td>13 – 16</td>
<td>Chapters 6 – 10: Selected topics</td>
<td></td>
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<tr>
<td></td>
<td>Review Test 4 &amp; TEST 4</td>
<td></td>
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<tr>
<td></td>
<td>Review Final Exam – Final Exam</td>
<td>04/30/2015</td>
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Note: This schedule is tentative! It might be changed for the benefit of the class.

X. Teaching Strategies

The majority of the material of the course will be given in lecture format. There will be a comprehensive review before each test. Power point slides and Mathematica (if available) will be used in the class to help students develop a firm grasp of the underlying mathematical concepts.

Homework Assignments

Homework assignments are designed to help test your knowledge of the material covered in the lecture.

XI. Bibliography


Szabo, Fred, Linear Algebra, Academic Press, 2000