Course Instructor: Dr. Jeanne S. Hutchison
Office: Campbell Hall 482B
Email: hutchiso@uab.edu

Meeting Times and Location:
MA 260-2B meets Tuesdays and Thursdays, 9:30 to 10:45 AM, in Room 311 of the Humanities Bldg. from Aug 29 through Dec 8 with final exam on Dec 14.

Prerequisite: Grade of C or better in MA 126 Calculus II

By Howard Anton and Chris Rorres, Wiley, 2013, 2014
Sections 1.1-1.8, 2.1-2.3, 3.1-3.3, 4.1-4.6, 5.1-5.2, 7.1-7.2

Topics: Linear equations and matrices; real vector spaces, basis and linear independence, linear transformations; light treatment of determinants, eigenvalues and eigenvectors; diagonalization, and selected additional topics.

MA 260 CLASS CALENDAR—FALL, 2016

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>Tuesday, August 30</td>
<td>First Day of Class</td>
</tr>
<tr>
<td>Monday, September 5</td>
<td>Labor Day Holiday</td>
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<tr>
<td>Thursday, September 29</td>
<td>Test 1</td>
</tr>
<tr>
<td>Friday, October 21</td>
<td>Last Day to Withdraw with a “W”</td>
</tr>
<tr>
<td>Thursday, November 3</td>
<td>Test 2</td>
</tr>
<tr>
<td>Thursday, December 8</td>
<td>Last Day of Class</td>
</tr>
<tr>
<td>Wednesday, December 14</td>
<td>Test 3 (Final Exam), 1:30 – 4:00 PM</td>
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<td></td>
<td>Room TBA</td>
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Methods of Teaching and Learning:
- 28 class meetings of 75 minutes consisting of lectures, discussions of examples, and homework problems. Time for quizzes and two in-class tests is also included.
- Students are expected to undertake at least 8 hours of private study and homework per week.

Course Content:
- Linear Equations: Gaussian Elimination
- Matrices: Matrix Operations and Properties; Invertible Matrices and Inverses
- Determinants: Cofactor Expansion; row Reduction; Cramer’s Rule
- Euclidean Vector Spaces: Vectors, Norm, Dot Product and Distance; Orthogonality
- General Vector Space: Real Vector Spaces; Subspaces; Linear Independence; Basis; Dimension
- Eigenvalues and Eigenvectors
- Diagonalization: Symmetric Matrices; Orthogonal Diagonalization
- Selected Additional Topics
Course Policies:

- Please make sure that you are able to receive e-mail through your Blazer-ID account. Official course announcements may be sent to that address.
- If you wish to request a disability accommodation, please contact DSS at 934-4205 or at dss@uab.edu.
- If a test is missed due to a serious verifiable circumstance or official university business, the test grade will be replaced with the properly rescaled final exam score. You have to advise the instructor of such circumstances at the earliest possibility.
- No books or notes will be allowed during any of the tests or quizzes.
- No make-up for missed quizzes.
- Late homework will not receive full credit.

Assessment Procedures:

- Regular homework. Homework will be due each Tuesday.
- Sporadic quizzes (some announced, some unannounced).
- Homework and quizzes each contribute 15% to the course average.
- Two mid-term in-class tests. Each of these tests contributes 15% to the course average.
- A 150-minute final examination. The final contributes 40% to the course average.
- All tests are closed book and closed notes. No calculator may be used.
- Your final grade is determined according to the following table:

<table>
<thead>
<tr>
<th>Course Performance</th>
<th>88-100</th>
<th>75-87</th>
<th>62-74</th>
<th>50-61</th>
<th>Below 50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Grade</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>F</td>
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TIPS:

- Help is sometimes available in the Math Learning Laboratory, HHB 202
- By working steadily and regularly, you will increase your chances to succeed in this course.
- Remember, being a full-time student is a full-time job.
- The Mathematics Department participates in the Early Alert Program. If you receive an Early Alert because your instructor is worried about your attendance and/or performance, consider taking advantage of the services suggested by your instructor, your advisor, and the Early Alert Program.