MATH 225.001
Linear Algebra and Differential Equations
Summer 2013-14

Instructor : UĞURHAN MUĞAN
Office : Science Faculty, A Block, SA-117
Phone : Ext. 1590 e-mail : mugan@fen.bilkent.edu.tr
Office Hours : Tuesday 15:30-16:30 or BY APPOINTMENT (Please call or send an e-mail)

Assistants : Süleyman KERIMOV (Quizzes & MatLab HW’s)
Office : ....
Phone : ....
e-mail : suleyman.kerimov@ug.bilkent.edu.tr
Office Hours : BY APPOINTMENT (Please send an e-mail)

Course web page : http://www.fen.bilkent.edu.tr/~mugan/courses/math225/math225-Generic.htm

Text Books : Main Textbook:
C.H. Edwards & D.E.Penney,
Differential Equations and Linear Algebra, The Latest Edition
(Prentice Hall, 2005)
Supplementary Textbooks:
W.E. Boyce & R.C.DiPrima
Elementary Differential Equations and Boundary Value Problems, (Wiley 1992)
B.Kolman & D.R.Hill
Elementary Linear Algebra, (Prentice Hall, 2001)

Exams : Quizes (15.0 %) NO MAKE-UP FOR QUIZES
MatLab Homeworks (10.0 %)
Midterm Exam # 1 (22.5 %) : June 26, 2013, Thursday, 13:30-15:30
Midterm Exam # 2 (22.5 %) : July 15, 2014, Tuesday, 13:30-15:30
Final Exam (30.0 %) : July 31-August 04, 2014

75 % ATTENDENCE IS OBLIGATORY

There will be about 12 pop-up quizzes that will also serve for monitoring the attendance. Each quiz will be out of 10. If a student takes less than 75 % of all quizzes, his/her letter grade will be downgraded by one step (e.g. B+ will be reduced to B).
No FZ Grade, everybody may take the final exam.

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<tr>
<th>Week</th>
<th>Subject</th>
<th>Exams</th>
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<tbody>
<tr>
<td>1. June 9</td>
<td>Introduction to Diff. Equations, General &amp; Particular solutions, Direction Fields and Solution Curves, Separable D.E., Applications, Linear 1st order O.D.E. Sec.: 1.1-1.5</td>
<td>Midterm Ex.1</td>
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<td>2. June 16</td>
<td>Substitution Methods, Exact D.E., Introduction to Linear Systems, Matrices, Gaussian Elimination. Sec.: 1.6, 3.1, 3.2</td>
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<td>3. June 23</td>
<td>Reduced-Row Echelon Matrices, Matrix Operations, Inverses of Matrices, Determinants. Sec.:3.3-3.6</td>
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<td>5. July 7</td>
<td>Bases and Dimensions for Vector Spaces, Row &amp; Column Spaces, Orthogonal Vectors in R^n, Sec.: 4.4-4.6</td>
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<td>6. July 14</td>
<td>Eigenvalues and Eigenvectors.Diagonalization of Matrices and Applications, Sec.:6.1, 6.2</td>
<td>Midterm Ex.2</td>
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<td>7. July 21</td>
<td>Applications, Sec.:6.3</td>
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