MATH 1502, SPRING 2015

WILFRID GANGBO

1. This course meets for lectures on Tuesdays and Thursdays from 13:35 pm to 14:55 pm in Howey (Physics) L2. The emphasis of this course will be on the treatment of single variable calculus, and linear algebra; the linear basis of the multivariable theory. The first $1/3$ of this course covers some chapters of single variable calculus not treated in Math 1501. The course will start on the following: ODE’s, l’Hospital’s Rule, Improper Integrals, Taylor Polynomials, Taylor Approximation, Infinite Series, Power Series. The recommended book for that is Thomas’ Calculus (Early Transcendentals), (13th Edition) Pearson, by Hass, Weir and Thomas. The remaining $2/3$ is an introduction to linear algebra, the theory of linear equations in several variables. The course will start with the study of systems of linear equations, vectors, geometry of $\mathbb{R}^n$, and solution sets. We will cover topics such as $LU$ factorization, eigenvalues and eigenvectors, diagonalization and symmetric matrices. The recommended book for the second part is Linear Algebra and its Applications by David Lay, (4th Edition), Pearson, Inc. 2012.

2. My office is 208A Skiles Building, and office hours will be on Tuesdays and Thursdays from 10:10 pm –11:10 pm, or by appointment. I may be reached by phone at 404–894-7055 or email at gangbo@math.gatech.edu.

3. Instructions are provided on a separate page so you can access the textbook online. The MML course id is: georgiatech96048.

4. Homework will not be collected. There will be three hour tests (you will be allowed to drop one of them) and one final examination. There will be pop quizzes during recitation times as well as lecture times. There is no make up for neither the tests nor the pop quizzes. These various items will be weighted according to

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<thead>
<tr>
<th>Item</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Pop quizzes</td>
<td>10 %</td>
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<tr>
<td>Hour Tests</td>
<td>50 %</td>
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<td>Final exam</td>
<td>40 %</td>
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5. The tentative date for the first hour test is Thursday 29 January 2015, the tentative date for the second test is Thursday 19 February 2015, and the tentative date for the third test is Thursday 26 March 2015.

6. The next HW problems can be found at

http://www.math.gatech.edu/~gangbo/academic/math1502/

7. Your recitation meets on M and W from 11:05–11:55 pm as follow:
1502; K 1: Mohammadi, Hamid; Skiles 154; hmohammadi6@math.gatech.edu
1502; K 2: Schultz, Andrew; Skiles 156; aschultz33@math.gatech.edu
1502; K 3: Zhou, Fan; Skiles 168; fzhou40@math.gatech.edu

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