## MATH 244 Sections 23 - 24 - 25

Lectures: MTh 8:40-10:00 PM at SEC 205
Lecturer: Dr. Las Goonetilleke, lcg71@scarletmail.rutgers.edu
Office Hours: Mondays and Fridays 10:15-11:15 AM at Hill 101

## Recitations:

| 23 | Tuesdays 8:40 AM - 10:00 AM | ARC-207 |
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| 24 | Tuesdays 10:20 AM -11:40 AM | ARC-107 |
| 25 | Tuesdays 12:00 PM - 1:20 PM | ARC-207 |

Recitations Instructor: Mr. Fei Qi, cl.volkov@rutgers.edu
Office Hours: Monday 5PM - 6PM at Hill 624. You may also make appointments for Tuesday 5-6PM, Wednesday 2-3PM, Thursday 5-6PM, Friday 3-6PM, or weekends.

General information: We will be studying ordinary differential equations and systems of first order ordinary differential equations.
Math 251 is a perquisite for this course. Required linear algebra techniques will be taught. Text: Elementary Differential Equations, Boyce \& DiPrima, $10^{\text {th }}$ edition. ( $9^{\text {th }}$ edition is OK too)

Homework: Homework is collected and graded. See table on the other page. In general HW from the previous week's lectures will be due during Tuesday's recitation.
Quizzes: Quizzes will be given during lectures on Thursdays. Several attendance quizzes will be given during recitations too. There will be no make-up quizzes: the 2 lowest will be dropped.
Maple Labs: There will be 6 Maple labs. The first one (lab 0) will serve as a warm-up and will not be counted toward the course grades. Maple labs can be downloaded from the math department website: http://www.math.rutgers.edu/courses/244/maple244_s13.html
Maple labs are due 2 weeks after they are assigned. Late submissions will not be accepted.
Exams: There will be 2 mid-terms and a final. The final is cumulative. There will be no makeup exams except for verified medical reasons.

Grading: Exam-1: 20\%, Exam-2: 20\%, Final: 40\%, Homework: 5\%, Quizzes: 10\%, Maple Labs: $5 \%$. To pass the course a student must pass the final exam with at least a $50 \%$ score. The cutoffs for grades will be A $-90 \%$ or above, B+-85\% or above, B $-80 \%$ or above, C+$75 \%$ or above, C-70\% or above, D-60\% or above, and F-below $60 \%$. There will be no curves.

Other: No calculators allowed in exams or quizzes. You are expected to remember the standard integration techniques from calculus 1 and 2. (These will be reviewed during the first recitation).

Schedule of Lectures

|  | Date | Lesson |  | Date | Lesson |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1/22/2015 | 1.1, 1.2, Assign: Maple Lab 0 |  | 3/17 3/20 | No classes - Spring Break |
| 2 | 1/26/2015 | 1.3, 2.1 | 16 | 3/23/2015 | 4.2, 4.3 |
| 3 | 1/29/2015 | 2.2, 2.3 | 17 | 3/26/2015 | 7.2, 7.3 |
| 4 | 2/2/2015 | 2.4, 2.5 | 18 | 3/30/2015 | 7.1, 7.4 |
| 5 | 2/5/2015 | 2.5, 2.6, Assign: Maple Lab 1 | 19 | 4/2/2015 | 7.5, Assign: Maple Lab 4 |
| 6 | 2/9/2015 | 2.7, 8.1 | 20 | 4/6/2015 | 7.5, 7.6 |
| 7 | 2/12/2015 | 8.2, 8.3 | 21 | 4/9/2015 | EXAM 2 (lessons 10 to 19) |
| 8 | 2/16/2015 | 3.1, 3.2 | 22 | 4/13/2015 | 7.8 |
| 9 | 2/19/2015 | 3.3, 3.4, Assign: Maple Lab 2 | 23 | 4/16/2015 | 9.1, 9.2, 9.3 |
| 10 | 2/23/2015 | 5.4 through page 274 | 24 | 4/20/2015 | 9.4, 9.5, Assign: Maple Lab 5 |
| 11 | 2/26/2015 | EXAM 1 (up to lesson 9) | 25 | 4/23/2015 | 9.5, 5.1 |
| 12 | 3/2/2015 | 3.5 | 26 | 4/27/2015 | 5.1, 5.2 |
| 13 | 3/5/2015 | 3.6 | 27 | 4/30/2015 | 5.2, 5.3 |
| 14 | 3/9/2015 | 3.7, 3.8, Assign: Maple Lab 3 | 28 | 5/4/2015 | Review |
| 15 | 3/12/2015 | 3.8, 4.1 | 5/12/2015 Final Exam (8 PM - 11 PM) |  |  |

## Homework Assignments

(For both $9^{\text {th }}$ and $10^{\text {th }}$ editions. Note the differences in section 3.5 problem numbers)

| Section | Problems | Section | Problems |
| :---: | :---: | :---: | :---: |
| 1.1 | 1, 2, 5 | 3.7 | 1, 4, 5, 8, 15, 19 |
| 1.2 | 1, 2, 7, 9, 12, 13 | 3.8 | 2, 5, 7, 11 |
| 1.3 | 1, 3, 4, 6, 8, 13, 18 | 4.1 | 1, 6, 7, 13, 17, 20, 21 |
| 2.1 | 2, 8, 13, 22 | 4.2 | 2, 10, 11, 19, 23, 28 |
| 2.2 | 3, 8, 9, 17 | 4.3 | 3, 9, 12, 17 |
| 2.3 | $7,8,14,16,20,23,27,29,30$ | 7.1 | $4,5,6,7$ |
| 2.4 | 1, 7, 15, 18 | 7.2 | $2,3,4,8,11,22,26$ |
| 2.5 | 2, 7, 9, 22 | 7.3 | 2, 3, 7, 11, 14, 16, 22 |
| 2.6 | 2, 3, 5, 8, 9, 14, 19, 26 | 7.4 | 4, 6 |
| 2.7 | 2 | 7.5 | 3, 12, 16, 17, 19 |
| 8.1 | 8, 16, 19 | 7.6 | 3, 8, 9, 13 |
| 8.2 | 2, 7 | 7.8 | 3, 8 |
| 8.3 | 2, 7 | 9.1 | 1, 2, 13, 18 |
| 3.1 | 3, 6, 10, 16, 18, 21 | 9.2 | 2, 8 |
| 3.2 | 2, 6, 7, 11, 13, 24,29,33 | 9.3 | 4, 13, 16 |
| 3.3 | 1, 4, 7, 16, 17, 22, 24 | 9.4 | 5, 8 |
| 5.4 | 2, 9, 15, 35 | 9.5 | 1, 6, 14 |
| 3.4 | 2, 7, 11, 14, 15, 19, 23 | 5.1 | 1, 6, 8, 9, 14, 18 |
| 3.5 | 4,10,17,20,25 (6,12,19,22,27 for 10e) | 5.2 | 2, 6, 12, 15, 18 |
| 3.6 | 1, 7, 15 | 5.3 | 1, 3, 7, 8, 12, 16 |

