| Math 3113-001 - Introduction to Ordinary Differential Equations - Fall 2003 Class Schedule and Homework Assignments |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Class | Date | Day | Topic | Homework |
| 1 | Aug 26 | Tue | 1.1 Differential equations and solutions <br> 1.2 General and particular solutions | $\begin{aligned} & 1.1 \# 3,6,13-15,20,22,26,28-29 \\ & 1.2 \# 5,7-8,10-11,15,19-22,25,30,35 \end{aligned}$ |
| 2 | Aug 28 | Thu | 1.3 Slope fields, existence and uniqueness | 1.3 \# 1,3,11-15,27-29 |
| 3 | Sep 2 | Tue | 1.4 Separable equations | 1.4 \# 3,5,17,21,24,28,34,42,54,61 |
| 4 | Sep 4 | Thu | 1.5 First-order linear equations | $1.5 \# 3,7,17,24,29,33,37$ |
| 5 | Sep 9 | Tue | 1.6 Substitutions | $1.6 \# 3,7,9,18-21,29,44,45,49,52,56-60$ |
| 6 | Sep 11 | Thu | 3.1 Second-order linear equations | 3.1 \# 1,4,9,17-19,23-25,29,33,36,38-39,43-48 |
| 7 | Sep 16 | Tue | 3.2 Linear equations | 3.2 \# 2,3,5-9,14,18,22-24 |
| 8 | Sep 18 | Thu | continue |  |
|  | Sep $23^{*}$ | Tue | Exam I |  |
| 9 | Sep 25 | Thu | 3.3 Homogeneous equations | 3.3 \# 6-8,10-11,18-19,23,25,33,35,39-42 |
| 10 | Sep 30 | Tue | 3.4 Vibrations | 3.4 \# 5-8,13-18 |
| 11 | Oct 2 | Thu | 3.5 Nonhomogeneous equations | $3.5 \# 5,7,9,17,21-24,32-33,47,51$ |
| 12 | Oct 7 | Tue | 3.8 Boundary-value problems | 3.8 \# 2-4,7-9,13 |
| 13 | Oct 9 | Thu | continue |  |
| 14 | Oct 14 | Tue | 4.1 First-order systems | 4.1 \# 1,4,10-13,16-17,21-22 |
| 15 | Oct 16 | Thu | 4.2 The Method of Elimination | 4.2 \# 1,3,7,13,21-22 |
| 16 | Oct 21 | Tue | continue |  |
|  | Oct 23* | Thu | Exam II |  |
| 17 | Oct 28 | Tue | 7.1 Laplace transforms | 7.1 \# 1-4,7-9,11,14-18,20,23,25-29 |
| 18 | Oct 30 | Thu | 7.2 Initial value problems | 7.2 \# 2-3,5-6,11-13,17,19,21,28-31 |
|  | Oct 31 | Fri | Last day to withdraw without permission of Dean |  |
| 19 | Nov 4 | Tue | 7.3 Partial fractions | 7.3 \# 2-3,6-7,11,15,27,30-32 |
| 20 | Nov 6 | Thu | 7.4 Calculus of Laplace transforms | 7.4 \# 2-3,5-7,9,15-16,19-20,23,25-26,33,36-37 |
| 21 | Nov 11 | Tue | 7.5 Periodic and piecewise-cont functions | 7.5 \# 1-3,7,11-14,19-20,25-27,31-33 |
| 22 | Nov 13 | Thu | 7.6 Impulses and delta functions | 7.6 \# 1,4-6,9-11,13,14 |
| 23 | Nov 18 | Tue | continue |  |
|  | Nov 20* | Thu | Exam III |  |
| 24 | Dec 2 | Tue | 8.1 Power series methods | 8.1 \# 2-4,9,12-13,15,17,19 |
| 25 | Dec 4 | Thu | 8.2 Ordinary points | 8.2 \# 1,3,12,16,23,25 |
| 26 | Dec 9 | Tue | 8.3 Regular singular points | 8.3 \# 2-6,9,12,14,17-19,38 |
| 27 | Dec 11 | Thu | continue |  |
|  | Dec 15 | Mon | Final Exam (1:30-3:30 p. m.) |  |

* Homework notebooks due.

