| Math 3113-002 - Introduction to Ordinary Differential Equations - Spring 2001 Class Schedule and Homework Assignments |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Class | Date | Day |  | Topic | Homework |
| 1 | Jan 17 | Wed | 1.1 | Differential equations and solutions | 1.1 \# 3,6,13-15,20,22,26,28-29 |
| 2 | Jan 19 | Fri |  | General and particular solutions | $1.2 \# 5,7-8,10-11,15,21,26,31$ |
| 3 | Jan 22 | Mon |  | Slope fields, existence and uniqueness | 1.3 \# 1,3,21-25,31-34 |
| 4 | Jan 24 | Wed |  | Separable equations | 1.4 \# 3,5,17,21,24,28-30,38,47 |
| 5 | Jan 26 | Fri | 1.5 | First-order linear equations | $1.5 \# 3,7,17,24,29,33,37$ |
| 6 | Jan 29 | Mon | continue |  |  |
| 7 | Jan 31 | Wed | 1.6 | Substitutions, exact equations | 1.6 \# 3,7,9,18-21,29,31,38,44-46 |
| 8 | Feb 2* | Fri | continue |  |  |
| 9 | Feb 5 | Mon |  | Growth and logistic equations | 2.1 \# 3,7,11-13 |
| 10 | Feb 7 | Wed | 2.3 | Acceleration and velocity | 2.3 \# 1-5,19 |
| 11 | Feb 9 | Fri | continue |  |  |
|  | Feb 12 | Mon | Exam I |  |  |
| 12 | Feb 14 | Wed | 3.1 | Second-order linear equations | 3.1 \# 1,4,9,17-19,23-25,29,33,36,38-39,43-48 |
| 13 | Feb 16 | Fri | continue |  |  |
| 14 | Feb 19 | Mon | 3.2 | Linear equations | 3.2 \# 2,3,5-9,14,18,22-24 |
| 15 | Feb 21 | Wed | continue |  |  |
| 16 | Feb 23 | Fri |  | Homogeneous equations | 3.3 \# 6-8,10-11,18-19,23,25,29-30,33,35,39-42 |
| 17 | Feb 26 | Mon | continue |  |  |
| 18 | Feb 28 | Wed | 3.4 | Vibrations | 3.4 \# 5,7,10,15,17-19 |
| 19 | Mar 2 | Fri | continue |  |  |
| 20 | Mar 5* | Mon | 3.5 | Nonhomogeneous equations | $3.5 \# 5,7,9,17-18,21-24,32-33,47,51,54$ |
| 21 | Mar 7 | Wed | continue |  |  |
| 22 | Mar 9 | Fri | 3.8 | Boundary-value problems | 3.8 \# 1-7,13-14 |
| 23 | Mar 12 | Mon | continue |  |  |
|  | Mar 14 | Wed | Exam II |  |  |
| 24 | Mar 16 | Fri | review |  |  |
|  | $\begin{aligned} & \text { Mar } 17- \\ & \text { Mar } 25 \end{aligned}$ |  | Spring Break |  |  |
| 25 | Mar 26 | Mon | 4.1 | First-order systems | 4.1 \# 1,4,10,12-13,16-17,30 |
| 26 | Mar 28 | Wed | continue |  |  |
| 27 | Mar 30 | Fri |  | The Method of Elimination | 4.2 \# 1,3,7,13,21-22 |
|  | Mar 30 | Fri | Last day to withdraw without permission of Dean |  |  |
| 28 | Apr 2 | Mon | continue |  |  |
| 29 | Apr 4 | Wed | 7.1 | Laplace transforms | 7.1 \# 1-4,7-9,11,14-18,20,23,25-29 |
| 30 | Apr 6 | Fri | continue |  |  |
| 31 | Apr 9 | Mon | 7.2 | Initial value problems | 7.2 \# 2-3,5-6,11-13,17,19,21,28-31 |
| 32 | Apr 11 | Wed | continue |  |  |
| 33 | Apr 13 | Fri | 7.3 | Partial fractions | 7.3 \# 2-3,6-7,11,15,27,30-32 |
| 34 | Apr 16 | Mon | 7.4 | Calculus of Laplace transforms | 7.4 \# 2-3,5-7,9,15-16,19-20,23,25-26,33,36-37 |
| 35 | Apr 18* | Wed | continue |  |  |
| 36 | Apr 20 | Fri | 7.5 | Periodic and piecewise-cont functions | 7.5 \# 1-3,7,11-14,19-20,25-27,31-33 |
| 37 | Apr 23 | Mon | continue |  |  |
| 38 | Apr 25 | Wed | review |  |  |
|  | Apr 27 | Fri | Exam III |  |  |
| 39 | Apr 30 | Mon | 8.1 | Power series methods | 8.1 \# 2-4,9,12-13,15,17,19 |
| 40 | May 2 | Wed | 8.2 | Ordinary points | 8.2 \# 1,3,12,16,23,25 |
| 41 | May 4 | Fri | continue |  |  |
|  | May 9 | Wed | Final Exam (4:30-6:30 p. m.) |  |  |

* Homework notebooks due.

Version of February 19, 2001.

