The table below shows the schedule of topics (including WeBWorK assignments) for the semester. It may be updated as the semester progresses.

| Session | Date | Section and Topic | Pages | WeBWorK Assignment | Suggested Textbook Problems (not collected) |
|---|---|---|---|---|---|
| 1 | Tuesday, 2/2 | 1.2 First Order Equations [OPTIONAL: 1.3 Direction Fields for First Order Equations] | 7-13 16-17 | 1-Review | p.14: 1, 2(a-c,e-h), 4(a-f), 5, 6, [optional: p. 14: 9 and p. 21: 1-11] |
| 2 | Thursday, 2/4 | 2.1 Linear First Order Equations | 30-41 | 2-NonHomogeneousLinear | p.41: 1-9 odd, 17-23 odd, 31-37 odd, 38, 40, 42 |
| 3 | Tuesday, 2/9 | 2.2 Separable Equations | 45-52 | 3-Separable | p.52: 2, 3, 6, 12, 17-27 odd, 28, 35, 37 |
| 4 | Thursday, 2/11 | 2.4 Transformation of Nonlinear Equations into Separable Equations | 62-68 | 4-Bernoulli-nosub 4b-Homogeneous-YoverX | p.68: 1-4, 7-11 odd, 15-18, 23-27 odd |
| 5 | Tuesday, 2/16 | 2.5 Exact Equations | 73-79 | 5-Exact | p.79: 1-21 odd, 29, 30, 33, 34 |
| 6 | Thursday, 2/18 | Exact Equations cont'd Intro to Population Modeling | | | |

| Session | Date | Section and Topic | Pages | WeBWorK Assignment | Suggested Textbook Problems (not collected) |
|---|---|---|---|---|---|
| 7 | Tuesday, 2/23 | 4.1 Growth and Decay<br>4.2 Cooling and Mixing<br>4.3 Elementary Mechanics | 130-137<br>140-147<br>151-160 | 6-Modeling1-PopulationAndCooling | p.138: 1-7 odd, 11, 13, 17<br>p.148: 1-11 odd, 15<br>p.160: 3, 5, 7, 10 |
| 8 | Thursday, 2/25 | 4.1/4.2/4.3 cont'd | | 6b-Modeling2-FallingObjects | |
| 9 | Tuesday, 3/2 | First Examination | | | |
| 10 | Thursday, 3/4 | Finish Cooling, Intro to Euler's Method | | | |
| 11 | Tuesday, 3/9 | 3.1 Euler's Method | 96-106 | 7-Trench-EulersMethod | p.106: 1-7 odd, 11-13, 15-19 odd, 20-22 |
| 12 | Thursday, 3/11 | 3.2 The Improved Euler Method and Related Methods | 109-116 | 7b-Trench-ImprovedEulersMethod | p.116: 1-7 odd, 11-13, 15-19 odd, 20-22 |
| 13 | Tuesday, 3/16 | 3.3 The Runge-Kutta Method | 119-124 | TBD | p.124: 1-7 odd, 11-13, 15-19 odd, 20-22 |
| 14 | Thursday, 3/18 | 5.1 Homogeneous Linear Equations | 194-203 | 6-BasicSecondOrder | p.203: 1-5 |
| 15 | Tuesday, 3/23 | 5.2 Constant Coefficient Homogeneous Equations | 210-217 | 7-SecondOrderRepeated<br>8-SecondOrderComplex | p.217: 1-17 odd, 18-21 |

| Session | Date | Section and Topic | Pages | WeBWorK Assignment | Suggested Textbook Problems (not collected) |
|---|---|---|---|---|---|
| 16 | Thursday, 3/25 | 5.3 Nonhomogeneous Linear Equations | 221-227 | 9-Nonhomogeneous | p.227: 1-5 odd, 9-13 odd, 16-20 even, 25-29 odd, 33-37 odd |
| | Tuesday, 3/30 | Spring Break | | | |
| | Thursday, 4/1 | Spring Break | | | |
| 17 | Tuesday, 4/6 | 5.4 The Method of Undetermined Coefficients I | 229-235 | 9-Nonhomogeneous | p.235: 1-29 odd |
| 18 | Thursday, 4/8 | Second Examination | | | |
| 19 | Tuesday, 4/13 | Numerical Methods Project DUE TODAY

5.6 Reduction of Order | 248-252 | 10-Trench-ReductionOfOrder | p.253: 1-3, 5, 9, 13, 17, 19, 25, 31 |
| 20 | Thursday, 4/15 | 5.7 Variation of Parameters | 255-262 | | p.262: 1-5, 7, 11, 13, 31, 33, 34 |
| 21 | Tuesday, 4/20 | 6.1 Spring Problems I
6.2 Spring Problems II | 268-277
279-284 | TBD | p.277: 1, 3, 7-13 odd, 19, 21
p.288: 3, 4, 7-11 odd, 14-16 |
| 22 | Thursday, 4/22 | 6.2 Spring Problems II (continued)
6.3 The RLC Circuit | 284-287
290-295 | TBD | p.288: 13, 17-20
p.295: 1-10 |

| Session | Date | Section and Topic | Pages | WeBWorK Assignment | Suggested Textbook Problems (not collected) |
|---|---|---|---|---|---|
| 23 | Tuesday, 4/27 | 7.1 Review of Power Series 7.2 Series Solutions Near an Ordinary Point I | 307-316 320-328 | 11-Trench-SeriesSolutions | p.317: 1, 11, 13, 15-17 p.329: 1, 3, 8, 11-13, 19-25 odd |
| 24 | Thursday, 4/29 | 7.3 Series Solutions Near an Ordinary Point II | 335-338 | TBD | p.338: 1-5 odd, 19-23 odd, 33-37 odd, 41-45 odd |
| 25 | Tuesday, 5/4 | Third Examination | | | |
| 26 | Thursday, 5/6 | 7.4 Regular Singular Points Euler Equations | 344-346 | 12-Trench-EulerEquations | p.347: 1-12 |
| 27 | Tuesday, 5/11 | 8.1 Introduction to the Laplace Transform | 394-402 | 13-LaplaceTransforms-NoPiecewise | p.403: 1(a,b,d,e), 2(b,c,f,g,h,i), 4, 5, 18 |
| 28 | Thursday, 5/13 | 8.2 The Inverse Laplace Transform [NOTE: use the table on p.463 of the textbook to do the homework] | 405-412 | 14-InverseLaplaceTransforms | p.412: 1(a,b,d,e), 2(a-e), 3(a-d), 4(a,d,e), 6(a), 7(a), 8(a,d) |
| | | 8.3 Solution of Initial Value Problems [NOTE: use the table on p.463 of the textbook to do the homework] | 414-419 | 16-LaplaceIVP | p.419: 1-31 odd |
| | Tuesday, 5/18 | Reading Day | | | |

| Session | Date | Section and Topic | Pages | WeBWorK Assignment | Suggested Textbook Problems (not collected) |
|---------|------|-------------------|-------|--------------------|---------------------------------------------|
| 29 | Thursday, 5/20 | 8.6 Convolutions [NOTE: use the table on p.463 of the textbook to do the homework] | 441-445 TBD | | p.450: 2(a,b,c,i,j,l,n), 3(a-c,e-g) |
| 30 | Tuesday, 5/25 | Final Examination | | | |

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