

Tentative Fall 2017 Math 3304 Course Outline

<u>Date</u>	<u>Section and Topic / Homework Assignment</u>
Aug. 21 M	1.1 Some Basic Mathematical Models; Direction Fields p. 7: # 1,5,7,10,11,15,21,22,25,31 1.2 Solutions of Some Differential Equations p. 15: # 1,3,7,9,12,13,17,18
23 W	1.2 (cont.) Solutions of Some Differential Equations 1.3 Classification of Differential Equations p. 24: # 1,4,5,7,11,14,15,17,19,29
25 F	2.1 Linear Equations; Method of Integrating Factors p. 39: # 1,4,7,15,17,21,28,31,34,36
28 M	2.2 Separable Equations p. 47: # 1,4,7,11,19,21,25,30,33
30 W	2.3 Modeling with First Order Equations p. 59: # 1,4,7,9,12,13,16,23,27,31
Sep. 1 F	2.4 Differences between Linear and Nonlinear Equations p. 75: # 1,4,11,15,17,21,23,27,30,33

Friday, September 1 is the last day to change to pass/fail grading option.

Monday, September 4 is Labor Day Holiday. There are no Missouri S&T classes on this day.

Sep. 4 M	2.5 Autonomous Equations and Population Dynamics p. 88: # 1,3,7,9,12,15,20,22,28
6 W	3.1 Homogeneous Equations with Constant Coefficients p. 144: # 1,5,11,12,17,19,21,23,28
8 F	3.2 Solutions of Linear Homogeneous Equations; the Wronskian p. 155: # 1,4,5,7,10,13,17,22,24,31
11 M	3.3 Complex Roots of the Characteristic Equation p. 163: # 1,4,5,7,12,16,17,19,23,25,34,35,38
13 W	3.4 Repeated Roots; Reduction of Order p. 171: # 1,5,6,9,11,15,25,28,38,41
15 F	3.5 Nonhomogeneous Equations; Method of Undetermined Coefficients p. 183: # 1,4,6,9,15,19,29,33,36,37
18 M	3.5 (cont.) Nonhomogeneous Equations; Method of Undetermined Coefficients 3.6 Variation of Parameters p. 189: # 1,5,9,10,13,18,21,22,23
20 W	Review
21 Thu	Exam I (at 5:00-5:50 PM in a room to be announced)
22 F	3.6 (cont.) Variation of Parameters
25 M	3.7 Mechanical and Electrical Vibrations p. 202: # 1,5,7,9,12,18,27,31
27 W	3.8 Forced Vibrations p. 215: # 1,5,7,9,11,16,18. Include 18(c): Find and plot the solution u when $\omega = 1$.
29 F	4.1 General Theory of n^{th} Order Linear Equations p. 224: # 3,7,11,13,15,17,19

Monday, October 2 is the last day to drop a course without a WD showing on your transcript. It is also the last day to change to HEARER status in a course.

Oct. 2 M	4.2 Homogeneous Equations with Constant Coefficients p. 231: # 1,3,5,8,11,15,18,22,29,37,39
----------	--

<u>Date</u>	<u>Section and Topic / Homework Assignment</u>
Oct. 4 W	4.3 The Method of Undetermined Coefficients p. 237: # 1,2,8,11,13,15
6 F	4.4 The Method of Variation of Parameters p. 242: # 1 (on $-\pi/2 < t < \pi/2$), 4,7,9,13
9 M	5.4 Euler Equations p. 276: # 1,5,6,7,12,14,35,40
11 W	6.1 Definition of the Laplace Transform p. 311: # 1,5,6,11,15,21,26,27
13 F	6.2 Solution of Initial Value Problems p. 320: # 1,3,5,8
16 M	6.2 (cont.) Solution of Initial Value Problems p. 320: # 11,15,19,20,24
18 W	6.3 Step Functions p. 328: # 1,11,13,16,19,20,21,24,33,34,35
20 F	6.4 Differential Equations with Discontinuous Forcing Functions p. 336: # 1,4,5,7,16,19
23 M	6.5 Impulse Functions p. 343: # 1,4,7,9,16
25 W	Review
26 Thu	Exam II (at 5:00-5:50 PM in a room to be announced)
27 F	6.6 The Convolution Integral p. 350: # 3,4,5,9,14,16,19,21,22,25,27
30 M	6.6 (cont.) The Convolution Integral
Nov. 1 W	7.1 Introduction (to Systems of First Order Linear Equations) p. 359: # 1,4,7,11,12,17,19,21,22
3 F	7.2 Review of Matrices p. 371: # 1,3,4,6,8,10,14,18,21,22,23,25
6 M	7.3 Systems of Algebraic Equations; Linear Independence, Eigenvalues, Eigenvectors p. 383: # 1,3,7,8,12,13,15,16,17,23
8 W	7.4 Basic Theory of Systems of First Order Linear Equations p. 389: # 1,2,3,6

Friday, November 10 is the last day for dropping a course.

10 F	7.5 Homogeneous Linear Systems with Constant Coefficients p. 398: # 1,5,7,11,15,19,20,24,30,32
13 M	7.6 Complex Eigenvalues p. 409: # 1,3,7,9,11,13,21,23,25,28,29
15 W	7.7 Fundamental Matrices p. 420: # 3,6,11,12,15,16
17 F	7.8 Repeated Eigenvalues p. 428: # 1,5,7,13,15,16,17

Thanksgiving Vacation is November 20 through 26. There are no Missouri S&T classes then.

Nov. 27 M	7.9 Nonhomogeneous Linear Systems p. 439: # 1,5,12,13,17
29 W	Review
30 Th	Exam III (at 5:00-5:50 PM in a room to be announced)
Dec. 4 M	Review
6 W	Review
8 F	Review
13 Thu	Final Exam (from 7:30 – 9:30 AM in a room to be announced)

