

MATH 240 · DIFFERENTIAL EQUATIONS TENTATIVE COURSE SCHEDULE · FALL 2019

Monday	Wednesday	Friday
	Aug 21 § 1.1: Background	Aug 23 § 1.2: Solutions & IVPs
Aug 26 § 1.3: Direction Fields	Aug 28 § 1.4: Euler's Method	Aug 30 § 2.2: Separable Equations (I)
Sep 2 No class: Labor Day	Sep 4 § 2.2: Separable Equations (II) § 2.3: Linear Equations (I)	Sep 6 § 2.3: Linear Equations (II)
Sep 9 § 2.4: Exact Equations (I)	Sep 11 § 2.4: Exact Equations (II)	Sep 13 § 2.6: Substitutions and Transformations (I)
Sep 16 § Hurst Day	Sep 18 § 2.6: Substitutions and Transformations (II)	Sep 20 Chapter 2 Review
Sep 23 §§ 3.1 - 3.2: Mathematical Modeling	Sep 25 § 3.2: Compartmental Analysis	Sep 27 EXAM 1
Sep 30 §§ 4.1 - 4.2: Second Order Equations The Mass-Spring Oscillator	Oct 2 § 4.2: Second Order Equations Homogeneous Linear Equations (I)	Oct 4 § 4.2: Second Order Equations (II) § 4.3: Complex Roots (I)
Oct 7 § 4.3: Auxiliary Equations with Complex Roots (II)	Oct 9 § 4.4: Nonhomogeneous Equations (I)	Oct 11 No Class: Break
Oct 14 § 4.4: Nonhomogeneous Equations (II) § 4.5: Superposition Principle (I)	Oct 16 § 4.5: Superposition Principle and Undetermined Coefficients (II)	Oct 18 § 4.6: Variation of Parameters (I)
Oct 21 § 4.6: Variation of Parameters (II) § 4.7: Variable-Coefficient Equations (I)	Oct 23 § 4.7: Variable-Coefficient Equations (II)	Oct 25 § 4.7: Variable-Coefficient Equations (III)
Oct 28 § 4.9: A Closer Look at Free Mechanical Vibrations	Oct 30 § 4.9: Mechanical Vibrations Chapter 4 Review	Nov 1 EXAM 2
Nov 4 §§ 9.1 - 9.3: Review Matrix Methods and Vectors	Nov 6 § 9.3: Further Linear Algebra: eigenvalues & eigenvectors	Nov 8 § 9.3: Further Linear Algebra (II)
Nov 11 § 9.4: Linear Systems	Nov 13 § 9.5: Homogeneous Linear Systems Constant Coefficients (I)	Nov 15 § 9.5: Homogeneous Linear Systems Constant Coefficients (II)
Nov 18 § 9.6: Homogeneous Linear Systems Complex Eigenvalues (I)	Nov 20 § 9.6: Homogeneous Linear Systems Complex Eigenvalues (II)	Nov 22 § 5.4: Introduction to the Phase Plane (I)
Nov 25 EXAM 3	Nov 27 No Class: Thanksgiving	Nov 29 No Class: Thanksgiving
Dec 2 § 5.4: Introduction to the Phase Plane(II)	Dec 4 Notes: Qualitative Methods Visualizing Differential Equations BRING YOUR LAPTOP	Dec 6 Notes: Qualitative Methods Visualizing Differential Equations BRING YOUR LAPTOP
	Wednesday Dec 11	FINAL EXAM 1:00 - 3:00