MA262 Course Calendar-Fall 2024

Week 1:
Aug 19: Lesson 1: Sec 1.1 (Differential Equations and Mathematical Models)
Aug 21: Lesson 2: Sec 1.2 (Integrals as General and Particular Solutions)
Aug 23: Lesson 3: Sec 1.3 (Slope Fields and Solution Curves)
Recitation: No quiz

Week 2:
Aug 26: Homework Due: Lessons 1,2 and 3.
Aug 26: Lesson 4: Sec 1.4 (Separable Equations and Applications)
Sept 28: Lesson 5: Sec 1.5 (Linear First-Order Equations)
Aug 30: Lesson 6: Sec 1.5 (Linear First-Order Equations)
Recitation: Quiz 1 covers lessons 1, 2 and 3.

Week 3:
Sept 2: No class – Labor Day
Sep 3: Homework Due: Lessons 4, 5 and 6 (Notice unusual due date because of the holiday)
Sept 4: Lesson 7: Sec 1.6 (Substitution Methods and Exact Equations)
Sept 6: Lesson 8: Sec 1.6 (Substitution Methods and Exact Equations)
Recitation: Quiz 2 covers lessons 4, 5 and 6.

Week 4:
Sep 9: Homework Due: Lessons 7 and 8.
Sept 9: Lesson 9: Sec 2.1 (Population Models)
Sept 11: Lesson 10: Sec 2.2 (Equilibrium Solutions and Stability)
Sept 13: Lesson 11: Sec 2.4 (Numerical Approximation: Euler's Method)
Recitation: Quiz 3 covers lessons 7 and 8.

Week 5:
Sep 16: Homework Due: Lessons 9, 10 and 11
Sept 16: Lesson 12: Sec 3.1 (Introduction to Linear Systems)
Sept 18: Lesson 13: Sec 3.2 (Matrices and Gaussian Elimination)
Sept 20: Lesson 14: Sec 3.3 (Reduced Row-Echelon Matrices)
Recitation: Quiz 4 covers lessons 9, 10 and 11.

Week 6:
Sep 23: Homework Due: Lessons 12, 13 and 14
Sept 23: Lesson 15: Sec 3.4 (Matrix Operations)
Sept 25: Lesson 16: Sec 3.5 (Inverses of Matrices)
 Sept 27: Lesson 17: Sec 3.6 (Determinants)
 Recitation: Quiz 5 covers lessons 12, 13 and 14.

Week 7:
Sept 30: Lesson 17: Sec 3.6 (Determinants, Continuation)
Oct 1: Exam 1 -- 8:00 P.M to 9:00 P.M. The exam covers Lessons 1 to 14
Oct 2: Homework Due: Lessons 15 and 16 (Notice unusual day)
Oct 2: Lesson 18: Sec 4.1 (The Vector Space $\mathbf{R}^3$)
Oct 4: Lesson 19: Sec 4.2 (The Vector Space $\mathbf{R}^n$ and Subspaces)
No recitation due to exam. No quiz.

Week 8:
Oct 7 & 8: No class – October break.
Oct 9: Homework Due: Lessons 17, 18 and 19 (Notice unusual day).
Oct 9: Lesson 20: Sec 4.3 (Linear Combinations and Independence of Vectors)
Oct 11: Lesson 21: Sec 4.4 (Bases and Dimension for Vector Spaces)
Recitation: Quiz 6 covers lessons 15 to 19.

Week 9:
Oct 14: Homework Due: Lesson 20 and 21.
Oct 14: Lesson 22: Sec 4.5 (Row and Column Spaces)
Oct 16: Lesson 23: Sec 5.1 (Intro: Second-Order Linear Equations)
Oct 18: Lesson 24: Sec 5.2 (General Solutions of Linear Equations)
Recitation: Quiz 7 covers lessons 20 and 21

Week 10:
Oct 21: Homework Due: Lessons 22, 23 and 24
Oct 21: Lesson 25: Sec 5.3 (Homogeneous Equations with Constant Coeff)
Oct 23: Lesson 26: Sec 5.3 (Homogeneous Equations with Constant Coeff)
Oct 25: Lesson 27: Sec 5.4 (Mechanical Vibrations)
Recitation: Quiz 8 covers lessons 22, 23 and 24.

Week 11:
Oct 28: Homework Due: Lessons 25, 26 and 27
Oct 28: Lesson 28: Sec 5.5 (Non-homogeneous Equations and Und. Coeff.)
Oct 30: Lesson 28: Sec 5.5. (Non-homogeneous Equations and Und. Coeff. Continuation)
Nov 1: Lesson 29: Sec 5.5 (Non-homogeneous Equations and Var. Par)
Recitation: Quiz 9 covers lesson 25, 26 and 27.

Week 12:
Nov 4: Homework Due: Lessons 28 and 29
Nov 4: Lesson 30: Sec 6.1 (Introduction to Eigenvalues)
Nov 6: Lesson 31: Sec 7.1 (First-Order Systems and Applications)
Nov 8: Lesson 32: Sec 7.2 (Matrices and Linear Systems)
Recitation: Quiz 10 covers lessons 28 and 29

Week 13:
Nov 11: Homework Due: Lessons 30, 31 and 32
Nov 11: Lesson 33: Sec 7.3 (The Eigenvalue Method for Linear Systems)
Nov 13: Lesson 33: Sec 7.3 (The Eigenvalue Method. Continuation, complex eigenvalues)
Nov 15: Lesson 34: Sec 7.6 (Multiple Eigenvalue Solutions)
Recitation: Quiz 11 covers lessons 30,31 and 32.

Week 14:
Nov 18: Lesson 34: Sec 7.6 (Multiple Eigenvalue Solutions. Continuation)
Nov 19. Exam 2 -- 8:00-9:00 P.M.- The exam covers lessons 15 to 32
Nov 20: Homework Due: Lesson 33 (notice unusual date)
Nov 20: Lesson 34: Sec 7.6 (Multiple Eigenvalue Solutions. Continuation)
Nov 22: Lesson 35: Sec 7.4 (A Gallery of Solutions Curves of Linear Systems)
No recitation due to exam. No quiz.

Week 15:
Nov 25: Homework due: Lessons 34, 35 and 36 (no penalty if submitted by December 1st)
Nov 25: Lesson 36: Sec 7.4 (A Gallery of Solutions Curves of Linear Systems)
Nov 27: No class. Thanksgiving
Nov 29: No class. Thanksgiving

Week 16: Quiet Period
Dec 2: No homework due
Dec 2: Review for the final exam
Dec 4: Review for the final exam
Dec 6: Review for the final exam
Recitation: No quiz, review for the final exam

Week 17: Final exams. Final exam to be scheduled by Purdue. Exam covers lessons 1 to 36