# MA262 Course Calendar-Fall 2022 MWF sections

Week 1:

Aug 22: Lesson 1: Sec 1.1 (Differential Equations and Mathematical Models)

Aug 24: Lesson 2: Sec 1.2 (Integrals as General and Particular Solutions)

Aug 26: Lesson 3: Sec 1.3 (Slope Fields and Solution Curves)

Recitation: No quiz

Week 2:

Aug 29: Homework Due: Lessons 1,2 and 3.

Aug 29: Lesson 4: Sec 1.4 (Separable Equations and Applications)

Sept 31: Lesson 5: Sec 1.5 (Linear First-Order Equations)

Sept 2: Lesson 6: Sec 1.5 (Linear First-Order Equations)

Recitation: Quiz 1 covers lessons 1, 2 and 3.

Week 3:

Sept 5: No class – Labor Day

Sep 6: Homework Due: Lessons 4, 5 and 6 (Notice unusual due date)

Sept 7: Lesson 7: Sec 1.6 (Substitution Methods and Exact Equations)

Sept 10: Lesson 8: Sec 1.6 (Substitution Methods and Exact Equations)

Recitation: Quiz 2 covers lessons 4, 5 and 6.

Week 4:

Sep 12: Homework Due: Lessons 7 and 8.

Sept 12: Lesson 9: Sec 2.1 (Population Models)

Sept 14: Lesson 10: Sec 2.2 (Equilibrium Solutions and Stability)

Sept 16: Lesson 11: Sec 2.4 (Numerical Approximation: Euler’s Method)

Recitation: Quiz 3 covers lessons 7 and 8.

Week 5:

Sep 19: Homework Due: Lessons 9, 10 and 11

Sept 19: Lesson 12: Sec 3.1 (Introduction to Linear Systems)

Sept 21: Lesson 13: Sec 3.2 (Matrices and Gaussian Elimination)

Sept 23: Lesson 14: Sec 3.3 (Reduced Row-Echelon Matrices)

Recitation: Quiz 4 covers lessons 9, 10 and 11.

**Week 6:**

Sep 26: Homework Due: Lessons 12, 13 and 14

Sept 26: Lesson 15: Sec 3.4 (Matrix Operations)

Sept 28: Lesson 16: Sec 3.5 (Inverse of Matrices)

 Sept 30: Lesson 17: Sec 3.6 (Determinants)

 Recitation: Quiz 5 covers lessons 12, 13 and 14.

**Week 7:**

Oct 3: Homework Due: Lessons 15 and 16

Oct 3: Lesson 17: Sec 3.6 (Continuation)

Oct 5: Lesson 18: Sec 4.1 (The Vector Space **R**3)

Oct 6: Exam 1 (8:00 P.M to 9:00 P.M.) Covers Lessons 1 to 16

Oct 7: Lesson 19: Sec 4.2 (The Vector Space **R***n* and Subspaces)

No recitation this week to compensate for the evening exam. No quiz.

Week 8:

Oct 10: No class – October break.

Oct 12: Homework Due: Lessons 17, 18 and 19 (Notice unusual day).

Oct 12: Lesson 20: Sec 4.3 (Linear Combinations and Independence of Vectors)

Oct 14: Lesson 21: Sec 4.4 (Bases and Dimension for Vector Spaces)

Recitation: Quiz 6 covers lessons 15 to 19.

Week 9:

Oct 17: Homework Due: Lesson 20 and 21.

Oct 17: Lesson 22: Sec 4.5 (Row and Column Spaces)

Oct 19: Lesson 23: Sec 5.1 (Intro: Second-Order Linear Equations)

Oct 21: Lesson 24: Sec 5.2 (General Solutions of Linear Equations)

Recitation: Quiz 7 covers lessons 20 and 21

Week 10:

Oct 24: Homework Due: Lessons 22, 23 and 24

Oct 24: Lesson 25: Sec 5.3 (Homogeneous Equations with Constant Coeff)

Oct 26: Lesson 26: Sec 5.3 (Homogeneous Equations with Constant Coeff)

Oct 28: Lesson 27: Sec 5.4 (Mechanical Vibrations)

Recitation: Quiz 8 covers lessons 22, 23 and 24.

Week 11:

Oct 31: Homework Due: Lessons 25, 26 and 27

Oct 31: Lesson 28: Sec 5.5 (Non-homogeneous Equations and Und. Coeff.)

Nov 2: Lesson 28: Sec 5.5. (Non-homogeneous Equations and Und. Coeff. Continuation)

Nov 4: Lesson 29: Sec 5.5 (Non-homogeneous Equations and Var. Par)

Recitation: Quiz 9 covers lesson 25, 26 and 27.

**Week 12:**

Nov 7: Homework Due: Lessons 28 and 29

Nov 7: Lesson 30: Sec 6.1 (Introduction to Eigenvalues)

Nov 9: Lesson 31: Sec 7.1 (First-Order Systems and Applications)

Nov 10. Exam 2 8-9 P.M.- Exam covers lessons 17 to 28.

Nov 11: Lesson 32: Sec 7.2 (Matrices and Linear Systems)

No recitation class to compensate for the evening exam. No quiz.

**Week 13:**

Nov 14: Homework Due: Lessons 30, 31 and 32

Nov 14: Lesson 33: Sec 7.3 (The Eigenvalue Method for Linear Systems)

Nov 16: Lesson 33: Sec 7.3 (The Eigenvalue Method. Continuation, complex eigenvalues)

Nov 18: Lesson 34: Sec 7.6 (Multiple Eigenvalue Solutions)

Recitation: Quiz 10 covers lessons 28 to 32.

**Week 14:**

Nov 21: Homework Due: Lesson 33

Nov 21: Lesson 34: Sec 7.6 (Multiple Eigenvalue Solutions. Continuation)

Nov 23 -Nov 25- No class. Thanksgiving break.

**Week 15:**

Nov 28: No homework due

Nov 28: Lesson 34: Sec 7.6 Continuation

Nov 29: Homework Due: Lesson 34. Notice unusual date. No penalty if submitted by Dec 5.

Nov 30: Lesson 35: Sec 7.4 (A Gallery of Solutions Curves of Linear Systems)

Dec 1: Homework Due: Lesson 35. Notice unusual date. No penalty if submitted by Dec 5.

Dec 2: Lesson 36: Sec 7.4 (A Gallery of Solutions Curves of Linear Systems)

Dec 2: Homework Due: Lesson 36. Notice unusual date. No penalty if completed by Dec. 5.

Recitation: Quiz 11 covers lessons 33 and 34.

**Week 16:**

Dec 5: Review for the final exam

Dec 7: Review for the final exam

Dec 9: 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**