Math 142 Weekly Schedule

Calculus for Business, Economics, Life Sciences, and Social Sciences by Barnett, Ziegler, and Byleen (edition 10):

Week 1: Appendix A, §1.1, §1.2
Algebra Review, Functions, Elementary Functions: Graphs and Transformations

Week 2: §1.3, §1.4, §2.1
Linear Functions and Straight Lines,Quadratic Functions, Polynomial and Rational Functions
Note: Assign Ch 1 Group Activity 1 and 2.

Week 3: §2.2, §2.3, Appendix B
Exponential Functions, Logarithmic Functions, Regression
Note: Assign Ch 2 Group Activity 1 and 2.

Week 4: Review, Exam 1 covering Chapters 1-2 and Regression, §3.1
Introductions to Limits

Week 5: §3.2, §3.3
Continuity, The Derivative
Note: You do not have to cover solving inequalities

Week 6: §3.4, §3.5, §3.6
Power Rule and Basic Differentiation Properties, Derivatives of Products and Quotients, General Power Rule (Chain Rule)

Week 7: §3.7, §4.1, §4.2
Marginal Analysis, First Derivative and Graphs, Second Derivative and Graphs

Week 8: §4.3, §4.4, §4.5
Graphing Rational Functions, Absolute Maxima and Minima, Optimization
Note: Spring Break falls between week 8 and 9.

Week 9: Review, Exam 2 covering Chapters 3-4
Note: Exam 2 must be graded for Q-drop which falls during week 10.

Week 10: §5.1, §5.2, §5.3, §5.4
The Constant e and Continuous Compoud Interest, Exponential Functions and Their Derivatives, Logarithmic Functions and Their Derivatives, Chain Rule: Elasticity of Demand
Note: §5.1 is a review. Elasticity may be omitted if time is short, but still cover the Chain Rule in §5.4.

Week 11: §6.1, §6.2, §6.4
Antiderivatives and Indefinite Integrals, Integration by Substitution, The Definite Integral
Note: If time is short, omit error bounds. Also, Easter falls during this week.

Week 12: §6.5, §7.1, §7.2
The Fundamental Theorem of Calculus, Area Between Curves, Applications in Business and Economics

Week 13: Review, Exam 3 covering Chapters 5-7
Note: Thanksgiving falls during this week.

Week 14: §8.1, §8.2, §8.3
Functions of Several Variables, Partial Derivatives, Maxima and Minima

Week 15: Review