

MA 132 Summer Session II 2017 Schedule

Dates	Lessons	Main Concepts
Monday/Wednesday June 26/June 28 Tuesday/Thursday June 27/June 29	0: Introduction and Getting Started 1: Declining Prices, Profits and Graphing 2: Price Data and Trendlines 3: Price Data for Two Markets and Linear Estimation	Syllabus Graph of a function, max/min Data fitting, least squares Functions of 2 variables, data fitting
Wednesday July 5 Thursday July 6	Continue Lesson 3 4: Property Appraisal and Linear Estimation 5: Savings Plans and First-Order Finite Differences	Functions of several variables, best fits without graphing Finite difference equations, financial modeling, exact solution to difference eq.
Monday/Wednesday July 10/July 12 Tuesday/Thursday July 11/July 13	6: Loans and First Order Finite Differences 7: Cooling Model and Euler Finite Difference Method 8: Population Models and Exponential Functions	Physical modeling, differential equation as a limit of difference equation, closed-form solutions, equilibrium, population models
Monday/Wednesday July 17/July 19 Tuesday/Thursday July 18/July 20	9: Population Models and the Spread of Rumors 10: Minimum Cost of a Display Area and Derivatives 11: Profit from 2 Markets and Partial Derivatives	Population models, logistic growth, closed-form solution, equilibrium Optimization (max/min), constraint, max/min by differentiation
Monday/Wednesday July 24/July 26 Tuesday/Thursday July 25/July 27	12: Alcohol Breath Testing and Least Squares Data Fitting 13: Population Growth: Raleigh and Wake County 14: Population Growth: the World	Least squares, critique and revision of mathematical models Population models, closed form solutions of differential equations, logs