**2015 AFM Course Syllabus**

**Unit 1: Probability P1 7 Days**

Topics: Theoretical v. Empirical, Fundamental Counting Principle, Combination v. Permutation, Linear v. Circular, Permutation w/ Repetition

**Unit 2: Probability P2 12 Days**

Topics: Independent, Dependent, Inclusive, Exclusive, Conditional, Expected Value, Binomial Expansion, Binomial Experiment

**Unit 3: Statistics 8 Days**

Topics: Mean, Median, Mode, Range, IQR, Standard Deviation, Box Plot, Normal Distribution

**Unit 4: Trigonometry P1 10 Days**

Topics: Right Triangle Trig, Sine / Cosine / Tangent / Secant / Cosecant / Cotangent, Find a Side, Find an Angle, Solve a Triangle

**Midterm** 3 Days

**Unit 5: Trigonometry P2 7 Days**

Topics: Non Right Triangle Trig, Sinusoidal Functions, Law of Sines, Law of Cosines

**Unit 6: Functions P1 7 Days**

Topics: Parent Graphs, Shifts and Transformations, Domain and Range, Function Value, Piecewise Functions

**Unit 7: Functions P2 6 Days**

Topics: Critical Points, End Behavior, Regression Lines

**Unit 8: Finance, Exponential and Logarithm 10 Days**

Topics: Finance, Future Value, Present Value, Growth, Decay, Exponential Functions, Solving Exponential Equations, Logarithmic Functions, Solving Logarithmic Equations

**Unit 9: Sequences and Series 3 Days**

Topics: Arithmetic Sequences, Arithmetic Series, Geometric Sequences, Geometric Series, Infinite Series

**Final Exam 5 Days**