Math 1232 - Survey of Calculus - Georgia Southern University revised 3/2018

Topics and Exam expectations with time allotted in class

1. Algebra and Finance 1-2 weeks
   1. Domain/Range
   2. Linear/Quadratic/Rational
   3. Exponential/Logarithmic
   4. Amortization
   5. Annuities(**optional**)
2. Derivatives 5-6 weeks
   1. Limits/Continuity
   2. Average/Instantaneous Rate of Change
   3. Definition of Derivative
   4. Derivatives: Basic Rules
   5. Derivatives: Product/Quotient/Chain Rules
   6. Second and Higher Order Derivatives/Extrema
   7. Optimization - general problems and econ specific
   8. Marginals/Elasticity of Demand
   9. Differentials(**optional**)
   10. Curve Sketching (**optional**)
   11. Related Rates (**optional**)
3. Integration 4-5 weeks
   1. Antidifferentiation
   2. Areas and Definite Integrals
   3. Fundamental Theorem of Calculus
   4. Integrals: Basic Rules
   5. Integrals: Substitution
   6. Consumer and Producer Surplus
   7. Continuous Income Stream (**optional**)
   8. Growth/Decay models (**optional**)
4. Functions of Multiple Variables 1 week
   1. Functions involving Two (or more) Independent Variables
   2. Partial Derivatives
5. Four exams (\*for sections that meet twice a week) 2 weeks\*

Depending on optional topics covered, here are two examples

of a breakdown over the four semester exams.

* 1. An example of Coverage of Exams

Exam 1: 1abcde,2abc

Exam 2: 2defg

Exam 3: 2hijk, 3abcde

Exam 4: 3fgh, 4ab

* 1. An example of Coverage of Exams

Exam 1: 1abcde,2ab

Exam 2: 2cdef

Exam 3: 2ghijk, 3a

Exam 4: 3bcdefgh

A cumulative final exam during Final Exam Week would include questions from all four topic areas. Given the time to cover all required topics, it may be that only one or two of the optional topics is presented.