1. Course number and name: MATH 1730: Calculus with Applications to Business and Finance

2. Credits, contract hours, and categorization: 5 credit hours and 5 contact hours (math and basic science).

3. Course coordinator name: Dr. Geoffrey Martin

4. Text book, title, author, and year: Calculus and Its Applications by Bittinger, Ellenbogen, and Surgent, 11th edition, 2015 .
   a. other supplemental materials: none

5. Specific course information
   a. brief description of the content of the course (catalog description): An introduction to differential and integral calculus. Topics include limits, derivatives, maxima/minima, indefinite and definite integrals with an emphasis on business applications and technology use.
   b. prerequisites or co-requisites: C- in Math 1320 or C- in 1340 or College Algebra Placement 15 or ALEKS placement test 68 or ACT Math 24 or SAT Mathematics 560 are the requirements to enroll in this class. No co-requisites.
   c. indicate whether a required, elective, or selected elective (as per Table 5-1) course in the program: required.

6. Specific goals for the course
   a. specific outcomes of instruction (e.g. The student will be able to explain the significance of current research about a particular topic.):
      i. Determine limits and discontinuities of functions.
      ii. Compute derivatives.
      iii. Interpret derivatives and apply them to a business environment.
      iv. Find indefinite and definite integrals and apply them to business problems.
      v. Solve optimization problems using functions of two variables.
   b. explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course: none.

7. Brief list of topics to be covered: functions graphs and models, differentiation, exponential and logarithmic functions, integration, functions of several variables.