**UT Math 1730: Course Inventory in CEMS**

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| Course # | Math 1730 |
| Course Title | Calculus with Applications to Business and Finance |
| Campuses (Main, Regional) | Main |
| Beginning Term (when is (was) it offered for the first time?) | Fall 2012 |
| Credit Hours (including the entire course, lecture/lab) | 5 |
| Co-/Pre-requisite | Math 1320 (College Algebra) or satisfactory placement score. |
| 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. |
| Textbook/Lab Manual | ISBN: 978-0321760005  Title: Calculus and its Applications  Publisher: Pearson  Author: Bittinger, Ellenbogen, and Surgent  Edition: 10th edition  Copyright Year: 2012  Additional Notes: |
| Outside Readings/Ancillary Materials/ Instructional Resources | Pearson’s MyMathLab |
| Instructional Goals or Objectives | The successful Math 1730 student should be able to apply the following competencies to a wide range of functions, including piecewise, polynomial, rational, algebraic, exponential and logarithmic:  1. Determine limits and discontinuities of functions.  2. Compute derivatives  3. Interpret derivatives and apply them to a business environment.  4. Find indefinite and definite integrals and apply them to business problems.  5. Solve optimization problems using functions of two variables (optional set of objectives) 5. Determine absolute extrema on a closed interval for continuous functions and use the first and second derivatives to analyze and sketch the graph of a function, including determining intervals on which the graph is increasing, decreasing, constant, concave up or concave down and finding any relative extrema or inflection points. Appropriately use these techniques to solve optimization problems. |
| Description of Assessment and/or Evaluation of Student Learning | MyMathLab homework: 5-10%  Quizzes: 15-20%  2-3 Midterm exams: 40-45%  Comprehensive final exam: 25-30% |
| Additional Information |  |

Please attach syllabi (including co-/pre-requisite and current working and master syllabi for Transfer Module courses).