I. College/School – College of Science and Mathematics
   Department of Mathematics and Statistics

II. Course Information

Course Title: Calculus I
Course Abbreviation and Number: MTH 2300
Course Credit Hours: 4
Course Cross Listing(s) Abbreviation and Number: None
Check (“x”) all applicable:
   General Education Course__x___
   Writing Intensive Course_____x___
   Service Learning Course___
   Laboratory Course__x___
   Ohio TAG (Transfer Assurance Guide) Course__x___
   Ohio Transfer Module Course__x___
   Others (specify)_______

III. Course Registration

Prerequisites: MTH 1340 or WSU Math Level 7
Corequisites: none
Restrictions: none
Other: none

IV. Student Learning Outcomes

Course Learning Outcomes
1. Learn the concept, interpretations, techniques, and applications of derivatives.
2. Learn the concept and interpretations of the definite integral.
3. Learn to communicate mathematics in speech and writing.
4. Improve problem solving skills in both independent and group situations.
5. Gain experience with appropriate use of technology in mathematics.

WSU Core Learning Outcomes
a. Identify the various elements of a mathematical or statistical model
b. Determine the values of specific components of a mathematical/statistical model or relationships among various components
c. Apply a mathematical/statistical model to a real-world problem
d. Interpret and draw conclusions from graphical, tabular, and other numerical or statistical representations of data
e. Summarize and justify analyses of mathematical/statistical models for problems, expressing solutions using an appropriate combination of words, symbols, tables or graphs
V. Suggested Course Materials

Calculus: Concepts and Contexts, Stewart
Calculus I Laboratory Manual, Mercer

VI. Suggested Method of Instruction: Lecture and one laboratory session per week

VII. Suggested Evaluation and Policy: This course will have a common final exam. Other evaluations should be a combination of midterm exams, quizzes, and homework.

VIII. Suggested Grading Policy: the common final should count as 30-40% of the final grade. The other percentages are left to the discretion of each instructor.
IX. Suggested Assignments and Course Outline

3.5 weeks Chapter 2: Limits and Derivatives
3.5 weeks Chapter 3: Differentiation Rules
3.5 weeks Chapter 4: Applications of the Derivative
2.5 weeks Chapter 5: Integrals (sections 1-4)
1.0 weeks One week reserved for testing spaced throughout the quarter

X. Other Information: None
### A Preview of Calculus

- [This section is worth reading.]

### Chapter 1: Functions and Models

- All sections optional

### Chapter 2: Limits and Derivatives

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<th>Sample Homework Assignment</th>
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### Chapter 3: Differentiation Rules

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### Chapter 4: Applications of Differentiation
### Course policy regarding calculators and computers

Departmental policy forbids the use of calculators capable of symbolic differentiation or integration on the common final exams of MTH 2300. Your instructor may also forbid them on midterm exams. Examples of calculator models excluded under this policy are the TI-89, TI-Nspire, TI Voyage 200, HP-48, HP-50, and Casio Classpad 330. Use of these calculators outside of exams is usually not a problem.

**Common Final Examination**: All sections of MTH 2300 take common final exams at the time given in the Registrar’s schedule (http://www.wright.edu/registrar/classinformation/examschedules/index.html). *This includes evening sections.* By registering for this course you accept responsibility for being at the final exam. You must bring a photo ID to the common final exam.

**Wright State Core**: MTH 2300 is an option for Element 2 (Mathematics) of the Wright State Core.