

## MA 220 – EXAM 2 INFORMATION

Exam 2 is an evening exam on Wednesday, March 8, at 6:30 p.m. in the Elliott Hall of Music. Your instructor will announce your seating assignment, and the seating assignments can also be found via a link on the course web page. The exam consists of 13 multiple-choice questions, and “None of the above” is not used as a choice. There are no formulas provided with the exam. You will have one hour to complete your work. Only the scantron answer sheet will be graded, so be very careful in coding your answer choices.

Late the following Friday (or Monday), your actual score will be loaded into WebCT. Note – this is not your percentage, it is your actual score. Letter grade estimates will be announced in class and will also be available via a link on the course web page.

To request an alternate exam, you must contact the course coordinator (Devi Nichols; MATH 902; [dln@math.purdue.edu](mailto:dln@math.purdue.edu)) as soon as you know you will miss the exam (or have missed the exam). Do not wait to contact the coordinator. If you miss the exam due to serious personal illness or family emergency, you will need to provide documentation. If you miss the exam for another reason, you may be allowed to take an alternate, but it will be with a 30 point penalty.

Your instructor will provide a set of review problems for the exams and other information about the exam. Class on Wednesday, March 8, is an optional review day to compensate for the evening exam.

Last semester was the first time we had a common second exam in this course. A copy of this exam is available on the course web page, but be sure not to assume that this exam will look exactly like the last. Be sure to use it for extra practice rather than as a study guide for the exam.

## Topics List

- I. Finding limits
  - Using a table
  - Using a graph
  - Using direct substitution
  - By factoring and canceling
  - In the definition of derivative
- II. Finding values where function is not differentiable
  - Using a graph
- III. Using derivative rules
  - Power rule
  - Product rule
  - Quotient rule
  - Chain rule
  - Second derivative

IV. Applications of the derivative

- Finding the slope/equation of a tangent line; finding point(s) where slope of a tangent line has a given value
- Finding the rate of change of a function
- Finding a marginal function and its use in estimating actual change
- Finding velocity

V. Applications not using the derivative

- Finding the  $y$ -value of a point
- Finding the average rate of change
- Finding the actual change
- Estimating the slope of a tangent line using a graph
- Estimating the average rate of change and rate of change of a function given its graph