MATH 121 CLASS MEETINGS

MILENA STANISLAVOVA

- January 22
  Introduction to the course and WebAssign and E-book.
  Overview of the syllabus and webpage.
  Preview of Calculus.
  Read sections 1.1-1.3 before next lecture.
- January 24
  Sections 1.1 - 1.3: functions, different ways of describing them, their domain and range, properties and some special types of functions such as the absolute value and piecewise functions.
  Read section 1.4 before next lecture.
- January 27
  Sections 1.5 and 1.6 : Inverse function, exponential and logarithmic functions.
  Read section 1.7 before next lecture.
- January 29
  Section 1.7 : parametric curves. Also review of Chapter 1.
  Read sections 2.1 and 2.2 before next lecture.
- January 31
  Sections 2.1, 2.2: Limits
- February 3
  Section 2.3: Calculating limits using the limit laws, practice on a variety of examples, the squeeze theorem.
  Read section 2.4 before next lecture.
- February 5
  Snow Day
- February 7
  Section 2.4: Continuity
- February 10
  Section 2.5: Limits involving infinity
- February 12
  Section 2.6: Derivatives and rates of change and 2.7 The derivative as a function
- February 14
  Section 2.8 What does f' say about f and Review of Chapter 2
- February 17
  Sections 3.1 and 3.2 - Derivatives of polynomials, exponential functions and product and quotient rules.

- February 19
  Section 3.3 Derivatives of trigonometric functions and Section 3.4 The chain rule.
- February 21
  Section 3.4 The chain rule and Section 3.5 Implicit Differentiation.
- February 24
  Section 3.5 Implicit Differentiation. Section 3.6 Inverse Trig Functions and their derivatives.
- February 26
  Section 3.7 Derivatives of logarithmic functions and logarithmic differentiation.
- February 28
  Section 3.8 Rates of change in the natural and social sciences.
- March 3
  Section 3.9 Linear approximations and differentials, Review of Chapter 3
- March 5
  Section 4.1 Related Rates
- March 7
  Section 4.1 Related Rates, continuation.
- March 10
  Review for the midterm exam
- March 12
  Review for the midterm exam
- March 14
  No class (to make up for the evening common midterm exam)
- March 17-21
  Spring Break
- March 24
  Section 4.2 Maximum and Minimum values.
- March 26
  Section 4.3 Derivatives and the shapes of curves.
- March 28
  Section 4.5 Indeterminate forms and L'Hospital's rule.
- March 31
  Section 4.6 Optimization problems.
- April 2
  Section 4.8 Antiderivatives and Review of chapter 4.
- April 4
  Section 5.1 Areas , Riemann sums.
- April 7
  Section 5.2 The definite integral.
- April 9
  Section 5.3 Evaluating definite integrals.
- April 11
  Section 5.4 The fundamental theorem of calculus.

- April 14
  Section 5.5 The substitution rule.
- April 16
  Section 5.6 Integration by parts.
- April 18
  Section 5.7 Additional techniques of integration- trigonometric integrals.
- April 21
  Section 5.7 Additional techniques of integration - partial fractions.
- April 23
  Section 5.10 Improper Integrals.
- April 28
  Section 6.1 More about areas - area between curves.
- April 30
  Section 6.2 Volumes of solids of revolution.
- May 2
  Section 6.4 Arc length.