Math 104, Spring 2010/11 Course Log

Date: 1/12

Sections: 1.3

Log: Course policies. Lines in the plane. The point-slope and slope-intercept formulas. Vertical and horizontal lines. Parallel and perpendicular lines. Functions. The domain of a function.

Assignment: Syllabus problems, section 1.3.

Notes: Quiz 1, over the review material from sections 1.3 and 1.4, will be given on Wendesday, 1/19.

Date: 1/14

Sections: 1.4

Log: Course policies. Functions. Domain and range. Compositions of functions. Inverses. The horizontal line test.

Assignment: Section 1.4, syllabus problems.

Date: 1/19

Sections: 1.5

Log: Limits. Examples: Functions $f(x)$ for which $\lim_{x \to c} f(x)$ does not exist. Functions $f(x)$ for which $\lim_{x \to c} f(x) \neq f(c)$. Functions $f(x)$ for which $\lim_{x \to c^-} f(x) \neq \lim_{x \to c^+} f(x)$.

Assignment: Syllabus problems from section 1.5, first set.

Notes: The date of the first exam has been changed to *February 9*.

Date: 1/21

Sections: 1.5

Log: Limits. Evaluation of limits when $\lim_{x \to c} f(x)$ seems to be 0/0.

Assignment: Syllabus problems from section 1.5, second set. Read about one-sided limits in section 1.5.

Notes: Quiz 2, over sections 1.5 and 1.6 will be given on Wednesday, 1/26. The date of the first exam has been changed to *February 9*.

Date: 1/24

Sections: 1.6, 2.1

Log: Continuous and discontinuous functions. Jump and removable discontinuities. Polynomial and rational functions. The slope of a graph at a point. the tangent and secant lines.

Assignment: Syllabus problems from section 1.6.

Notes: The date of the first exam has been changed to *February 9*.

Date: 1/26

Sections: 2.1

Log: Quiz 2. The slope of a graph at a point. The derivative. Computing the derivative from the definition

$$f'(x) = \frac{dy}{dx} = \lim_{\Delta x \to 0} \frac{f(x + \Delta x) - f(x)}{\Delta x}.$$

Assignment: Syllabus problems from section 2.1.

Notes: Quiz 3, over sections 2.1 and 2.2, will be given on Wednesday, 2/2.