## MA 137, Spring 2014 Tentative Lecture Schedule $\,$

$W \ 1/15$	Brief course intro; functions and graph of a fcn; elementary fcns; equations of lines, parabolas, circles (Sections 1.1 and 1.2)
$F \ 1/17$	Shifting + stretching graphs; operations on fcns; composition of fcns; inverse of a fcn and its graph (Sections 1.2 and 1.3)
$M \ 1/20$	MLK Jr. Day (no class)
$W \ 1/22$	Exponential and logarithmic functions; exponential growth and decay (Section 1.1 and 1.2)
$F \ 1/24$	Semilog and double-log plots (end of Section 1.3)
M 1/27	Semilog and double-log plots (end of Section 1.3)
$W \ 1/29$	Limits (Section 3.1)
$F \ 1/31$	Limits (Section 3.1); Continuity (Section 3.2)
M 2/3	Continuity (Section 3.2)
W $2/5$	Limits at infinity (Section 3.3); properties of continuous functions (Section 3.5)
F 2/7	The Sandwich Theorem and some trigonometric limits (Section 3.4)
M 2/10	Formal definition of the derivative (Section 4.1)
$W \ 2/12$	Exam 1
F 2/14	A first look at differential equations (Subsection 4.1.2)
$M \ 2/17$	The power rule, the basic rules of differentiation, and the derivatives of polynomials (Section 4.2)
$W \ 2/19$	Product rule and quotient rule (Section 4.3)
F 2/21	The chain rule and higher derivatives (Section 4.4)
$M \ 2/24$	The chain rule and higher derivatives (Section 4.4); implicit differentiation and related rates (Subsections 4.4.2 and 4.4.3)
$W \ 2/26$	Implicit differentiation and related rates (Subsections $4.4.2$ and $4.4.3$ )
F 2/28	Derivatives of trigonometric functions (Section 4.5)
M 3/3	Derivatives of exponential functions (Section 4.6)
W $3/5$	Derivatives of logarithmic functions and logarithmic differentiation (Subsections $4.7.2$ and $4.7.3$ )
F 3/7	Linear approximations and error propagation (Section 4.8)
$M \ 3/10$	Extrema and the Mean Value Theorem (Section $5.1$ )
W $3/12$	Exam 2
F 3/14	Extrema and the Mean Value Theorem (Section 5.1)
M 3/17	Spring break
W 3/19	Spring break
F 3/21	Spring break
M 3/24	Monotonicity and concavity (Section 5.2)
W 3/26	Extrema, inflection points and graphing (Section 5.3)
F 3/28	Graphing (Section 5.3) and optimization (Section 5.4)
M 3/31	Optimization (Section 5.4)
W $4/2$	Exponential growth and decay (Section 2.1)
$\frac{F' 4/4}{1}$	Sequences (Section 2.2)
M 4/7	Sequences (Section 2.2)
W 4/9	Difference equations: Stability (Section 5.6)
F 4/11	More population models (Section 2.3)
M 4/14	L'Hospital's rule (Section 5.5)
W 4/10	Exam $3$
F 4/18	Antiderivatives (Section 5.8)
$\frac{1}{1}$ W 4/21 W 4/99	The definite integral (Section 6.1)
W 4/23 E 4/95	The definite integral (Section 6.1)
г 4/20 М 4/20	The definite integral (Section 6.1) The definite integral (Section 6.1)
$\frac{1}{1} \frac{4}{20}$	The Fundamental Theorem of Calculus (Section 6.2)
W 4/30 E 5/9	The Fundamental Theorem of Calculus (Section 6.2)
r 5/2	The Fundamental Theorem of Calculus (Section 6.2)

M 5/5 Final Exam 10:30 - 12:30