**MA 109-6 Fall 2018 Tentative Schedule 41 classes**

 Mon Tue Thurs

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| Aug 27syllabus, WeBWorK,0.1 functions and graphs | Aug 28WeBWorK,0.2 important functions | Aug 300.3 algebra of functions,0.4 zeros of functions |
| Sept 3Labor DayNo class | Sept 40.5 exponents and power functions,0.6 functions and graphs in applications | Sept 6graphs and zeros with calculator and Mathematica, 1.1 slope of a line |
| Sept 101.2 slope of a curve at a point | Sept 111.3 the derivative and limits,1.4 limits and the derivative | Sept 131.6 differentiation rules |
| Sept 17derivatives with calculator andMathematica | Sept 181.7 more about derivatives(second derivative) | Sept 201.8 derivative as a rate of change, approximations, review |
| Sept 24**Exam 1**chapters 0, 1 (but not 1.5) | Sept 251.5 differentiability and continuity,2.1 graphs of functions | Sept 272.2 first and second derivative rules |
| Oct 12.3 first and second derivative tests and curve sketching | Oct 22.4 curve sketching conclusion, asymptotes and limits at infinity | Oct 42.5 optimization |
| Oct 8max/min with calculatorand Mathematica | Oct 92.7 applications to business,economics; 3.1 product and quotient rules | Oct 113.2 chain rule and general power rule |
| Oct 15Fall BreakNo class | Oct 16Fall BreakNo class | Oct 183.3 implicit differentiation,review |
| Oct 22**Exam 2**chapter 2, plus 1.5, 3.1, 3.2 | Oct 233.3 related rates,4.1 exponential functions | Oct 254.2 the exponential function ex |
| Oct 294.3 differentiation of exponential functions | Oct 304.4 natural log function ln(x) | Nov 14.5 derivative of ln(x),4.6 properties of ln(x) |
| Nov 54.6 logarithmic differentiation | Nov 65.1 exponential growth and decay | Nov 85.2 compound interest,review |
| Nov 12**Exam 3**chapters 3, 4 | Nov 135.3 application of ln(x) to economics | Nov 155.4 further exponential models,6.1 antiderivatives |
| Nov 19areas and Riemann sums | Nov 20definite integrals andthe fundamental theorem | Nov 22Thanksgiving breakNo class |
| Nov 26more on definite integrals,integration challenges | Nov 27 6.4 areas in the xy plane | Nov 27 9areas with calculator andMathematica |
| Dec 3**Mini-Test on Integration**(sections 6.1 through 6.4) | Dec 46.5 applications of the definite integral, 9.1 integration by substitution | Dec 6Mean Value Theorem,review |

**Final Exam: Wed, Dec 12, 11:00 am - 1:00 pm** Last revised: 8/23/2018