MATH 110: Course Outline, 2016W

Topics: On the following page is an approximate schedule of topics. The section numbers refer to the textbook *Contemporary Calculus* by Dale Hoffman. Note that, in some cases, not every topic in a textbook section will be covered; and occasionally a topic will be introduced in class which is not covered in the textbook.

Week	Dates	Topic	Sections	Notes
1.1	Sept. 6 - 9	Welcome, Why Calculus?	0.2	No HW No workshop No class Sept 6
1.2	Sept. 12 - 16	Lines in the Plane, Functions	0.2, 0.3, 0.4	WS1
1.3	Sept. 19 - 23	Tangent Lines, Velocities, Growth	1.0	Q1.1, WS2
1.4	Sept. 26 - 30	Evaluating limits	1.1, 1.2	HW1.1, WS3
1.5	Oct. 3 - 7	Continuity, The idea of derivative	1.3, 2.0	Q1.2, WS4
1.6	Oct. 10 - 14	The definition of derivative	2.1	HW1.2, WS5 No class Oct. 10
1.7	Oct. 17 - 21	Derivatives: properties and formulas	2.2	Q1.3, WS6
1.8	Oct. 24 - 28	Trigonometry	Suppl. Notes	HW1.3
	Oct. 25	Midterm Test		No workshop
1.9	Oct. 31 - Nov 4	Exponentials and logarithms	2.3	Q1.4, WS7
1.10	Nov. 7 - 11	The Chain Rule	2.4	HW1.4, WS8 No class Nov. 11
1.11	Nov. 14 - 18	The derivative as a rate of change	2.0	Q1.5, WS9
1.12	Nov. 21 - 25	Exponential growth and decay	Suppl. Notes	HW1.5, WS10
1.13	Nov. 28 - Dec. 2	Higher derivatives, Review	-	Q1.6, WS11
				Exams and break
2.1	Jan. 2 - 6	Implicit Differentiation	2.9	No assignment No class Jan. 2
2.2	Jan. 9 - 13	Related Rates I	2.6	
2.3	Jan. 16 - 20	Related Rates II	2.6	
2.4	Jan. 23 - 27	Extrema and the Mean Value Theorem	3.1, 3.2	
2.5	Jan. 30 - Feb. 3	The First Derivative Test	3.3	
2.6	Feb. 6 - 10	Review	-	No assignment
2.7	Feb. 13 - 17	Concavity and The Second Derivative Test	3.3, 3.4	Midterm Feb. ?? no class Feb. 13
				Reading Week
2.8	Feb. 27 - Mar. 3	Asymptotes	3.6, 3.7	
2.9	Mar. 6 - Mar. 10	Curve Sketching	-	
2.10	Mar. 13 - 17	Optimization I	3.5	
2.11	Mar. 20 - 24	Optimization II	3.5	
2.12	Mar. 27 - 31	Approximations	2.8	
2.13	Apr. 3 - 7	Antiderivatives and Review	-	No assignment
				Exams