

# Spring 2017 Math 112L Syllabus

Textbook: Calculus (6th ed.), by Hughes-Hallet, et al.

Date	Day	Section	Topic	Homework
01/11/16	1-2	Course Pk	Probability #1-#2	Course Pk 142/1,2,4,6,8, Course Pk 150/1-6,9,10.
01/13/16	1-3	Course Pk	Probability #3: Expected Values	Course Pk/1-3,5,8,10,11.
01/16/16	2-1		<i>Martin Luther King, Jr., holiday</i>	<i>Martin Luther King, Jr., holiday</i>
01/17/16	Lab:		Probability and Geometric Series	
01/18/16	2-2	9.2	Geometric Series	9.2/9-13,15,17,19,26,28,30,32,33,43,46; p529/6,7.
01/20/16	2-3	Course Pk	Series #1: (seq/partial sums)	Course Pk/1-4,6,7; 9.1/25,54; 9.2/16,21,34,45; p529/1.
01/23/16	3-1	Course Pk	Series review	p511/37,39,42,46,
01/24/16	Lab:		Integrating to Infinity	
01/25/16	3-2	Course Pk, 9.3	Series #2: ( $n$ -th term test)	Course Pk/8-10; 9.2/15,19,37; 9.3/23,35,37,41,46.
01/27/16	3-3	Course Pk	Series #3: Integral Test	Course Pk/1,2a,b,3a,5a,b,c. P510-511/8,9,10,11,12,45,47,
01/30/16	4-1	9.4	Comp/Abs Conv/Lim Comp	9.4/1-3,8-13,38,41-43,49,68,72,75,77,87,113; 9.3/26; Course Pk p172/4a,c.
01/31/16	Lab:		Series Worksheet, Part 1; Normal Data Sets, Part 1	
02/01/16	4-2	9.4	Ratio Test	9.4/15,16,19,20,51,52,60-64,66,69,73,79,80; Course Pk p173/9a,b,d,e,f,h.
02/03/16	4-3	Course Pk	Series #4: Alt. Series Theorem	9.4/22,24,25,28,29,50,65,68,77,78; Course Pk p192/1-5,7,8,10a-d,11a,b,17b,d.
02/06/16	5-1	Review		
02/07/16	Lab:		Exam 1	
02/08/16	5-2	7.5,7.6	Approximating Definite Integrals	7.5/1,2,10,15-17,26,30.
02/10/16	5-3	7.1	Integration by Substitution	7.1/1-4,8,10,14,17,19,21,26,27,31,36,38,53-55, 63,66,122,123,126,128,138,141.
02/13/16	6-1	7.2	Integration by Parts	7.2/2,5,6,9,12,13,15,26,30,33,41,52,55,59,70.
02/14/16	Lab:		Air Pollution: Particulate Matter	
02/15/16	6-2	7.4	Algebraic Identities	7.4/1,2,8,9,20,23,24,31,39,47,72,78,79;
02/17/16	6-3	7.7,7.8	Improper Integrals	7.6/2,4,9,11,12,19,24,30,45,48,43; 7.7/1,2,8,10,12,19,21,26,30; Course Pk p197/1-28.
02/20/16	7-1	8.7	Distribution Functions	8.7/1,8,9,14,15,17-21,23,24; Course Pk p192/10g-j,11c,d,g. Course Pk p101/1-3
02/21/16	Lab:		Present Value and Future Value	
02/22/16	7-2	8.8	Probability; Distributions	8.8/1,2,6-9,15,16.
02/24/16	7-3	8.8	Normal Distributions	8.8/3,10-14; Course Pk p192/12a-c.

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02/27/16	8-1	8.1	Areas and Volumes	8.1/5,7,8,11-14,20,22,28,32,34.
02/28/16	Lab:	Normal Data Sets. Part 2		
03/01/16	8-2	8.2	Volume and Arc length	8.2/14,18,19,36-39,46-49,53,61,67.
03/03/16	8-3	<i>Catch Up Day</i>		
03/06/16	9-1	Review		
03/07/16	Lab:	Exam 2		
03/08/16	9-2	Quiz or Normal Lab Presentations		
03/10/16	9-3	10.1	Taylor Polynomials	10.1/1,3,5,6,18,19,25-29,37.
	10	<i>Spring Break</i>		
03/20/16	11-1	10.1	Taylor Polynomials	10.1/2,14,15,20,30,31,32,38,39.
03/21/16	Lab:	Gateway Test		
03/22/16	11-2	9.5	Convergence of Power Series	9.5/1-4,7,10,12,13,16-18,20,23,26-28,30,41-43,46.
03/24/16	11-3	10.2	Taylor Series	10.2/5,13,18-20,23,26,27,29,32,33,35-38,44-46.
03/27/16	12-1	10.3	Using Taylor Series	10.3/3,8,11,12,21,24,27,36.
03/28/16	Lab:	Series Solutions of Initial Value Problems		
03/29/16	12-2	10.3	Using Taylor Series	10.3/5,9,14,17,28,40.
03/31/16	12-3	10.5	Fourier Series with period $2\pi$	10.5/5,6,26-30.
04/03/16	13-1	10.5	Fourier Series review	10.5/9,10,14.
04/04/16	Lab:	Fourier Analysis of Musical Sound		
04/05/16	13-2	10.5	General Fourier Series	10.5/15,16,20,22d.
04/07/16	13-3	10.5	Fourier Series review	10.5/8,17,19,23d
04/10/16	14-1	11.10	Diff Eqn and Euler's Review	11.1/18-20, 11.3/5,17, 11.6/6,10,13,18,25
04/11/16	Lab:	Fourier quiz (and Gateway make-up)		
04/12/16	14-2	11.8	Predator-prey with phase plane	11.8/1-4,16,17,19-22; p655/47-49.
04/14/16	14-3	<i>Catch Up Day</i>		
04/17/16	15-1	Review		
04/18/16	Lab:	Exam 3		
04/19/16	15-2	11.8	SIR Model with phase plane	11.8/15,25a,26a,27a,28-30.
04/21/16	15-3	11.9	Phase Plane Analysis	11.9/13-15,17,19-21.
04/24/16	16-1	Limited Immunity in Epidemics		
04/25/16	Lab:	Limited Immunity in Epidemics		
04/26/16	16-2	<i>TCE Day</i>		