

Fall 2019 Math 122L Syllabus (Thursday Lab)

Textbook: Calculus: Concepts & Contexts (4th ed), by James Stewart
 "AHP" = "Math 122L Additional Homework Problems, "CP"=Coursepack

Day	Date	Topic	Homework
1-1	08/26/18	Review of AP AB Differentiation Topics	p.165 (bottom): 1,9,10,13,23,29,33,42,43,45; AHP: Review of AP Differentiation Topics
1-2	08/27/18	L'Hopital's Rule and Relative Rates of Growth	4.5: 1-5,7,8,11,15-17,22,24,31,34,35,38,41,42,61,63,64; AHP: L'Hopital's Rule and Relative Rates of Growth.
1-3	08/28/18	Introduction to Riemann Sums	5.1: 3,4,5(a,b)
1-4	08/29/18	Lab: Riemann Sums	
2-1	09/02/18	Riemann Sums	5.1: 2,11,13,15,20,21; 5.9: 3,8(a,b),15(a,b),37; AHP: Riemann Sums
2-2	09/03/18	Definition of the Definite Integral	5.2: 9,17-20,27,33,35,38-43,47,48,53; AHP: Definition of the Definite Integral.
2-3	09/04/18	Mean Value Thm and the Fund.Thm of Calc Pt. I	4.3: 1,63; 5.3: 6,15,19,22,30,31,32,53,73,74,76. AHP: MVT and FTC Part I.
2-4	09/05/18	Lab: Riemann Sums and the Definite Integral Practice	
3-1	09/09/18	Fund Thm of Calc Pt. II	5.4: 2,4,5,7,8,11,13,14,16-19,21,22,25,29,31; AHP: FTC Part II.
3-2	09/10/18	U-Substitution	5.5: 12,15,18,20,29,30,44,47,52,54,57,61,67,68,70,71; AHP: U-Substitution.
3-3	09/11/18	Partial Fraction Decomposition and Trig Substitution	5.7: 11-13,15,16,21-24,32; AHP: Partial Fractions.
3-4	09/12/18	Lab: Applications of Integration	
4-1	09/16/18	Integration By Parts	5.6: 5,8-13,18,19,25,29,40,45; AHP: Integration by Parts.
4-2	09/17/18	Improper Integrals	5.10: 1,5,8-10,19-21,26,30,31,34,50,52a,b,53; AHP: Improper Integrals.
4-3	09/18/18	Improper Integrals	5.10: 41-46
4-4	09/19/18	Lab: Integration Practice	
5-1	09/23/18	Introduction to Probability	AHP: Introduction to Probability.
5-2	09/24/18	Problem Solving Practice	
5-3	09/25/18	Review	
5-4	09/26/18	Exam 1	
6-1	09/30/18	Expected Value	AHP: Expected Value.
6-2	10/01/18	Introduction to Sequences and Series	8.1: 5-10,16,19,22,27,46,48; 8.2: 1,2,7,9,10,34,47,48; AHP: Introduction to Sequences and Series.
6-3	10/02/18	Test for Divergence and Geometric Series	8.2: 3,4,6,11,14,15,17,19,22,23,26,27,28,35,36,41,43,53, 54; AHP: Geometric Series.
6-4	10/03/18	Lab: Probability and Series	
7-1	10/07/18	<i>Fall Break</i>	
7-2	10/08/18	<i>Fall Break</i>	
7-3	10/09/18	Integral Test	8.3: 2,5-8,11-18,31-34,36; AHP: Integral Test.
7-4	10/10/18	Lab: Series Review	

8-1	10/14/18	Catch Up Day	
8-2	10/15/18	Comparison Tests	8.3: 9,10,19-30,42-46; AHP: Comparison Tests.
8-3	10/16/18	Alternating Series and Absolute Convergence	8.4: 3-14,20; AHP: Alternating Series and Absolute Convergence.
8-4	10/17/18	Lab: Approximating Sums and Error	
9-1	10/21/18	Ratio Test	8.4: 2,21-27,31,32,35,37,40,41; AHP: Ratio Test.
9-2	10/22/18	Lab: Series Practice	
9-3	10/23/18	Review	
9-4	10/24/18	Exam 2	
10-1	10/28/18	Taylor Polynomials	AHP: Taylor Polynomials.
10-2	10/29/18	Power Series	8.5: 3,6-12,15-17,19-21
10-3	10/30/18	Power Series	8.5: 25-27,33,34; AHP: Power Series
10-4	10/31/18	Lab: Taylor Series	8.7: 1-5,7,9-11,14,15,17,18.
11-1	11/04/18	Finding New Taylor Series from Old	8.6: 1-5,7,11,24,25,29,30,37,38(a,b); 8.7: 25,29,30,44,50
11-2	11/05/18	Taylor Remainder Theorem	8.8: 14-18,26
11-3	11/06/18	Applications of Taylor Series	8.7: 52,53,59-65; AHP: Taylor Series.
11-4	11/07/18	Lab: Taylor Series Review	AHP: Fourier Series Preparation
12-1	11/11/18	Fourier Series	AHP: Fourier Series Day 1
12-2	11/12/18	Fourier Series	AHP: Fourier Series Day 2
12-3	11/13/18	Introduction to Differential Equations	7.1: 1-5,7,9-15; AHP: Introduction to Differential Equations.
12-4	11/14/18	Lab: Series Solutions to Differential Equations	
13-1	11/18/18	Separation of Variables	7.3: 1-4,7-10,14,16,19,20,39,42; AHP: Separation of Variables.
13-2	11/19/18	Catch Up Day	
13-3	11/20/18	Review	
13-4	11/21/18	Exam 3	
14-1	11/25/18	Slope Fields and Euler's Method	7.2: 1,3-6,11,19,21-24,25(a)(i),(b); AHP: Slope Fields and Euler's Method.
14-2	11/26/18	Catch Up Day	
14-3	11/27/18	<i>Thanksgiving break</i>	
14-4	11/28/18	<i>Thanksgiving break</i>	
15-1	12/02/18	Applications of Differential Equations	7.3: 45,47,48; 7.4: 3,12-15
15-2	12/03/18	Population Growth Models and Logistic Growth	7.5: 1,2,4,6,9,11,15; AHP: Population Growth Models and Logistic Growth.
15-3	12/04/18	Review	
15-4	12/05/18	Lab: Chemical Rate Equations	