Fall 2018 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	08/27/18	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	08/28/18	**Lab**: L'Hopital's Rule and Relative Rates of Growth	**4.5:** 1,5,6,11,15-17,22,31,4,61,65; **AHP:** L'Hopital's Rule and Relative Rates of Growth.
1-3	08/29/18	Riemann Sums	
1-4	08/30/18	**Lab**: Riemann Sums	**5.1:** 13,15; **5.9:** 3,15(a,b),37; **AHP:** Riemann Sums.
2-1	09/03/18	Definition of the integral	**5.2:** 9,17-20,27,33,35,38-43,47,48,53; **AHP:** Definition of the Definite Integral.
2-2	09/04/18	Mean Value Thm and the Fund.Thm of Calculus 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.
2-3	09/05/18	Fund Thm of Calculus Pt. II	**5.4:** 2,4,5,7,8,11,13,14,16-19,21,22,25,29,31; **AHP:** FTC Part II.
2-4	09/06/18	**Lab**: Review of AP AB Integration Topics	
3-1	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.
3-2	09/11/18	Integration By Parts	**5.6:** 5,8-13,18,19,25,29,40,45; **AHP:** Integration by Parts.
3-3	09/12/18	Improper Integrals	**5.10:** 1,5,8-10,19-21,26,30,31,34,50,52a,b,53; **AHP:** Improper Integrals.
3-4	09/13/18	**Lab**: Varying Density	
4-1	09/17/18	Partial Fractions	**5.7:** 21-24,32; **AHP:** Partial Fractions.
4-2	09/18/18	Problem Solving Practice	
4-3	09/19/18	Review	
4-4	09/20/18	**Exam 1**	
5-1	09/24/18	Introduction to Probability	**AHP:** Introduction to Probability.
5-2	09/25/18	Expected Value	**AHP:** Expected Value.
5-3	09/26/18	Introduction to Sequences and Series	**8.1:** 5-10,16,19,22,27,46,48; **8.2:** 1,2,4,9,10,22,2744,47; **AHP:** Introduction to Sequences and Series.
5-4	09/27/18	**Lab**: Probability and Geometric Series	**8.2:** 11,14,15,17,35,36,41,43,48,53,54; **AHP:** Probability and Geometric Series.
6-1	10/01/18	Integral Test	**8.3:** 2,5-8,11-18,31-34,36; **AHP:** Integral Test.
6-2	10/02/18	Comparison Tests	**8.3:** 9,10,19-30,42-46; **AHP:** Comparison Tests.
6-3	10/03/18	Alternating Series and Absolute Convergence	**8.4:** 3-14,20; **AHP:** Alternating Series and Absolute Convergence.
6-4	10/04/18	**Lab**: Working With Series	
7-1	10/08/18	*Fall Break*	
7-2	10/09/18	*Fall Break*	
7-3	10/10/18	Ratio Test	**8.4:** 2,21-27,31,32,35,37,40,41; **AHP:** Ratio Test.
7-4	10/11/18	**Lab**: Using Series to Solve Problems	

8-1	10/15/18	Probability Distributions and Expected Value	**6.8:** 1,2,4-10; **AHP:** Probability Distributions and Expected Value.
8-2	10/16/18	Normal Distributions	**6.8:** 12-17; **AHP:** Normal Distributions.
8-3	10/17/18	**Lab**: Centers of Mass	
8-4	10/18/18	**Lab**: Centers of Mass	
9-1	10/22/18	Power Series	**8.5:** 3,6-12,15-17,19-21,25-27,33,34; **AHP:** Power Series
9-2	10/23/18	**Lab**: Series Practice	
9-3	10/24/18	Review	
9-4	10/25/18	**Exam 2**	
10-1	10/29/18	Representing Functions as Power Series	**8.6:** 1-5,7,11,12,14,16,19,24,26,29,30,37, 38a,b; **AHP:** Representing Functions as Power Series.
10-2	10/30/18	Taylor Polynomials	**AHP:** Taylor Polynomials.
10-3	10/31/18	Taylor Series	**8.7:** 1-5,7,10,11,14,15,18,25,29,30,44,50,52,60-63, 65; **AHP:** Taylor Series.
10-4	11/01/18	**Lab**: Remainder Estimates for Taylor Series	**8.8:** 14-18,26; **AHP:** Fourier Series Preparation.
11-1	11/05/18	Review of Taylor Series	
11-2	11/06/18	Fourier Series: Day 1	**AHP:** Fourier Series #1-6
11-3	11/07/18	Fourier Series Day 2	**AHP:** Fourier Series #7-12
11-4	11/08/18	**Lab**: Fourier Series	
12-1	11/12/18	Fourier Series Day 3	**AHP:** Fourier Series #13-18
12-2	11/13/18	Introduction to Differential Equations	**7.1:** 1-5,7,9-15; **AHP:** Introduction to Differential Equations.
12-3	11/14/18	Separation of Variables	**7.3:** 1-4,9,10,14,16,19,20,39,42,45; **AHP:** Separation of Variables.
12-4	11/15/18	**Lab**: Chemical Rate Equations	
13-1	11/19/18	**Lab**: Chemical Rate Equations	
13-2	11/20/18	Applications of Differential Equations	**7.4:** 12-15
13-3	11/21/18	*Thanksgiving break*	
13-4	11/22/18	*Thanksgiving break*	
14-1	11/26/18	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	11/27/18	Catch Up Day	
14-3	11/28/18	Review	
14-4	11/29/18	**Exam 3**	
15-1	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.
15-2	12/04/18	**Lab**: Series Solutions to Differential Equations	
15-3	12/05/18	**Lab**: Net Worth	
15-4	12/06/18	**Lab**: Net Worth	