ECONOMETRICS I

WEEK	Topic	Lectures	Practice			Assignment	
							Shao Chapter 1: 13,17,30,33,37,40,45,55,65,83,91
1	**Probability Spaces & Random Elements**	**L1**	**Shao**	**Practice**		1	
	Measurability	**L2**	**4,7,10**	**P1.pdf**			13 inverse
	1, 17, 23						17 limit simple functions (important)
							30 cdfs.
2	**Integration**	**L3**	**13.17**	**P2.pdf**			33 Radon-Nikodym. Generating class argument.
		L4					
							37, pdf-independence
							40, PIT
							45
3	**Radom Nikodym derivative**	**L5**	**41, 47, 58, 61**	**P3.pdf**			
	Distributions. PDF's. Transformations.	**L6**					
	Moments. CF's						55, expectation
							65, normal mgf
							70, non-central chisq
4	**Conditional Expectations**	**L7**	**36,46,75,91**	**P4.pdf**			74, ch.f
	Independence. Cond. Distributions						78, distr. of sums
							83, conditional expectation
							91, properties of conditional expectations
5	**Convergence modes, Stochastic Orders**	**L9**					
	Rel. Conv. Modes and u.i.		**102, 103, 106, 113,115,127**				
	Conv. Of transformations. Slutsky and d-m						
	LLN. CLT		**Due 1st assignment October 13th**				
						2	Shao Chapter 1: 115, 117(b), 118, 121, 122, 128, 140, 141, 144, 146, 156, 161, 164.
6		**L12**	**156, 157, 158, 161, 165**				
		L13-14					
			Due 2nd assignment November 4th				
8	**Mid term November 4th**						

WEEK	Topic	Lectures	Practice	Assignment	
9	**Population & samples**	**L16**	**Ch.2**	3	**3rd Assignment**
	Parametric & nonp models. Exp, loc-s. Suff	**L18**			Chapter 2: 105.

					Chapter 3: 101, 103(a,b,c,d), 107.	
					Chapter 4: 96(even cases), 144.	
10	**Statistical Decision Theory**	**L19**	**3+suff, Example Young&Smith, 63, Bruce Hansen, 93(classificatio**		22: sample correlation	
	Statistical inference: point estimators	**L20**	87		25: sufficency	
	Statistical inference: Hyp. Tests and Csets	**L21**	109		69: Variance of LS precitions	
					67: Testing, risk function	
					80: decision theory	
					101: coeffi of variation, delta method	
11	**LSE**	**L29**	**Ch.3, 3.3**		103, 107 MM	
	Ridge, Lasso	**L34+L36**	**Slides**			
					105, 111: point estimation	
					96, 143, 144 MLE	
12	**Estimation in parametric models: MM**	**L28**	**Ch.3, 3.5**			
			Due Assignment 3 Dec 3nd			
13	**MLE: examples, asymptotic efficiency**	**L6+L7+L1(**	**FinalExam2018**	**4**	**4th assignment:**	
	Asymptotic efficient estimation	**L25**	4.5		Chapter 2: 97; 98.	
	Hyp tests: UMP Tests and NP	**L20**				
					Shao Chapter 6: 51(c-d), 92, 95, 98, 99, 101	
14	**LR tests**	**L25-26**	**Ch.6**			
	Asymptotic tests based on L	**L27**	**2, 6a, 14a, 19, 96**		101: CS	
			5			
15	**Pivotal quantities and Confidence Sets. Asym**	**L30+L31+L35**				
			Due Assignment 4 Jan 10th			
16	**Final Exam**					