Course: Econometrics II		
Ph Program: Economics	YEAR: 1	SEMESTER: 2

COURSE CRONOGRAM

Week	Lecture	DESCRIPTION OF THE LECTURE'S TOPICS	GROUP (Mark X)		Classroom	STUDENT WORK DURING THE WEEK		
			Lecture	Recitation		DESCRIPTION	Number of Lecture Hours	Number of Hours of Work per Week
1	1	Inference on linear reduced form models. Causality and identification. Least Squares Estimates. Asymptotic inference. Restricted estimation.	X			Read Wooldrige Ch. 4. Hayashi Ch. 1-2	1,5	8
1	2	Measurement error. Control variables. Hypothesis Testing.	X			Read Wooldrige Ch. 4. Hayashi Ch. 2	1,5	
1	3	Problem Set 1.		X		Homework on Problem Set 1.	1,5	
2	4	Inference on structural linear equations. Two Stage Least Squares Estimates.	X			Read Wooldrige Ch. 5-6, Hayashi Ch.3	1,5	8
2	5	Specification Tests: Endogeneity, Overidentifying restrictions, Functional form, Heteroskedasticity.	X			Read Wooldrige Ch. 5-6, Hayashi Ch.3	1,5	
2	6	Problem Set 2.		X		Homework on Problem Set 2.	1,5	
3	7	Inference on systems of reduced form equations. Inference on a multivariate linear system based on OLS; GLS and FGLS; Seemingly unrelated systems of equations; the linear panel data model.	X			Read Wooldrige. Ch. 7-8, Hayashi Ch.4	1,5	8
3	8	The generalized method of moments: 2SLS, 3SLS. Testing overidentifying restrictions. Optimal instruments.	X			Read Wooldrige Ch. 7-8. Hayashi Ch.4	1,5	
3	9	Problem Set 3.		X		Homework on Problem Set 3.	1,5	
4	10	Inference on linear structural equations systems. Identification in a linear system. Estimation after identification.	X			Read Wooldrige Ch. 9. Ruud Ch. 26	1,5	8
4	11	Identification with cross-equation and covariance restrictions. Models nonlinear in the endogenous variables.	X			Read Wooldrige Ch. 9. Ruud Ch. 26	1,5	
4	12	Problem Set 4.		X		Homework on Problem Set 4.	1,5	

Week	#	Topic				Reading / Homework		
5	13	Inference in the presence of unobserved heterogeneity. Random Effects Methods.	X			Read Wooldrige Ch. 10. Hayashi Ch.5	1,5	8
5	14	Fixed Effects Methods. First Differencing Methods. Comparison of Estimators.	X			Read Wooldrige Ch. 10. Hayashi Ch.5	1,5	
5	15	Problem Set 5.		X		Homework on Problem Set 5.	1,5	
6	16	Inference with autocorrelated data. Basic concepts: Stationarity and weak dependence. Basic models: Martingale difference, linear processes, autogregressions.	X			Hayashi Ch.6	1,5	8
6	17	Laws of large numbers and central limit theorems. Autocorrelation and Heteroskedasticity-robust inference. Testing for serial correlation. GLS and IV estimates.	X			Hayashi Ch.6	1,5	
6	18	Problem Set 6.		X		Homework on Problem Set 6.	1,5	
7	19	Inference on parameters in non-linear models. Examples: Non-linear regression, maximum likelihood, quantile regression, minimum distance. M and Z estimators.	X			Read Wooldrige Ch. 10-12. Hayashi Ch.6	1,5	8
7	20	Asymptotic properties under classical assumptions. Asymptotics under minimal assumptions. Numerical optimization methods: Newton-Raphson and Gauss-Newton. One step estimators.	X			Read Wooldrige Ch. 10-12. Hayashi Ch.6	1,5	
7	21	Problem Set 7.		X		Homework on Problem Set 7.	1,5	
8		MIDTERM EXAM				MIDTERM EXAM	1,5	12
9	22	Generalized method of moments. Identification via moment restrictions.	X			Read Wooldridge Ch.10-12, Hayashi Ch.6	1,5	8
9	23	GMM estimates. Asymptotic inferences. Tests of overidentifying restrictions.	X			Read Wooldrige Ch. 10-12. Hayashi Ch.6	1,5	
9	24	Problem Set 8.		X		Homework on Problem Set 8.	1,5	
10	25	Maximum likelihood. Consistency and asymptotic normality.	X			Read Wooldrige Ch. 10-12. Hayashi Ch.6	1,5	8
10	26	Asymptotic inference. Examples: binary regression, TOBIT models and count data models.	X			Read Wooldrige Ch. 10-12. Hayashi Ch.6	1,5	
10	27	Problem Set 9.		X		Homework on Problem Set 9.	1,5	
11	28	Quantile linear regression. Consistency and asymptotic normality.	X			Read Koenker.	1,5	8
11	29	Asymptotic inference. Causality analysis using quantile regression.	X			Read Koenker.	1,5	

11	30	Problem Set 10.		X		Homework on Problem Set 10.	1,5	
12	31	Inference on non-parametric models. Kernel estimates of density and regression functions.	X			Read Silverman. Hastie & Tibshirani	1,5	8
12	32	Local polynomial regression. Discontinuous regression. Asymptotic inference.	X			Read Silverman. Hastie & Tibshirani	1,5	
12	33	Problem Set 11.		X		Homework on Problem Set 11.	1,5	
13	34	Semi-parametric models.	X			Read Bickel et al. Powell	1,5	8
13	35	Varying coefficient models, index models, adaptive estimation.	X			Read Bickel et al. Powell	1,5	
13	36	Problem Set 12		X		Homework on Problem Set 12.	1,5	
14	37	Specification testing. Goodness-of-fit tests for distribution functions.	X			Read Koul & Stute.	1,5	8
14	38	Model checks of regression functions and conditional model restrictions.	X			Read Koul & Stute.	1,5	
14	39	Problem Set 13.		X		Homework on Problem Set 13.	1,5	
SUBTOTAL								**185**
15	-	Make ups, tutoring, homework assignments, etc.						8
16-17		Final exam/Studying for the final exam.						16
TOTAL								**210**