



ARSD College, University of Delhi

Lesson Plan

Course Name : BA(H) ECONOMICS						
Semester	Course Code	Course Title	Lecture (L)	Tutorial (T)	Practical (P)	Credit (C)
IV	12271403	Introductory Econometrics	5			
Teacher/Instructor(s)		Ms. SHWETA NANDA				
Session		2021-22				

Course Objective:

The main goal of this course is to introduce the students to econometrics and give necessary tools to conduct empirical research. Econometrics use statistical methods to answer economic questions.

Course Learning Outcomes:

- Ability to perform analyses of economic data based on a broad knowledge of the linear regression model
- Basic knowledge of the statistical foundations of regression analysis with OLS
- Knowledge of hypothesis testing
- Basic knowledge of how to detect and treat violations of OLS assumptions, such as omitted variables, heteroscedasticity, and serial correlation

Lesson Plan:

Unit No.	Learning Objective	Lecture No.	Topics to be covered
1.	Nature and scope of econometrics	1	To explain the nature of econometrics.
		2	To explain the scope of econometrics.
		3	To explain the difference between population and sample.
2.	Statistical Inference	1	To explain different distributions- Normal distribution
		2.	Explaining chi square,t distribution
		3.	Numerical problems of the above topic
		4.	Explain F distribution and numerical.

		5.	Testing of hypothesis with the help of numericals
		6.	Defining statistical hypothesis and test of distribution statistics
		7.	Defining type 1 and type 2 error
		8.	Comparison of parameters from two samples
		9.	Numerical of the above topic
		10..	Explaining how to estimate parameters of the above distributions.
3.	Simple Linear Regression Model- 2 variable case	1.	Explaining method of OLS
		2.	Derivation of parameters using OLS
		3.	Properties of estimators.
		4.	Properties of estimators
		5.	Testing of hypothesis and goodness of fit
		6	Numerical
		7	Construction of confidence interval
		8	Numerical
		9	Gauss Markov Theorem
		10	Gauss Markov Theorem
4.	Multiple Linear Regression Model	1	Estimation of parameters using OLS
		2.	Estimation of parameters using OLS
		3.	Properties of OLS estimators
		4.	Explaining goodness of fit using R2 and adjusted R2
		5.	Finding Partial regression coefficients
		6	Testing of hypothesis- Individual
		7	Joint hypothesis testing
		8	Explaining different functional forms of regression model
		9	Explaining different functional forms of regression model
		10	Explaining different functional forms of regression model
		11	Explaining different functional forms of regression model
		12	Dummy variable
		13	Dummy variable
		14	Numerical
		15	Numerical
5.	Violations of Classical assumptions	1	Explaining violation of classical assumption- MC,HS and AC
		2	Discussing Multicollinearity-consequences and test to detect MC
		3	Test to detect MC
		4	Remedial measure to correct MC
		5	Discussing Heteroscedasticity-Its Consequences
		6	Test to detect HS
		7	Test to detect HS

		8	Remedial measures of HS
		9	Discussing Autocorrelation- Consequences
		10	Test to detect AC
		11	Test to detect AC
		12	Numerical
		13	Numerical
6.	Specification Analysis	1	Discussing omission of relevant variable.
		2	Discussing omission of relevant variable.
		3	Discussing inclusion of irrelevant variable.
		4	Discussing inclusion of irrelevant variable.
		5	Test of specification.
		6	Numerical

Evaluation Scheme:

No.	Component	Duration	Marks
1.	Internal Assessment		25
	• Class Test		
	• Attendance		
	• Assignment		
2.	End Semester Examination	3 hr	75

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