

**SHYAMA PRASAD MUKHERJI COLLEGE FOR WOMEN**  
**TEACHING PLAN JULY. 2022 TO NOV. 2022**

COURSE AND YEAR: **B.A. (HONS.) III YEAR**  
SEMESTER: V  
TAUGHT INDIVIDUALLY OR SHARED: **INDIVIDUALLY**  
PAPER: **APPLIED ECONOMETRICS**  
FACULTY: **GITA GOLANI**  
NUMBER OF CLASSES (per week): **5**

**Teaching plan**

**1.Name of the Unit: Stages in Empirical Econometric Research**

**Prescribed Reading:** Gujarati, Porter & Gunasekar. Basic Econometrics (6th ed.), Chapter 1

**No. of classes required:** 02

**Methodology of Teaching:** Interactive lectures

**2.Name of the Unit: The Linear Regression Model: Estimation, Specification and Diagnostic Testing**

The Matrix Approach to Linear Regression Model: The k- variable regression model, Assumptions of the Classical Linear Regression Model, OLS estimation, Variance-Covariance Matrix, Coefficient of Determination

**Prescribed Reading:** Gujarati & Porter, Basic Econometrics (6th ed.). Appendix-C: The Matrix Approach to Linear Regression Model.

**No. of classes required:** 08

**Methodology of Teaching:** Interactive lectures and training on statistical software like GRET/L/STATA/EXCEL

**Tutorial:** Discussion of exercises at the end of the chapter and clarification of doubts.

**3.Name of the Unit: Review of Functional forms and Qualitative explanatory variable regression Model**

**Prescribed Reading:**

Gujarati. Basic Econometrics (6<sup>th</sup> ed.) Chapter 2&3.

Gujarati & Porter. Essentials of Econometrics (4th ed.). Chapter 6 (excluding 6.7).

Dougherty, Christopher. Introduction to Econometrics (4th ed.), Chapter 5.

**No. of classes required:** 08

**Methodology of Teaching:** Interactive lectures and training on statistical software like GRET/L/EXCEL

**Tutorial:** Discussion of exercises at the end of the chapter and problem solving of assignment

**4.Name of the Unit: Regression Diagnostics: Detection of and remedial measures for Multicollinearity, Autocorrelation and Heteroscedasticity.**

**Prescribed Reading:** Gujarati. Econometrics. Chapter 4 -6.

**No. of classes required:** 06

**Methodology of Teaching:** Interactive lectures and training on statistical software like GRETEL/EXCEL

**Tutorial:** Discussion of exercises at the end of the chapter and problem solving of assignment

**5.Name of the Unit: Model Selection and Diagnostic Testing**

**Prescribed Reading:** Gujarati, Porter & Gunasekar. Basic Econometrics. Chapter 13 (Section 13.1-13.5 and 13.9-13.12).

**No. of classes required:** 6

**Methodology of Teaching:** Interactive lectures and training on statistical software like GRETEL/EXCEL

**Tutorial:** Discussion of exercises at the end of the chapter and problem solving of assignment

**6.Name of the Unit: Advanced Topics in Regression Analysis**

**(A)Dynamic Econometric Models: Distributed Lag Models and Autoregressive Models**

**Prescribed Reading:** Gujarati, Porter & Gunasekar. Basic Econometrics, Chapter 17 (except 17.9 and 17.13)

**No. of classes required:** 8

**Methodology of Teaching:** Interactive lectures.

**Tutorial:** Discussion of exercises at the end of the chapter and problem solving of assignment

**(B) Instrumental Variable Estimation**

**Prescribed Reading:**

Wooldridge. Introductory Econometrics. Chapter 15 (Section 15.1, 15.2 and 15.4).

Gujarati, Porter and Gunasekar. Basic Econometrics, Chapter 18.

**No. of classes required:** 8

**Methodology of Teaching:** Interactive lectures

**Tutorial:** Discussion of exercises at the end of the chapter and problem solving of assignment

**(C)Panel Data Models and Estimation techniques**

**Prescribed Reading:** Gujarati, Porter and Gunasekar. Basic Econometrics, Chapter 16.

**No. of classes required:** 8

**Methodology of Teaching:** Interactive lectures

**Tutorial:** Discussion of exercises at the end of the chapter and problem solving of assignment

**7.Name of the Unit: Limited Dependent Variable**

**Logit and Probit Models for Binary Response, Tobit Model**

**Prescribed Reading:** Chapter 15 ‘Qualitative Response Regression Models’ in Gujarati, Porter and Pal, Basic Econometrics. (Except 15.12 and 15.13). Appendix 15A is to be done.

**No. of classes required: 8**

**Methodology of Teaching:** Interactive lectures and training on statistical software like GRETL/EXCEL

**8.Name of the Unit: Introduction to Econometric Software**

**Prescribed Reading:** a. Wooldridge. Introductory Econometrics, Chapter 19.  
b. Relevant Instruction Manual for the Software

**No. of classes required: 5**

**Methodology of Teaching:** Interactive lectures and training on statistical software like GRETL/EXCEL

**ADDITIONAL READINGS:**

1. Asteriou, D and Hall, Stephen G, Applied Econometrics, 3rd Edition, 2015, Palgrave Macmillan.
2. G.S. Maddala and Kajal Lahiri, Introduction to Econometrics, 4th Edition, 2012, Wiley.
3. Badi H. Baltagi, Econometrics, 5th Edition, 2011, Springer.
4. William H. Greene: Econometric Analysis, 8<sup>th</sup> Edition, Pearson.
5. Jeffery Wooldridge. Introductory Econometrics: A modern Approach, 5<sup>th</sup> Edition, Cengage India

**Utility of additional sources:** Additional resources will provide better understanding of the concepts and students learn how to use and apply mathematics by working with concrete examples and exercises. Moreover, these will make them ready to analyze simulated as well as real economic situations. The ability to present proofs can be trained and improved.

**INTERNAL ASSESSMENT:**

TEST I: AUG,2022

TEST II: SEP,2022

PROJECT WORK: Oct., 2022

**CRITERIA OF ASSESSMENT:** Class tests, Project work and Semester Examination



Gita Golani