**Teacher Name: Ms. Anita**

**Paper Name: Introductory Econometrics**

**Class Type: B.A. (Hons) Economics, Fourth Semester (CBCS)**

**Paper Shared with: NONE**

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| **Unit to take** | **Month wise scheduled to be followed** | **Test/Assignment/Revision/Presentation etc** |
| **Unit 1**  **Nature and scope of Econometrics**  **Gujarati: Ch 1** | **January**  **3 Lectures** |  |
| **Unit 2**  **Simple Linear Regression Model: Two Variable Case**  **Review of Statistics: normal distribution, chi-.**  **square, t- and F-distributions; tests for**  **comparing parameters from two samples. Other**  **topics can be discussed here as per the**  **discretion of the instructor, since the concepts**  **discussed here are applied in other topics.**  **Estimation of model by method of ordinary least**  **squares; Properties of estimators; Goodness of**  **fit; Testing of Hypotheses; Scaling and units of**  **measurement; Confidence intervals; Gauss**  **Markov Theorem; Forecasting**  **Review of Statistics :Devore: Ch 7: Sec 7.4, Ch 9.1,9.2, 9.5**  **Gujarati: Appendix D, pages 507-510**  **Two Variable Case: Gujarati: Ch 2, Ch 3**  **Dougherty: Ch2**  **(excluding “A Monte Carlo Experiment”, that is Sec 2.4** | **January**  **17 Lectures** |  |
| **Unit 3**  **Multiple Linear Regression Model**  **Estimation of parameters; Properties of OLS**  **estimators; Goodness of fit- R2 and Adjusted**  **R2; Partial regression coefficients;**  **Testing Hypotheses: Individual and Joint;**  **Functional Forms of Regression Models;**  **Qualitative (dummy) independent variables**  **Gujarati: Ch 4,**  **Ch 5,**  **Ch 6 (excluding Sec 6.7)**  **Dougherty: Ch3 (excluding Sec**  **3.4), Ch 5** | **February and March 4 weeks(I,II.III)** | **Test –I (Unit- 2 and 3)** |
| **Unit 4**  **Violations of Classical Assumptions: Consequences,**  **Detection and Remedies**  **Multicollinearity;**  **Heteroscedasticity;**  **Auto-correlation**  **.**  **Gujarati: Ch 8,**  **Ch 9 (Excluding Sec 9.5),**  **Ch 10 (Excluding Sec 10.6,**  **Appendix 10A)**  **Dougherty: Ch 3 (only sec 3.4 is to done),**  **Ch 7: Goldfeld-Quandt test (p.**  **285-286 are to be done), Ch12 (pp 434-440 are to be done).** | **March and April 3 weeks** | **Test –II**  **( UNIT 4)** |
| **Unit 5**  **Specification Analysis**  **Omission of a relevant variable;**  **Inclusion of irrelevant variable;**  **Tests of specification**  **Gujarati: Ch 7**  **Dougherty: Ch 6: Sec 6.1, 6.2, 6.3, 6.5** | **April 2 weeks** | **Test- III(Unit- 4,5 )** |

**Readings:**

**1. D. N. Gujarati and D.C.Porter, Essentials of Econometrics, 4th Edition, McGraw**

**Hill International Edition, 2010.**

**2. Christopher Dougherty, Introduction to Econometrics, 4th edition, OUP, Indian**

**edition, 2011.**

**3. Jeffrey M. Wooldridge, Introduction to Econometrics: A Modern Approach, 5th**

**Edition, Cengage Learning, 2014.**

**4. Damodar Gujarati, Econometrics by Example, 2nd edition, Palgrave Macmillan,**

**2014.**

**5. Maddala, G.S and Kajal Lahiri, Introduction to Econometrics, 4th edition, Wiley**

**publication, 2009. This book is particularly useful for the discussion on the LM**

**and Durbin’s h tests for testing for autocorrelation.**

**6. Jan Kmenta, Elements of Econometrics, Indian Reprint, Khosla Publishing House,**

**2008.**

**7. Jay L. Devore, Probability and Statistics for Engineers, Cengage Learning, 2010.References**

**Assessment:**

**This course carries 100 marks of which the end semester examination is 75 marks and internal assessment is worth 25 marks as per the following norms: .**