

INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI
PROFORMA FOR NEW COURSE

1.	Title of the Course	Applied Econometrics
2.	Course Number	HS7103
3.	Status of the Course	Elective
4.	Structure of Credits	3-0-0-3
5.	Offered to	PG
6.	New Course/ Modification to	New course
7.	To be offered by	Dr. Chandra Sekhar Bahinipati and Dr. Rahul A. Sirohi
8.	To take effect from	January 2018
9.	Prerequisite	Nil
10.	Whether approved by the Program	Yes
11.	<p>Course Objective (Max 70 words): The objective of this course is to introduce basic tools to analyse linear relationships among economic variables and to draw conclusions thereof. Theoretical classes will be supported and complemented by empirical exercise with using STATA.</p>	
12.	<p>Course Content (Max 100 words): Introduction to Simple and Multiple Regression Analysis, Regression with Dummy Variables, Multi-equation Models Discrete Response Models: Introduction to Binary Variables, Probit and Logit Models, Multinomial Models, Ordinal Models, Count Data Models Limited Dependent Variables and Sample Selection: Censored versus truncated, TOBIT model, Truncated Regression, Heckman Selection Model Panel Data Model: Introduction to panel data, pooled repeated cross-section model, fixed effects and random effects, Hausman test Average Treatment Effects: Counterfactuals and self-selection, propensity score matching, difference-in-difference, regression discontinuity design approach, Quantile regression, Endogenous Switching Regression Multivariate Statistical Models: Principal component analysis and factor analysis, Structural equation models</p>	
13.	<p>Text Book(s):</p> <ol style="list-style-type: none"> Gujarati, D.N., Porter, D., and Gunasekar, S. <i>Basic Econometrics</i> (5th edition), McGraw Hill/Irwin, 2017. Wooldridge, J.M. <i>Econometric Analysis of Cross Section and Panel Data</i> (2nd edition), The MIT Press, 2010. 	
14.	<p>Reference(s):</p> <ol style="list-style-type: none"> Greene, W.H. <i>Econometric Analysis</i> (6th Edition), Prentice Hall, 2008. Baltagi, B. <i>Econometric Analysis of Panel Data</i>, John Wiley & Sons, 2008. Cameron, C.A., and Trivedi, P.K. <i>Microeconometrics: Methods and Applications</i>, Cambridge University Press, 2005. Johnston, J., and Dinardo, J. <i>Econometric Methods</i> (4th edition), McGraw Hill Higher Education, 1997. 	