Indian Institute of Technology Guwahati

Proposal for a New Course/ ~~Revision of a Course~~

Course Number & Title: BM713 & Research Methodology in Finance
L-T-P-C: 3-0-0-6
Type of Letter Grading (Regular Letter Grades / PP or NP Letter Grades): Regular Letter Grades
Kind of Proposal (New Course / Revision of Existing Course): New Course
Offered as (Compulsory / Elective): Elective
Offered to: Doctor of Philosophy (PhD)
Offered in (Odd/ Even / Any): Any
Offered by (Name of Department/ Center): School of Business
Pre-Requisite: NIL
Preamble / Objectives (Optional):
Course Content/ Syllabus *(as a single paragraph if it is not containing more than one subject. Sub-topics/ Sections may be separated by commas(,). Topics may be separated by Semi-Colons(;). Chapters may be separated by Full-Stop(.). While starting with broad heading, it may be indicated with Colon symbol before the topics. For example: Multi-variable Calculus: Limits of functions, Continuity, ……)* Introduction to financial econometrics, data gathering, types of data in finance; Review of the classical linear regression model; Univariate time series modelling and forecasting, Autoregressive processes, Moving Average processes, ARMA processes; Multivariate time series analysis, Vector autoregressive models; Cointegration: Modeling long-run financial behaviour, Stationarity and unit root testing, Cointegration, Error correction models; Modelling Volatility: Autoregressive conditionally heteroscedastic (ARCH) models, GARCH models, Asymmetric GARCH models, E-GARCH; Switching Models, Markov switching models.
Books (In case UG compulsory courses, please give it as "Text books" and "Reference books". Otherwise give it as "References".
Texts: (Format: Authors, *Book Title in Italics font*, Volume/Series, Edition Number, Publisher, Year.)

1.	Brooks, Chris., *Introductory Econometrics for Finance*, 3rd Edition, Cambridge University Press, 2014.
2.	Gujarati, D. N., & Porter, D. C., *Basic Econometrics*, 5th edition, McGraw Hill, 2009.