



## **Regulations for Minor in Economics**

**Minor Program:** A BTech student can earn a minor certification in economics by completing 16 credits of regular courses, and a further 4 credits through additional coursework, independent study (IS), undergraduate research (UR), or independent project (IP), for a cumulative 20 credits in economics. The program is intended to be complementary to CSE/ECE, and emphasizes microeconomics, game theory, and data analysis. Students interested in topics not covered, *e.g.*, environmental or health economics may do so through Independent Study or credit transfer.

**Faculty:** Asst. Prof. Saptarshi Mukherjee (PhD, Economics, Indian Statistical Institute, New Delhi) and Asst. Prof. Shreemoy Mishra (PhD, Economics, University of Texas at Austin).

**Courses:** All courses are for 4 credits and require 3<sup>rd</sup> year standing or higher.

1. *Introduction to Economic Analysis (IEA)*: Foundation course consisting of two parts microeconomic theory and one part macroeconomics (**open to 2<sup>nd</sup> year**).
2. *Applied Econometric Analysis (AEA)*: Foundation course in multiple regression analysis, the pervasive empirical tool in applied economics.
3. *Game Theory (GT)*: Foundation course in game theory, the pervasive tool for strategic analysis in economics. (Pending formal approval).
4. *Economics of Information and IT (EIIT)*: This is a course in applications of cooperative and non-cooperative game theory in the context of markets with imperfect competition.
5. *Network Economics (NWE)*: A comprehensive introduction to social and economic networks, drawing on the latest findings in economics, sociology, computer science, physics, and mathematics. (Pending formal approval).

**Core Courses:** *Introduction to Economic Analysis* is mandatory for the minor. Students must also take *at least one of Applied Econometric Analysis or Game Theory*.

**Advanced Courses (ADV):** These will vary from year to year. Potential topics include: *Mechanism Design and Auction Theory, Social Choice Theory, Behavioral Economics, Microeconomics of Banking, and Advanced Econometrics*.

**Management Science:** A maximum of two management science courses (FIN/MAN) can be counted towards the economics minor. Planned offerings (by guest faculty) are: *Corporate Finance, Financial Markets and Investment, and Supply Chain Management*.

**Benchmarking:** Economics-minor programs at North American and Indian universities typically require six courses in economics, including *Probability and Statistics*, which all BTech students take in 1<sup>st</sup> year. Thus, the proposed 20-credit program is quite standard.

**Sequencing:** Recommended sequence (in bold).

<b>Year</b>	<b>Fall / Monsoon</b>	<b>Spring / Winter</b>
2	<b>IEA</b>	-
3	<b>GT, IEA, EIIT, FIN/MAN</b>	<b>(AEA or NWE) &amp; FIN/MAN, ADV</b>
4	<b>EIIT or IP/UR/IS, IEA, GT, FIN/MAN</b>	<b>(ADV or NWE), AEA, FIN/MAN, IP/UR/IS</b>

**Change History:**

July, 2014 release