

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

Course Code	HSIC12
Course Title	Economics for Engineers
Number of Credits	3 (2L + 1T)
Prerequisites (Course Code)	----
Course Category	Institute Core (IC)

Semester: Odd/Even

Time: 3hrs

Internal: 50 Marks

Theory: 50 Marks

Total: 100 Marks

Course Objectives

- To enable students to understand the economics principles applicable to engineering.
- To help students in learning the techniques of economic decision making.
- To familiarize the students with basic fundamentals of Indian financial economy.

Unit I: Introduction and Demand Analysis

Principles of economics, how markets work: market forces of supply and demand, Elasticity and its application, Consumer equilibrium.

Unit II: Theory of Cost, Production and Markets

Firms' production, cost and revenue behavior; resources optimization; Firms' behavior under competitive markets, monopoly and monopolistic competition.

Unit III: Financial and Engineering Economy

Financial system: financial institutions, markets and instruments. Engineering Economy: Time value of money, Alternatives' comparing techniques: Present worth analysis, annual worth analysis, rate of return analysis.

Unit IV: Indian Economy, Foreign Trade & Investment

Indian Economy: monetary, fiscal policies and their implications. Trade and investment factors, trade protectionism; balance of payment, devaluation and exchange rate determination.

Reference Books

- N. Gregory Mankiw. Principles of Microeconomics, 8th Ed., Cengage Learning India Pvt, 2022.
- Krugman, Paul, and Robin Wells. Microeconomics. 6th Ed. Worth Publishers, 2020.
- Anindya Sen, Microeconomics, 2nd Ed., OUP India, 2006.
- Leland T. Blank & Anthony J. Tarquin, Engineering Economy, McGraw-Hill, 2007.
- Hal R. Varian Intermediate Microeconomics, W. W. Norton and Company, 2019.
- Ruder Dutt and Sundaram, Indian Economy, 65th Ed., S. Chand, 2018.
- D. Salvatore, International Economics, 11th Ed., John Wiley & Sons, 2013.

Course Outcomes

After this course, the students will be able to understand the concepts of economics and will learn that how to use the principles of economics in the engineering discipline. The course would develop the insight of students in understanding the consumer and production behavior and functioning of market economy. Students would also learn the implications of monetary and fiscal policies in Indian economy. The course will help the students in learning the techniques of comparing the alternative on monetary terms.

Note

It is further proposed to do away with the attendance component of the awards in the internal assessment. A note may be appended with each course on the following instructions:

- (i) The faculty member is expected to explore and be acquainted with the existing Indian Knowledge in the domain of the course and share with the students.
- (ii) The students are expected to do the necessary study of the existing Indian Knowledge in the domain of the course, prepare the report, and submit the same to the concerned faculty member at the end of the semester.
- (iii) The faculty member will evaluate the reports and award marks to the students with maximum cap being the equivalent of attendance component marks.