

# Course Delivery Plan Department of Nutrition and Food Engineering

Semester: Summer 2022

Course Code: NFE 333 Credit Hours: 3

**Course Title: Food Engineering and Economics** 

#### **Course Rationale:**

This course will develop knowledge based technical academia in food industrial profitability of entrepreneurs.

## **Objective of the course:**

The specific objectives of the course are:

- to gain knowledge on economics
- to foster knowledge on demand, supply and market equilibrium
- to develop skills on plant layout design
- to introduce them the recent development of food engineering economics

### **Learning outcome:**

- 1. Able to increase knowledge on basic economics, scope and its contribution to Food Engineering.
- 2. Able to gain knowledge on demand, utility functions, income effect etc.
- 3. Able to understand the plant layout and design consideration for food processing plants, preparation of flow sheets for material movement and utility consumption in food plants.
- 4. Able to understand the supply and market equilibrium.
- 5. Able to acquire knowledge on production function and return to scale, cost function, profit maximization etc.
- 6. Able to understand the function of bank and other financial institution and new economic environment.

Class No.	Lesson Plan	Comment
Week 1	Lecture 1: Introduction to Economics Lecture 2: cash flow diagram Lecture 3. Capital and interest Lecture 4: Time value of money	
Week 2	Lecture 5: Application of Engineering Economics Lecture 6: Demand Lecture 7: Demand Analysis	Quiz 1

	Lecture 8 :Supply	
Week 3	Lecture 9: Breakeven point	Quiz 2
	Lecture 10: Utility and indifference curve	
Week 4	Especial Class test (15) and Viva (10)	
	Lecture 11: New Economic Environment	
	Lecture 12: Basic concepts of Food Factory, plant layout and design	
Week 5	Lecture 13: National Income: Concepts & measurements	
	Lecture 14: GDP	
	Lecture 15: Demand, Supply, and Market Equilibrium (1)	
	Lecture 16: Demand, Supply, and Market Equilibrium (2)	
Week 6	Lecture 17: Economies and diseconomies of scale	Quiz 3
	Lecture 18: Bank & Financial Institutions: Concepts, roles in the	
	economy	
Week 7	Final Exam (June 30 Approx.)	All Lecture

### **Text Books:**

- 1. Engineering Economics, D N Dwivedi: Vikas.
- 2. Plant Layout and Design, James M Moore, Mcmillan& Co.

### **References:**

- 1. Koutsoyianni : Modern Micro Economics, Macmillan.
- 2. R Dutta & K P M Sundaran : Indian Economy. S.Chand.
- 3. A N Agarwal: Indian Economy, Vikas.
- 4. P A Samuelson & W D Nordhans: Economics: TMH.