

PONTIFICIA UNIVERSIDAD CATÓLICA DE CHILE
SCHOOL OF ENGINEERING
DEPARTMENT OF INDUSTRIAL AND SYSTEM ENGINEERING
ABET COURSE SYLLABI

ICS-1513 INTRODUCTION TO ECONOMIC ANALYSIS

Credits and contact hours: 10 UC Credits /10 hours (2:40 hours lectures; 1:20 hours assistantship and 6 hours individual work hours per week)

Instructor's name: Paredes Ricardo, Vial Pablo, Varas Pablo, Muñoz Javier, Hevia Rosario, Muñoz Cristóbal, Pérez Manuel, Arzola María Paz, Birke Ricardo, Bezamat Felipe, Valdés Gonzalo, Alamo Romy

Course coordinator's name Paredes Ricardo

Textbook: Principios de economía, Mankiew, N. Gregory, 4^a edición. McGraw-Hill, 2007.

Course Catalog Description: The course develops basic concepts on economic theory, pointing out the concepts of opportunity costs, scarcity, choice, incentives, and resources allocation. Develops fundamentals in micro economy and macro economy theory.

Prerequisite Courses: None

Co-requisite Courses: None

Status in the Curriculum: Required

Course Learning Outcomes:

- 1) To know central principles and concepts of the economic analysis.
- 2) Understand the relationship between supply, demand and pricing; their effect in the market equilibrium and the forces in the medium and long run
- 3) Apply central principles and concepts of the economic analysis in elasticity problem resolutions, consumer surplus, prices, salaries,
- 4) Analyze specific situations applicable to engineering related problems; including basics of financial engineering.

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Relation of Course to ABET Criteria: a. Knowledge of mathematics, science and engineering
c. Design a system, component, or process

Topics covered:

1. Basic concepts: The economic problem nature, shortage and elections. Is the economy a science?: Positive and normative propositions; Graphic representations; production possibilities frontier, marginal utility; the invisible hand and the government; The advantages of commerce (David Ricardo); absolute and relative advantages. (2 lectures)
2. Basic supply, demand and pricing elements: demand, supply, market equilibrium and efficiency. (2 lectures)
3. Applications: Elasticity, consumer surplus, pricing control, minimum wages, taxes and subsidy benefits, international commerce. (4 lectures)
4. Externalities and Public Goods. (2 lectures)
5. The consumer behavior (3 lectures)
6. Production, costs and supply (3 lectures)
7. Competition equilibrium (2 lectures)
8. Monopoly (2 lectures)
9. Productive factors market applications. (1 lecture)
10. Macroeconomic concepts (2 lectures)
11. Aggregated demand and supply (2 lectures)
12. Money and Inflation (2 lectures)
13. Economic policy (1 lecture)

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