



NATIONAL UNIVERSITY OF ENGINEERING
COLLEGE OF INDUSTRIAL AND SYSTEMS ENGINEERING
SYSTEMS ENGINEERING PROGRAM

SYLLABUS - GP304 BUSINESS LOGISTICS

I. GENERAL INFORMATION

CODE	: GP304
SEMESTER	: 8
CREDITS	: 3
HOURS PER WEEK	: 4 (2 Theory – 2 Practice)
PREREQUISITES	: GP403 Production Systems
CONDITION	: Compulsory
INSTRUCTOR	: Benito Zarate, Gloria Huamani
INSTRUCTOR E-MAIL	: bzarate2001@yahoo.es

II. COURSE DESCRIPTION

This course trains students in the analysis of the logistic system of an enterprise, the control of inventories according to consumption and rotation, the design of materials catalog, formulation of register of suppliers, the purchase process, the organization and the warehouse management. Concepts are reinforced with the employment of practical examples and the development of an application paper containing all the learning units of the course. Application problems about inventories and purchases will be solved.

III. COURSE OUTCOMES

1. Analyze the logistic systems of an enterprise, identifying the functions and assessing the corresponding activities and emphasizing its contribution to business management.
2. Analyze and assess the goods and services supply cycle considering the importance of its rational and efficient management so it can contribute to the productivity increase.
3. Organize and apply the materials cataloguing as base for the automated operation of the supply system information.
4. Understand the importance of inventories management due to its effect on the efficiency of the materials supply system.
5. Analyze technical processes of purchase and warehouse administration to guarantee the adequate goods supply and to contribute to enterprise competitiveness.
6. Evaluate logistic activities, establishing management indicators that allow the determination of efficiency and efficacy, assessing the importance of achieving entrepreneurial objectives.

IV. LEARNING UNITS

1. ORGANIZATION AND FUNCTIONS OF THE LOGISTIC SYSTEM / 6 HOURS

Introduction to the course / Course objectives, methodology and tests / Logistic system, general concepts.
Logistic objectives / Functions and activities / Relationship with other enterprise functions / Logistic coordination.

2. SUPPLY OF GOODS AND PROVISION OF SERVICES / 3 HOURS

Concepts. Objectives, the supply cycle. Service contracting. New concepts of MPR (Material Plan Requirement), MPR II, MPR III and Enterprise Resource Planning (ERP). Introduction to SAP.

3. MATERIAL CATALOGING TECHNICAL PROCESS / 3 HOURS

Concepts of cataloging / Importance / Cataloging stages / Materials catalog attributes.

4. INVENTORIES / 9 HOURS

Concept / Purpose / Types of inventories / ABC classification / Inventories planning. Calculation of necessities. Logistic costs. Possession cost. Reproduction cost, cost of rupture of inventory. Economic Order Quantity / Q system / System P / Solution to problems.

5. PURCHASE MANAGEMENT / 9 HOURS

Basic concepts / Objectives / Functions / Importance / Procedure regulations and procedures / Suppliers selection / International purchasing / Electronic purchasing / Value analysis.

6. WAREHOUSES / 9 HOURS

Concept / responsibilities / Storage cycle / Functions / Basic Operations / Storage techniques / Factors / Storage zones. Classifications. Storage systems / Handling systems / Inventory-taking / Registry.

7. LOGISTIC SYSTEM ASSESSMENT / 3 HOURS

Logistic management indexes / Management indicators of inventories, purchases and warehouses.

V. LABORATORIES AND PRACTICAL EXPERIENCES

Quiz 1: Identification of logistic functions.

Quiz 2: Materials cataloging.

Quiz 3: A B C classification of materials.

Quiz 4: Economic Purchase Quantity Determination.

VI. METHODOLOGY

Motivation, exposition and group debate. Constant dialog, explanation, demonstration. Groups formation for exemplification, analyze and interpret. At the end of the course, students must hand over and expose a research paper. In all sessions, students' active participation is encouraged.

VII. EVALUATION FORMULA

The average grade PF is calculated as follows:

$$PF = 0.334 EP + 0.334 EF + 0.083 P1 + 0.083 P2 + 0.083 P3 + 0.083 TI$$

EP: Mid-Term Exam

EF: Final Exam

P#: Quizzes

TI: Research paper

VIII. BIBLIOGRAPHY

1. CHRISTOPHER, M.

Logistics: Strategic Aspects (Spanish)
Limusa Editorial, Mexico DF (2005)

2. ROOX, M.

Logistics Handbook for Warehouse Management (Spanish)

Gestión 2000, Barcelona (2000)

3. **MERCADO, H. S.**

Purchases: Principles and Applications (Spanish)

Limusa Editorial, Mexico DF, 3rd Edition (1998)