

Centre	University College of Engineering of Vitoria-Gasteiz
Name of subject	25990 – Production Management
Qualification	Degree in Industrial Electronic Engineering and Automatics
Type	Compulsory
Credits	6 ECTS
Year	4
Term(s)	1st
Department	Business Organisation
Language	Spanish and Basque

Outcomes / Objectives

Production and operations organisation, production and inventory planning and control, supply chain management

Syllabus

Manufacturing Management. The concept of production and operations management. Classification of companies according to their production problems. Hierarchy in production plans. The Production Master Plan. Aggregate Material Planning. Demand forecasting. Forecasting concept. Product life cycle. Time series forecasting. Seasonal variation. Causal forecasting method. Inventory management. Functions of inventory. Types of inventory. Inventory management: ABC analysis, record accuracy. Inventory models based on dependent and independent demand. Fixed-time period system. Production management systems. Just-in-Time system: philosophy, suppliers, distributors, inventory and scheduling. Material requirements planning (MRP): structure, management and techniques for determining the lot size. Short-term scheduling: Gantt chart, forward and backward scheduling, priority rules for workshop scheduling. Lean Manufacturing Management. Introduction and principles of Lean Manufacturing. Benefits and implementation. Product / service value. VSM to identify the value chain. Continuous flow. Synchronised production. Pull system. Level production. Kaizen – Continuous improvement.

Methodology

Teaching Method

Face-to-Face Teaching Hours

Lectures	Seminars	Classroom practice	Lab. practice	Computer sessions	Clinical practice	Workshops	Industrial workshops	Field practice
48		12						

Student Hours of Non Face-To-Face Activities

Lectures	Seminars	Classroom practice	Lab. practice	Computer sessions	Clinical practice	Workshops	Industrial workshops	Field practice
60		60						

Assessment System

General criteria

Clarification regarding assessment

Bibliography

Basic Bibliography

- Jay Heizer y Barry Render: Dirección de la producción: decisiones tácticas. Edt. Prentice Hall. 6ta E. Madrid 2001
- Jay Heizer y Barry Render: Dirección de la producción: decisiones estratégicas. Edt. Prentice Hall. 4ta E. Madrid 1998.
- Fco. Javier Miranda González, Sergio Rubio Lacoba, Antonio Chamorro Mera y Tomas Manuel Palacios: Manual de Dirección de Operaciones. Edt. THOMSON. Madrid. 2005

In-depth Bibliography

- Hiroyuki Hirano: Manual para la implantación del JIT. Edit. Tecnologías de Gerencia y Producción. Madrid. 1991.
- Luis R. Gómez-Mejía y David B. Balkin: Administración. Edt. McGraw-Hill. Madrid. 2003.
- Miguel Ángel Sebastian Pérez, Vicente Bargueño Fariñas y Vicente Novo Sanjurjo: Gestión y control de la calidad. Edt. UNED. Madrid 1998.