

Asignatura: ADMINISTRACIÓN DE LA PRODUCCIÓN
II 800IND
Semestre: 8° Enero-Junio 2024
Docente: Max Daniel Revuelta López

Lunes 19:00 - 210
Miércoles 17:15 - 210
Viernes 17:15 - 215

INFORMACIÓN DE LA ASIGNATURA

It is a theoretical-practical course of the systems and production curricular line.

Descripción

The subject is designed so that the student knows how to do aggregate production planning, as well as the production programs that meet the needs of the market and the optimal productivity of operation from different methods in different scenarios.

Objetivos

At the end of the course, the student will be able to:

- Design master production plans and material requirements in accordance with market demand forecasts, as well as with the companies' own capacities and established delivery times.
 - Apply strategies of aggregate programming, short-term programming, and floor control in the organization of productive activities of an industry.
-

Capacidades y habilidades que desarrollar

- Explanation of concepts and identification of methods and tools of the master production plan
- Requirements analysis for materials planning
- Characterization of enterprise resource planning systems

-Management of aggregate programming strategies in the organization of productive activities of an industry

Prerrequisitos

Production Management I

Temario

I. ADDED PROGRAMMING.

1. Objectives and importance.
2. Stages of the production planning process.
3. Elaboration of the plan: heuristic methods and optimization methods.

II. PRODUCTION MASTER PLAN.

1. Concepts and factors to consider in the master production plan (MPS).
2. planning horizons.
3. Consolidation of requirements.
4. Methodology to follow.
5. Master production plan: development.
6. Production programming: resource allocation.
7. Tools for production control.
8. Floor control.
9. Practical cases.

III. PLANNING OF MATERIALS REQUIREMENTS.

1. Concepts and structure of material requirements planning (MRP).

2. Methodology and operation.

3. Dependent and independent demand.

4. Inventory management.

5. Material's list.

6. Planning of manufacturing resources (MRP II).

7. Planning of the Company's resources (ERP).

8. Capacity Requirements Planning (CRP).

9. Distribution Resource Planning (DRP).

10. Just in time.

11. Practical cases.

IV. BUSINESS RESOURCE PLANNING SYSTEMS.

1.ERP systems .

2. Characteristics, components, advantages, and disadvantages.

3. Classification of information systems.

4. Functional areas, processes, and connectivity.

5. Types of platforms available in the market, modules, and operation.

6. Phases for the implementation of an ERP system : preparation; setting; adaptation to needs; data extension and migration; start up.

7. New trends and applications.

8. Practical cases.

Construcción de la calificación final

- Accumulated work and homework in class 80%
 - Final project 20%
-

Fechas importantes

All of them

De la asistencia y puntualidad

Maximum tolerance to have attendance 10 minutes after the class start time. To be entitled to the ordinary exam, you must meet 80% attendance.

Del comportamiento en clase

- Attendance
 - Respect for classmates and teacher
 - In the case of being face-to-face, they will not be able to eat food in the classroom.
-

De los exámenes

There is not.

De las tareas, prácticas y exposiciones

There are all classes tasks, practices, and exhibitions. They represent 80% of the final evaluation.

Trabajos de investigación

Production scheduling case study

BIBLIOGRAFÍA RECOMENDADA

- Render, B. & Heizer, J. (2014) Principles of operations management. US: Pearson
- Hull, B. (2010). Manufacturing best practices . USA: John Wiley & Sons.
- Muller, M. (2011). Essentials of inventory management . USA: McGraw-Hill.
- Wagner, B. & E. Monk (2009). Enterprise resource planning . USA: Cengage