

Licence Internationale Mineure “Industrial engineering and logistics”

Purpose: introduce students to optional knowledge about enterprise and industrial systems engineering

Objectives:

1. facilitate their future professional carrier in economic world
2. attract and prepare some students to the Master Programmes on “Industrial engineering and logistics” at University of Bordeaux

Semester 1 / Module 1

Production System Management

(6 ECTS)

Present basic concepts and techniques for planning and managing industrial systems of various types of organization

- Typology of workshop (flowshop, jobshop, openshop) and production
- Workshop scheduling algorithms (Gantt, Johnson, heuristic and priority rules)
- Inventory management methods (economic quantity, order point method, ...)

Semester 2 / Module 2

Enterprise, Manufacturing and Service

(6 ECTS)

Provide an introduction on enterprise and industrial system, from manufacturing to service as well as evolution of market, manufacturing and organization

- Enterprise, virtual enterprise, network enterprise
- Manufacturing vs. service and servitization
- Evolution of manufacturing technology and organization (assembly line, flexible cell, ...)

Semester 3 / Module 3

Product Design and Innovation

(6 ECTS)

Initiate the students the basic concepts and techniques on product design and innovations

- Basic concepts and definitions on product design and innovation
- Functional analysis methods for product design
- Theory and methodologies for product innovations

Semester 4 / Module 4

Enterprise System Modelling

(6 ECTS)

Present discrete event concepts, introduce languages and methods to describe, analyze and design automatic industrial systems as well as enterprise modeling and simulation

- Enterprise modeling and simulation
- Data modelling
- Functional modelling
- Process modelling