

Projects

Production Scheduling and flow management

IDENTIFICATION

CODE : MSGI-ORDO
ECTS : 3.0

HOURS

Lectures : 0.0 h
Seminars : 24.0 h
Laboratory : 0.0 h
Project : 0.0 h
Teacher-student
contact : 24.0 h
Personal work : 12.0 h
Total : 36.0 h

ASSESSMENT METHOD

Oral, individual : 15 min
1 report per group

TEACHING AIDS

Teaching assistance on a case
study
INCOPLAN software

TEACHING LANGUAGE

French

CONTACT

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@

AIMS

This teaching takes place over the period November till April

Being able to use a scheduling software from technical data to generation of the scheduling solutions. Being aware of selection criteria for a scheduling software, advantages and disadvantages of such software.

More specifically, knowledge of data, information and methods required for such a tool.

CONTENT

Study of the project consisting in the implementation of a scheduling software (INCOPLAN). From the data of a manufacturing company which decides to modify its scheduling system, we carry out the following steps:

- Study of technical data (operations, resources, processing times, routing (operation sequencing), production orders ...), and computation of estimated loads for personnel and equipment.
- Study of the effects of several sequencing heuristics in final solution as well as the effects of work periods.
- Analysis of working hours and harmonization of scheduling solutions.
- Consideration of the constraints (Overlapping, splitting, non-preemption, etc) and unexpected events (breakdown of a machine ...).
- Technical, financial and risk analysis and evaluation of the scheduling software.

BIBLIOGRAPHY

M. Pinedo ; Scheduling: Theory, Algorithms, and Systems, Prentice Hall, 2001

PRE-REQUISITE

Modules GP1 : production management and scheduling

Basic knowledge about production scheduling (technical data and scheduling method)