PROD2100 Production and Operations Management

[45h+15h exercises] 6 credits

Teacher(s): Pierre Semal
Language: English
Level: Second cycle

Aims

This course introduces the basic notions of Production and Operations Management (POM). After the course, a student will:
- know the types of questions tackled by POM;
- be able, when facing a real life situation, to identify the POM problems, if any;
- know the ins and outs for these problems;
- be able to select and to apply the most adequate technique for a given problem;
- master a basic solution technique for the given problem;
- be able to give judgement on the limts of the technique used.

Emphasis is laid on the development of a rational and structured approach to the problems and on the perception of the interdependence between the POM problems.

Main themes

POM can be briefly defined as the set of techniques and methods that aim at the creation of a product or service and at the organization of all the activities of a person, a service or a company. Although POM is most often related to manufacturing, it also applies to service environments like healthcare, department stores, offices, #
Besides the design of production policies that is more of strategic nature, three main themes characterize POM: the design of production systems, their implementation and their control. It must be noted that these themes require not only a strong methodological approach but also relies on qualitative and quantitative methods and techniques.

Content and teaching methods

CONTENTS
POM can be briefly defined as the set of techniques and methods that aim at the delivery of a product/service and at the organization of all the activities of a person, a service or a company. Here is a rough outline of the contents (with approximate tutorial lengths): (2 hrs.) Introduction and course objectives; (12 hrs.) Characteristics of Products/Services and of Processes; (12 hrs.) Planning of Activities in the long, medium and short terms; (10 hrs.) Inventory Control and Demand Forecasting; (5 hrs.) Quality Management; (4 hrs.) Project Management;
METHOD
The course is based on tutorials, readings, working sessions and individual work.
Tutorials: The tutorials are given in English. 22 sessions are foreseen (see attached schedule for the dates and contents of the sessions). An active participation is required.
Readings: A set of introductory papers is available. They should be read by the students before the corresponding tutorials. Tests about these readings might be carried out in class.
Working sessions: Different working sessions are organized for a better understanding of the POM concepts. Three types of sessions exist:
- individual working sessions to be performed, individually, at home.
- computerized sessions to be performed by group of 3 or 4 students in the computer science rooms
- working sessions directed and organized by the assistants at fixed dates.

Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

Prerequisite: a bisic introduction to statistics and operation research.
Evaluation : written exam based on a case
Support: The syllabus of the course (commented transparencies) together with the handout for the exercises are available on the i-campus web site or at "club iag".
Références: (among others):
- Chase and Aquilano, Production and Operations Management, Irwin (Edt).
- McLain, Thomas and Mazzola, Operations Management: Production of goods and services. Prentice Hall (Edt).
Pedagogic team: E. de le Court, Q. Botton and P. Semal

Programmes in which this activity is taught

MULT2MS	Master en communication multilingue, à finalité spécialisée en langues des affaires

Other credits in programs

ECAP21	Première licence en sciences de gestion	(5.5 credits)	Mandatory
MECA21	Première année du programme conduisant au grade d'ingénieur civil mécanicien	(6 credits)	
MECA22	Deuxième année du programme conduisant au grade d'ingénieur civil mécanicien	(6 credits)	
MECA23	Troisième année du programme conduisant au grade d'ingénieur civil mécanicien	(6 credits)	
MULT21MS	Première année de master en communication multilingue, à finalité spécialisée en langues des affaires	(5.5 credits)	
MULT22MS	Deuxième année de master en communication multilingue, à finalité spécialisée en langues des affaires	(6 credits)	
MULT2MS	Master en communication multilingue, à finalité spécialisée en langues des affaires	(5.5 credits)	