

Faculty of Economic, Social and Political Sciences



PROD2952 Operations management and quantitative modelling

[45h+0h exercises] 5 credits

Teacher(s): Isabelle Callens (supplée Guy Keymolen), Philippe Chevalier, Guy Keymolen
Language: French
Level: Second cycle

Aims

At the end of the class, students should be able
 o to specify the reference framework and the elements playing a part in the decision making process in the field of operations and production management ;
 o to analyze these elements, in particular using mathematical models and techniques (without neglecting human factors), in order to help in the decision-making process.

Main themes

This course is both a basic course in operations management and in management science. Its scope consists of studying how operations management problems could be solved using mathematical models and techniques provided by operations research.

Content and teaching methods

Content

The course starts with an introduction to the basics of operations management and production of goods and services. Next, two topics are studied : the design of a production system and the mid to short-term planning of operations. The quantitative tools are introduced progressively with their relevance.

Methods

Lecture and exercises (cases and problems).

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

Prerequisite : basic course in mathematics, statistics and probabilities

Evaluation : open book written exam (problem solving)

Support : HEIZER J. and RENDER B., Operations Management, Pearson Education (2004)

References : see support

Pedagogic team : teachers