Linnæus University

Jnr: 2014/2922-3.1.2

Course syllabus

Faculty of Technology
Department of Mechanical Engineering

1SE007 Anläggningsplanering och produktionsstyrning, 7,5 högskolepoäng

Facilities Planning and Production Management, 7.5 credits

Main field of study
Total Quality Maintenance

Subject Group
Industrial Engineering and Management

Level of classification
First Level

Progression
G1F

Date of Ratification
Approved 2009-11-16
Revised 2014-09-23 by Faculty of Technology. Review of objectives.
The course syllabus is valid from autumn semester 2015

Prerequisites
7.5 hec in Economics, 15 hec in Mathematics and Business Driven Quality Maintenance (SE9001) 7.5 hec or the equivalent.

Objectives

After completing the course the students are expected to be able to

- give an acount of how to plan new production facilities and how to modify already existing ones
- understand the layout of a production facility.
- understand the importance of facilities planning for safeguarding the best utilization of the permanent resources of the facilities to achieve company goals
- give an account of how to plan, manage and control the manufacturing process (including materials, machines, personnel and suppliers)
- select and use relevant methods and techniques for facilities planning
- analyze existing facilities and suggest improvements in their layout and in the material and production management systems
- motivate, and critically reflect upon, selected method(s).

Content

The course comprises two parts,
Part I: facilities planning and
Part II: production management, including the following elements:

Part I

- Production design, process design and flow schedules design
- Flow and relations between activities in different kinds of production
- Space requirements for work stations and departments (equipment, service, personnel, etc.)
- Material handling systems
- Workshop layout
- Part II:
- Material and production management
- Material requirement planning (MRP and MRPII)
- Capacity planning
- Production control and master production scheduling

Type of Instruction

The teaching consists of lectures, group work, laboratory work, submitted assignments and a case study.

Examination

The course is assessed with the grades U,3,4 or 5.
The assessment is based on submitted reports and the oral or written presentation of compulsory assignments.

In order to receive the grade Pass students must demonstrate knowledge that corresponds to the expected learning outcome.

Course Evaluation

At the end of the course, a course evaluation is performed via a digital learning platform. The results are then put together and made available to students via the platform. The evaluation report is filed and stored according to departmental regulations.

Credit Overlap

This course cannot be part of a degree in combination with another course in which the content fully or partly correspond to the content of this course: Overlaps completely with SEC926.

Other

Some course elements may involve costs that have to be defrayed by the course participant.

The course is offered in English if there are international participants.

Required Reading and Additional Study Material

Required reading

Tompkins, White, Bozer, Frazelle, Tanchoco, Trevino, *Facilities Planning, latest Edition. Ca 300(734) pages.*

Vollmann, Whybark, Berry., Manufacturing Planning and Control Systems//, latest Edition. Ca 300(836) pages.

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