GHENT UNIVERSITY

Course Specifications

From the academic year 2016-2017 up to and including the

Advanced Production Management (F000706)

Course size (nominal values; actual values may depend on programme)

Credits	6.0	Study time	180 h
Contact hrs	45.0 h		

Course offerings and teaching methods in academic year 2018-2019

A (semester 2)	English	seminar: coached exercises	7.5 h
		lecture	25.0 h
		seminar: practical PC room classes	2.5 h
		group work	10.0 h

Lecturers in academic year 2018-2019

Aouam, Tarik	EB24	lecturer-in-charge

Offered in the following programmes in 2018-2019	crdts	offering
Master of Science in Business Economics (main subject Accountancy)	6	A
Master of Science in Business Economics (main subject Corporate Finance)	6	A
Master of Science in Business Engineering (main subject Data Analytics)	6	A
Master of Science in Business Engineering (main subject Finance)	6	A
Master of Science in Business Economics (main subject Marketing)	6	A
Master of Science in Business Engineering (main subject Operations Management)	6	A
Master of Science in Economics	6	A
Exchange programme in Economics and Business Administration	6	A

Teaching languages

English

Keywords

Advanced production management, factory physics, operations strategy, production planning, inventory control

Position of the course

In order to achieve the flexible, cost-effective production systems required to survive in today's volatile, global markets, a thorough understanding of the basic dynamics of operations/production systems and their link with the competitive strategy of a firm is essential. This course focuses on:

- discussing the basic techniques of production planning and inventory control to manage production systems.
- understanding the behavior of production systems and developing a thorough, generalizable and fundamental understanding of the factors affecting their behavior.
- assessing the role of the operations/production strategy in the competitive strategy of a firm, and evaluating whether and how new technologies and concepts are strategically relevant for and can be applied to a given production system.

Contents

- Production and inventory systems
  - Inventory control
  - Production planning models
- Factory dynamics:
  - the corrupting influence of variability

    - ‘push’ versus ‘pull’ production systems
- Operations strategy:
    - Framework for operations strategy
    - The link between operations and finance
    - Capacity strategy
    - Process and layout strategies

Initial competences

Final competences of an introductory Operations Management course.

Final competences

1 Design and evaluate production and inventory control policies for production systems
2 Quantify and evaluate the impact of variability on the performance of a production system.
3 Formulate an operations/production strategy and evaluate whether and how new technologies, techniques and concepts are strategically relevant for and can be applied to a given production system.
4 Professionally report the results of a comprehensive project on the design and analysis of production systems.

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Group work, lecture, seminar: coached exercises, seminar: practical PC room classes

Extra information on the teaching methods

The pedagogic approach is a combination of:
- lectures
- exercises
- case studies
- project

Learning materials and price

A textbook is suggested for the course. In addition, teaching material (slides, articles, and exercices) will be made available through Minerva.

References

- W. Hopp and M. Spearman (2008), "Factory Physics (3/e)", McGraw-Hill, ISBN 978-0-071-23246-3.
- Jan A. Van Mieghem (2008), "Operations Strategy: Principles and Practice", Belmont, MA: Dynamic Ideas, ISBN 0-9759146-6-9
- Cachon, G. P., Terwiesch, C. (2011), "Matching supply with demand: An introduction to operations management", 3rd Ed. Boston, MA: McGraw Hill, ISBN 978-0073525204
- J. Heizer and B. Render (2014), "Operations Management (11/e)", Pearson Prentice-Hall, ISBN 978-0-13-292114-5

Course content-related study coaching

Support by the teacher on appointment.
Teaching material is available through Minerva.

Evaluation methods

end-of-term evaluation and continuous assessment

Examination methods in case of periodic evaluation during the first examination period

Written examination

Examination methods in case of periodic evaluation during the second examination period

Written examination

Examination methods in case of permanent evaluation

Oral examination, participation, assignment, peer assessment

Possibilities of retake in case of permanent evaluation

examination during the second examination period is possible in modified form

Extra information on the examination methods

- End-of-term
    - written exam: exercises and comprehensive questions

- Permanent
  - An advanced production management project: written report and oral presentation.

Calculation of the examination mark

Permanent (30%) and End-of-Term (70%) evaluation.