APPLIES TO ACADEMIC YEAR 2016/2017

GRA 6753 Operations 1

Programme
Master of Science in Business, Master of Science in Business (Logistic - Supply Chains and Networks), Specialization Course

Responsible for the course
Stein Erik Grønland

Department
Department of Accounting - Auditing and Business Analytics

Term
According to study plan

ECTS Credits
6

Language of instruction
English

Introduction
Logistics management operations requires a good knowledge of methods and concept for optimising cost and service levels. Through the methods, also an understanding in operational decisions and their impact will be given.
Students participating in this course will gain an understanding of the management of logistics operations. Emphasis will be on various methods for optimising supply chains, and how they can be implemented in the real world.

Learning outcome
A good understanding of logistics operations and outcomes.

Acquired knowledge:
(i) To understand process capacities and evaluation of those
(ii) To understand how to best utilise bottlenecks in processes
(iii) To gain knowledge of forecasting
(iv) To gain knowledge of cycle stock management
(v) To understand safety stock management and optimisation of service levels
(vi) To get some understanding of basic issues in scheduling
(v) To understand aggregate planning of operations

Acquired skills:
(i) Optimisation techniques
(ii) To be able to understand and use logistics models
(iii) To be able to discuss logistics management with other specialists
Reflection:
(i) To understand the role of systems support in Supply Chain Management
(ii) To appreciate and understand possibilities and limitations of optimisation models
(iii) To better understand the day to day challenges of logistics management

Prerequisites

All courses in the Masters programme will assume that students have fulfilled the admission requirements for the programme. In addition, courses in second, third and/or fourth semester can have spesific prerequisites and will assume that students have followed normal study progression. For double degree and exchange students, please note that equivalent courses are accepted.

Compulsory reading
Books:
Cachon, Gérard, Christian Terwiesch. 2012. Matching supply with demand : an introduction to operations management. 3rd ed. McGraw-Hill
Chopra, Sunil, Peter Meindl. 2016. Supply chain management : strategy, planning, and operation. 6th ed. Pearson

Other:
During the course there may be hand-outs and other material on additional topics relevant for the course and the

examination.

Recommended reading

Course outline

1.Introduction:
Models and concepts in logistics operations

2. Understanding the supply process:
Evaluation process capacity

3. Estimating and reducing labour cost:
A process perspective
Batching and flow interruptions:
Optimising the flow through a supply chain:

4. Forecasting
Requirements to forecasting, static forcasting

5.Forecasting
Adaptive forecasting

6.Cycle stock
Inventory management with multiple products.

7.Cycle stock
Discount schemes, joint optimisation for supplier and customer

8.Safety stock

9. Optimal service levels

10. Scheduling

11. Aggregate planning

12. Pricing, coordination, IT and E-business

Computer-based tools

Learning process and workload

A course of 6 ECTS credits corresponds to a workload of 160-180 hours.
Students are expected to actively participate through discussions and excercises. There will be optional evalutions of test assignements.

Please note that while attendance is not compulsory in all courses, it is the student's own responsibility to obtain any information provided in class that is not included on the course homepage/It's learning or text book.

Examination

A 5 hour written exam (individual) accounting for 100% of the final grade.

Form of assessment	Weight	Group size
Written examination 5 hours	100%	Individual

Specific information regarding student assessment will be provided in class. This information may be relevant to requirements for term papers or other hand-ins, and/or where class participation can be one of several components of the overall assessment. Candidates may be called in for an oral hearing as a verification/control of written assignments.

Examination code(s)

GRA 67531 written exam accounts for 100% of the final grade in GRA 6753.

Examination support materials
All support materials are allowed
Permitted examination support materials for written examinations are detailed under examination information in the student portal @bi. The section on support materials and the use of calculators and dictionaries should be paid special attention to.

Re-sit examination
It is only possible to retake an examination when the course is next taught. The assessment in some courses is based on more than one exam code. Where this is the case, you may retake only the assessed components of one of these exam codes. All retaken examinations will incur an additional fee. Please note that you need to retake the latest version of the course with updated course literature and assessment. Please make sure that you have familiarised yourself with the latest course description.

Additional information
Honour code. Academic honesty and trust are important to all of us as individuals, and are values that are integral to BI's honour code system. Students are responsible for familiarising themselves with the honour code system, to which the faculty is deeply committed. Any violation of the honour code will be dealt with in accordance with BI’s procedures for academic misconduct. Issues of academic integrity are taken seriously by everyone associated with the programmes at BI and are at the heart of the honour code. If you have any questions about your responsibilities under the honour code, please ask. The learning platform itslearning is used in the teaching of all courses at BI. All students are expected to make use of itslearning.