



APPLIES TO ACADEMIC YEAR 2015/2016

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 specific 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. 2013. Supply chain management : strategy, planning, and operation. 5th 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 forecasting

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 exercises. There will be optional evaluations of test assignments.

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.

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

Honor Code

Academic honesty and trust are important to all of us as individuals, and represent values that are encouraged and promoted by the honor code system. This is a most significant university tradition. Students are responsible for familiarizing themselves with the ideals of the honor code system, to which the faculty are also deeply committed.

Any violation of the honor code will be dealt with in accordance with BI's procedures for cheating. These issues are a serious matter to everyone associated with the programs at BI and are at the heart of the honor code and academic integrity. If you have any questions about your responsibilities under the honor code, please ask.