



**UNIVERSITY OF GÄVLE**

STUDY PLAN

ADVANCED LEVEL

STUDY PROGRAMME IN MANAGEMENT OF  
LOGISTICS AND INNOVATION

Programme code: TAINM

Confirmed by the NT-board 2006-09-21

Revised by the NT-board 2008-10-28

**Study Plan**  
**Study Programme in Management of**  
**Logistics and Innovation, 60 ECTS**

**This study plan applies to students registered autumn term 2008 or  
later**

# **MANAGEMENT OF LOGISTICS AND INNOVATION**

## **University of Gävle**

### **1 General organisation**

The master's degree programme Management of Logistics and Innovation is made up of 60 ECTS credits and consists of a free standing further education for students with a completed bachelor's degree or equivalent of at least 180 ECTS credits. It is a full-time programme given mainly in English.

### **2 Objectives**

#### **2.1 Objectives for higher education at advanced level according to the Higher Education Act, chap 1, § 9 and the examination description according to the Higher Education Ordinance appendix 2**

##### **2.1.1 Objectives for higher education at advanced level according to the Higher Education Act, chap 1, § 9**

Education at advanced level will essentially build on the proficiency which students gained within the education at basic level or equivalent attainment.

Education at advanced level shall involve a deepening of knowledge, skills and abilities in relation to the education at basic level and shall, in addition to that which applies for the education at basic level,

- further develop the students ability to independently integrate and use knowledge,
- develop the students ability to manage complex facts, problems and situations, and
- develop the students qualifications for a working life which places great demand on independence or for research and development work.

##### **2.1.2 Degree description according to the Higher Education Ordinance, appendix 2**

#### **Master's Degree**

##### ***Extent***

The masters degree is obtained after the student has completed the course requirements of 60 ECTS credits with particular focus decided on by the individual college, with a minimum of 30 ECTS credits for specialisation within the main field of study. A further demand is a completed bachelor's degree; artistic bachelor's degree, professional degree of a minimum 180 ECTS credits or equivalent foreign degree.

Exception from the demand of a previous degree can be given for a student who has been accepted for the programme without having a basic qualification in the form of a degree. This however does not apply if on acceptance an exception has been made according to chap 7 § 28 second paragraph because the degree certificate has not yet been issued.

## **Objectives**

### *Achievement and understanding*

To gain a masters degree the student shall

- show achievement and understanding within the main area of study, including both a general view of the area as well as specialised attainment within certain sections of the subject along with an insight of current research and development work, and
- show advanced knowledge of method within the main area of study

### *Skill and ability*

To gain a masters degree the student shall

- show the ability to integrate knowledge and to analyse, form an opinion of and manage complex facts, problems and situations even with limited information,
- show the ability to independently identify and formulate problems as well as plan and with adequate methods carry out qualified tasks within a given time
- show the ability to report clearly both orally and in writing and discuss their conclusions and the knowledge and arguments which form the basis for these in dialogue with different groups, and
- show the skills needed to take part in research and development work or to be able to work in another qualified activity.

### *Assessment ability and attitude*

To gain a masters degree the student shall

- show the ability to make judgements within the main area of study with consideration to relevant scientific, social and ethical aspects as well as show awareness of ethical aspects in research and development work,
- show insight into the possibilities and limitations of science, its role in society and mankind's responsibility for how it is used, and
- show the ability to identify their need of further knowledge and to take responsibility for their own development of knowledge

## **Independent work (thesis)**

To gain a masters degree the student shall within the framework of the course requirements have completed an independent work (degree thesis) of a minimum of 15 ECTS credits within the main field of study.

## **Other**

For a masters degree with a particular direction the prescribed demands which each individual college has determined within the frame for the standards in this description shall also apply.

## **2.2 Particular objectives for the programme**

### *Achievement and understanding*

On completion of the programme the student shall

- show achievement and understanding within the main field of study Logistics and Innovation Management with specialised competence in at least two of the areas effective logistics, the management of innovation processes, operations management, quality development and environmental management,
- show insight into relevant and current challenges for research and development concerning the design of industrial activities,
- show knowledge of methods for analysis and the management of industrial problems with focus on the development of production and logistic systems, the management of innovations processes or quality and environmental management systems,

### *Skills and ability*

On completion of the programme the student shall

- show the ability to independently analyse, form an opinion of and manage complex problem situations which apply to both streamlining as well as innovation processes in industrial activities through the integration of knowledge gained from the areas of information included in the programme
- show the ability to make use of advanced qualitative and quantitative methods and techniques for the designing of logistic and production systems, innovation management and the development of products/processes or quality techniques
- show the ability to independently identify and formulate theoretic problems in a prescribed time as well as plan and carry out qualified project tasks around the designing of industrial operations
- show the ability to report both orally and in writing on completed project work and through dialogue with both practitioners and academics clearly show the applicability of the results

### *Assessment and attitude*

On completion of the programme the student shall

- show understanding for the significance of the interplay and dependence between technology, organisation and mankind for the design of industrial operations
- show the ability to form an opinion of the effects of different forms of development of industrial operations from a social, economic and environmental perspective as well as show awareness of ethical aspects in research and development work
- show an attitude to knowledge and life long learning which is characterised by an active, responsible and reflective method of study and the ability to identify the need for further knowledge and continued development of competence.

### **3 Programme description**

#### **3.1 Main Field of Study**

##### **3.1.1 Logistics and Innovation Management**

The main field of study Logistics and Innovation Management consists of logistics, industrial organisation and innovation management, quality control and environmental management. Specialisation within the programme deals mainly with advanced logistical applications and on the management and renewal of advanced production, organisation and operation systems. Possibility is given to specialisation within the design and management of quality and environmental management systems or within quality and simulation techniques.

The programme is made up of courses at both advanced and basic level. The width in the choice of courses allows for specialisation at an advanced level in one or two of the subjects within the programme. Courses given at basic level have two purposes. One is to offer the possibility for progression. Students with limited knowledge in any of the subjects are given the chance to read at basic level at the beginning of the programme and afterwards continue at advanced level. Another purpose is to offer students the possibility to broaden their knowledge in several of the subjects which form part of the main course.

##### **3.1.2 Degree thesis**

The programme concludes with a thesis. This consists of 15 ECTS credits or at least 30 ECTS credits if the student cannot show a thesis from the education at basic level. In the thesis students must show that they can independently carry out a bigger project, where they at the same time show proof of their ability to integrate knowledge from the different subjects, choose relevant methods and solve complex problems. It is expected that in the thesis knowledge from earlier studies will be applied, broadened and deepened, Students shall also show through their thesis that the objectives for a basic university education as given in the Higher Education Act, the goals for a masters degree education set out in the Higher Education Ordinance and the particular aims given in this education plan have been achieved.

#### **3.2 Tuition and examination**

##### **3.2.1 Tuition**

The education is done through lectures, exercises, seminars as well as project work and guidance. Company links and problem based project tasks are used with the purpose of stimulating the interplay between theory and practice, increasing the relevance of the course and contributing to integration between the principal areas of study. In this final examination work the student receives training in independent project management and gives proof their ability to choose relevant theories and methods and problem solving aptitude.

### 3.2.2 Examination

A variety of forms of examination are used within the programmes courses; written exams in hall, exams done at home, tasks to be handed in, project work, essays, seminars and oral examinations. The choice of the form of the examination is governed by the content of the course with the ambition that the examination will function as a support for the understanding of the inter play between theory and practice.

### 3.3 Internationalisation

The programme is adapted for international students. All of the specialisation courses within the programme can be given in English. International student and teacher exchange within the programme are at present established with the University of Glamorgan in Wales and Fachhochschule Offenburg in Germany within the framework for Erasmus/Socrates, Guizhou and Sichuan University in China within the framework of Linnaeus-Palme and with the University of Wollongong in Australia

### 3.4 Lasting development

The programme's profile is lasting development. The emphasis in an increased social, environmental and economic lasting development is a central starting point for all parts of the education within Management of Logistics and Innovation. Furthermore environmental management forms a central area of knowledge in the programme.

## 4 Courses within the programme

Students take responsibility themselves for application for the courses in the following term. Students always have priority to courses within the programme. Changes in the order of the courses can be made after discussion with students active in the programme. Changes to the courses forming part of the programme are decided by the faculty board. Changes to the period when the courses are given are decided at institution level. An alternative choice of course can be made in discussion with the person responsible for the programme with the condition that the objectives for the course are fulfilled. The programme is planned so that the courses included can be read in pairs part-time, except for the thesis which is read full-time.

B = Basic level

A = Advanced level

F = course free of choice

<b>Period</b>	<b>Course name</b>	<b>Credits</b>	<b>Level</b>	<b>Main Field of Study</b>
1:1	Strategies and principles for effective logistics D	7,5	A	Logistics and Innovation Man.
1:1	Industrial Environmental Management C	7,5	B	Logistics and Innovation Man.
1:1	Reliability Engineering (F)	7,5	B	Logistics and Innovation Man.
1:1	Swedish for Foreign Students (F)	7,5	B	Humanities

1:2	Change management D	7,5	A	Logistics and Innovation Man.
1:2	Industrial Project Management D	7,5	A	Logistics and Innovation Man.
1:2	Simulation Techniques in Logistics C (F)	7,5	B	Logistics and Innovation Man.
1:2	Swedish for Foreign Students (F)	7,5	B	Humanities
1:3	Innovation Management C	7,5	A	Logistics and Innovation Man.
1:3	Perspectives on Quality and Environmental Auditing D	7,5	A	Logistics and Innovation Man.
1:3	Swedish for Foreign Students (F)	7,5	B	Humanities
1:3-4	Advanced Scientific Methodology D	7,5	A	Logistics and Innovation Man.
1:4	Comparative Management Culture (F)	7,5	B	Logistics and Innovation Man.
1:4	Master Thesis D	15	A	Logistics and Innovation Man.

The final degree thesis is written within the main field of study Management of Logistics and Innovation. The demand for a degree thesis at advanced level is specified in the University's outlines for a degree thesis.

## 5 Qualification

Those qualified to be accepted for the programme are those who have an examination at basic level consisting of a minimum of 180 ECTS credits or equivalent foreign examination with focus on Logistics and Innovation Management.

## 6 Grade

Grades are set on the courses included in the programme according to the respective syllabus.

## 7 Degree regulations

### 7.1 Degree title

Degree of Master of Science (One Year) with a major in Logistics and Innovation Management.

## **7.2 Degree criteria**

To receive the masters degree students need, over and above the education at basic level of a minimum of 180 ECTS credits, to have completed courses of 60 ECTS credits, of which at least 45 ECTS credits are at advanced level in which 30 ECTS credits are for specialisation in courses at advanced level in the main field of study Management of Logistics and Innovation.

For a technology masters degree it is further necessary that the student has completed courses of at least 30 ECTS credits in mathematics, alternatively 22,5 ECTS credits in mathematics and 7,5 ECTS credits in applied mathematics.

## **7.3 Degree certificate**

Students who fulfil the requirements for the degree shall on request receive a degree certificate. Every degree certificate will be accompanied by a degree supplement which describes the education and its position in the education system (Higher Education Ordinance chap 6 § 15) The supplement is called the Diploma Supplement. The Diploma Supplement will make acknowledgement easier and count as a Swedish degree on employment and for continued studies in Sweden or abroad.

## **8 Other regulations**

### Transition stipulations

For students who have had an interruption of studies a special syllabus is created by the person responsible for the programme in consultation with the study advisor