

CURRICULUM

**Logistics Management (AP degree in
Logistics management)**

2016-2018



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RECTOR

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This curriculum for the Academy Profession Degree Programme in Logistics Management takes effect on 1 September 2016. The common part applies nationwide to all providers of the degree programme.

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1. Framework for the curriculum

This curriculum for the AP Degree in Logistics Management was prepared in the spring of 2016 by the Danish business academies authorised to offer this degree programme. These include Copenhagen Business College, Dania – Academy of Higher Education, Zealand Institute of Business and Technology and Lillebaelt Academy.

A business academy degree within logistics and transport entitles the graduate to use the title AP Graduate in Logistics Management.

The official title of the education is Academy Profession Degree Programme in Logistics Management.

The programme is a short, tertiary business academy degree programme of two years' duration.

The rated duration of the programme is two student full-time equivalents. One student full-time equivalent is the amount of work carried out by one full-time student over a year and equivalent to 60 ECTS credits (European Credit Transfer System). The full programme is equivalent to 120 ECTS credits. Within the Qualifications Framework, the programme corresponds to level 5.

The purpose of the programme is to enable the student to independently plan, organise, implement and manage complex logistics and transport solutions both nationally and internationally.

The AP degree in Logistics Management is based on the following acts and regulations, which govern the completion of the programme:

- The Executive Order no. 244 of 13 March 2015 on the AP Degree Programmes in Logistics and Transport (AP degree in Logistics Management), Executive Order, in force with later amendments.
- Danish Act no. 1147 of 30 June 16 on Academy Profession Degree Programmes and Professional Bachelor Programmes, in force with later amendments.
- Consolidated Act no. 935 of 25 August 14 on Business Academies for Higher Education, in force with later amendments.
- Executive Order no. 1046 of 30 June 16 on Tests and Exams in Vocational Programmes (the Examination Order).
- Executive Order no. 1147 of 30 June 16 on Academy Profession and Professional Bachelor degree programmes, in force with later amendments.
- Executive Order no. 85 of 26 January 16 on Admission to Academy Profession and Professional Bachelor degree programmes, in force with later amendments.
- Executive Order no. 262 of 20 March 2007 on Grading Scale and other Forms of Assessment, in force with later amendments.
- Executive Order no. 601 of 12 June 2013 on the Accreditation of Higher Education Institutions (the Executive Order on Accreditation) , in force.

- Executive Order no. 601 of 12 June 2013 on the Accreditation of Higher Education Institutions and Approval of New Higher Education Programmes, in force with later amendments.

For further information please refer to the website of the Ministry of Higher Education and Science www.ufm.dk, which contains all the executive orders relating to short-term higher education programmes.

1.1 Transitional arrangement

Students who have completed an exam/test in accordance with the previous rules for the degree programme must complete the programme in accordance with the curriculum in question.

1.2 Structure of the curriculum

According to the guidelines in the Executive Order on Academy Profession and Professional Bachelor Degree Programmes, the curriculum is divided into:

- a common part that applies to all business academies approved to offer this programme
- an institution-specific part that lays down the guidelines and requirements of a particular institution. Parts of this may have been developed jointly by one or more of the Academies offering the programme.

2. Admission to the degree programme

2.1 Requirements to education, courses and admission test, if applicable

Admission requirements

- upper secondary school exam (stx), higher preparatory exam (hf), higher commercial exam (hcx) or higher technical exam (htx), vocational and upper secondary exam (eux) – all with English at B level and maths at C level or,
- one of the vocational education programmes with specialisation, office education with specialisation, bus driver in public transport (level 3), tourism bus driver, warehouse and terminal education (level 3), personal transport education (level 3), carriage of goods by roads education, crane operator education (level 3), transport clerk and postal services education (level 3)

- other relevant vocational education with English at B level and maths at C level.

An applicant may be granted permission to apply with a background that does not meet the stipulated admission requirements provided a competency assessment shows that the applicant has the necessary equivalent qualifications and is deemed capable of completing the degree programme.

It is a condition that the applicant passes a qualification test before the studies officially begin or that another form of individual assessment documents that the applicant has the necessary qualifications.

If the number of places in the degree programme is insufficient to accommodate all applicants, the Academy's rules of prioritisation will apply. The student may be called in for an interview to assess his/her suitability.

3. Educational elements and models

The following relates to the common part of the curriculum.

3.1 Timing of the different educational elements, internship and exams in the degree programme

Semester	Core area	Educational elements					ECTS
1 st semester	The Company	Logistics	Finance	Communication and negotiation	Organisation	Statistics	15 ECTS
	The Market	Logistics	Finance	Communication and negotiation	Organisation	Statistics	15 ECTS
2 nd semester	Procurement	Procurement	Sales law	Communication and negotiation		Statistics	15 ECTS
	Production	Production	Finance		Organisation	Statistics	15 ECTS
First year exam (first external exam)							
Communication and negotiation (internal exam)							
Semester	Core area	Educational elements					ECTS
3 rd semester	Distribution	Distribution		Transport law	Project management		15 ECTS
	Information	Supply chain management					5

	management		ECTS
	Elective	Elective	Elective
			10 ECTS
Common part exam (second external exam)			
Semester	Core area	Educational elements	ECTS
4 th semester	Internship	Internship	15 ECTS
	Internship exam		
	Final exam project	Final exam project	15 ECTS
	Final exam project (third external exam)		

3.2 Core areas

The AP Degree in Logistics Management consists of the following educational elements:

- 80 ECTS credits: Teaching in the core areas of the degree programme (compulsory) – see below.
- 15 ECTS credits: Internship (compulsory)
- 10 ECTS credits: Institution-specific/elective educational elements
- 15 ECTS credits: Final exam project

In total 120 ECTS credits.

Core areas of the degree programme – 80 ECTS

The degree programme comprises the following core areas:

- 15 ECTS credits: The Company
- 15 ECTS credits: The Market
- 15 ECTS credits: Procurement
- 15 ECTS credits: Production
- 15 ECTS credits: Distribution
- 5 ECTS credits: Information management

The teaching and the internship have the following learning objectives divided into knowledge, skills and competencies:

Knowledge

The graduate will acquire knowledge about:

- procurement, production and distribution management and their role in the value chain as well as associated concepts, including logistics service
- modes of transport and different logistics systems as well as the company's internal information technology
- the company's internal processes and objectives, including financial control, management and organisation
- national and international socio-economic conditions as well as the different market forms and their relevance to the company
- transport law, including the concepts of venue, jurisdiction, creditor insurance and employer's liability
- different forms of finance, types of expenses and calculations.

Skills

The graduate will be able to:

- apply models of analysis in connection with the company's competition strategy and assess risks and opportunities at different market levels

- assess the company's purchase contracts in the light of national and international rules
- apply statistical tools for quality control and forecasting
- prepare investment calculations, including relevant financial ratios
- assess the relationship between a contract of sale and a transport agreement, apply the rules of liability and Incoterms to practical situations and propose solutions
- apply transport planning methods and models when analysing the company's logistics situation.

Competencies

The graduate will be able to:

- participate and collaborate with management and staff with a different educational, linguistic and cultural background
- negotiate in English, both verbally and in writing, about the company's logistics processes
- manage the company's supply and distribution chain in the context of professional and multi-disciplinary collaboration
- acquire new knowledge, skills and competencies relating to the profession in a structured context
- optimise logistics efficiency by means of production and inventory management.

3.3 Compulsory educational elements – 80 ECTS

In connection with the practical planning of the teaching, the core areas have been divided into core areas. Each individual core area has specific learning objectives. These themes are planned in such a way that each theme uses elements from different courses to cover all aspects of an issue relating to the core areas of the programme.

The following table showing ECTS credits indicates the compulsory educational elements (themes) involved.

Semester	Theme	Courses/core areas	ECTS	Total
1.	Theme 1: The Company	<ul style="list-style-type: none"> - Logistics - Finance - Communication and Negotiation* - Organisation/Management - Statistics 	<ul style="list-style-type: none"> - 5 - 5 - 2 - 2 - 1 	15
	Theme 2: The Market	<ul style="list-style-type: none"> - Logistics - Finance - Communication and Negotiation* - Organisation/Management - Statistics 	<ul style="list-style-type: none"> - 7 - 2 - 1 - 3 - 2 	15
2.	Theme 3: Procurement	<ul style="list-style-type: none"> - Procurement - Procurement law - Communication and Negotiation* - Statistics 	<ul style="list-style-type: none"> - 7 - 4 - 3 - 1 	15
	Theme 4: Production	<ul style="list-style-type: none"> - Production - Finance - Statistics - Organisation 	<ul style="list-style-type: none"> - 7 - 4 - 1 - 3 	15
3.	Theme 5: Distribution	<ul style="list-style-type: none"> - Distribution - Transport Law - Project Management 	<ul style="list-style-type: none"> - 7 - 4 - 4 	15
	Theme 6: Information management	<ul style="list-style-type: none"> - Supply chain management 	<ul style="list-style-type: none"> - 5 	5

*Communication and Negotiation taught in English

3.3.1 Theme 1: The Company – 15 ECTS

The overall objective of the first theme is to teach the student to perform the initial stages of problem-oriented project work and to present the results achieved. In addition, the student learns to develop a general understanding of the diversity of the logistics and transportation area. In this way, the student gets a good start to the degree programme and develops the qualifications and competencies that are necessary to derive maximum benefit from the degree programme.

The overall objective of the theme includes giving the student an understanding of the company's internal processes and objectives and their interconnectedness.

Theme 1	
Knowledge	<p>Knowledge about the different subject areas within logistics and transportation.</p> <p>Knowledge about problem-oriented project work.</p> <p>Knowledge about the company's financial control, budget process and accounting concepts.</p> <p>Knowledge about organisational structures, the company's management and decision processes as well as human resources.</p> <p>Knowledge about logistical work areas such as procurement, production and distribution control as well as the relationship with the value chain and related concepts.</p> <p>Knowledge about different forms of transportation and the company's internal information technology.</p>
Skills	<p>Ability to identify a problem and subsequently formulate a problem statement.</p> <p>Ability to apply strategic analysis models in connection with the company's competition strategy and on that basis make relevant decisions about logistics.</p> <p>Ability to express himself/herself orally and in writing when communicating in English with the recipient in order to operate in the global business world.</p>
Competencies	<p>Ability to make presentations using IT tools.</p>

	The student will be a more effective student, both professionally and socially.
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3.3.2 Theme 2: The Market – 15 ECTS

The overall objective of theme 2 is to give the student an overview of the environment in which a company operates and the effect such surroundings may have on the company.

Theme 2	
Knowledge	<p>Knowledge about national and international socio-economic development as well as the different market forms and their relevance to the business sector.</p> <p>Understanding the different general and specific strategic opportunities associated with the company's place in the value chain.</p> <p>Knowledge about the structure, function and importance of international organisations to businesses.</p>
Skills	<p>Ability to apply cultural understanding in both professional and personal contexts.</p> <p>Ability to apply relevant presentation techniques both nationally and internationally.</p> <p>Ability to assess threats and opportunities at different market levels.</p> <p>Ability to perform customer analyses and segmentation.</p>
Competencies	<p>Ability to participate in multi-disciplinary collaboration within a company with a view to preparing strategic analyses and making decisions.</p>

3.3.3 Theme 3: Procurement – 15 ECTS

The overall objective of theme 3 is to give the student insight into the different procurement processes and an understanding of the effect the procurement decision has on the company's future work.

Theme 3	
Knowledge	Ability to understand the concepts of venue and jurisdiction and will become familiar with credit insurance.
Skills	<p>Ability to apply national and international rules governing the company's procurement contracts.</p> <p>Ability to apply and assess Incoterms in relation to practical problems and suggest solutions.</p> <p>Ability to prepare forecasts using different statistical tools.</p> <p>Ability to assess different procurement strategies and relations.</p>
Competencies	<p>Ability to negotiate in English, both verbally and in writing about the company's procurement processes.</p> <p>Ability to manage the company's procurement system in the context of professional and multi-disciplinary collaboration.</p>

3.3.4 Theme 4: Production – 15 ECTS

The overall objective of theme 4 is to give the student insight into the different production processes from the time the raw material enters the warehouse through to storage of the finished goods.

Theme 4	
Knowledge	<p>Knowledge about the impact of the company's management style on its processes.</p> <p>Knowledge about the different forms of finance, types of expenses and calculations.</p> <p>Knowledge about different ways to analyse the company's flow of materials.</p>

Skills	<p>Ability to make investment calculations.</p> <p>Ability to perform quality control using statistical techniques.</p>
Competencies	<p>Ability to optimise production and warehouse management.</p> <p>Ability to be innovative within own work area.</p>

3.3.5 Theme 5: Distribution – 15 ECTS

The overall objective of theme 5 is to give the student insight into the movement of the finished goods from the company's warehouse through to the customer. This includes the challenges that are involved when goods or packaging is returned from the customer.

Theme 5	
Knowledge	<p>Knowledge about employer's liability and the characteristics of transport law.</p> <p>Knowledge about different modes of transport in connection with the planning of supply and distribution.</p> <p>Knowledge about the concept of logistics service.</p>
Skills	<p>Ability to determine which transport documents to use in a given situation.</p> <p>Ability to assess the relationship between a contract of sale and a contract of carriage and knows how to regulate transport liability.</p> <p>Ability to apply transport planning methods.</p> <p>Ability to manage and/or participate in projects and apply project management tools.</p>
Competencies	<p>Ability to manage the company's distribution system in the context of professional and multi-disciplinary collaboration.</p>

3.3.6 Theme 6: Supply chain management – 5 ECTS

The overall objective of theme 6 is to give the student insight into the information required and ways to manage the information so as to optimise the efficiency of logistics services.

Theme 6	
Knowledge	<p>Knowledge about the information flow within the company and the supply chain.</p> <p>Knowledge about relationship strategies from a logistics perspective and knowledge about network management and supply chain integration.</p> <p>Knowledge about the customer-managed supply chain.</p> <p>The possibilities and limitations of the IT/ERP system for integration between the company and the supply chain.</p>
Skills	<p>Ability to define and use KPIs as part of company planning.</p> <p>Ability to analyse the relationship between the company's overall strategy and the SCM strategy.</p> <p>Ability to optimise a national or international supply chain.</p> <p>Ability to assess the link between the internal processes and the ability to achieve competitive advantages in the supply chain.</p>
Competencies	<p>Ability to analyse and assess a company's logistics situation in relation to the supply chain and to make suggestions for improvements and the implementation of such improvements.</p>

3.5 Internship – 15 ECTS

The internship allows the student to work with relevant professional issues and gain knowledge regarding relevant work functions.

The purpose of the internship is thus to give the student some professional competencies, contribute to the student's personal development and ensure integration between theory and practice in the degree programme.

Knowledge	<p>Through the internship in a host company, the student acquires knowledge about the company's business area and internal processes.</p> <p>The student acquires practical experience with work and collaboration in a workplace.</p>
Skills	<p>Ability to identify, analyse and propose logistics solutions to minor practical problems within the company.</p>
Competencies	<p>Ability to participate in professional and multi-disciplinary collaboration within the company.</p> <p>Ability to function as an employee in a company.</p> <p>Ability to apply logistical theories in practice.</p>

3.6 Rules governing the internship

Internship in a company, corresponding to 15 ECTS and placed during the first part of the fourth semester, following completion of the themes and the elective educational elements.

The purpose of the internship is to give the student an opportunity to shape the entire degree in accordance with interests and career opportunities.

The internship may be completed at one or more companies in Denmark or abroad.

The Academy publishes guidelines on internships once a year.

3.7 Ways of teaching and working

The degree programme includes teaching in the practical aspects of the profession and the subject area as well as key applied theories and methods and, to the extent relevant, environmental issues, the relationship between different cultural expressions and entrepreneurship.

The methods of teaching aim to develop the student's independence and ability to collaborate and innovate.

A thorough introduction to the purpose, methods and values at the Academy is provided at the beginning of the studies. Special emphasis is placed on group work, personal development and prompt inclusion of business contacts in the teaching.

A thorough introduction to the possibilities of specialisation in the elective part of the programme is provided during the second semester to enable the student to make an informed decision.

The teaching in the different courses is divided into themes so that projects and exams during the theoretical part come across as a logical way of testing the material taught. This will appear from the Academy's current semester and week schedules.

Concurrently with the teaching during the third semester, the student looks for an internship at one or more Danish or foreign companies. The Academy provides guidance regarding the preparation of an application and application methods, including the use of networks.

The tuition is based on relevant business practices and combines theory and practice. Relevant business practice is broadly interpreted as problems in logistics and transport companies.

By using course-related topics and themes, the teaching incorporates problems from different types of companies with a focus on the challenges inherent in restructuring, development and internationalisation.

The tuition is varied and includes classroom lessons, lectures, project work, multi-disciplinary cases, theme work, guest lectures and company visits. In addition to academic skills, the different ways of learning help the students develop their abilities to work on their own and together with others.

The focus of the teaching is on methods of working and learning that develop independence and the ability to collaborate and innovate. Project work, supervision, workshops and field work will be among the key methods of working and learning. The students are involved in the planning of the teaching, and team building, reciprocal learning and creativity are encouraged.

The tuition can be organised to include English in the form of educational material or the teaching may take place in English. In addition, the teaching supports the development of the student's digital competencies.

3.8 Differentiated teaching

Differentiated teaching does not form part of the degree programme.

3.9 Reading texts in foreign languages

Part of the material studied in the programme is in English. This supports/strengthens the English skills the students must acquire as part of the degree programme.

It should also be noted that parts of the exams in the degree programme are based on English texts.

There are no further requirements to English apart from those mentioned in the Executive Order on Admission.

4. Internationalization

AP graduates in Logistics Management who wish to complete a top-up programme abroad, can benefit from a range of credit transfer arrangements. These arrangements have been entered at national level and by individual programme providers. Further information about credit transfer agreements can be obtained by contacting the international coordinator.

5. Tests and exams

5.1 Exams

Each student must pass five common exams as follows:

External exams: first year exam, the exam in the common part and the final exam project.

Internal exams: Communication and negotiation as well as internship, plus an internal exam in the elective component.

All exams must be passed with a minimum grade of 02. The first year exam, the internship and the final exam project are described in the Act on Vocational Education and Training. The different business academies agree that the other exams should also be a common part of the degree programme.

Students have three attempts at passing an exam. According to the progress reform, all students are automatically registered for the exam. If a student is prevented from participating on account of illness, the institution may request documentation in the form of a medical certificate.

Students who fail an exam may sit a new exam. The institution determines when the make-up exam takes place. The right to participate in a make-up exam is granted in

accordance with the institution's rules. A student cannot re-sit an exam once it has been passed.

Exams in the first year of the degree programme must be passed before the student completes the second year of studies in order for the student to continue in the degree programme. The institution may grant exemptions from this rule for individual students on account of childbirth or unusual circumstances.

5.1.1 Types of exams

External exams

First external exam: the first year exam

The purpose of the exam is to document the student's ability to apply the knowledge acquired during the first and second semesters in relation to issues within themes 1 – 4. The exam is based on practical issues/situations and aim to give the student a chance to document his/her ability to solve problems using multi-disciplinary analysis, reasoning and assessment.

Form: External exam – written

Time: End of the second semester

Duration of exam: 6 hours

Content of exam: The exam is based on a business case, which is handed to each individual candidate to read 48 hours before the exam. The case synopsis may be discussed among the students before the exam. During the 48 hours, the graduate prepares a written proposal with an analysis of the case based on the Academy's defined questions. At the end of the 48 hours, the student must submit his/her written proposal by uploading it to Wiseflow. This signals the start of the 6-hour written exam, during which the student must answer the exam questions relating to the case synopsis.

Scope of exam: The proposal must consist of min. 15,000 and max. 20,000 characters including spaces, excluding front page, table of contents, footnotes, references and attachments.

Assessment: The 7-point scale (one combined grade). Weighting: Proposal 20% (submitted after 48 hours); 6-hour written exam: 80%.

Second external exam: Exam in the common part

The purpose of the exam is to allow the students to document their ability to apply the theory they have learned, their written and oral presentation skills as well as their ability to work holistically and in a multi-disciplinary manner.

Form: External exam – written project and oral defence.

Time: End of the third semester.

Duration of exam: Oral defence: 30 minutes.

Content of exam: A case synopsis is handed to the individual student on the first day of the project. The case synopsis may be discussed among the students, but neither the institution nor the teachers will answer any questions regarding the material.

The case is based on the compulsory part of the programme, and the issues covered by the case material aims at broadly covering the themes taught in the compulsory part of the degree programme.

An individual answer is submitted seven days after the case synopsis is handed out.

Scope of exam: Min. 35,000 and max. 40,000 characters including spaces, excluding front page, table of contents, footnotes, references and attachments.

The project is then defended orally in the presence of two examiners, one internal and one external. IT use must be incorporated in the answer and also forms part of the assessment.

Assessment: The 7-point scale (one combined grade) in which the written part carries a weight of 60% and the oral part 40%.

Third external exam: Final exam project

Objective: To give the students an opportunity, both orally and in writing, to document their ability to analyse issues systematically and analytically and to combine theory and practice in a broad logistics perspective.

Knowledge

The student will have knowledge about:

- how to work systematically and analytically with a specific issue.

Skills

The student will be able to:

- apply relevant theories and methods to identify, analyse and propose solutions to a complex, practical issue within a company.

Competencies

The graduate will be able to:

- combine theory and practice in a broad logistics perspective
- communicate about processes and results in a manner that is relevant to the company.

Form: External exam – written project and oral defence.

Time: End of the fourth semester.

Duration of exam: Oral defence: 45 minutes.

Content of exam: The project is to be based on central issues of the programme and may comprise elements from the elective educational elements. The topic of the final exam project is formulated by the student together with the business academy and normally also in collaboration with a company. The business academy must approve the formulation. The student prepares a project and subsequently attends an oral exam based on the written project.

The final exam project is prepared either individually or in groups of two to three students.

Students who fail the exam project must prepare a new project. Group members who do not pass, are subject to the same rules.

Scope of project:

Individually: Min. 70,000 and max. 90,000 characters including spaces, excluding front page, table of contents, footnotes, references and attachments.

Two students: Min. 120,000 and max. 150,000 characters including spaces, excluding front page, table of contents, footnotes, references and attachments.

Three students: Min. 180,000 and max. 210,000 characters including spaces, excluding front page, table of contents, footnotes, references and attachments.

Assessment: The 7-point scale (one combined grade). The written part carries a weight of 70%, of which a small part relates to spelling, formulation and layout. The oral part carries a weight of 30%. First the written part of the project is assessed jointly by the

examiner and the tutor. The project is then defended orally by each student in the presence of the tutor and the examiner.

Internal exams:

First external exam: Communication and Negotiation

Form: Internal exam – oral

Time: During the second semester

Duration of exam: 20 minutes

Contents: The exam documents the student's ability to apply the theory learned in the course Communication and Negotiation.

Assessment: 7-point scale

Internal exam in electives:

The electives may be tested in one of the following optional ways.

A. Oral case exam

Form: Internal exam – oral

Time: During the third semester

Duration of exam: Oral exam, 20 minutes incl. evaluation and grading

Content of exam: The student prepares a proposal on the basis of a case. During the oral exam, questions are asked about the proposal and the case with the option to extend the questions to cover the entire syllabus.

Assessment: 7-point scale

B. Oral

Form: Internal exam – oral

Time: During the third semester.

Duration of exam: Oral exam, 20 minutes. Preparation time: 20 minutes.

Content of exam: An oral exam in which the student draws a question.

Assessment: 7-point scale

C. Oral exam without preparation

Form: Internal exam – oral

Time: During the third semester.

Duration of exam: Oral exam, 20 minutes.

Content of exam: Oral exam in which the student draws a question and then proceeds to answer it.

Assessment: 7-point scale

D. Project:

Form: Internal exam – written.

Time: During the third semester.

Duration of exam: To be decided by the teacher.

Content of exam: The student submits a report on the subject no later than one week after completion of the elective course. The report must consist of min. 2,000 and max. 2,500 characters including spaces, excluding front page, table of contents, footnotes, references and attachments.

Assessment: 7-point scale

Internal exam: Internship

Form: Internal exam – written project and oral defence.

Time: In the middle of the fourth semester.

Duration of exam: 30 minutes.

Content of exam: The exam is based on the internship. It takes the form of an oral defence based on a written project prepared by the student.

At the beginning of the third semester, the tutor gives the student guidelines about the different aspects of the internship (dates, etc.). The guidelines also contain a clear description of the requirements and expectations to the student, the Academy and the host company.

The requirements to this project are described in the exam description for the internship.

Assessment: The 7-point scale (one combined grade in which the written part carries a weight of 60% and the oral part 40%).

5.1.2 Compulsory learning activities, attendance and submissions

The following rules apply to the AP Degree Programme in Logistics Management at the Zealand Institute of Business and Technology.

5.1.2.2 First semester exam

Time: End of the first semester.

Duration of exam: 1 week

Contents: The exam aims to document the student's ability to apply the knowledge acquired during the first semester.

The exam is based on a business case, which is handed out to each student for reading, whereupon the student has a week to prepare the report.

The problem presented relates to themes 1-2 during the first semester. The project is based on a practical problem/situation and must give the student an opportunity to document his/her ability to analyse, reason and assess in a multi-disciplinary manner.

Assessment: A single grade according to the 7-point scale, which constitutes an overall assessment of the report and the 20-minute oral exam.

The student must pass the first semester exam before being admitted to other tests or exams in the degree programme.

5.1.3 Types of exams

Point 5.1.1 provides information about the individual exams, including which exams can be taken in groups.

5.1.4 Externally assessed exams

5.1.4.1 First year exam – written

This first external exam is described under 5.1.1.

5.1.4.2 Exam in the common part – written and oral

This second external exam is described under 5.1.1.

5.1.4.3 Final exam project

The final exam project is described under 5.1.1.

5.2 Time of exams during the programme

External exams	1 st semester	2 nd semester	3 rd semester	4 th semester	Weighting	Grade
First year exam (First external exam)		W			0.2 0.8	1
Exam in the common part (Second external exam)			W O		0.6 0.4	1
Final exam project (Third external exam)				P O	0.7 0.3	1

S: written; M: oral; P: project/assignment

Internal exams:	1 st semester	2 nd semester	3 rd semester	4 th semester	Weighting	Grade
Communication and negotiation (First internal exam)		O				1
Elective (Second internal exam)			P / O / W			1
Internship project (Third internal exam)				P O	0.6 0.4	1

W: written; M: oral; P: project/assignment

6. Credits

6.1 Vertical credit transfer

6.1.1 Domestic

Students are immediately accepted for enrolment with the following advanced study programmes:

- Bachelor in Innovation and Entrepreneurship (18 months)
- Bachelor in Digital Concept Development (18 months)

As a graduate of Logistics Management, it is also possible to apply for admission to the Professional Bachelor in International Trade and Marketing. However, additional requirements to admission should be expected.

6.2 Horizontal credits – transfer

According to the programme schedule the student must have passed the first year of studies in order to be transferred to another educational institution.

Transfer must always be effected before 1 July. If a student wants to change to another educational institution, the student must apply for transfer in writing to the institution to which transfer is applied for¹.

Institutions may grant exemptions from the above in the event of unusual circumstances. A written application must be submitted to the educational institution of choice for enrolment.

6.3 Transfer of credit for educational elements

A student may apply for transfer of credits for exams that are part of this programme based on completed and passed educational elements from other programmes that are on a par with educational elements or internships in the Logistics Management degree programme².

Applications for credit transfer will be assessed on a case by case basis by the institution concerned, based on an academic assessment of whether the learning objectives of the educational elements are in agreement with the learning objectives of the degree programme in Logistics Management.

¹ When enrolled with the new institution, the student must deregister from the abandoned educational institution, this also includes ensure that the first year grades are forwarded to the new institution.

² See also Section 18(2) of the LEP Executive Order.

Institution specific part

7. Electives– description of learning objectives

Two types of elective components are available.

The language of choice for assignments, reports and exams can be either Danish or English.

The components may be placed concurrently with the themes in the degree programme or as independent components in between the themes.

The following descriptions apply specifically to the degree programme in Logistics Management at the Zealand Academy of Business and Technology.

The student must complete educational elements of a duration totalling 10 ECTS during the second year of the programme. The following is a description of the elective educational elements offered.

Elective educational elements require that a sufficient number of students enrol.

7.1 Business Development, 10 ECTS (in English)

Objective: The objective is to teach the student the necessary knowledge, skills and competencies to perform coordinating, advisory and strategic functions relating to the development, implementation and maintenance of a company's business development.

The specialisation focuses on relevant theories and therefore builds on the natural interplay between the different compulsory courses in the programme. Business Development consists of two parts: Marketing (5 ECTS) and Creativity & Innovation (5 ECTS). A single multi-disciplinary oral project exam is held in the two courses (see 4.3.3).

7.1.1 Marketing – 5 ECTS

The purpose of the course is to give the student an opportunity to extend his/her knowledge about marketing.

Knowledge	Knowledge about marketing concepts and tools at the three levels of the organisation.
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	<p>Knowledge about the relationship between product development and marketing.</p> <p>Understanding of the different parameters a company can use to create a market for and sell its products.</p>
Skills	<p>Understanding the relationship between logistics and marketing opportunities on the basis of the company's place in the value chain.</p> <p>Using strategic models to support the company's marketing.</p> <p>Using basic marketing concepts and tools in specific company situations.</p> <p>Using segmentation in connection with marketing.</p>
Competencies	<p>Ability to collaborate effectively with different parties in the value chain in connection with product creation and product movement throughout the value chain.</p>
Exam	<p>Oral case exam – see 5.5.1.</p>

7.1.2 Creativity & Innovation – 5 ECTS

The purpose of the course is to give the student an opportunity to gain insight into how an ERP system supports both financial and logistical processes in a company. In addition, the student becomes familiar with a functional management tool in connection with the completion of projects within the company. The course may be taught in English.

Knowledge	<p>Knowledge about the differences and similarities between creativity, innovation and entrepreneurship/intrapreneurship with a special focus on ways to promote creativity in a company.</p> <p>Knowledge about creative tools.</p> <p>Knowledge about how creative and innovative processes can be planned, implemented and evaluated.</p> <p>Knowledge about the development process from idea to marketed product or service.</p> <p>Knowledge about key concepts and typologies within innovation,</p>
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	<p>including sources of innovation.</p> <p>Knowledge about relevant tools used to manage the innovation process.</p>
Skills	<p>Ability to handle different tools used in connection with idea development and creativity in a practical context.</p> <p>Ability to assess the suitability of different tools for practical idea development.</p> <p>Ability to assess how companies can promote innovation.</p> <p>Ability to describe and categorise different forms of innovation.</p>
Competencies	<p>Ability to incorporate different aspects of creativity into projects and cases.</p> <p>Ability to participate in and manage creative processes in service companies.</p> <p>Ability to participate in and facilitate innovative processes in service companies.</p> <p>Ability to incorporate different aspects of innovation in projects and cases.</p> <p>Ability to work with development processes in a multi-disciplinary and holistic manner.</p>
Exam	See 5.1.1.

7.2 Digital Track – 10 ECTS (in English)

Objective: The student is to acquire the knowledge, skills and competencies required to conduct coordinating, advisory and strategic functions using appropriate methodologies for the purpose of developing, implementing and maintaining the digital appearance on different digital platforms of relevance to the public and private service industry.

This covers everything from a simple information-based website, a content management system and a digital banner to an experience-based museum application or a digital service solution spanning different platforms.

The elective is based on theory relating to the subject area and therefore involves interaction between the different compulsory courses in the degree programme.

Knowledge	<p>Development-based knowledge about and understanding of key methods used to document designs.</p> <p>Development-based knowledge about and understanding of key methods for basic digital design and aesthetics.</p> <p>Development-based knowledge about and understanding of key methods to link use and design.</p>
Skills	<p>Using graphic design.</p> <p>Structuring the content of digital applications.</p> <p>Different methods to document digital and interactive media productions.</p> <p>Communicating about the choice of media effects to stakeholders.</p>
Competencies	<p>Ability to handle and integrate digital media expressions on different digital platforms.</p> <p>New knowledge, skills and competencies relevant to the profession.</p>
Exam	See 5.1.1.

8.0 Exams and tests

8.1 General information about exams and tests

External and internal exams or tests (generally referred to as exams) are graded according to the 7-point grading scale. To achieve a Pass requires the grade of 02.

Learning activities are subject to approval as a condition to sit the following exam.

Students are automatically registered for all exams, assessments and learning activities for the following examination period.

Students who fail an internal or external exam may sit a make-up exam or a re-exam up to a maximum of three times.

8.2 Other exam conditions

8.2.1 Study activity

All students are automatically registered for the external and internal examinations and activities.

To be considered an active student, the student must participate in all external and internal exams and the learning activities.

If the student does not achieve a pass/approved, the student is automatically registered for re-examination. It is an essential requirement that the students attend lessons, and therefore ZIBAT will register attendance. If a student has more than 20 per cent absence from the lessons, the student will be called for an interview to discuss the activity level. Continued absence exceeding 20% and a failure to adhere to agreements will be reported to the SU styrelsen (State Educational Grant and Loan Scheme). The student has a duty to report illness and/or register as healthy through the registration system so that other students, teachers and others the students works with can be kept informed.

8.3 Special institution-specific requirements

All written assignments and reports must be submitted electronically using the programme portal Wiseflow which will automatically scan submitted documents in order to be controlled for plagiarism. Consequently, students do not generally submit written assignments and reports.

8.4 Compulsory educational elements

The compulsory educational (CE) elements are qualitative requirements for the student to complete specific relevant study activities. Examples of compulsory activities can be thematic projects, acting as opponent, presentations, submission of assignments or reports. Grades will not necessarily be awarded according to the 7-point scale. Compulsory learning activities are not considered exams, they are part of the learning process and document that the student is actively studying.

1st semester:

- CE 1. The Company
- CE 2. The Market
- CE 3. Organisational Development
- CE 4. Finance
- CE 5. Communication and Negotiation
- CE 6. Statistics
- CE 7. Innovation project

Semester 2:

CE 8. Procurement
CE 9. Production
CE 10. Organisational Development
CE 11. Statistics

Semester 3:

CE 12. Transport Law
CE 13. Innovation Project
CE 14. Project Management
CE 15. Supply Chain Management

8.5 Group projects

For group assignments, groups are defined as comprising between three and five students. The final exam project is an exemption.

8.6 Individualisation of group projects

In connection with group projects where there is demand for individualised answers, each student's part of the work must be clearly labelled.

Answers where individualisation is a requirement can be composed as follows:

1. The common part includes introduction, problem statement, conclusion and perspectives.
2. Individual parts are one or more parts of the answer that a single student is responsible for and which must be labelled with the student's name. The individual parts must be divided equally among the students of a group.

For exams where the written answer by several students is not assessed in its own right, the answer may be assessed jointly with a subsequent oral examination.

8.8 Examination aids

Students are allowed to use all aids in written exams.

This could be books and hands-out, own notes, supplementary materials, USB sticks etc. containing documents.

In addition, the student has access to both the Intranet and the Internet.

The student may not communicate with other people – this is strictly prohibited.

Illegal communication by a student with others will result in instant expulsion from the exam.

During written exams mobile phones and other forms of communication devices must be switched off and handed over to the invigilator before the exam starts.

Students are to bring their own permitted aids, writing materials and calculator, if applicable. During the exam, students are not permitted to share aids or borrow from fellow students. The Academy will not provide any loan of aids.

The invigilators are entitled to inspect the aids brought by the students.

For written exams, students are to take calculators, dictionaries, pencils, aids etc. out of their bags before the exam starts, to the extent possible. Bags are to be placed as instructed by the invigilators.

Students are not permitted to communicate with each other in any way once the exam has commenced. However, the students may communicate with the invigilators by raising their hands.

A student who tries to contact another student during the exam or tries to use non-permitted aids will be expelled instantly from the exam.

8.9 Use of sources and data for answers

When producing written answers, students will often need to use the works of others as part of the documentation material, such as quotes, graphic presentations, tables, literature, text from on-line sources, statements or re-worked summaries of the work of others, for example from a textbook.

When such material is used, the source must be clearly indicated.

Quotes (direct reproduction) may only be used to a limited extent, and only small parts of text produced by others may be used, for example a few lines or slightly more if necessary to provide understanding of the context or support own arguments. Sampling of answers³ is not permitted.

Remember the following when using quotes:

- Use quotation marks
- State the title of the book
- State the author's name
- Indicate exact page reference.

Immediate copying without clearly stating references⁴ will be regarded as 'cheating' – plagiarism. This will result in the answer being rejected and the student being expelled⁵.

³ This means that you do not make excessive use of quotes as background for your work. Quotes may only be used to support your own arguments.

⁴ In order to ensure correct use of reference material, the work of others etc. an institution may at option decide to use an electronic checking program, for example URKUND. These programmes are able to detect reproductive work and scan answers for plagiarised on-line sources and the system's own database.

⁵ For any other details reference is made to the official rules concerning copyright of copydan (www.copydan.dk).

Cheating in exams through plagiarism comprises instances where a written answer is presented as if completely or partially produced personally by the student(s), and also if the answer

- a) comprises identical or almost identical repetitions of the wording or work of others without clearly identifying this by means of quotation marks, italics, indented or other clear indications stating the source⁶; comprises major pieces of text with wording so close to that of another piece of writing or similar wording etc. that when comparing the texts it is possible to determine that the text pieces could not have been written using any other sources
- b) comprises major pieces of text with wording so close to that of another piece of writing or similar wording etc. that when comparing the texts it is possible to determine that the text pieces could not have been written using any other sources
- c) comprises the use of words or ideas of others without referencing these originators in an appropriate manner
- d) re-uses text and/or core ideas from the student's own previously assessed answers, etc. without observing the provisions laid down in items a and c.

Previously assessed answers and reports and parts of these can be used on an equal footing with other references; this means that paragraphs and analyses may not be 're-used'. Exempted from this are exams and learning activities where the answer or report must be improved to achieve a pass/approved.

When submitting answers in writing, these must always be signed whereby the student acknowledges to have produced the answer with undue assistance.

Students should always expect to submit large parts of their written answers both on paper and electronically (via e-mail, Intranet or USB stick).

8.10 Feedback on tests and exams

The assessment of an oral exam or learning activity is reported to the student immediately following the oral examination.

For exams and learning activities where the student is not informed of the assessment immediately after the event, the students are informed of the publication date of the grades along with the publication of the date of the actual exam.

Efforts will be made to inform students of their assessments at the latest 10 working days after the event.

For written exams and learning activities, students will only be notified through notices of the grades sent to the students, electronic announcements or announcement posted at the education institution (stating examination number). Assessments will not be communicated over the phone.

8.11 Special circumstances – functional impairment

Special exam arrangements may be made for students affected by physical or mental functional impairment and students with similar difficulties if necessary in order to ensure that the terms for such students are equal to those of the other students for a particular exam.

It is a condition that the arrangement will not alter the examination standard.

⁶ Cf. the institution's requirements to written work

If a student believes to be entitled to claim special circumstances, the student must submit a written application with documentation to the institution not less than three months prior to the exam.

8.12 Irregularities, misbehaviour /violation

All applicable rules and regulations must be adhered to for all exams.

If during an exam a student receives or gives another student unauthorised help to answer an assignment or uses unauthorised aids, the student concerned will be expelled from the exam immediately.

If during or in connection with an exam it is suspected that a student has received or given unauthorised help, presented the work of another person as his/her own or used his/her own previously assessed work without referring to it, the student concerned will be expelled from the exam.

Furthermore, the student will be expelled from the programme for a short or long period of time. In such cases, the student receives a warning to the effect that repeat offences may lead to permanent expulsion.

If during or in connection with an exam a student exhibits disruptive behaviour, for example by not abiding by an invigilator's instructions, the student concerned will be expelled from the exam.

If a student leaves the examination room before the exam is completed or without being escorted by an invigilator (when going to the restroom), the student is deemed to have cancelled his/her attendance in the exam.

8.13 Language

As a main rule, exams are conducted in the language announced ⁷, unless part of the exam concerned is to document the student's proficiency of another language.

For international classes, exams are conducted in English. Students may use Danish in their exams.

Students who wish to sit an exam in another language, must submit a written application no later than three months before the date of the exam/the date the exam synopsis is handed out, and valid reasons must exist.

8.14 Complaints

The student is recommended to ask the student counsellor for guidance on complaints procedures and how to prepare a complaint. The rules governing complaints concerning exams can be found in chapter 10 of the Examination Order.

The Examination Order differentiates between complaints concerning:

1. The scope of the examination etc., the examination procedure and/or the assessment
2. Complaints about legal matters.

⁷ Exams can be conducted in Swedish or Norwegian instead of Danish.

The two types of complaints are treated differently.

8.14.1 Complaints about assessment, examination procedure or the basis of examination

A student can submit a written complaint, stating his/her reasons, within two weeks (14 calendar days) after the assessment was communicated in the usual way, concerning:

1. The scope of the examination, including questions asked, work submitted etc. and the exam relative to the objectives and demands of the programme
2. The examination procedure
3. The assessment.

The complaint may concern all exams, whether written, oral or combinations thereof, as well as practical exams. The complaint is sent for the attention of the programme management.

The original examiners, i.e., the internal examiner and the external examiner of the exam concerned, will be presented with the complaint immediately and asked to make a statement. The educational institution must be able to form its decision in relation to academic issues based on the statement from the examiners.

Normally, the educational institution allows two weeks to make the statements.

Immediately when the examiners' statement is available, the complainant is given an opportunity to comment on the statements, normally within one week.

The educational institution makes decisions regarding complaints based on the academic opinion presented by the examiners and the complainant's comments to the opinion.

The decision, which must be in writing, stating reasons, may involve:

4. An offer for a new assessment (re-assessment) – although only written exams
5. An offer for a new exam (re-examination)
6. Rejection of the student's complaint.

If the decision is to offer re-assessment or re-examination, the programme management appoints a review panel. Re-assessment applies only to written exams where material is available for assessment, partly because the review panel cannot make a (re-)assessment of an oral exam that has already been held and because the notes made by the original examiners are personal and cannot be divulged.

If the decision is to offer a re-assessment or re-examination, the complainant must be told that a re-assessment or re-examination may lead to a lower grade. Within a period of two weeks after the decision has been communicated, the student must accept the offer. Acceptance cannot be cancelled. If the student does not accept within this period of time, there will be no re-assessment or re-examination.

Re-assessments or re-examinations must take place as soon as possible.

For re-assessments the documentation of the matter must be made available to the review panel: viz the assignment and/or the questions, the answer(s), the complaint, the statements made by the original examiners with the complainant's comments and the educational institution's decisions.

The review panel notifies the educational institution of the outcome of the re-assessment and encloses a written statement stating its reasons and the actual assessment.

If the decision is to offer a re-assessment or re-examination, this decision applies to all students, provided the exam suffers from the same defects as those referred to in the complaint.

8.15 Appeals

As regards academic issues, the complainant can lodge an appeal with the appeals panel concerning the educational institution's decision. The activities of the appeals panel are governed by the Public Administrations Act; this also includes the provisions on incapacity and confidentiality.

The appeal is sent for the attention of the programme management.

Appeals must be submitted at the latest two weeks after the student was informed of the decision. The requirements as mentioned above for complaints (in writing, stating reasons, etc.) also apply to appeals.

8.16 Appeals concerning legal aspects

Appeals concerning legal aspects of decisions made by the review panel in connection with re-assessments or re-examinations or concerning decisions of the appeal panel may be lodged with the provider of the programme within two weeks from the day the decision was communicated to the complainant.

Appeals concerning legal aspects of decisions made by the educational institution pursuant to the rules laid down by the Examination Order may be submitted to the institution. The educational institution issues a statement, and the complainant must be given normally one week for commenting. The institution forwards the appeal, the statement and any comments that the complainant may have made to the Danish Agency for Higher Education and Educational Support. Appeals must be submitted to the institution not later than two weeks (14 calendar days) from the day the decision was communicated to the complainant.

8.17 Finance

All expenses for activities expected to be carried out by the student are to be borne by the student. However, students may be granted a transport subsidy using the link below. We encourage students to apply for a discount.

www.ungdomskort.dk

Appendix 1

Modules

Logistics

Objective

The student becomes specialised in analysing and optimising a company's value chain.

ECTS and assessment

The course covers 12 ECTS credits, and the exam takes place in connection with the first year exam at the end of the second semester.

Knowledge

The student will acquire knowledge about:

- the company's place in the generic supply chain strategy
- a breakdown of the company's lead time
- the effect of the internal organisation in the value chain and the ability to assess the influence of different organisational structures on logistical efficiency
- the extent to which logistics depend on the company's strategic situation (finance, organisation and market)
- the need for differentiation of the value chain in accordance with the customer's current and future needs
- transportation and the importance and role of the inventory (raw materials, semi-manufactured goods and finished goods) in the value chain
- the different production management philosophies as well as pull/push, MTS, ATO, MTO and ETO
- the different functions inherent in procurement
- the use of ERP in a company
- possible causes of the Forrester/bullwhip effect and its impact on a company
- EOQ, re-ordering times, network diagram of activities and other operational tools.

Skills

The student will be able to:

- assess the logistical efficiency in different value chain contexts
- use tools to analyse a company's logistics situation and understand the role of the individual activities and their importance for the whole
- segment customers, finished goods, suppliers and raw materials in the context of the company's strategy.

Competencies

The graduate will be able to:

- apply key methods and tools to analyse the value chain and the interplay between the company's operational and tactical value chain components.

Organisational Development

Objective

Based on an analysis of the company's organisational structure, the student will be able to propose improvements to the company's and the individual's situation. The student will also be able to collaborate with management and people with different backgrounds.

ECTS and assessment

The course covers 8 ECTS credits, and the exam takes place in connection with the first year exam at the end of the second semester.

Knowledge

The student will acquire knowledge about:

- Fundamental organisational principles and designs
- The organisation's vision/mission, objectives and strategies as well as the organisation's culture and its importance for the framework in which the organisation must operate
- Human interaction and communication flows in the organisation and their importance
- How different organisational factors can influence the performance of an organisation.

Skills

The student will be able to:

- Understand and analyse the interplay between the organisation's internal and external factors
- Apply relevant strategic theories and models (Ansoff, 5 Forces, Porter's generic strategy, etc.) to analyse a company's situation
- Understand and analyse the importance of different organisational structures, design principles, management styles, cultures and patterns of communication
- Understand and analyse the individual's role and challenges in the organisation, including motivational factors, job design and participation in teams
- Understand and analyse internal workflows with due regard for the different types of organisations and employees
- Interact orally and in writing – selection, canvassing and personal contact – with relevant companies and contacts
- Complete internships/job applications in an appropriate and representative manner.

Competencies

The graduate will be able to:

- Take part in serious discussions about the company's challenges and opportunities at strategic, tactical and operational levels
- Apply learned analysis tools and concepts to present quality improvement proposals
- Handle cross-organisational issues and opportunities to improve the organisation's performance
- Participate in management and collaboration with people from different backgrounds.

Communication and Negotiation

Objective

The student will be able to communicate in English, collaborate with people from other cultural and linguistic backgrounds and be able to negotiate as part of the company's logistics processes.

ECTS and assessment

The course covers 6 ECTS, and the assessment is an internal exam during the second semester.

Knowledge

The student will acquire knowledge about:

- The cultures of different countries and selected culture theories
- Business practices and cultural issues relating to international business
- Different negotiation strategies
- Basic communication theories and models.

Skills

The student will be able to:

- Perform a cultural analysis of another country
- Propose solutions to cultural issues
- Plan and carry out oral and written negotiations in English as part of the company's logistics process
- Communicate verbally and in writing with people from a different linguistic and cultural background
- Analyse different cultural issues in the context of negotiations
- Apply presentation techniques nationally and internationally.

Competencies

The graduate will be able to:

- Reflect on different cultures and apply cultural understanding when making decisions in a company, whether alone or in collaboration with others
- Understand and communicate about the consequences of a certain culture in the context of business and communication.

Finance

Objective

The student will acquire theoretical and practical understanding of key financial issues and decision processes. The student also acquires insight into the use of financial solution models and methods in relation to logistics. The student moreover acquires an understanding of key financial issues relating to logistics in a globalised world.

ECTS and assessment

The course covers 11 ECTS credits, and the exam takes place in connection with the first year exam at the end of the second semester.

Knowledge

The student will acquire knowledge about:

- Relevant accounting principles and legislation
- Financial analysis
- Budgeting types, structures and methods
- Optimisation and pricing models
- Investment calculations
- Alternative forms of finance
- National and international socio-economic developments and trends as well as the different market forms and their relevance to businesses
- Exchange rates, inflation and interest
- International trade, including the most important institutions.

Skills

The student will be able to:

- Prepare accounts for analysis and calculate financial ratios
- Prepare a simple budget and carry out budget simulation and follow-up
- Apply optimisation methods – total method and marginal method as well as price calculations
- Evaluate different optimisation tools
- Make investment calculations and sensitivity calculations
- Describe simple alternative forms of finance and calculate the effective rate of interest
- Assess different market and competition structures and take socio-economic conditions into account in the analysis and assessment of the company's situation.

Competencies

The graduate will be able to:

- Handle basic issues relating to financial management, investment and financial analyses
- Play an independent role in professional and multi-disciplinary collaboration and assume responsibility within a professional framework.

Procurement

Objective

The student specialises in procurement at a strategic and tactical level, which includes making decisions and carrying out purchases at an operational level.

ECTS and assessment

The course covers 7 ECTS credits, and the exam takes place in connection with the first year exam at the end of the second semester.

Knowledge

The student will acquire knowledge about:

- The role of the purchase department in the organisation and the importance of collaborating with other company departments
- The role of procurement and its place in the value chain
- Market and customs issues of relevance to the procurement process
- The negotiation process
- The differences between outsourcing/off-shoring and insourcing/in-shoring.

Skills

The student will be able to:

- Analyse and assess the importance of supplier collaboration in a broad perspective including the different degrees of integration
- Use forecasts and forecast uncertainty in the procurement work
- Prepare proposals for a comprehensive supply strategy, including the choice of sourcing model
- Apply key methods and tools to the procurement process from the identification of a need to the call for quotations, the comparison of quotations (including the use of Incoterms, Total Cost, etc.), selection and negotiations with suppliers as well as order placement.
- Identify, assess and present potential solutions to procurement needs, including calculating the quantities required, ABC analysis, re-order point and buffer stock
- Understand the impact of procurement on society, including CSR, code of conduct and environmental impact
- Classify selection criteria as order winner and order qualifier and understand the differences between the two groups over time.

Competencies

The student is able to:

- reflect on the use of the different tools and models to carry out procurement in a logistics context
- acquire new knowledge, skills and competencies in relation to the procurement function.

Procurement Law

Objective

The student specialises in procurement law, thus acquiring insight into the legal rules relating to sales, including the legal consequences of a breach of agreement by the buyer or the seller and on that basis is able to assess the degree to which a specific contract wording is suitable for obtaining a certain legal position.

In addition, the participants learn about the importance of Incoterms 2010 and other terms of delivery determining the company's relationship with the carrier.

ECTS and assessment: The course covers 4 ECTS credits, and the exam takes place in connection with the first year exam at the end of the second semester.

Knowledge

The student will acquire knowledge about:

- The structure of the legal system and sources of law
- The role in the legal system of provisions governing sales, including the way they reflect general rules of liability
- Conditions for obtaining compensation
- The possibilities the buyer and seller have of regulating their contractual relationship
- The basic principle of freedom of contract, the voluntariness of the Sale of Goods Act as well as the option of using and/or deviating from CISG in connection with international sales
- The different remedies for breach of contract by the buyer or the seller and the effect of giving guarantees
- The obligations of buyer and seller under Incoterms 2010, including their legal position in relation to the carrier.

Skills

The student will be able to:

- Apply the rules relating to the conclusion of contracts, the Danish Sale of Goods Act and CISG in connection with delays and defects
- Communicate about the importance of the breach by a buyer or seller to a business partner.

Competencies

The graduate will be able to:

- determine the wording of a contract that affords the desired legal rights, including as regards the choice of venue and jurisdiction.

Statistics

Objective

The student will acquire theoretical and practical knowledge about the use of statistical theories and methods in a logistics and finance context.

The student will learn to collect information and analyse and assess the given logistics issue based on statistical theories and methods.

The student will be able to apply statistical tools.

ECTS and assessment

The course covers 5 ECTS credits, and the exam takes place in connection with the exam at the end of the second semester.

Knowledge

The student will acquire knowledge about:

- Basic data collection methods
- Key distributions with an emphasis on normal distribution, binomial distribution and t-distribution
- The preconditions and limitations of simple methods of statistical analysis.

Skills

The student will acquire skills in:

- Applying statistical tools for quality control and the preparation of prognoses
- Using Excel for basic data processing, including pivot tables and statistical analysis as well as data presentation and communication
- Choosing between statistical methods for a given problem and interpreting the results with due regard for the preconditions of the method used
- Calculating and interpreting different ways of measuring key trends and variations
- Preparing an independence test with a focus on number tables
- Preparing confidence intervals for one or two populations
- Preparing and completing analyses in regression models using one or more explanatory variables, including a dummy variable
- Choosing different models to analyse time series based on the data being analysed
- Collect, validate and critically assess both external and internal data.

Competencies

The student will have the competencies to:

- Apply statistical theories and methods in a work and logistics context

Production

Objective

The student will be able to propose optimum production management methods to a company at a strategic and tactical level on the basis of his/her knowledge about different forms of production and layout as well as production management principles.

ECTS and assessment

The course covers 7 ECTS credits, and is assessed in connection with the exam at the end of the second semester.

Knowledge

The student will acquire knowledge about:

- The role of procurement and its place in the value chain
- The production planning systems MRP, OPT, JIT, QRM, etc.
- The demands made on the production system by different types of goods (projects, customisation, mass customisation and standard goods)
- Different types of production layouts (function, line, group/cell and fixed location)
- Differences between theoretical and practical capacity
- Different philosophies such as TQM and Lean
- S&OP and production planning.

Skills

The student will be able to:

- Work out proposals for a general production strategy
- Prepare an overview showing the interdependence and length of different processes, including lead times and production cycle times
- Estimate the need for and level of quality control
- Calculate the size of production series
- Identify, analyse and work out solutions for optimisation of business processes using tools such as flowcharts, swim lane diagrams, value streams, cause and effect diagrams, etc.

Competencies

The graduate will be able to:

- Reflect on the company's production tasks and subsequently employ production theories and models to work out proposals for a production management method in a logistics context

Distribution

Objective

The student will acquire professional specialisation within transport and warehouse operations, enabling the student to make the relevant choices on the basis of costs, time, service, safety, quality, responsibility and rules.

ECTS and assessment

The course covers 7 ECTS credits and is assessed in connection with the multi-disciplinary exam at the end of the third semester.

Knowledge

The student will acquire knowledge about:

- The nature of the goods, infrastructure and environment in relation to transport options
- The different players in the transport market as well as their fields of work and tools
- Different types of goods and packaging and their use
- The commercial content of a sales contract and Incoterms 2010 as well as the rules of liability in transport legislation
- The different types of certification and quality control which a carrier can use
- The importance of inventory in strategic planning and the supply chain as a whole.

Skills

The student will be able to:

- Evaluate the characteristics of the different modes of physical transport and the types of materials used and present solutions to transport requirements
- Evaluate offers for transport and related services, including the possibilities of different modes of transport and the competition between them
- Evaluate the commercial difference in liability associated with different modes of transport and choose the most appropriate mode of transport
- Use key methods and tools to carry out simple freight calculations and assess transport offers in relation to service and costs
- Evaluate the use, location and layout of terminals and warehouses
- Evaluate the importance of inventory for the company's logistics efficiency and service level
- Draw up warehouse procedures to optimise flow or prevent damage.

Competencies

The graduate will be able to:

- Choose the most appropriate mode of transport based on knowledge about the different types of goods, including knowledge about related types of unit loads, part loads and groupage consignments
- Participate independently in professional and multi-disciplinary collaboration and assume responsibility within the areas of transport and stock control.

Transport Law

Objective

The student will be able to assess the relationship between a sales contract and a transport contract.

The student is familiar with the main transport law rules of importance to the transport of goods, thereby enabling the student to present solutions to transport law issues.

ECTS and assessment

The course covers 4 ECTS credits and is assessed in connection with the multi-disciplinary exam at the end of the third semester.

Knowledge

The student will acquire knowledge about:

- The consequences which document procession has in terms of the law of sales in relation to the right of disposal of the goods
- The rules that apply to both through and multimodal transport
- When there is a need to insure the goods and what type of insurance to choose
- Transport documents and their importance as evidence, legitimation, negotiability and the right of disposal
- The sender or receiver as the purchaser of transport, including the significance of the rules in Incoterms 2010
- The rules in NSAB 2000 on communication and storage and the difference between the two forms of liability.

Skills

The student will be able to:

- Evaluate the consequences if a transport is not carried out as agreed, including the significance of mandatory rules in the relationship between the parties
- Evaluate the areas in which there is freedom of contract between the parties in relation to transport law
- Evaluate which transport document to use for a given transport
- Apply the mandatory rules for transport liability which apply to the different modes of transport in relation to delayed, lost or damaged goods
- Apply the rules about the carrier's liability for receipt and delivery
- Evaluate whether the sender or the receiver of the goods is the transport purchaser, including the significance of the sales contract and Incoterms 2010 in this regard
- Evaluate which rules should be used when concluding a transport agreement, including the significance of NSAB 2000, and decide when NSAB can be used
- Apply the rules governing transport liability, including the carrier's possibilities of limiting or disclaiming liability in connection with different modes of transport and assess the need for insurance
- Apply the concepts of communication and storage liability in accordance with NSAB 2000,

Competencies

The graduate will be able to:

- Evaluate the nature and scope of liability under transport law and propose practical solutions in this respect
- Handle the legal aspects of the evidentiary effect, legitimation and negotiability of the transport document

- Apply the rules that govern the liability for the delivery of goods and evaluate the difference between transport liability and the liability for delivery as well as the legal consequences this has for the carrier.

Project Management

Objective

The student will acquire competencies in the planning of projects in an organisation and will be able to participate in project work in a constructive and effective manner.

ECTS and assessment

The course covers 4 ECTS credits and is assessed in connection with the multi-disciplinary exam at the end of the third semester.

Knowledge

The student will acquire knowledge about:

- Managerial and individual relations in connection with the appointment of a project group with a view to facilitating the best possible performance
- The most common project management tools that are useful when managing a project
- The interaction between a temporary project group and a permanent organisation
- Change management and innovation.

Skills

The student will be able to:

- Evaluate the roles of the project manager and project group participants in the organisation, including motivational factors, job design and participation in teams
- Draft project plans, including stakeholder analysis, risk analysis, milestone planning and alternative plans
- Use suitable analysis tools and concepts to plan and implement projects.

Competencies

The graduate will be able to:

- Take part in serious discussions about multi-disciplinary projects at strategic, tactical and operational levels.

Supply chain management

Objective

The student will acquire specialised skills in supply chain design on both a tactical and a strategic level.

ECTS and assessment

The course covers 5 ECTS credits and is assessed in connection with the multi-disciplinary exam at the end of the third semester.

Knowledge

The student will acquire knowledge about:

- The flow of information in the company and the supply chain
- Relationship strategies in a logistics perspective
- Target-oriented management in the company
- The customer-driven supply chain
- The opportunities and limitations of the company's IT/ERP systems for the supply chain
- Network management and supply chain integration
- Benchmarking
- Risk management.

Skills

The student will be able to:

- Define and use KPIs as part of company planning
- Analyse the interaction between the company's overall strategy and its SCM strategy
- Evaluate the connection between the execution of internal processes and the company's ability to achieve competitive advantages for the supply chain
- Draft upstream, in-house and downstream strategies to optimise a national or international supply chain
- Manage the company's logistics information flow.

Competencies

The graduate will be able to:

- Analyse the company's logistics situation in relation to the supply chain and provide suggestions for improvements and how they can be implemented
- Participate independently in professional and multi-disciplinary collaboration and assume responsibility for the optimisation of the company's supply chain.

Internship

Objective

The internship enhances the student's logistics competencies, contributes to the student's personal development and helps the student understand and achieve integration between theory and practice.

ECTS and assessment

The course covers 15 ECTS credits and is assessed at an exam in connection with the conclusion of the internship period during the fourth semester.

Knowledge

The student will acquire knowledge about:

- A company, its business area and internal processes
- How to fit in/collaborate with others in a workplace

Skills

The student will be able to:

- Identify, analyse and propose solutions to minor practical logistics issues in the company.

Competencies

The graduate will be able to:

- Participate in professional and multi-disciplinary collaboration within the company.
- Perform as a company employee
- Combine theory and practice.

Final exam project

Objective

The student is given an opportunity, both in writing and orally, to document his/her ability to analyse issues systematically and analytically and to combine theory and practice in a broad logistics perspective.

ECTS and assessment

The course covers 15 ECTS credits and is assessed at an exam at the end of the fourth semester.

Knowledge

The student will acquire knowledge about:

- How to work systematically and analytically with a specific issue.

Skills

The student will be able to:

- Apply relevant theories and methods to identify, analyse and propose solutions to a complex, practical issue within a company.

Competencies

The graduate will be able to:

- Combine theory and practice in a broad logistics perspective
- Communicate about processes and results in a manner that is relevant to the company.