UCN Curriculum for the Academy Profession Degree Programme in Automation Engineering Version: February 2020

# Institutional Curriculum for the Academy Profession Degree Programme in Automation Engineering

Curriculum (Institutional) for the Academy Profession Degree Programme in Automation Engineering February 2020



PROFESSIONSHØJSKOLEN

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# 1. Curriculum for the Academy Profession Degree Programme in Automation Engineering; institutional part

The Curriculum for the study programme consists of two parts:

- 1. The national part
- 2. The institutional part (this document)

The national part is laid down by the study programme network with a view to ensuring that the academic contents of parts of the study programme are identical for all educational institutions providing the study programme.

This institutional part is laid down by the study programme at the University College of Northern Denmark (UCN) and is designed to accommodate local and regional needs.

The institutional part of the curriculum (as well as the national part) has been approved by the UCN technical college in accordance with all applicable regulations, including the Ministerial Order on technical and mercantile Academy Profession degree programmes and professional Bachelor degree programmes (Bekendtgørelse om tekniske og merkantile erhvervsakademiuddannelser og professionsbacheloruddannelser).

In the event of any discrepancy between this Curriculum and other regulations governing the study programme, the other regulations take precedence.

Please note: this text is a translation intended for information purposes only. In the event of any discrepancy between this translation and the original, the original text shall prevail. In addition, only the Danish text is legally valid.



# 2. Distribution and timing of national and local subject elements, internship and exams

Sem.	National subject elements	Local subject elements	ECTS	Assess- ment	Also called
1st		Academic aptitude exam	0	Internal	Academic aptitude exam
	Project 1B: Machines		30	Internal	First-semester exam
2nd	Project 2B: Cells		30	External	Second-semester exam
3rd		Project 3A: Business un- derstanding	5	Internal	Project 3A
		Project 3B: Systems	20	Internal	Project 3B
		Elective	5	Internal	Elective
//th	Internship		15	Internal	Internship exam
411	Final degree project		15	External	Final degree project
Total ECTS credits	120				

Overview of all examinations and their order. All exams are assessed according to the 7-point grading scale, with the exception of the Academic aptitude exam, which is assessed pass/fail.

Find information about the time and venue for the exams in the LMS portal and in WISEflow.



# 2.1 Distribution of subject elements across semesters

	First semester	Second semester	Third semester	Fourth seme	ster	
Subject element	Machines	Cells	Systems	Special	lisation	
Control technology	PLC and HMI programming 1 (10 ECTS)	PLC and HMI programming 2 (5 ECTS)	Elective (5 ECTS)			
		Structured programming (5 ECTS)	Local (5 ECTS)			
Control technology	Mathematics and physics (5 ECTS)	Process control (5 ECTS)	Local (10 ECTS)			
(regulation)	Electrical technology (5 ECTS)	PLC systems (5 ECTS)		Internship (15 ECTS)	Final degree project (15 ECTS)	
Robotics	Machine and robot safety (5 ECTS)	Technology- and project development (5 ECTS) Robot programming and configuration (5 ECTS)	Local (5 ECTS)			
Business understanding and project management	Project management (5 ECTS)		Local (5 ECTS)			



# 3. Local subject elements, including electives

The programme features local subject elements worth 30 ECTS credits.

Subject elemen	Systems	Business understanding	Elective
Control technology (regulation)	Systems design of automatic processing and production lines (5 ECTS)		Elective (5 ECTS)
Control technology (regulation)	Control (regulation) (5 ECTS) Electrical technology 2 (2 ECTS) Technical innovation (3 ECTS)		
Robotics	Industrial robotic systems (5 ECTS)		
Business understanding and project management		Business understanding (5 ECTS)	

Third semester

The subject elements relate to the respective subject fields as indicated in the table above. Each subject element is finalised by a separate exam.

The educational network has decided on a national level that 5 ECTS credits worth of electives in Control technology must be offered as online learning to give students the opportunity to choose electives of-fered by other educational institutions in Denmark or a local elective. Electives are completed by a separate exam.

All exams are described in chapters 5–7 of this Curriculum.

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#### 3.1 Course content of the *Systems* subject element

In the *Systems* subject element, students learn about programming, communication, data exchange and data collection in systems made up of various controllers, robots and regulators. Furthermore, *Technical innovation* adds a number of tools that give students an insight into innovative processes to stimulate innovation in the field of automation.

#### **ECTS** weight

The Systems subject element is worth 20 ECTS credits.

#### Learning objectives

The learning objectives for the *Systems* subject element comprise the learning objectives for the individual subjects as follows:

# **3.1.1** Systems design of automatic processing and production lines (5 ECTS credits in the third semester)

#### Knowledge

The student should have acquired knowledge of:

- 1) concepts, theories and methods applied in automation
- 2) different PLC and HMI systems
- 3) network technologies and protocols that can be used to communicate on different levels in an automatic system.

#### Skills

The student should be able to:

- 1) reflect on the technologies that could be applied to an automatic system
- 2) apply a varied set of technical, creative and analytical skills related to designing, sizing, programming and configuring systems in the field of automation
- 3) assess practice-related problems in the fields of control, regulation, monitoring and communication and propose solutions for those problems
- 4) communicate practice-related problems and solution proposals to partners and users
- 5) handle and assess data and data types.

#### Competencies

- manage all phases of project development within the field of automation and to do this by structuring and performing quality assurance on solutions that are then documented and carried out according to current regulations and practises
- 2) develop solutions that involve PLC and HMI-systems
- 3) take a professional approach to co-operating with others within the profession and across professions
- 4) acquire new knowledge relating to automation, within a structured context.

### 3.1.2 Control (regulation) (5 ECTS credits in the third semester)

#### Knowledge

The student should have acquired knowledge of:

- 1) describing different control (regulation) principles and optimisation methods, including modelbased tuning
- 2) using PLCs as a simulation tool.

#### Skills

The student should be able to:

- 1) select an appropriate control (regulation) type based on the client's specific requirements
- 2) document a tuning using control calculations
- 3) justify their choice of regulator type.

#### Competencies

Students should be qualified to:

1) advise on and implement various control (regulation) solutions for an assignment specified by a client.

#### 3.1.3 Electrical technology 2 (2 ECTS in the third semester)

#### Knowledge

The student should have acquired knowledge of:

- 1) concepts, theories, principles and methods of electrical technology applied in automation
- 2) electrical safety and how to document electrical safety.

#### Skills

The student should be able to:

- 1) draw up electrical documentation according to current norms and standards for automated facilities
- 2) size electrical installations in automated systems.

#### Competencies

- 1) select the most suitable components based on technical and economic considerations
- 2) take part in the handling of electrical systems design including structuring, quality management and drawing up documentation according to current regulations and norms.

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# 3.1.4 Industrial robotic systems (5 ECTS in the third semester)

# Knowledge

The student should have acquired knowledge of:

- 1) communication between robots and between robots and systems
- 2) robotic vision systems
- 3) Robot Operating System.

# Skills

The student should be able to:

- 1) specify and select components and tools for robotic systems
- 2) program collaborative robots
- 3) perform offline and online programming.

# Competencies

Students should be qualified to:

1) set up and commission industrial robotics systems.

# 3.1.5 Technical innovation (3 ECTS in the third semester)

# Knowledge

The student should have acquired knowledge of:

- 1) organisation development as well as change and development processes in a business
- 2) innovation, innovation management and innovation processes as well as the theories and methods to carry out innovation projects and processes
- 3) creativity and creative processes as well as methods, tools and techniques for generating and developing ideas
- 4) needs-oriented problem solving and market-based concept and product development.

# Skills

The student should be able to:

- 1. apply theories and methods for planning, initiating and completing innovation processes and projects
- 2. manage creative processes as well as methods, tools and techniques for generating and developing ideas
- 3. steer all phases of development projects from idea to completed solution model, concept or product
- 4. apply relevant models and tools for technical problem solution and project development

# Competencies

- 1) collaborate with others on development projects and innovation processes
- 2) undertake problem solution and development tasks when developing or optimising products or production processes.



#### 3.2 Course content of the Business understanding subject element

The purpose of the *Business understanding* subject element is to prepare the students for acting in the business community as competent employees who understand the business aspect of being employed in a business. This means that the subject element focuses on qualifying automation engineers for dealing with tasks in the project organisation and taking part in daily operations while they keep a business perspective on the internal and external relations of the business.

#### **ECTS** weight

The subject element Business understanding is worth 5 ECTS credits.

#### Learning objectives

The learning objectives for the Business understanding subject element are:

#### 3.2.1 Business understanding (5 ECTS)

#### Knowledge

The student should have acquired knowledge of:

- 1) the internal business processes that influence the daily work of the automation engineer
- 2) business structure and culture as well as organisational collaboration
- 3) methods and models for analysing the business and its context such as markets, needs and clients as well as other stakeholders
- 4) business economics, including the economic management of a business, projects and tasks
- 5) the business's responsibilities in terms of occupational health and safety, contract law etc.

#### Skills

The student should be able to:

- 1) use relevant methods and models for internal and external analysis of the business and its context, the market and stakeholders
- 2) use contemporary methods for calculating prices and be able to form an understanding of a project or an assignment's economic consequences to the business
- 3) draw up a business plan.

#### Competencies

- 1) ensure the existence of a well-prepared basis for decision-making relating to tasks and projects
- 2) possess a general idea of establishing and running an independent business.



#### 3.3 Elective

The educational institutions each provide at least one elective element as distance learning available to all third semester students across the country.

For descriptions and content of the electives provided by other higher education institutions, please see their respective websites.

- Copenhagen School of Design and Technology (KEA) provides: Object-oriented SCADA
- Copenhagen School of Design and Technology (KEA) provides: Internet of Things (IoT)
- University College Denmark (UCL) provides: LAB View
- University College Denmark (UCL) provides: Digital twin
- UCN provides: High-level programming and databases
- UCN provides: Local elective

#### Language of delivery

The electives may be delivered in either Danish or English.

#### **ECTS** weight

The elective is worth 5 ECTS credits.

#### Learning objectives

The learning objectives for the local electives are:

#### 3.3.1 High-level programming and databases (UCN)

#### Contents

Students will be taught high-level programming and databases. This elective comprises programming technology, programming languages, development systems, development and construction of small programs and databases as well as testing programs, communication and databases.

#### Knowledge

Students should have acquired knowledge of:

- 1) controller and database configuration and communication
- 2) database system and database analysis
- 3) database configuration and set-up.

#### Skills

The student should be able to:

- 1) use a controller to collect data for analysis
- 2) select and structure data for databases
- 3) program small systems for data collection.

#### Competencies

Students should be qualified to:

1) write and communicate technical documentation that describes the structure of a system with data handling properties



2) take part in the development of systems that includes controller programming with data collection for purposes of analysis.

#### 3.3.2 Local elective

#### Contents

The elective gives students the opportunity to qualify study-related and business competencies through specialisation and the contextualisation of subjects that broadly relate to automation. The elective is offered each year and will be described on the LMS platform.

Students may also choose to design and plan their own local elective as a theoretical and/or a practical learning period, which must be approved by UCN.

#### Knowledge

The student should have acquired knowledge of:

- 1) the theory and practice related to (a) selected topic(s) and reflect on this
- 2) describe and explain the relevance of the selected topic(s) to the theory and practices of the automation profession.

#### Skills

The student should be able to:

- 3) select, describe a problem of their choice relating to automation and perform literature searches on the subject
- 4) discuss process-related and analytical skills in the context of the selected topic(s)
- 5) assess problems and specify potential solutions in relation to the selected topic(s)
- 6) present key results.

#### Competencies

- 1) independently acquaint themselves with new topics within the theory or practice of the subject field
- 2) contextualise and relate the selected topics(s) to the other subject fields of the study programme.



## 4. Framework and criteria for study programme examinations

The following describes the framework and criteria for all study programme exams.

#### 4.1 Automatic registration for all exams

Each subject element is finalised by a separate exam. In addition, the programme features an exam for the elective, the internship and the final degree project; a total of eight exams. The individual exams and their requirements are described below.

When a student commences a subject element, the student will automatically be registered for the ordinary exam for that subject element.

A student cannot withdraw from any study programme exams.

If an exam was not passed, the student will continue to be registered for that particular exam and must attend a resit. The student has three attempts at passing an exam, unless stated otherwise. If the exam is not passed after three attempts, the student's enrolment on the programme will be terminated.

However, if a student is on leave of absence, s/he will not automatically be registered for exams for that particular semester. After the end of the student's leave of absence, s/he will automatically be registered for the exams that complete the semester s/he commences upon his/her return and also for prior, failed exams – if any.

It is the student's responsibility to stay informed of the time and venue for exams stated on the study programme's electronic platform.

Please see the current *Examination Regulations for UCN's Undergraduate Programmes*, which are available at ucn.dk.



### 5. Examinations

#### 5.1 First semester:

Sem.	National subject elements	Local subject elements	ECTS	Assess- ment	Also called
1st		The academic aptitude exam	0	Internal	The academic aptitude exam
	Machines		30	Internal	First-semester exam

#### 5.2 The academic aptitude exam

The examination consists of an internal, individual, written on-site exam based on reflections about study start.

#### 5.2.1 Examination procedure

The examination consists of an internal, individual, written on-site exam based on the student's reflections on study start.

The examination is based on teaching and learning activities completed between study start and the date of the examination. The exam aims to determine whether the student has in fact begun his/her studies.

The student must answer, in writing, a number of questions regarding these activities.

The examination will take as its starting point the student's knowledge of UCN's foundation for learning, study programme administration as well as student rights and obligations.

#### 5.2.2 Scheduled time

The academic aptitude examination will take place no later than two months after the start of the study programme.

A resit exam will be held not later than three months after study programme start.

Further information about time and venue can be found in the semester plan and in Wiseflow.

#### 5.2.3 Exemption

In cases of illness, maternity/paternity leave or exceptional circumstances, the study programme may exempt individual students from the deadlines that have been set for passing the exam. If a student does not pass the exam on the second attempt, the student's enrolment in the study programme will be terminated.



#### 5.2.4 Resit

If a student does not pass the academic aptitude examination, the student will be offered a resit. The resit exam type will be the same as the ordinary exam.

Examination language

The examination language is English.

#### 5.2.5 Exam aids

All exam aids are permitted.

#### 5.3 First-semester exam: The examination for the national subject element Machines

The first-semester exam tests the subject element Machines and the subjects under the subject fields:

- Control technology: 10 ECTS
- Control technology (regulation): 10 ECTS
- Robotics: 5 ECTS
- Business understanding and Project management: 5 ECTS

#### 5.3.1 Examination prerequisites

Students must meet the following requirements to sit the exam:

- submission of project report 1a, which must be submitted in due time and meet the formal requirements described in the semester plan. the semester plan will be available before the semester starts.
- the written project, which constitutes the assessment basis as well as the exam basis, must:
  - $\circ\;$  meet the formal requirements, see below
  - $\circ~$  be submitted in due time as per the exam timetable.

If a student does not meet all examination prerequisites, the student will have used one exam attempt, leaving him/her with two attempts remaining to pass the exam.

#### 5.3.2 Examination procedure

The exam is an internally assessed group examination where students have the opportunity to choose an individual exam. The oral exam is made on the basis of a written group project and is assessed and graded according to the 7-point grading scale. The project constitutes both the assessment basis and the examination basis, and students receive a single, total grade for the exam.

The group must have 1–4 members.

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#### 5.3.3 ECTS weight

The examination is worth 30 ECTS credits.

#### 5.3.4 Assessment criteria

The assessment criteria for the exam are the learning objectives for the national subject element Machines. The learning objectives are described in the national part of the Curriculum.

#### 5.3.5 Scheduled time

The exam will take place at the end of the first semester. Further information about the time and venue as well as about submission of the written assignment can be found on the LMS portal and in WISEflow. A student must pass the examination before the end of the first year of study in order to continue their studies.

In cases of illness, maternity/paternity leave or exceptional circumstances, the study programme may exempt individual students from the deadlines that have been set for passing the exam.

#### 5.3.6 Formal requirements for the written assignment

Students must write one report.

The report should include:

- cover page with project title and student name(s)
- title page bearing the exam name/code, the study programme, the educational institution, the project report writer(s) name(s), class name/code, supervisor name, project title, company name, number of characters, submission date and signatures
- the table of contents, the reference list and appendices should not be included in the number of characters
- abstract in English
- introduction, including a description of the problem, the problem statement (research question) and approaches to the problem
- theories, methods, analysis, calculations, results to answer the research question
- conclusion
- optional contextualisation and discussion (Danish: perspektivering)
- reference list (including all sources that are referred to in the report)
- list of appendices (number and title on all appendices included in the report)
- regular margins and an easy-to-read text font and size
- if the project report is confidential, this must be clearly indicated on the cover page

• the report, including appendices, must be submitted as a single PDF file.

The allowed minimum and maximum number of characters of the report is as follows:

- for students who work alone, report length must be between 45,000 and 55,000 characters + appendices Further on in this text, individuals who write a project by themselves will be considered 'one-person groups'
- between 55,000 and 65,000 characters plus appendices for groups of two students
- between 65,000 and 75,000 characters plus appendices for groups of three students
- between 75,000 and 85,000 characters plus appendices for groups of four students.

One standard page is 2,400 characters including spaces and footnotes. The cover page, title page, table of contents, reference list and appendices do not count toward the upper character limit.

The report will be rejected if it does not meet the formal requirements, and this means that the student will have used an exam attempt.

#### 5.3.7 Rules governing the oral presentation of the project

The group must present the written project report.

There will be ten minutes for the presentation plus 15–20 minutes per group member for the exam dialogue and questions to the presentation including responses from the supervisors.

(This means that exam length will be 30 minutes for one-person groups. 60 minutes for groups of two students; 90 minutes for groups of three students and 120 minutes for groups of four students.)

#### 5.3.8 Examination language

The examination language is English.

#### 5.3.9 Exam aids

All aids are permitted.

#### 5.4 Second semester:

Sem.	National subject elements	Local subject elements	ECTS	Assess- ment	Also called
2nd	Cells		30	External	Second-semester exam



#### 5.4.1 Second-semester exam: The examination for the national subject element Cells.

The second-semester exam tests the subject element Cells and the subjects under the subject fields:

- Control technology: 10 ECTS
- Control technology (regulation): 10 ECTS
- Robotics: 10 ECTS

#### 5.4.2 Examination prerequisites

Students must meet the following requirements to sit the exam:

- submission of project report 2a, which must be submitted in due time and meet the formal requirements described in the semester plan. the semester plan will be available before the semester begins.
- the written project, which constitutes the assessment basis as well as the exam basis, must:
  - o meet the formal requirements, see below
  - $\circ$  be submitted in due time as per the exam plan.

If a student does not meet all examination prerequisites, the student will have used one exam attempt, leaving him/her with two attempts remaining to pass the exam.

#### 5.4.3 Examination procedure

The exam is an internally assessed group examination where students have the opportunity to choose an individual exam. The oral exam is based on a written group project and is assessed and graded according to the 7-point grading scale. The project constitutes both the assessment basis and the examination basis, and students receive a single, total grade for the exam.

The group must have 1–4 members.

#### 5.4.4 ECTS weight

The examination is worth 30 ECTS credits.

#### 5.4.5 Assessment criteria

The assessment criteria for the exam are the learning objectives for the national subject element Cells. The learning objectives are described in the national part of the Curriculum.

#### 5.4.6 Scheduled time

The exam will take place at the end of the second semester. Further information about the time and venue as well as about submission of the written assignment can be found on the LMS portal and in WISEflow.

A student must pass the examination before the end of the first year of study in order to continue their studies.

In cases of illness, maternity/paternity leave or exceptional circumstances, the study programme may exempt individual students from the deadlines that have been set for passing the exam.

#### 5.4.7 Formal requirements for the written assignment

Students must write one report.

The report should include:

- cover page with project title and student name(s)
- title page bearing the exam name/code, the study programme, the educational institution, the project report writer(s) name(s), class name/code, supervisor name, project title, company name, number of characters, submission date and signatures
- the table of contents, the reference list and appendices should not be included in the number of characters
- abstract in English
- introduction, including a description of the problem, the problem statement (research question) and approaches to the problem
- theories, methods, analysis, calculations, results to answer the research question
- conclusion
- optional contextualisation and discussion (Danish: perspektivering)
- reference list (including all sources that are referred to in the report)
- list of appendices (number and title on all appendices included in the report)
- regular margins and an easy-to-read text font and size
- if the project report is confidential, this must be clearly indicated on the cover page
- the report, including appendices, must be submitted as a single PDF file.

The allowed minimum and maximum number of characters of the report is as follows:

- for students who work alone, report length must be between 45,000 and 55,000 characters + appendices Further on in this text, individuals who write a project by themselves will be considered 'one-person groups'
- between 55,000 and 65,000 characters plus appendices for groups of two students
- between 65,000 and 75,000 characters plus appendices for groups of three students
- between 75,000 and 85,000 characters plus appendices for groups of four students.



One standard page is 2,400 characters including spaces and footnotes. The cover page, title page, table of contents, reference list and appendices do not count toward the upper character limit.

The report will be rejected if it does not meet the formal requirements, and this means that the student will have used an exam attempt.

#### 5.4.8 Rules governing the oral presentation of the project

The group must present the written project report.

There will be ten minutes for the presentation plus 15–20 minutes per group member for the exam dialogue and questions to the presentation including responses from the supervisors.

(This means that exam length will be 30 minutes for one-person groups; 60 minutes for groups of two students; 90 minutes for groups of three students and 120 minutes for groups of four students.)

#### 5.4.9 Examination language

The examination language is English

#### 5.4.10 Exam aids

All aids are permitted.

#### 5.5 Third semester

Sem.	National subject elements	Local subject elements	ECTS	Assess- ment	Also called
		Business understanding	5	Internal	Project 3A
3rd		Systems	20	Internal	Project 3B
		Elective	5	Internal	Elective

#### 5.5.1 Third-semester exam: Project 3A Business understanding

The third-semester exam tests the subject element Business understanding and the subjects under the subject fields:

• Business understanding and Project management: 5 ECTS.



#### 5.5.2 Examination prerequisites

Students must meet the following requirements to sit the exam:

- The synopsis and presentation portfolio, which constitute the assessment basis as well as the exam basis, must:
  - $\circ$  meet the formal requirements, see below
  - $\circ$  be submitted in due time as per the exam timetable.

If a student does not meet all examination prerequisites, the student will have used one exam attempt, leaving him/her with two attempts remaining to pass the exam.

#### 5.5.3 Examination procedure

The exam is an internally assessed group examination where students have the opportunity to choose an individual exam. The oral exam is based on the written products (the synopsis and presentation portfolio) and is assessed and graded according to the 7-point grading scale. The written products constitute both the assessment basis and the examination basis, and students receive a single, total grade for the exam.

The group must have 1–4 members.

#### 5.5.4 ECTS weight

The examination is worth 5 ECTS credits.

#### 5.5.5 Assessment criteria

The assessment criteria for the exam are identical to the learning objectives for the local subject element: Business understanding.

The learning objectives are described in the institutional part of the Curriculum.

#### 5.5.6 Scheduled time

The exam will take place halfway through the third semester. Further information about the time and venue as well as about submission of the written assignment can be found on the LMS portal and in WISEflow.

In cases of illness, maternity/paternity leave or exceptional circumstances, the study programme may exempt individual students from the deadlines that have been set for passing the exam.

#### 5.5.7 Formal requirements for written assignments

Students must prepare a synopsis and a presentation portfolio.

The synopsis should comprise:

- cover page with title and names of the members of the group
- optional title page
- table of contents



- introduction including a presentation of the problem and a problem statement (research question(s))
- background, methods, analysis and empirical data to answer the research question(s)
- conclusion
- optional contextualisation and discussion (Danish: perspektivering)
- reference list (including all sources that are referred to in the project)
- appendices, if any.

The required length of the synopsis is:

- between 5,000 and 7,500 characters plus appendices for students who work alone Further on in this text, individuals who write a project by themselves will be considered 'one-person groups'
- between 7,500 and 10,000 characters plus appendices for groups of two students
- between 10,000 and 12,500 characters plus appendices for groups of three students
- between 12,500 and 15,000 characters plus appendices for groups of four students.

One standard page is 2,400 characters including spaces and footnotes. The cover page, title page, table of contents, reference list and appendices do not count toward the upper character limit.

The synopsis and any appendices must be submitted as a single PDF file.

#### The presentation portfolio should comprise:

- descriptions and explanations
- calculations/computations
- results
- technical documentation

The minimum required length of the presentation portfolio is:

between 12,000 and 24,000 characters plus appendices for students who work alone or in groups.

The presentation portfolio and any appendices must be submitted as a single PDF file.

The written products will be rejected if they do not meet the formal requirements, and this means that the student(s) will have used an exam attempt.

#### 5.5.8 Rules governing the oral presentation of the synopsis and presentation portfolio

The group presents the written synopsis and the presentation portfolio.

There will be 10 minutes for the presentation plus 15–20 minutes per group member for the exam dialogue and questions to the presentation including responses from the supervisors.

(This means that exam length will be 30 minutes for one-person groups; 60 minutes for groups of two students; 90 minutes for groups of three students and 120 minutes for groups of four students.)



#### 5.5.9 Examination language

The examination language is English.

#### 5.5.10 Exam aids

All aids are permitted.

#### 5.5.11 Third-semester exam: Project 3B Systems

The third-semester exam tests the subject element Systems and the subjects under the subject fields:

- Control technology: 5 ECTS
- Control technology (regulation): 10 ECTS
- Robotics: 5 ECTS

#### 5.5.12 Examination prerequisites

Students must meet the following requirements to sit the exam:

- the written project, which constitutes the assessment basis as well as the exam basis, must:
  - $\circ$  meet the formal requirements, see below
  - $\,\circ\,$  be submitted in due time as per the exam plan.

If a student does not meet all examination prerequisites, the student will have used one exam attempt, leaving him/her with two attempts remaining to pass the exam.

#### 5.5.13 Examination procedure

The exam is an internally assessed group examination where students have the opportunity to choose an individual exam. The oral exam is based on a written group project and is assessed and graded according to the 7-point grading scale. The project constitutes both the assessment basis and the examination basis, and students receive a single, total grade for the exam.

The group must have 1–4 members.

#### 5.5.14 ECTS weight

The examination is worth 20 ECTS credits.

#### 5.5.15 Assessment criteria

The assessment criteria for the exam are identical to the learning objectives for the local subject element: Business understanding.

The learning objectives are described in the institutional part of the Curriculum.



#### 5.5.16 Scheduled time

The exam will take place at the end of the 3rd semester. Further information about the time and venue as well as about submission of the written assignment can be found on the LMS portal and in WISEflow.

In cases of illness, maternity/paternity leave or exceptional circumstances, the study programme may exempt individual students from the deadlines that have been set for passing the exam.

#### 5.5.17 Formal requirements for the written assignment

Students must write one report.

The report should include:

- cover page with project title and student name(s)
- title page bearing the exam name/code, the study programme, the educational institution, the project report writer(s) name(s), class name/code, supervisor name, project title, company name, number of characters, submission date and signatures
- the table of contents, the reference list and appendices should not be included in the number of characters
- abstract in English
- introduction, including a description of the problem, the problem statement (research question) and approaches to the problem
- theories, methods, analysis, calculations, results to answer the research question
- conclusion
- optional contextualisation and discussion (Danish: perspektivering)
- reference list (including all sources that are referred to in the report)
- list of appendices (number and title on all appendices included in the report)
- regular margins and an easy-to-read text font and size
- if the project report is confidential, this must be clearly indicated on the cover page
- the report, including appendices, must be submitted as a single PDF file.

The allowed minimum and maximum number of characters of the report is as follows:

- for students who work alone, report length must be between 35,000 and 45,000 characters + appendices Further on in this text, individuals who write a project by themselves will be considered 'one-person groups'
- between 45,000 and 55,000 characters plus appendices for groups of two students
- between 55,000 and 65,000 characters plus appendices for groups of three students



• between 65,000 and 75,000 characters plus appendices for groups of four students.

One standard page is 2,400 characters including spaces and footnotes. The cover page, title page, table of contents, reference list and appendices do not count toward the upper character limit.

#### 5.5.18 Rules governing the oral presentation of the project

The group must present the written project report.

There will be ten minutes for the presentation plus 15–20 minutes per group member for the exam dialogue and questions to the presentation including responses from the supervisors.

(This means that exam length will be 30 minutes for one-person groups; 60 minutes for groups of two students; 90 minutes for groups of three students and 120 minutes for groups of four students.)

#### 5.5.19 Examination language

The examination language is English.

#### 5.5.20 Exam aids

All aids are permitted.

#### 5.5.21 Third-semester exam: Elective (High-level programming and databases)

The third-semester exam tests the subject element Elective and the subjects under the subject fields:

• Elective (High-level programming and databases) 5 ECTS

#### 5.5.22 Examination prerequisites

Students must meet the following requirements to sit the exam:

• all exercises and assignments must be submitted before the exam; see the exam timetable

If a student does not meet all examination prerequisites, the student will have used one exam attempt, leaving him/her with two attempts remaining to pass the exam.

#### 5.5.23 Examination procedure

The exam is a time-constricted, internally assessed, individual, online multiple-choice test. The exam is assessed and graded according to the 7-point grading scale. The project constitutes both the assessment basis and the examination basis, and students receive a single, total grade for the exam.



#### 5.5.24 ECTS weight

The examination is worth 5 ECTS credits.

#### 5.5.25 Assessment criteria

The assessment criteria for the exam are identical to the learning objectives for the local subject element: Elective.

The learning objectives are described in the institutional part of the Curriculum.

#### 5.5.26 Scheduled time

The exam will take place before the end of the third semester. Further information about the time and venue as well as about submission of the written assignment can be found on the LMS portal and in WISEflow.

In cases of illness, maternity/paternity leave or exceptional circumstances, the study programme may exempt individual students from the deadlines that have been set for passing the exam.

#### 5.5.27 Resit

If a student does not pass the elective examination, the student will be offered a resit. The resit exam type will be the same as the ordinary exam.

#### 5.5.28 Examination language

The examination language is English

#### 5.5.29 Exam aids

All aids are permitted.

#### 5.5.30 Local elective

#### 5.5.31 Examination prerequisites

Students must meet the following requirements to sit the exam:

- the written project, which constitutes the assessment basis as well as the exam basis, must:
  meet the formal requirements, see below
  - $\circ$  be submitted in due time as per the exam timetable.

If a student does not meet all examination prerequisites, the student will have used one exam attempt, leaving him/her with two attempts remaining to pass the exam.

#### 5.5.32 Examination procedure

The exam is an individual, internally assessed, written report. The report constitutes both the assessment basis and the examination basis, and students receive a single, total grade for the exam.

The group must have 1–4 members.

#### 5.5.33 ECTS weight

The examination is worth 20 ECTS credits.

#### 5.5.34 Assessment criteria

The assessment criteria for the exam are identical to the learning objectives for the local subject element: Elective.

The learning objectives are described in the institutional part of the Curriculum.

#### 5.5.35 Scheduled time

The exam will take place before the end of the third semester. Further information about the time and venue as well as about submission of the written assignment can be found on the LMS portal and in WISEflow.

In cases of illness, maternity/paternity leave or exceptional circumstances, the study programme may exempt individual students from the deadlines that have been set for passing the exam.

#### 5.5.36 Formal requirements for the written assignment

Students must write one report.

The report should include:

- cover page with project title and student name(s)
- title page bearing the exam name/code, the study programme, the educational institution, the project report writer(s) name(s), class name/code, supervisor name, project title, company name, number of characters, submission date and signatures
- the table of contents, the reference list and appendices should not be included in the number of characters
- abstract in English
- introduction, including a description of the problem, the problem statement (research question) and approaches to the problem
- theories, methods, analysis, calculations, results to answer the research question
- conclusion



- optional contextualisation and discussion (Danish: perspektivering)
- reference list (including all sources that are referred to in the report)
- list of appendices (number and title on all appendices included in the report)
- regular margins and an easy-to-read text font and size
- if the project report is confidential, this must be clearly indicated on the cover page
- the report, including appendices, must be submitted as a single PDF file.

The allowed minimum and maximum number of characters of the report is as follows:

• between 35,000 and 45,000 characters plus appendices.

One standard page is 2,400 characters including spaces and footnotes. The cover page, title page, table of contents, reference list and appendices do not count toward the upper character limit.

#### 5.5.37 Examination language

The examination language is English.

#### 5.5.38 Exam aids

All aids are permitted.

#### 6. Internship

Sem.	National subject elements	Local subject elements	ECTS	Assess- ment	Also called
4th	Internship		15	Internal	Internship exam

#### 6.1 Internship requirements and expectations

During the internship, the student will work on problems that are relevant to the profession while achieving knowledge of relevant work functions. The student will be associated with one or more internship hosts over the course of the internship. The internship may be organised in a flexible and personalised manner and may form the basis of the students' final degree project.

Based on the internship learning objectives (see the national part of the Curriculum) the student and the UCN supervisor will collaborate on defining specific objectives for the student's internship. The objectives must be written in the Internship Portal.

The objectives will subsequently guide the student's work and the electronic log as well as the written assignment.



The internship has a length of 10 weeks and should be considered similar to a full-time job with the same requirements in terms of number of working hours, effort, commitment and flexibility that graduates of Production Technology can expect to meet in their first job.

#### 6.1.1 Examination prerequisites

Students must meet the following requirements to sit the exam:

- The Internship Portal's requirements for a completed internship contract, including balancing formal expectations, log and problem statement (research question)
- The report must meet the formal requirements as well as content requirements
- The student must have made an oral internship presentation.

If the student does not meet the examination prerequisites and/or the formal requirements, the student will have used an examination attempt. This means that the student has two attempts remaining to pass the examination.

#### 6.1.2 Examination procedure

The exam is an individual, oral exam based on a written assignment which must be written during the internship period. The written assignment constitutes both the assessment basis and the examination basis. The student will receive a grade according to the 7-point grading scale.

#### 6.1.3 ECTS weight

The examination is worth 15 ECTS credits.

#### 6.1.4 Assessment criteria

The assessment criteria for the examination are identical to the learning objectives for the internship. The learning objectives are described in the national part of the Curriculum.

#### 6.1.5 Scheduled time

The exam will take place in the fourth semester. Further information about time, venue and submission of the written project can be found on the LMS platform and in WISEflow.

#### 6.1.6 Formal requirements for the log and the written assignment

- The written assignment must contain excerpts from the electronic log and answer the problem statement that was formulated earlier.
- The log must be updated at least weekly.

- The log is supposed to be a tool for reflection for systematically describing specific work assignments and how they were dealt with while including what the student has learnt in class.
- The written assignment must be written based on a problem that originates in possible work assignments during the internship, the electronic log as well as the learning objectives in the curriculum, see above.
- The written assignment must feature a clear connection between theoretical lessons and the specific solution to the problem.

The report should include:

- cover page with title
- contents
- abstract/synopsis
- learning objectives defined in the Internship Portal
- reflections on the learning objectives
- discussion of positive and negative experiences from the internship
- conclusion on the achievement of the learning objectives
- appendices (you should only include appendices that are key to the report)
- the report, including appendices, must be submitted as a single PDF file.

The extent of the written assignment must be at least 12,000 characters and a maximum of 24,000 characters and must cover a professional problem from the internship host + appendices.

One standard page is 2,400 characters including spaces and footnotes. The cover page, title page, table of contents, reference list and appendices do not count toward the upper character limit. Appendices are not assessed.

If the formal and/or content requirements to the log and the written assignment are not met, the student will lose one exam attempt.

#### 6.1.7 Resit

If the student loses an exam attempt, s/he will have the opportunity to submit a new written report. The requirements to the resit are identical to the above requirements, however, the student must correct specific requirements indicated by UCN because they were not met for the first exam attempt.

#### 6.1.8 Examination language

The examination language is English



#### 6.1.9 Exam aids

All aids are permitted.



## 7. The final degree project

Sem.	National subject elements	Local subject elements	ECTS	Assess- ment	Also called
4th	Final degree project		15	External	Final degree project

For the requirements to the final degree project as well as learning objectives, please see the national part of the Curriculum.

#### 7.1 Fourth-semester final degree project

#### 7.1.1 Examination prerequisites

Students must meet the following requirements to sit the exam:

- the written project, which constitutes the assessment basis as well as the exam basis, must:
  - $\circ\,$  meet the formal requirements, see below
  - $\,\circ\,$  be submitted in due time as per the exam timetable.

If a student does not meet all examination prerequisites, the student will have used one exam attempt, leaving him/her with two attempts remaining to pass the exam.

#### 7.1.2 Examination procedure

The exam is an internally assessed group examination where students have the opportunity to choose an individual exam. The oral exam is based on a written group project and is assessed and graded according to the 7-point grading scale. The project constitutes both the assessment basis and the examination basis, and students receive a single, total grade for the exam.

The group must have 1–4 members.

#### 7.1.3 ECTS weight

The examination is worth 15 ECTS credits.

#### 7.1.4 Assessment criteria

The assessment criteria are the same as the learning objectives for the final degree project, see the national part of the Curriculum.

#### 7.1.5 Scheduled time

The exam will take place at the end of the final semester (the fourth semester) of the study programme. Further information about the time and venue for each exam can be found on the LMS platform and in WISEflow. In cases of illness, maternity/paternity leave or exceptional circumstances, the study programme may exempt individual students from the deadlines that have been set for passing the exam.

#### 7.1.6 Formal requirements for the examination

The written project that constitutes both the assessment basis and the examination basis must

- meet the formal requirements to the final degree project, according to the national part of the Curriculum
- be submitted on time, as per the exam schedule on the LMS platform and in WISEflow, and be uploaded to 'UC-Viden'.

The report should include:

- cover page with project title and student name(s)
- title page bearing the exam name/code, the study programme, the educational institution, the project report writer(s) name(s), class name/code, supervisor name, project title, company name, number of characters, submission date and signatures
- the table of contents, the reference list and appendices should not be included in the number of characters
- abstract in English
- introduction, including a description of the problem, the problem statement (research question) and approaches to the problem
- theories, methods, analysis, calculations, results to answer the research question
- conclusion
- optional contextualisation and discussion (Danish: perspektivering)
- reference list (including all sources that are referred to in the report)
- list of appendices (number and title on all appendices included in the report)
- regular margins and an easy-to-read text font and size
- if the project report is confidential, this must be clearly indicated on the cover page
- the report, including appendices, must be submitted as a single PDF file.

The report, which makes up the written exam component, must have the following number of characters, depending on the size of the group:



- for students who work alone, report length must be between 45,000 and 55,000 characters + appendices Further on in this text, individuals who write a project by themselves will be considered 'one-person groups'
- between 55,000 and 65,000 characters plus appendices for groups of two students
- between 65,000 and 75,000 characters plus appendices for groups of three students + appendices
- between 75,000 and 85,000 characters plus appendices for groups of four students + appendices.

One standard page is 2,400 characters including spaces and footnotes. The cover page, table of contents, reference list and appendices do not count towards the limit.

Late submission or failure to meet all formal requirements for the written project report, which constitutes the written exam component, implies that the student is not allowed to attend the examination and that they will have used one examination attempt.

The exam cannot take place until the internship exam and other study programme exams have been passed.

#### 7.1.7 Rules governing the oral presentation of the project

#### The group must present the written project report.

The following number of minutes are allowed for the examination, including time for deliberations, depending on the number of students in the group:

- Students who work alone:
  - 50 min., presentation time: 20 min.
- Groups of two students:
  - 50 min. per person, of which 20 min. for individual presentations; 100 min. total
- Groups of three students:
  - 50 min. per person, of which 20 min. for individual presentations; 150 min. total.
- Groups of four students:
  - 50 min. per person, of which 20 min. for individual presentations; 200 min. total.

#### 7.1.8 Spelling and writing skills

Spelling and writing skills will be part of the assessment of the written exam project. Spelling and writing skills may have the weight of up to one grade. The assessment is expressed as an overall assessment of the professional and academic content as well as the student's spelling and writing skills.

#### 7.1.9 Examination language

The examination language is English.

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#### 7.1.10 Exam aids

All aids are permitted.

## 8. Subject elements that may be completed abroad

Each of the subject elements of the study programme may be completed abroad if a student applies for and is granted pre-approval of credit transfer by the study programme.

Following the end of a pre-approved period abroad, the student has a duty to document the subject elements that were completed during that period. When applying for pre-approval, the student must consent to allow the educational institution to collect any information that may be required after the student has completed the period abroad.

On final approval of pre-approved credit transfer, the subject element is considered completed if it was passed according to the regulations governing the study programme.

UCN has a large network of partners abroad, and UCN's International Department may help students find out how to do part of their study outside Denmark. Please contact UCN's International Department for further information. Please note however, that studying or going on an internship abroad requires more work of the student than staying in Denmark. It is up to the student to find out which course units can be studied abroad etc. at the higher education institution that s/he wants to attend. UCN's international office can offer advice etc. but does not go into the detailed planning of a study-abroad period. This is the student's own responsibility.

# 9. Withdrawal from exams

The regulations for withdrawal from exams can be found at <u>www.ucn.dk/english</u> in the Examination Regulations for UCN's Undergraduate Programmes.

# 10. Learning and teaching methods

UCN's approach to learning is called Reflective Practice-based Learning. By *Reflective* we mean that, throughout their studies, students are motivated to develop personal and academic competencies such as the ability to reflect on and assess their own learning outcomes.

Through systematic feedback processes, studies and contemplation on the profession's current knowledge and practices, the student will qualify himself/herself during the course of his/her studies to become an autonomous, innovative and problem-solving employee in relevant occupational functions. In so doing, and as a result of their studies, students will become strongly rooted in the profession that the study programme targets.

However, learning is not simply the transfer of knowledge from lecturer to student. A fundamental idea of the Automation Engineering Programme is that the learning process takes place within the student and in relation to fellow students and lecturers, and that students learn in different ways. This is why the study programme is designed around a range of teaching methods. The study activity model shows the different study activities that are used to help students achieve the learning objectives for the



programme. It is important to emphasise, however, that the student must take ownership of their own education processes.

The study activity model for the programme is available at <u>www.ucn.dk/english</u>, and each semester, the semester plan specifies which study activities of the study activity model will take centre stage for the semester in question.

According to the Ministry of Higher Education and Science, a student must achieve 30 ECTS credits worth of learning per semester. One ECTS credit is equivalent to 27 hours of work from the student. The semester plan gives an overview of the anticipated workload for the various course units/study activities.

#### The Study Activity Model – UCN



As you can see, the study programme uses a wide range of teaching and learning methods that – in combination – are intended to support the above and promote the achievement of the learning objectives described in this Curriculum. Throughout the study programme, there is clear progression in the teaching and learning methods, from being knowledge-oriented and managed by the lecturer, to being problemoriented and managed by the participants.

The learning and teaching activities are also based in relevant occupational practice and link together practice and theory: Practice-based Learning. Professional problems and challenges from various types of businesses and companies related to the professional disciplines of the study programme are included in the subject fields of the programme.



Learning and teaching activities can be designed to include foreign languages in teaching materials and in the classroom. The students' development of information and communication technology competencies are also supported through the learning and teaching methods used.

# 11. Compulsory participation and compulsory attendance

To achieve the learning objectives and outcomes of the study programme and for the associated forms of teaching and learning to work, it is also important to underline that students are subject to compulsory participation in the shape of

- submission/presentation of assignments/semester examinations/projects etc.
- assignment submission may be expressed as an examination prerequisite.

Non-compliance with compulsory participation/the examination prerequisite, e.g. if a written assignment is rejected, or cases of non-compliance with formal requirements, means that the student will have used an exam attempt. Subsequently, the student will only have two attempts remaining to pass the examination.

The study programme will offer help and guidance as soon as possible if a student is neglecting his/her obligation to participate.

#### 11.1 Student counselling and student advisors

If a student is finding it difficult to meet study programme requirements for compulsory participation and attendance, they can contact the programme's student advisor. Students can also turn to the student counsellor if they have questions about the design and course of studies, periods abroad etc. Find contact information for your student advisor at <u>www.ucn.dk/english</u>.

#### **11.2** Lecturers as supervisors

The lecturers on the study programme often act as supervisors to the students when it comes to study activities such as project assignment work.

Supervisory guidance is provided because UCN wishes to:

- support the development of a good learning environment
- support social learning processes and constructive collaboration
- support innovation and development
- support study groups to gradually take over the functions of the supervisor at a pace that matches the group's competencies.

generally, the supervisor will focus on project and learning processes, particularly

- 1. the content of the project
- 2. working methods and processes



- 3. group dynamics and processes
- 4. learning and metacognition

# **12.** Criteria for determining study activity

A student's enrolment on a study programme will be terminated if the student has failed to pass at least one exam over a continuous period of at least one year (non-compliance with study activity requirements).

Periods during which a student has not actively participated in their studies due to leave of absence, maternity or paternity leave, adoption of a child, verified illness or military service are not considered as non-compliance with study activity requirements. On request, the student must provide documentation of such matters.

The study programme may grant exemption from these provisions in exceptional circumstances. An application for exemption must be submitted to the programme director.

The student will be informed in writing before their enrolment is terminated. In connection with such notification, the student will be made aware of the above-mentioned regulations.

## **13.** Credit transfer for subject elements

Credit transfer evaluations take place in different situations.

# **13.1** Subject elements from the same study programme passed at another educational institution

Passed subject elements are equivalent to corresponding subject elements offered by other educational institutions providing the same study programme.

# **13.2** Credit transfer assessment (compulsory credit transfer) in connection with application for admission/enrolment on a study programme

When a student has met his/her duty to disclose information about passed subject elements from another Danish or foreign higher education programme and about any work experience that may be assumed to warrant credit transfer, the study programme will decide whether or not to grant credit transfer in each individual case and based on completed educational elements and work experience that compare with subjects, course units or internship elements. The decision whether to award credit transfer is based on an academic assessment.

# 13.3 In the event that a student does not meet their duty to disclose information on admission/enrolment

Twice a year (in July and January, respectively, in connection with the start of studies), any applications submitted by students subsequent to a failure to disclose information about prior education and work experience on admission/enrolment, are assessed to determine whether or not credit transfer should be granted.



This means that students may have to wait longer than anticipated for a decision of credit transfer. It is therefore the student's choice to run the risk that a decision of credit transfer is not made in due time before the examination concerned.

- *IF the student does not sit the examination,* and UCN later decides NOT to grant the student transfer credit, the student will have used an exam attempt.
- IF the student decides to sit the exam before UCN has made a credit transfer decision and if UCN would have granted the credit transfer, credit transfer will NOT be awarded because the student has decided to sit the exam. In this instance, the grade from the 'new' exam will be applicable irrespective of whether the 'old' exam grade which might have resulted in credit transfer, had the student applied for it in due time is higher than the 'new' exam grade, and irrespective of whether the student failed the 'new' exam.

Once the student has decided to attend an examination this will exclude the possibility of awarding transfer credit after the application has been processed, even in cases where transfer credit would have been awarded.

### 13.4 Pre-approval of credit transfer and final credit transfer

If a student wishes to obtain credit transfer for a subject element under this Curriculum, the student must submit an application for pre-approval of credit transfer prior to leaving UCN for another educational institution in Denmark or abroad.

Pre-approval of credit transfer is carried out by UCN.

When the student has successfully completed the requested subject element, and once the application for final credit transfer with the appropriate documentation has been received, final credit transfer will be granted.

If the student has not completed/passed the requested subject element, the student must sit an exam according to the regulations for said subject element as set out in this Curriculum.

For an in-depth description of the rules, please refer to the current Examination regulations for UCN's undergraduate programmes.

### 14. Language

The teaching materials are all in English and the lessons and lectures are delivered in English.

Students are not required to have any knowledge of foreign languages other than that stated in section 10 of Ministerial Order no. 211 of 27 February 2019 on admission to academy profession degree programmes and professional bachelor's degree programmes (the Admission Order).

#### 14.1 Examination language

Exams will be conducted in English.



### 15. Resits and resits due to illness

The rules and regulations for resit exams and resit exams due to illness (illness resit exams) can be found at www.ucn.dk/English in the Examination Regulations for UCN's Undergraduate Programmes.

## 16. Exam aids

Regulations on the restricted use of exam aids, if any, are set out under each individual examination.

## 17. Special exam arrangements

Students may apply for special examination arrangements if a physical or mental impairment qualifies them to do so. The application must be submitted to the study programme no later than four weeks before the exam is to be held. The application deadline may be waived in cases of sudden health-related problems. The application must be accompanied by a medical certificate, a statement from e.g. an institute for speech, hearing, dyslexia or for the blind, or other evidence of the student's health-related condition or relevant specific impairment.

If the exam language is Danish:

Students whose mother tongue is not Danish may apply for permission to bring dictionaries to exams where aids are not otherwise permitted.

Applications for permission to bring other aids must be submitted to the study programme no later than four weeks before the exam is to be held.

### 18. Academic misconduct during exams

When handing in a written exam assignment or answer paper, the student must confirm by signature that the assignment/answer paper was written without undue help.

#### 18.1 Use of own work and the work of others – plagiarism

The rules for use of one's own or other people's work – plagiarism – can be found at <u>www.ucn.dk/english</u> in the Examination Regulations for UCN's Undergraduate Programmes.

# **18.2** Disciplinary actions in events of academic misconduct and disruptive behaviour during examinations

Regulations on disciplinary actions in the event of academic misconduct and disruptive behaviour during exams can be found at <u>www.ucn.dk/english</u> in the Examination regulations for UCN's undergraduate programmes.

# 19. Complaints about exams and appeals against decisions

The rules on complaints about exams and appeals against decisions can be found at <u>www.ucn.dk/english</u> in the Examination Regulations for UCN's Undergraduate Programmes.

# 20. Exemption

In the case of exceptional circumstances, the educational institution may grant exemption only from those regulations in this institutional part of the Curriculum that were laid down by the educational institution individually. The educational institutions co-operate on a uniform exemption practice.

# 21. Effective date and transition regulations

This institutional part of the Curriculum comes into effect on February 1<sup>st</sup> 2020, and students who are admitted after this date will be subject to this Curriculum. All students who are enrolled on the programme, before this date, will be subject to this Curriculum as of February 1<sup>st</sup> 2020. Exams that have already commenced can be finalised under the 2019 Curriculum until the 31<sup>st</sup> of January 2021. At the same time, the institutional part of the Curriculum of 1 September 2019 will be repealed.