

**CURRICULUM**  
for  
**Chemical and Biotechnical Science**  
**Business Academy Aarhus**

Part II: Institutional Part  
Commencement 15.08.18

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This curriculum must be used in combination with the national part of the curriculum (called the national part). The national part of the curriculum is the same for all academies that offer this programme, while this part of the curriculum (the institutional part) is specific to Business Academy Aarhus.

## 1. Overview of elective elements on the programme

Semester	Subject element (national and institutional including electives)	ECTS
1st semester	National subject element: Laboratory technique and understanding	5
1st semester	National subject element: Working environment	5
1st and 2nd semester	National subject element: Analytical technique	30
1st and 2nd semester	National subject element: Quality assurance	5
1st and 2nd semester	National subject element: Project work	5
2nd semester	Institutional subject element: Analysis of biomolecules	5
2nd semester	Institutional subject element: Elective subject element – see the electives' catalogue	5
3rd semester	National subject element: Qualification and validation	5
3rd semester	National subject element: Advanced analytical technique	5
3rd semester	Institutional subject element: Optimisation	5
3rd semester	Institutional subject element: Project organised laboratory work	10
3rd semester	Institutional subject element: Elective subject element – see the electives' catalogue	5
4th and 5th semester	Internship	50
5th semester	Final exam project	10

## 2. Institutional subject elements

On this programme, the institutional subject elements are weighted 30 ECTS, of which 10 ECTS are electives.

Students may also follow electives at other institutions provided that they pay for their own transportation, overnight accommodation, etc.

## 2.1. Analysis of biomolecules

### Content

This subject element is concerned with qualitative and quantitative analysis techniques used specifically for the analysis of biomolecules, including the analysis of proteins, peptides and/or amino acids.

### Learning objectives for the analysis of biomolecules

#### Knowledge

The student will gain knowledge about

- the purification and characterisation of biomolecules.
- and get an understanding of the purification and characterisation of biomolecules.

#### Skills

The student will get the skills to:

- use key methods and tools to purify, analyse and characterise biomolecules
- evaluate the results of biomolecule analysis, and outline and choose solution options
- disseminate the results of the analyses of biomolecules to partners and users

#### Competencies

The student will learn to:

- do qualitative and quantitative analyses of biomolecules
- participate in academic cooperation with other students in the analysis of biomolecules
- in a structured context, acquire new knowledge, skills and competencies in relation to the analysis of biomolecules.

### ECTS weight

The subject element analysis of biomolecules is weighted 5 ECTS.

## 2.2. Optimisation

### Content

This subject element is concerned with the optimisation of key analytical technique methods and optimisation tasks in the laboratory



## Learning Objectives for Optimisation

### Knowledge

The student will gain knowledge about:

- the optimisation of analysis technique methods
- and get an understanding of the factors influencing the optimisation of key analytical technique methods.

### Skills

The student will get the skills to:

- use relevant factors in connection with the optimising of key analytical technique methods
- evaluate laboratory observations and results, and outline and choose solution options for the optimising of analytical methods
- disseminate laboratory observations, results and solutions from optimisation experiments to partners.

### Competencies

The student will learn to:

- manage optimisation tasks in the lab.
- in a professional manner, participate in academic and interdisciplinary collaboration within optimisation experiments
- in a structured context, acquire new knowledge, skills and competencies in relation to optimisation.

## ECTS weight

The subject element optimisation is weighted 5 ECTS credits.

## 2.3. Project organised laboratory work

### Content

The subject element deals with principles for and the use of the chosen complex analysis technique methods in a project organised context. In addition, the subject element contains written and oral communication of laboratory observations and results.

## Learning objectives for project organised laboratory work

### Knowledge

The student will gain knowledge about:

- and get an understanding of complex analysis technique methods

#### Skills

The student will get the skills to:

- use complex analysis technique methods in a project organised context
- evaluate practice-orientated issues and outline and select options within project organised laboratory work, including optimal time planning
- communicate complex laboratory observations and results

#### Competencies

The student will learn to:

- manage development situations in project organised laboratory work
- participate in academic cooperation in project organised laboratory work
- in a structured context, acquire new knowledge, skills and competencies in relation to project organised laboratory work

#### ECTS weight

The subject element project organised laboratory work is weighted 10 ECTS.

### 2.4. Elective element

For an overview of the elective subject elements for the Chemical and Biotechnical Science programme, please refer to the electives' catalogue. In order to offer relevant electives, the electives' catalogue, part 3, is regularly updated with the latest electives. In the electives' catalogue, you can see the actual electives with their content and learning objectives.

#### ECTS weight for electives

The elective elements are weighted 5 ECTS.

## 3. Exams on the programme

When starting on a programme element, semester, etc., the students will automatically be registered for the relevant exams. Registration for an exam means that one exam attempt has been used. This does not apply for students who are unable to attend the examination due to a documented illness or maternity/paternity leave.

It is always the responsibility of the student to ensure that they have internet access during the exam and that their computer is functional.

### 3.1. Overview of examinations and their timing

Below is an overview of the programme's exams:

Time	Subject/exam	Total ECTS	Internal/external assessment	Assessment
1st semester	Study start exam	-	Internal	Passed/ failed
1st semester	Practical exam – practical work basic chemical and microbiological techniques	15	Internal	7-point scale
2nd semester	Laboratory technology, safety and data processing - Chemical and chemical technology - Microbiology and biotechnology	40	External	7-point scale
2nd semester	Elective element	5	Internal	7-point scale
3rd semester	Advanced Analytical Technique – qualification, optimisation and validation of chemical and biotechnology analytical techniques	15	Internal	7-point scale
3rd semester	Project organised laboratory work	10	Internal	7-point scale
3rd semester	Elective element	5	Internal	7-point scale
5th semester	Internship exam	50	Internal	7-point scale
5th semester	Final exam project	10	External	7-point scale

Information concerning times, dates and locations for the exams can be found on Study Update

For all international programmes, all exams are conducted in English.



### 3.2. Completion of the exams

In general, the following applies for all programmes in relation to when an exam has been completed or an exam attempt has been used. If there are deviations for a specific exam, they will appear in the individual exam descriptions below.

#### *Pass / fail exams*

If a student has not achieved the mark 02 or higher for an oral or written exam or a combination of this, the exam will not be passed, and one exam attempt will have been used.

#### *Handed-in project report/written answer but has not passed the exam*

If the project has been prepared and handed-in on time and the oral exam is not passed, one exam attempt will have been used.

A new oral exam will be scheduled as soon as possible, and the student will be examined in the previously handed in project or written answers.

#### *Project report not handed in/written answers*

If a student does not hand-in their exam report or a written report, one exam attempt will have been used.

A new deadline will be scheduled as soon as possible.

#### *Not participated in the exam/oral examination*

If a student hands in their project report or written answers, but doesn't participate in the oral exam, one exam attempt will have been used.

A new oral exam will be scheduled as soon as possible, and the student will be examined in the previously handed in project or written answers.

#### *Sickness and re-examinations*

The specific deadlines and dates will be communicated to students via Study Update along with the deadlines and dates for the ordinary exam.

Information about the time and place of illness/re-exams can be found on Study Update. This may be the same as the next regular exam. The student is responsible for finding out when the sick and re-exams take place. The student is automatically registered for the next illness/re-exam. If the offered illness/re-exam is not used, one exam attempt will have been used.

#### *Sick exams*

A student who has been prevented from taking an examination due to a documented illness or another unforeseen circumstance will be given the opportunity to take a (illness) exam as soon as possible. If it is an exam that is scheduled in the programme's last examination period, the student will be given the opportunity to retake the exam in the same examination period or as soon as possible after.

The illness must be documented by a doctor's certificate. The Academy must receive the doctor's certificate no later than three working days after the examination. Students who become acutely ill during an exam must prove that they have been ill on that day.

If the illness is not documented according to the above rules, the student will have used one examination attempt. The student must pay the cost of the doctor's certificate. Requirements for the doctor's certificate can be found on Study Update 'Worth knowing about exams'.

#### *Re-examination*

With a failed exam, or failure to appear for an exam, the student is automatically registered for the re-examination, provided that the student has an exam attempt left. The student is registered to take the exam the next time it is scheduled. The re-examination may be the same as the next regular exam.

The programme may grant an exemption from the automatic registration to an exam provided this is justified by exceptional circumstances, including documented disabilities.

### **3.3. Study start exam, start of the 1st Semester**

#### Learning objectives for the study start exam

The objective is to determine whether the student is active and has started on the programme. The exam is based on the programme's first 4 weeks.

#### Knowledge

The student will gain knowledge about:

- the programme's structure and exams
- requirements for study activity and knowledge of public holidays and holidays in general
- and an understanding of the physical and safety conditions in relation to the department in which the teaching takes place
- what type of information can be found on baaa.dk, Canvas and Study Update
- the basic laboratory equipment included in the teaching in the first 4 weeks

#### Skills

The student will get the skills to:

- use simple stoichiometric calculation formulas
- perform a manual colorimetric titration

The exam does not have any ECTS credits and does not appear on the diploma.

#### Exam form and organisation

The exam is an individual, written electronic exam (multiple choice exam + text replies) lasting 30 minutes – without any exam aids. A computer and your student card (identification) must be taken to the exam.

#### Assessment criteria

The exam assessed with pass/fail and there is internal assessment. The exam paper will indicate how many points are required to pass the exam.

Failure to appear will result in a 'fail'.

#### A failed study start exam

If the exam is not passed, the students will have the opportunity to participate in re-exam approximately 1 week after the first exam.

If the student does not pass the re-exam, he/she will be expelled from the programme cf. the Admission's Order.

#### Complaints

The student cannot complain about the exam or the assessment, as it is not covered by chapter 10 on complaints about exams in the Ministerial Order for Examinations. It is only possible, in relation to this, to submit a legal complaint if there are grounds for doing so under Ministerial order on examinations.

### **3.4.Laboratory work and analytical technique – practical exam, 1st Semester – 15 ECTS**

#### Learning objectives for the exam

The learning objectives for the exam are the same as the learning objectives for the national subject element 'laboratory technique and understanding' (5 ECTS), and also certain learning objectives from the national subject element 'analytical technique' (4 ECTS), 'working environment' (3 ECTS), 'quality assurance' (2 ECTS ) and project work (1 ECTS), as indicated below.

The following learning objectives from the national subject element '**analytical technique**':

#### Skills

- can convey laboratory observations and results to business partners

#### Competencies

- manage the planning and execution of key and routine analytical tasks

The following learning objectives from the national subject element '**working environment**':

#### Knowledge

- and an understanding of general safety and hygiene rules in the laboratory

### Skills

- use safety equipment and personal protective equipment
- apply applicable rules for the classification and labelling of chemical and biological agents
- apply rules for waste management
- manage laboratory work in a safety, health and environmentally responsible manner

The following learning objectives from the national subject element '**quality assurance**':

### Skills

- apply methods and tools to document laboratory work
- manage laboratory work qualitatively correct manner

The following learning objectives from the national subject element '**project work**':

### Knowledge

- the processes in project work

### Exam form and organisation

The exam is an individual practical exam with a subsequent examination, there is preparation time prior to the exam. One practical assignment is handed out which reflects part of the 1st semester laboratory work. The assignment is based on guidelines and the other teaching materials that have been used in the teaching. All exam questions will be published on Canvas at least 2 weeks before the exam is to be held.

Students draw their assignment number at least three working days before the practical exam. The students, however, will only be told which assignment they have drawn once the preparation time starts.

The examination starts with 30 minutes of preparation in a separate theory room. After this, the practical part of the exam, consisting of 90 minutes of practical work in either the microbiological or chemical technological laboratory, will be done. The practical part is followed by 10 minutes of examination.

### Prerequisites to take the exam

A prerequisite to take the exam is the fulfilment of the obligation to participate in classes as described in section 14.

### Assessment criteria

The exam is assessed according to the 7-point scale and has an internal co-examiner.



The student is assessed based on their performance at the practical exam and the oral examination.

### **3.5.Laboratory technology, safety and data processing, 2nd semester - 40 ECTS**

Learning objectives for the exam

The learning objectives are the same as the learning objectives for the national institutional subject element 'analysis of biomolecules' (5 ECTS), and also certain learning objectives from the national subject element 'analytical technique' (26 ECTS), 'working environment' (2 ECTS), 'quality assurance' (3 ECTS ) and project work (4 ECTS), as indicated below.

The exam consists of 2 individual written sub-exams:

one exam related to the chemical and chemical technological content from the 1st and 2nd semester. This examines the learning objectives as defined and is therefore related to chemical and chemical technological subjects.

one exam related to the microbiological and the biotechnology content from the 1st and 2nd semester.

This examines the learning objectives as defined and is therefore related to microbiological and biotechnological subjects.

Exam related to chemical and chemical technology

The following learning objectives from the national subject element '**analytical technique**':

Knowledge

- of key analytical equipment and scientific theory in relation to laboratory work, which is related to the chemical and chemical technological content
- of sample preparation for the key analytical techniques, related to the chemical and chemical technological content
- and understanding of the key principles for analytical technique methods related to the chemical and chemical technological content

Skills

- use the key types of analytical equipment, analytical techniques and related calculations and scientific theory in relation to laboratory work related to the chemical and the chemical technological content
- use the English-language regulations and manuals related to the chemical and chemical technological content
- use IT in connection with the key analytical work and data processing related to the chemical and chemical technological content

- evaluate laboratory observations and results related to the chemical and chemical technological content

#### Competencies

- in a structured context, acquire new knowledge, skills and competencies in relation to key analytical techniques related to the chemical and chemical technological content

The following learning objectives from the national subject element '**working environment**':

#### Knowledge

- of the principles of classification, labelling and handling of chemical and biological agents related to the chemical and chemical technological content

#### Competencies

- in a structured context, acquire new knowledge, skills and competencies in relation to working environment related to the chemical and chemical technological content

The following learning objectives from the national subject element '**quality assurance**':

#### Knowledge

- and understanding of quality assurance of laboratory work, related to the chemical and chemical technological content

#### Skills

- evaluate laboratory work based on statistical calculations and/or the use of controls related to the chemical and chemical technological content

The following learning objectives from the national subject element '**project work**':

#### Skills

- use and assess methods and tools for planning, performing and documenting project work, related to the chemical and chemical technological content
- communicate solutions from project work to partners related to the chemical and chemical technological content

#### Competencies

- can, using a professional approach, take part in project collaboration related to chemical and chemical technological content



Exam related to microbiology and biotechnology

The following learning objectives from the national subject element '**analytical technique**':

#### Knowledge

- of key analytical equipment and scientific theory in relation to laboratory work, which is related to the microbiological and the biotechnological content
- of sample preparation for the key analytical techniques, related to the microbiological and biotechnological content
- and understanding of the key principles for analytical technique methods related to the microbiological and the biotechnological content

#### Skills

- use the key types of analytical equipment, analytical techniques and related calculations and scientific theory in relation to laboratory work related to the microbiological and biotechnological content
- use the English-language regulations and manuals related to the microbiological and biotechnological content
- use IT in connection with the key analytical work and data processing related to the microbiological and biotechnological content
- evaluate laboratory observations and results related to the microbiological and biotechnological content

#### Competencies

- in a structured context, acquire new knowledge, skills and competencies in relation to key analytical techniques related to the microbiological and biotechnological content

The following learning objectives from the national subject element '**working environment**':

#### Knowledge

- of the principles of classification, labelling and handling of chemical and biological agents related to the microbiological and biotechnological content

#### Competencies

- in a structured context, acquire new knowledge, skills and competencies in relation to working environment related to the microbiological and biotechnological content

The following learning objectives from the national subject element '**quality assurance**':

#### Knowledge

- and understanding of quality assurance of laboratory work, related to the microbiological and the biotechnological content

### Skills

- evaluate laboratory work based on statistical calculations and/or the use of controls related to the microbiological and biotechnological content

The following learning objectives from the national subject element '**project work**':

### Skills

- use and assess methods and tools for planning, performing and documenting project work, related to the microbiological and biotechnological content
- communicate solutions from project work to partners related to the microbiological and biotechnological content

### Competencies

- can, using a professional approach, take part in project collaboration related to microbiological and biotechnological content

### Exam form and organisation

- The exam consists of 2 individual written sub-exams:

Each sub-exam must be passed.

Each part exam lasts for three hours. The sub-exams are held a few days apart.

### Prerequisites to take the exam

A prerequisite to take the exam is the fulfilment of the obligation to participate in classes as described in section 14.

### Assessment criteria

The exam is assessed according to the 7-point scale and has an external co-examiner.

The two parts are assessed separately according to the 7-point scale, and in the evaluation each part exam accounts for 50% of one overall mark for the 1st year exam. The marks for each sub-exam as well as the total mark for the exam will be shown on the diploma.

To pass the theoretical exam, each sub-exam must have been passed with a minimum mark of 2.0.

### Completion of the exam

If the student does not pass one of the two sub-exams, the student will have to do the re-exam in the sub-exam that has not been passed.



### **3.6. Advanced analytical technique, 3rd semester - 15 ECTS**

#### Learning objectives for the exam

Learning objectives for the exam are the same as the learning objectives of the national subject elements (see national part of the curriculum) ‘Advanced analytical Technique’ (5 ECTS) and ‘Qualification and Validation’ (5 ECTS) as well as the institutional subject element (see Section 2.2 in this curriculum), ‘Optimisation’ (5 ECTS).

#### Exam form and organisation

The exam is an internal oral exam and consists of an oral presentation and an examination.

The topic is drawn – through a code - at the beginning of the 3rd semester. On the exam day, immediately prior to the preparation time, the subject that must be presented will be announced after which the student will have 30 minutes of preparation.

The individual oral exam is 30 minutes and includes:

- 5 minutes for the student’s presentation
- 5-10 minutes of examination in the specific report/presentation and
- 10-15 minutes of examination based on the learning objectives within the specific field.
- 5 min for the assessment.

#### Prerequisites to take the exam

A prerequisite to take the exam is the fulfilment of the obligation to participate in classes as described in section 14.

#### Assessment criteria

The exam is assessed according to the 7-point scale and has an internal co-examiner.

The student is awarded one overall mark based on their presentation and the examination.

### **3.7. Project organised laboratory work, 3rd semester - 10 ECTS**

#### Learning objectives for the exam

Learning objectives for the exam are the same as the learning objectives for the institutional subject element ‘project organised laboratory work’ (10 ECTS).

#### Exam form and organisation

The Academy will offer projects where the students work with a subject-relevant topic in a project-organised context. The process consists of a planning phase, implementation phase and a completion phase in the form of a report.



*Practical part, prepared in groups – planning and implementation phase*

The planning, structuring and completion of the laboratory work is carried out in cooperation between the students in pairs, taking into account the time framework.

*Written part, prepared in groups - completion phase*

The report must be written in collaboration with the students who worked together in pairs during the practical assignment.

The report must be 20 standard pages. The formal requirements can be found in section 6 'Requirements for written assignments and projects'.

*Oral part, individual*

The individual oral presentation is based on the written report.

The oral presentation must be prepared and prioritised as though it was a presentation for a professional partner.

The individual oral exam is 30 minutes and includes:

- 5 minutes: The student's presentation
- 20 minutes: The exam based on the project report as well as the oral presentation.
- 5 minutes: Assessment.

**Prerequisites to take the exam**

A prerequisite to take the exam is the fulfilment of the obligation to participate in classes as described in section 14.

**Assessment criteria**

The exam is assessed according to the 7-point scale and has an internal co-examiner. The exam consists of the practical laboratory work, a report prepared in groups and an individual oral part. The exam is based on the report and the assessment is an overall assessment based on the report and the individual oral presentation.

### **3.8. Internship exam, 5th semester - 50 ECTS**

**Learning objectives for the exam**

The learning objectives for the exam are the same as the learning objectives from the national part of the curriculum under the 'Internship' section.

#### Exam form and organisation

The exam is an individual, written exam. At the end of the internship, an internship report covering the period in the internship company must be handed-in explaining the achievement of the learning objectives.

The report must be 5-10 standard pages. A standard page is equivalent to 2400 keystrokes including spaces.

The weekly report of the internship must be attached as an appendix with the written internship report. Within a period of 2 weeks after the internship report is handed-in, the assessment will be held.

#### Prerequisites to take the exam

The following requirements must be met to take the Internship exam:

- the student has done their internship as described in the institutional part of the curriculum: 'rules for the completion of an internship'
- ensure that the content of all submitted assignments and presentations is credible
- the internship report meets all the formal requirements
- the student must, with their name, confirm that they are responsible for the report.
- submit the internship report properly and on time via WISEflow.

#### Assessment criteria

The exam is assessed according to the 7-point scale and has an internal co-examiner. The assessment reflects an overall assessment of the academic content as well as writing and spelling ability.

### **3.9. Final exam project, 5th semester - 10 ECTS**

#### Learning objectives for the exam

The learning objectives for the exam are the same as the programme's national part of the curriculum.

#### Exam form and organisation

The exam consists of an individually prepared report and an individual oral exam.

The final exam project must demonstrate the student's understanding of practices and centrally applied theory and methods in relation to a real-life problem, which is based upon a specific task within the programme's area. The problem statement that must be central to the programme and profession, is formulated by the student, possibly in collaboration with a private or public company. The educational institution approves the problem statement.



*The written part of the exam:*

The students must work independently with the project, and the project report must include findings and results from the student's own work.

If others have contributed with findings and results, this must be clearly stated in the report.

The final exam project has a maximum of 25 standard pages. This does not include front page, table of contents, bibliography and appendices. One standard page is 2,400 keystrokes which includes spaces and footnotes. The front page, table of contents, bibliography and appendices are excluded from this.

The appendices should not exceed 25 pages.

If the project is confidential, this must be clearly indicated on the cover page of the report.

*The oral part of the exam:*

The individual oral exam is 30 minutes and includes:

- 5 minutes: The student's presentation of the project or part of it
- 20 minutes: the exam based on the project report as well as the oral presentation.
- 5 minutes: Assessment.

Prerequisites to take the exam

To do the final exam project examination, it is a prerequisite that:

- all 1st, 2nd and 3rd semester exams and the internship exam have been passed
- the student has completed the project course as described in the national part of the curriculum under the section headed: "final exam project"
- ensure that the content of the written project report is credible
- ensure that the project report meets the formal requirements as described in the national part of the curriculum under the section headed: "Requirements for the final exam project" as well as in section 3.9: "The exam form and organisation" in this curriculum.
- confirm with their signature on the report that they are responsible for it
- submit the project report properly and on time via WISEflow.

Assessment criteria

The exam is assessed according to the 7-point scale and has an external co-examiner. The assessment reflects an overall assessment of the academic content as well as writing and spelling ability, the written and oral part are both weighted 50%.

Spelling and writing skills are worth 5% of the 50%, which relates to the written part.

Sick/re-exams for the final exam project

The Chemical and Biotechnical Science programme has 4 hand-in dates each year. The deadline for the first sick/re-exam is the next deadline date. The student may, however, in agreement with the

programme choose an earlier hand-in deadline if the student wants to complete their programme faster. The student must choose this option immediately after the regular examination though. The programme secretary must be informed of the choice.

The hand-in deadline for the 2nd sick- re-exam will also be the next deadline date.

The actual dates will always be listed in the activity calendar on Study Update.

#### **4. Rules for the completion of an internship**

During the internship, the student will have a supervisor from the programme and a contact person in the company. Together, the internship company and the student determine the learning objectives to be attained by the student during the internship period, these must be based on the learning objectives found in the third part of the national part of the curriculum and which will subsequently provide the basis for the company's planning of the student's work. The learning objectives for each student must be approved by the Academy. The student takes part in work related to safety, working environment and quality control. In this context, 'company' is either the entire company or part of a company or public institution.

The internship period is 33 weeks and concludes with an exam. See also section 3 concerning the description of the programme's exams.

The internship is generally considered equivalent to a regular full-time job (37 hours per week) and should reflect the requirements for work performance, commitment and flexibility that graduates could expect to meet in their first jobs. In addition, it is expected that the student spends six hours a week on reflection of their own learning, documenting the internship in the weekly journal and preparing an internship report.

##### **4.1. Programme documents in connection with the internship**

All programme documents needed as documentation in connection with the student's internship can be found on Study Update.

The documents consist of:

*A Internship agreement - has information about the parties in the internship – students, company, educational institution.*

*B. Weekly journal - the student must keep a weekly journal during the internship period, which should specify the tasks, analyses, etc. that have been conducted each week as well as the programme elements that have been worked on.*

#### **4.2. Absences during the internship course**

For approved absences due to pregnancy, maternity/paternity leave or other leave or long-term illness, the study period will be correspondingly extended. See also Study Update for more information on documentation requirements for these matters or contact your programme secretary.

### **5. The programme parts that can be completed abroad**

#### **5.1. The programme parts and rules for prior credit approval**

The programme is modular; this means that it is possible for a student to take a semester abroad, just as it is possible for foreign students to study one semester in our programme.

It is also possible to take elective elements abroad in the programme's 3rd semester or as part of a summer school visit.

The internship and the final exam project may also take place in a company or institution abroad.

For more information of the specific opportunities, please contact International Office at the Academy.

The students can, after applying for a programme's prior credit approval, take each individual programme component abroad.

Upon approval of the prior credit approval, the programme element is considered completed if it is passed according to the rules of the programme.

With prior credit approval for study abroad, students are required to document each approved and completed programme component when their exchange programme is completed. In connection with the application for prior credit approval, the students must give permission to the institution to obtain any required information after the completion of their studies.

The Academy has a wide network of partners abroad and the Academy's International Office can assist students who wish to take part of their programme abroad. The International Office can be contacted for further information. It should be noted, however, that a lot of work is required by the individual student if they wish to study abroad. It is up to the individual student to investigate available subjects for study abroad at the desired university, etc. International Office can help with advice etc. but will not do any detailed planning. This is the student's own responsibility.

#### **5.2. Exams for a semester abroad**

##### **Subject**

The student must take their exams at a partner institution abroad. The student must also document all learning from the courses taken at the partner institution in an online portfolio. A learning report for each subject, which describes the types of learning achieved in the subject, must be prepared.

The scope of the report must match the course's ECTS credits, though at least two pages which correspond to 2,400 characters per page.

All the subject's tasks and corresponding hand-ins must be documented online in the portfolio. A link to the portfolio as well as proof of passing the exam at the partner institution must be handed into the Academy no later than four weeks after completion abroad. The portfolio, including learning reports, is assessed as pass/fail.

### **Internship**

A supervisor from the Academy will be designated and the internship report must be handed-in and examined as described under "Internship".

### **Final exam project**

A supervisor from the Academy will be designated and the internship report must be handed-in and examined as described under "Final exam project".

### **Rules for examinations abroad**

For a description of the rules for conducting exams abroad, please refer to the section with useful tips on examinations on baaa.dk This also describes the costs involved if the examination is held abroad.

## **6. Requirements for written assignments and projects**

In all exams etc. a standard page is defined as containing 2,400 keystrokes including spaces and footnotes. This does not include front page, table of contents, bibliography and appendices.

Reports – except for the internship report – must be structured in accordance with the supplied report supervision – see summary below:

A report can be divided into three sections:

- Identification part
- The main and result part
- Appendix and reference part

#### *Identification part:*

- Front page with (assignment) title, module/semester, name (s), group number, institution, supervisor and relevant dates
- Preface, including reading guide
- Table of contents (if the report is longer than 5-7 pages)

#### *The main and result part:*

- Thesis statement/assignment text/aim
  - o What assignment or problem will be solved in connection with the work and report?

- Possibly a problem definition/problem solving
  - o How can the assignment be delimited and solved, including choice of method?
- Background theory
- Principles/Theory \*
  - o Appliance and analysis principles, important definitions, reaction schemes, description of microorganisms/cell lines
- Practice \*
  - o Brief description of the performed laboratory work, including approximate calculations, quality assurance and safety precautions
- Result section \*
  - o Raw data and calculated results in table form. Calculation examples – symbol and number examples. Also, standard curves and gel pictures
- Assessment/discussion \*
  - o The results of the quality assurance must be annotated and compared with the requirements, including the results of the statistical tests. Relevant sources of error
- Conclusion
  - o The answer to the thesis statement/assignment/aim. Short and to the point.

*Appendix and reference part:*

- Appendices
  - o Flow diagrams, large amounts of raw data, chromatograms, etc. (exam reports: possibly also copies of relevant used standards)
  - o Safety appendix
  - o All dangerous chemicals, solutions, biological agents
- References
  - o Numbered list of references in the report to references/literature

\* If several methods or techniques are included, these points must be repeated for each method/technique. The remaining points must deal with all the laboratory work.

### **6.1. What effect do spelling and writing skills have on the assessment?**

In the assessment of reports and exams, in addition to the academic content, the student's spelling and writing ability is also important (weighted 10 per cent). The assessment reflects an overall assessment of the academic content as well as writing and spelling ability.

Students who can document a relevant disability can apply for an exemption from the requirement that spelling and writing skills are included in the assessment. The application must be sent to the programme, addressed to the head of the programme no later than four weeks before the exam is due to be held.

## **7. The use of aids and assistance**

During exams, all aids and assistance, including electronic devices, are allowed, unless a ministerial order or curriculum for the specific programme specifies restrictions for use.

Any rules for limitations in the use of aids will be apparent from the description of the individual exam.

## **8. Special exam conditions**

The Academy offers special exam conditions for students with physical or mental impairments when students apply for this, and when the Academy considers that it is necessary to equate these students with other students in an exam situation.

Students may therefore, where this is justified by physical or mental disabilities, apply for special exam conditions. Applications must be submitted to the programme four weeks before the exam. Application requirements will be waived in cases of sudden health problems. The application must be accompanied by a doctor's certificate, a report from a speech, hearing, dyslexic or blind institution or by any other documentation that indicates a doctor's condition or relevant disability.

Students whose mother tongue is not Danish can apply for permission to bring dictionaries to the examination where no aids and assistance are not allowed.

Applications for permission to bring any additional assistance must be submitted to the programme four weeks before the exam is held.

## **9. Cheating including the use of own and others' work (plagiarism)**

Projects and other material for examinations must be prepared by the student/s themselves.

Upon the submission of written answers as well as physical and electronic submissions, the examinee confirms that the assignment/answers have been prepared without wrongful assistance.

### **9.1. Cheating and disruptive behaviour during exams**

Cheating on tests and exams is covered by the Ministerial Order on Tests and Examinations in Professionally Orientated Programmes (the Examination Ministerial Order).

If a student cheats on an exam, the student will be expelled from the exam.

If the cheating occurs under aggravated circumstances, the student can be expelled from the programme for a shorter or longer period. With expulsion for cheating under aggravated

circumstances, a written warning will be given stating that repetition could lead to a permanent expulsion from the programme.

***Cheating is for instance:***

- Improperly receiving help during an exam
- Improperly giving help to others during an exam
- To pass someone else's work off as your own (plagiarism - see <http://en.stopplagiat.nu/>)
- To use previously assessed work without a reference
- To use assistance which is not allowed for the exam in question

Expulsion from an exam for cheating means that the mark will be annulled, and that one examination attempt has been used by the student.

If a student exhibits **disruptive behaviour** during an exam, the Academy can expel the student from the exam. In less severe cases, the Academy will only give a warning.

Expulsion can also occur once the exam has been held.

**Presumption of cheating, including plagiarism during and after the exam**

If during or after an exam, there is a suspicion that an examinee:

- Improperly obtained or provided help
- Has passed somebody else's work off as their own (plagiarism)
- Has used previously assessed work or parts thereof without reference (plagiarism)

this must be reported to the programme's head of department.

Business Academy Aarhus conducts systematic digital plagiarism control.

**9.2.The process of clarification of exam cheating, including plagiarism**

*Postponement of the exam*

If the report of cheating is plagiarism etc. in a written assignment, where this forms the basis of assessment with a subsequent oral examination, the head of the department must postpone the exam if it is not possible to determine whether plagiarism has taken place before the date of the exam.

*Format and content of the report*

The report must be submitted without undue delay as soon as there is a suspicion that cheating in an exam has occurred. The report must include a written presentation of the case, which includes information that can identify those incriminated, as well as a brief explanation and documentary

evidence of the allegation. If one or more of the reported people are repeat offenders, this should be disclosed.

When reporting plagiarism, the plagiarised parts must be marked with a clear reference to the sources that have been plagiarised. The plagiarised text must also be marked in the source text.

#### *Involvement of the examinee – consultation of affected parties*

The head of the programme determines whether the consultation with the student happens orally, in writing or a combination thereof.

For an oral consultation, the examinee is summoned to an interview which aims to shed light on the case. The aim here is to present documentation of the suspected cheating to the student and to hear the student's side. The student has the right to have a representative accompany them to this meeting.

For the written consultation of interested parties, the documentation for the suspected cheating is sent to the student in order to request a written statement.

#### *Sanctions for cheating and disruptive behaviour during an exam*

If, after having the case explained, the head of department can confirm the suspicion of cheating, and if the action has or could have an impact on the assessment, the examinee must be expelled from the exam by the head of department.

In less severe cases, a warning is given first.

The student may not attend classes or take any examinations during their period of expulsion. With expulsion for cheating under aggravated circumstances, a written warning will be given stating that repetition could lead to a permanent expulsion from the programme.

Expulsion from an exam for cheating means that the mark will be annulled, and that one examination attempt has been used by the student.

The student may not participate in a sick/re-exam but must wait until the programme's next ordinary exam.

The student may not attend classes or take any examinations during their period of expulsion.

#### *Complaints*

The decision to expel and that an examination attempt has been used due to cheating is final and cannot be appealed to a higher administrative authority.

Complaints about legal issues (for example incapacity, consultation of interested parties, appeal guidelines, whether the Ministerial Order of Examinations has been interpreted correctly, etc.) may be submitted to the Ministry of Higher Education and Science. The complaint must be submitted to the Academy and must be addressed to the head of the programme, who must then submit a report

that the complainant has the opportunity to comment on, usually within a period of one week. The Academy then sends the complaint, the report and the complainant's comments (if any) to the Ministry of Higher Education and Science. The deadline for complaints to the institution is two weeks from the day the decision was communicated to the complainant, cf. Ministerial Order on examinations.

## **10. Complaints regarding exams and the appeals of decisions<sup>1</sup>**

### **10.1. Complaints regarding exams**

It is recommended that the examinee should get guidance from a student and career counsellor for the appeal procedure and for the preparation of a complaint.

The rules for exam complaints can be found in section 10 of the Ministerial Order on Examination Regulations.

In the Ministerial Order of Examinations, complaints are distinguished as either based on the

- the basis of the examination etc., the exam procedure and/or the assessment or
- complaints concerning legal matters.

The two kinds of complaints are handled differently.

### **10.2. Complaints about the basis of the examination etc., exam procedure and assessment**

An examinee may submit a written and substantiated complaint within a period of two weeks after the exam has been announced in the usual way. Complaints can relate to:

- the basis of the exam, including exam questions, assignments, etc., as well as its relationship to the educational goals and requirements
- the exam procedure
- Assessment.

A student can complain about all exams, including written, oral and a combination thereof, as well as practical or clinical exams.

The complaint must be sent to the quality department via the complaint form on [www.baaa.dk](http://www.baaa.dk).

The process after a complaint is received is that the complaint is immediately submitted to the original examiners, i.e. the examiner and co-examiner for the examination. The opinions of the

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See Ministerial Order for Examinations chp 10.

examiners will form the basis of the Academy's decision regarding academic issues. The Academy will usually decide on a deadline of two weeks for the submission of their opinion.

Immediately after the examiners' opinions are made available, the complainant has the opportunity to comment on the decision, usually with a week's deadline.

The Academy's decision is based on the complaint, the examiners' academic opinion and any possible comments the complainant may have regarding the report.

The Academy's decision must be in writing, and can be as follows:

- provision for a new assessment (reassessment)-only for written exams
- provision for a new exam (re-examination)
- that the student's complaint has been dismissed.

Should it be determined that a reassessment or re-examination will be offered, the head of department must appoint new examiners. Reassessment can only be offered for written exams where there is material for assessment; this is because the new examiners cannot (re) assess an already held oral examination and the original examiners' notes are personal and may not be disclosed.

If the decision is an offer for reassessment or re-examination, the complainant must be advised that a reassessment or re-examination could result in a lower mark. The student must, within a period of two weeks after the decision has been made, either accept or reject the offer. The decision is binding and may not be changed, and if the student does not accept the offer within the time limit, the reassessment or re-examination will not take place.

The reassessment or re-examination must take place as soon as possible.

With a reassessment, the examiners must submit all relevant documents i.e. the exam, the answer/s, the complaint, the original examiners' opinion along with the complainant's remarks as well as the Academy's decision.

The examiners will then notify the Academy of the outcome of the re-assessment, including a written justification and the assessment criteria.

#### *Exam shortcomings*

If it has been decided that a new assessment will be made or if there is an offer of a re-examination, the decision will be binding for all the examinees whose exams have the same shortcomings as the subject of the complaint.

The complaint must be sent via the complaint form on [www.baaa.dk](http://www.baaa.dk) within two weeks (14 calendar days) after the evaluation of the exam in question has been announced. If the deadline falls on a public holiday, the first working day thereafter is the deadline.

A dispensation from the deadline can be granted if there are exceptional circumstances.

### 10.3. Appeals and legal issues

The complainant can appeal the Academy's decision regarding any academic issues to an appeals' board. The appeal board's activities are covered by the Public Administration Act, which includes incapacity and confidentiality.

The appeal must be sent to [complaints@baaa.dk](mailto:complaints@baaa.dk).

The deadline for an appeal is two weeks after the student has been informed of the decision. The same requirements as mentioned above under complaint (in writing, with reasons, etc.) also apply to the appeal.

The appeals board consists of two external examiners appointed by the chair of external examiners, as well as a lecturer eligible to examine, and a student within the same field of study (programme), they are both appointed by the head of department.

The appeals board makes a decision based on the original material that formed the basis for the Academy's decision and the student's substantiated appeal.

The board deals with the appeal and the resultant decision can be as follows:

- provision for a new assessment by new examiners, though this is only a possibility with written exams
- provision for a new examination (re-examination) by new examiners
- that the student's appeal has been unsuccessful.

If the decision is an offer for reassessment or re-examination, the complainant must be advised that a reassessment or re-examination could result in a lower mark. The student must, within a period of two weeks after the decision has been made, accept or reject the offer. This decision is binding and may not be changed.

If the student does not accept the offer within the time limit, the reassessment or re-examination will not take place.

The reassessment or re-examination must take place as soon as possible.

With a reassessment, the examiners must submit all relevant documents i.e. the exam, the answer/s, the complaint, the original examiners' opinion along with the complainant's remarks as well as the Academy's decision.

Appeals must be decided within two months – for summer exams, within three months – after the appeal has been filed.

The appeal board's decision is final, which means that the case cannot be appealed to a higher administrative authority with regard to the academic part of the complaint.

#### **10.4. Complaints concerning legal matters**

Complaints concerning legal issues in the decisions made by the examiners for the reassessment or re-examination or the appeal board's decision must be submitted to Business Academy Aarhus within a period of two weeks from the day the decision is communicated to the complainant.

Complaints concerning legal issues in the decisions taken by the Academy in accordance with a Ministerial Order (for example, incapacity, whether the Ministerial Order of Examinations has been interpreted correctly, etc.) may be submitted to the Academy who must submit a report that the complainant has the opportunity to comment on within a period of normally one week. The Academy then sends the complaint, the report and the complainant's comments (if any) to the Ministry of Higher Education and Science. The deadline for submission of the complaint to the Academy is two weeks (14 calendar days) from the day the decision was communicated to the complainant.

### **11. Indication of applied teaching and work methods**

Teaching at the Business Academy Aarhus is based on our educational platform.

This means that teaching is based on appropriate business practices and connects theory with practice. Problems from different types of companies working within the industries relevant to the programme will be involved.

The teaching will be organised to provide variation. This will be achieved by group teaching, project work, interdisciplinary cases, group work, guest lectures and company visits. Lectures can occur to a limited degree. The different learning styles will, above and beyond the subject matter, also develop the students' ability to work both independently and to collaborate with others.

To encourage students' independence, the teachers will function as coaches/mentors during projects rather than teachers/instructors.

Teaching can be planned so that foreign languages are included in the teaching material and teaching. Additionally, the teaching will support the development of the student's IT skills.

### **12. Rules for credit for subject elements**

#### **12.1. Credit for subjects covered by the curriculum's institutional part**

Passed institutional programme elements are equivalent to the corresponding elements at other educational institutions that offer this programme or other programmes that contain the relevant

programme elements.

### **12.2. Prior credit approval**

Students may apply for prior credit approval. For prior credit approval of studies in Denmark or abroad, students are required to document each approved and completed programme element on the completion of these studies. In connection with the application for prior credit approval, the students must give permission to the institution to obtain any required information after the completion of their studies.

Upon approval of the prior credit approval, the programme element is considered completed if it is passed according to the rules of the programme.

## **13. Rules for the student's duty to participate in the programme**

To ensure the programme's learning objectives and goals can be achieved, and that the teaching methods work, you can see details in the programme's module descriptions for which programme elements require active attendance for the student for the following

- hand-in/presentation of assignments/projects
- compulsory attendance in terms of physical presence

In order to take the **exams on the programme's 1st, 2nd and 3rd semester**, the student's study activity for the related themes/modules must be approved. See section 14 for the criteria for the evaluation of study activity

### **13.1. Active attendance in classes**

#### **Learning and presence**

As there is no doubt that there is a connection between learning scope and presence in class, the lecturers will register the students presence.

#### **Registration and responsibility**

The lecturer registers electronically for each class the students who are present in the room when teaching starts.

If students arrive after the registration has taken place, it is the student's responsibility to let the lecturer know that they are present and should therefore not be marked as absent e.g. in the latter part of a double lesson or for the remaining time in the laboratory.

### **Requirements for active attendance in classes**

The basic assumption is that all students attend all classes - theoretical as well as laboratory and field teaching, but since realistically a few absences during a semester cannot be avoided, we have set a

**minimum requirements for attendance: 80 %**

### **Calculation of attendance**

Your attendance is measured per programme module - based on the total number of lessons.

Exceptions to this rule are that the intro module on the 1st semester and the subsequent module are merged together.

### **Information on attendance in classes**

The first time a student exceeds the 10% absence rule for a module, the Academy will make the students aware that their absence is too high and will inform them about the consequences of further absence.

### **Illness**

With a long-lasting illness where there is a risk that the student could be in danger of passing the 20% threshold for absence, the student must immediately contact his/her doctor and ask for a medical certificate. Requirements for the doctor's certificate can be found on the website under 'Worth knowing about exams.'

### **Action plan after their illness**

Once the office has received the medical certificate, the lecturers and the student must prepare a plan to ensure that the student can catch up as much as possible that was missed during the illness. With a long-term illness it may be necessary to retake the semester - or parts thereof.

### **Other reasons**

For absences not involving illness, the student must try to provide documentation within 2 days and hand it in to the programme's office. The head of department will then decide whether it is acceptable.

## **14. Criteria for the evaluation of study activity**

Enrolment can be terminated for students who have not been active on a programme for a continuous period of at least one year.

Approval of study activity is therefore achieved by the student **within the last 12 calendar months:**

- participating in the programme's exams
- fulfilling their obligation to participate in at least 80% of the activities which are included as part of the programme, including theory lessons, exercises, laboratory work, cases, guest lectures, field trips and theory (per theme/module), etc. according to this curriculum in the above section.
- having handed in, as stipulated in the programme's module delivered, the tasks, reports, (learning) portfolios, presentation, feedback etc., which are prerequisite requirements for participation in exams, and that they have credible content, and have not handed in material that others have copyright to
- being present for activities with compulsory attendance, as stipulated in this curriculum

Failure to meet one or more criteria in the definition of study activity can lead to the student's enrolment being terminated.

Periods during which the student has not been active due to leave, maternity/paternity leave, adoption, a documented illness or military service do not count. The student may be required to provide documentation for these circumstances.

The programme may grant exemptions from these provisions if there are exceptional circumstances. The exemption application must be sent to the head of department.

Prior to the student's enrolment being brought to an end, the student will be advised of this in writing. In connection with this, the student must be made aware of the rules above. The letter to the student must make it apparent that the student has 14 days to submit an application of exemption and evidence that the lack of activity on the programme should not count.

If the student has not responded within the time limit, their enrolment will be terminated.

If the student requests that their enrolment not be terminated, termination is delayed until the case has been decided by the head of the programme.

The student can complain about the decision to the pro-rector within two weeks of receipt of the decision. The complaint will delay any further action. If the pro-rector upholds the decision, the student may appeal to the Ministry of Higher Education and Science within two weeks of receipt of the decision with respect to any legal issues.

Rules about the exams, which the students according to the Ministerial Order for Examinations should have participated in before the end of the 2nd semester and passed before the end of the 3rd semester, and where the Ministerial Order for this programme has fixed time limits for completion of the programme, apply irrespective of the above rules.

#### *Study activity and SU*

If you start on a new higher education programme on 1 July 2016 or later and get SU while you are studying, you cannot postpone your programme for more than 6 months (equivalent to 30 ECTS) in

proportion to the number of months you have had SU for your programme. If the student postpones their programme for more than 6 months, SU will be stopped.

For students that started on the programme before 1 July 2016, the previous rules apply, i.e. that you can postpone your programme with up to 12 months before your SU will be stopped.

As an educational institution, we continuously check the students' study activity. Read more about the SU rules on su.dk. (in Danish only)

## **15. Requirements concerning a foreign language**

Teaching on the programme will be mostly in English, however, parts of the teaching could be in Danish, for example specific modules or guest lecturers etc.

The programme can also use texts, standards, manuals etc written in Danish, Norwegian, Swedish and German.

No additional knowledge of a foreign language is required, other than what is stated in the admission requirements

## **16. Rules of exemption**

If warranted by exceptional circumstances, the Academy may deviate from what has been stated in this curriculum. The various institutions must cooperate in order to have a homogenous dispensation policy.

## **17. Commencement and transitional schemes**

All enrolled students will be transferred to this curriculum on 15.08.2018

At the same time, the institutional part of the curriculum from 20.06.2017 is repealed.

## **18. Legal basis**

The following current legislation applies to the programme:

- Ministerial Order no. 935 from 25/08/2014: Ministerial Order for Academies of Professional Higher Education
- Ministerial Order no. 1147 from 23/10/2014: Ministerial Order for Academy Profession degree programmes and Bachelor degree programmes (LEP law).

- Ministerial Order no. 1014 from 02/07/2018: Ministerial Order for technical and commercial business academies and professional bachelor courses
- Ministerial Order no. 1500 from 02/12/2016: Ministerial Order for examinations in higher educational business programmes
- Ministerial Order no. 107 from 27/01/2017: Ministerial Order for admission to business academies and professional bachelor courses
- Ministerial Order no. 114 from 03/02/2015: Ministerial Order for marking scales and other assessment criteria

The applicable laws and ministerial orders are available on [www.retsinfo.dk](http://www.retsinfo.dk) (in Danish only).