BIO - Master of Science (MSc) in Business Administration and Bioentrepreneurship

Preamble

Pursuant to section 45 of Ministerial Order no. 2285 of 1 December 2021 on Full-time Programmes at Universities (the University Programme Order); section 28(3) and section 30(1) of Ministerial Order no. 35 of 13 January 2022 on Admission and Enrolment on Full-time Programmes at Universities (the University Admission Order); and Ministerial Order no. 1125 of 4 July 2022 on the Grading Scale of Educations within the Sphere of the Ministry of Higher Education and Science (the Grading Scale Order) the Dean of Education, acting on a proposal prepared by the study board, has approved the following programme regulations.

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Part 1: Programme specific regulations

Degree title and duration

1. Students who successfully complete the programme earn the degree *Master of Science (MSc) in Bioentrepreneurship*, in Danish *cand.merc. i Bioentrepreneurskab* (candidatus/candidata mercaturae), abbreviated *cand.merc.(bio.)*.

(2) This programme is governed by The Study Board for the Master of Science in Business Administration and Bioentrepreneurship.

(3) The master's (candidatus) programme is a two-year full-time programme, corresponding to 120 ECTS credits. The deadline for completing the programme is the rated time of study + one year after the student commenced the programme. Leave periods, if any, are not included in this time frame. Level of qualification: Master's degree at NQF/EQF Level 7 referring to Second Cycle in the Bologna QF.

(4) The programme duration refers to the number of student full-time equivalents according to which the programme is structured. A full-time equivalent corresponds to one year of work by a full-time student and corresponds to an annual workload of 1650 working hours corresponding to 60 ECTS credits (European Credit Transfer System). The workload includes scheduled classes, preparation for classes, completion of written assignments, other teaching activities, independent study as well as preparation for, and participation in examinations.

Admission requirements and qualifying degrees

1A. No bachelor degree gives the right to admission to the MSc in Business Administration and Bioentrepreneurship programme.

(2) The following bachelor degrees within natural/life sciences give access to admission to this programme, see however subsections (4) and (6):

- Bachelor i biologi (KU)
- Bachelor i bioteknologi (KU)
- Bachelor i molekylær biomedicin (KU)
- Bachelor i bioteknologi (DTU)
- Bachelor i biologi (AU).

(3) Admission to the MSc in Business Administration and Bioentrepreneurship programme requires that the applicant has completed a qualifying bachelor degree, among these a professional bachelor degree, or other Danish or foreign degree at the same level. During the education the applicant must have covered the following academic disciplines to a sufficient degree on an overall, individual assessment:

Min. 37.5 ECTS-points within the following areas:

- Min. 15 ECTS-points within a biological system (plants, animals or microbiology)
- Min. 15 ECTS-points within biochemistry/organic chemistry
- Min. 7.5 ECTS-points within biotechnology methods (laboratory experience with molecular biology techniques).

(4) The requirements for language skills are available on CBS' homepage: cbs.dk/graduateadmission.

(5) Standard assessments of a number of degrees from CBS or other universities are available on cbs.dk/graduateadmission.

(6) In the event that there are more applicants who fulfil the admission requirements than there are places offered at this programme, the selection shall be made according to criteria laid down in advance and published on cbs.dk/graduateadmission.

(7) Available at cbs.dk/graduateadmission are the application and admission procedures, including deadlines, as well as information about the date when the offer or the rejection of a place of study is made and about the requirement to accept a place of study.

Purpose

2. The MSc programme in Business Administration and Bioentrepreneurship, cand.merc.(bio), is a graduate-level, theoretical programme that serves as a continuation of the BSc programme in natural/life science.

(2) The objective of the MSc programme in Business Administration and Bioentrepreneurship is to offer students a coherent profession-oriented education on biotechnology and the core skills required for its commercialisation.

(3) Students will be able to perform research, analyse and solve questions and problems applying advanced concepts and methodologies within the broad field of commercialisation of biotechnology.

(4) On completion of the programme, students will be capable in biotechnology up to the master level except for the qualifications specifically related to the master's thesis. They will additionally possess a number of competences from business disciplines specialized to work in bio-based innovation and entrepreneurship. The competences include the ability to integrate the two areas of expertise – biotech and business.

(5) The programme gives students the competencies required for the development of successful business ventures that commercialize biotech innovations through entrepreneurship and advanced business development. Graduates will fill jobs across a range of companies based on life sciences: pharmaceutical companies, industrial biotech (such as enzymes), biotech research firms, food etc. Graduates also will meet the needs of sectors providing important inputs to biotech business, such as venture capital firms, IPR, research tools and services etc.

(6) The programme is interdisciplinary, taught in English, and integrates the learning of a range of analytical approaches and tools with direct application to business practices.

(7) Graduates from the programme obtain the qualifications presented in the profile below. In this qualification profile the items listed under “knowledge” and “skills” in most cases refer separately either to the biology or the business economics part of the programme. Items listed under “competencies”, however, in all cases are shared by the two parts, reflecting the progression and integration offered by the programme as a whole.

(8) Through participation in the programme, students should also acquire the ability to collaborate with people having the same or another academic background in working with and solving problems that involve a variety of fields.

(9) Students are expected to be able to read academic literature in English.

Competency profile

3. The Study Board has developed a qualification profile, which describes the expected learning outcomes of this degree programme. Please, see the appendix below.

Content and structure

4. The master programme in bioentrepreneurship offers courses and training in biotechnology and in the core skills required for commercialization of bio products. Regarding the business components of the second year, the objective is not only to build skills in business analysis. During that year the students also train application of these skills to actual business challenges in real-life entrepreneurship projects, and during the programme the students have the possibility of including a three months’ internship in a leading biotech firm.

(2) The programme’s interdisciplinary competences are brought about in two steps: In the first step students complete the first 60 ECTS of the Biotechnology master degree offered by the Faculty of Health and Medical Sciences at the University of Copenhagen (UCPH), or, if qualified, students may also choose to do the first year at the Technical University of Denmark (DTU). In the second step students obtain the remaining 60 ECTS from courses and thesis work focused on commercialization skills offered by CBS. Together the two years form a progressive sequence, and the second year offers numerous elements to train and develop a productive integration of the two main components.

(3) The below table lists the structure of the programme and the ECTS credits of the individual courses. The course descriptions are available in CBS' online course catalogue, the UCPH online course catalogue, and the DTU online course catalogue, respectively.

1st year - at University of Copenhagen (UCPH)

Course	ECTS
Compulsory courses	7.5
Restricted electives	37,5
Electives	15

The programme contains compulsory courses, restricted elective courses and electives. With regards to restricted elective courses and electives the students choose from the list below.

Compulsory courses:

- Big Data in Biotechnology

Restricted elective courses (37.5 ECTS in total):

- Advanced Analytical Chemistry - Sampling and Sample Preparation
- Advanced Microbial Biotechnology
- Basic Parasitology
- Fundamentals of Beer Brewing and Wine Making -Biochemistry, Organisms and Omics Techniques
- Genome and Cell Biology
- Frontiers in Plant Science
- Basic Immunology
- Applied Microbiology
- Applied Python Programming for Bio-Medical-sciences
- Current and Experimental Immunology
- Bioactive Food Components and Health
- Cellular Signalling in Health and Disease
- Enzymology and Experimental Biochemistry
- Genome Sequence Analysis
- Biorefinery – From Plants to Bioenergy, Biochemicals, Biomaterials, and High Value Products
- Molecular Plant-Microbe Interactions
- Quantitative Bio-spectroscopy
- Laboratory Animal Science Function ABD
- Gene Therapy
- Advanced Chemometrics and Machine Learning
- Heterologous Expression
- Medical Bacteriology
- Radioactive Isotopes and Ionizing Radiation
- Synthetic Biology
- Advanced Biotechnology and Intellectual Property Rights
- Experimental Medical Microbiology: From Gene to Function in Pathogenic Bacteria

Electives (15 ECTS in total):

- Practising Interdisciplinarity
- Business Development and Innovation
- Economic Valuation Methods and Cost-Benefit Analysis
- Entrepreneurship and Innovation
- Epigenetics and Cell Differentiation
- Experimental Cell Biology
- Experimental Design and Statistical Methods in Biology (StatBio)
- Experimental Molecular Genetics
- Industrial Organization
- Innovation in Food Systems
- Molecular Biotechnology
- Principal Subject in Molecular Microbiology
- Project Management
- Sustainable Innovation in Food Science
- The Food Industry: Structure and Economics
- Drug Discovery and Development
- Entrepreneurship in Pharmaceuticals
- Intellectual Property Rights and Innovation in Pharmaceutical Sciences

1st year - at Technical University of Denmark (DTU)

Course	ECTS
Courses autumn	30
Courses spring	30

Students must choose one of three tracks. Students must choose 30 ECTS from the autumn (and January) courses and 30 ECTS from the spring (and June/August) courses within a track.

Students must send transcripts from their bachelor programme together with their choice of courses, and admittance to the courses at DTU is subject to DTU's approval of the student's qualifications.

Cell Factory Track

Autumn (and January) courses:

- Prokaryotic cell biology (5 ECTS)
- Metabolomics and proteomics (5 ECTS)

- Synthetic biology (5 ECTS)
- Eukaryotic cell biology (5 ECTS)
- Computer-aided cell factory design (5 ECTS)
- Systems Biology (5 ECTS)
- BioBusiness and Process Innovation (5 ECTS)
- Module 3: Value creation in pharma- and biotechnology (January) (5 ECTS)
- Project Management (January) (5 ECTS)

Spring (and June/August) courses:

- Filamentous Fungi: Biology and applications (5 ECTS)
- Statistical Design and Analysis of Experiments (5 ECTS)
- Protein structure and computational biology (5 ECTS)
- Advanced prokaryotic biotechnology (5 ECTS)
- Computational Molecular Evolution (5 ECTS)
- Biosynthesis of natural products (5 ECTS)
- Good Manufacturing Practice (GMP) and quality in pharma, biotech and food industry (5 ECTS)
- Module 3: Value creation in pharma- and biotechnology (June) (5 ECTS)
- Project Management (August) (5 ECTS)

Fermentation Track

Autumn (and January) courses:

- Prokaryotic cell biology (5 ECTS)
- Metabolomics and proteomics (5 ECTS)
- Process adaptation in Fermentation Based Biomanufacturing (5 ECTS)
- Eukaryotic cell biology (5 ECTS)
- Techniques in protein characterization (TIPC) (5 ECTS)
- Biorefinery (5 ECTS)
- Recovery and purification of biological products (5 ECTS)

- Systems Biology (5 ECTS)
- BioBusiness and Process Innovation (5 ECTS)
- Module 3: Value creation in pharma- and biotechnology (January) (5 ECTS)
- Project Management (January) (5 ECTS)

Spring (and June/August) courses:

- Industrial BioReaction Engineering (5 ECTS)
- Statistical Design and Analysis of Experiments (5 ECTS)
- Pharmaceutical Process Development (5 ECTS)
- Microbial adaptation to industrial processes (5 ECTS)
- Biosynthesis of natural products (5 ECTS)
- Good Manufacturing Practice (GMP) and quality in pharma, biotech and food industry (5 ECTS)
- Module 3: Value creation in pharma- and biotechnology (June) (5 ECTS)
- Project Management (August) (5 ECTS)

Molecular Diagnostics Track

Autumn (and January) courses:

- Prokaryotic cell biology (5 ECTS)
- Metabolomics and proteomics (5 ECTS)
- Preclinical drug development (5 ECTS)
- Eukaryotic cell biology (5 ECTS)
- Molecular host-pathogen interactions (5 ECTS)
- Systems Biology (5 ECTS)
- BioBusiness and Process Innovation (5 ECTS)
- Conceive, Design, Implement, and Operate a Healthcare Product (10 ECTS)
- Module 3: Value creation in pharma- and biotechnology (January) (5 ECTS)
- Project Management (January) (5 ECTS)

Spring (and June/August) courses:

- Statistical Design and Analysis of Experiments (5 ECTS)
- Biosensors and bioanalysis (5 ECTS)
- Molecular diagnostics and precision medicine (5 ECTS)
- Personal portable health technologies (10 ECTS)
- Introduction to biophotonics (5 ECTS)
- Drug Delivery (5 ECTS)
- Biomaterials (5 ECTS)
- Good Manufacturing Practice (GMP) and quality in pharma, biotech and food industry (5 ECTS)
- Module 3: Value creation in pharma- and biotechnology (June) (5 ECTS)
- Project Management (August) (5 ECTS)

2nd year - at Copenhagen Business School (CBS)

Course	ECTS
Innovation Challenges in BioBusiness	7.5
Bio-Markets	7.5
Bioentrepreneurship	7.5
Finance and Accounting in Bio-Business	7.5
Master's Thesis	30

Students can choose to include an internship as part of their master's thesis, see section 4A(10)-(15).

Master's thesis

4A. The master's (candidatus) thesis must document skills in applying scientific theories and methodologies to a clearly defined academic topic. The thesis must be placed at the second year of study of the master's candidatus programme.

(2) The Programme Director, or the person the Programme Director has empowered to do so, approves the research question of the master's thesis and at the same time determines a submission deadline for the thesis, see subsection (3), and a plan for the thesis supervision. The deadline for submitting the thesis contract is 1 December in the student's 3rd semester, by submission of the thesis contract; see however section 14(3). See also section 19(7).

(3) The deadline for submitting the thesis is 1 June in the student's 4th semester, and it is not possible to withdraw from the exam once the thesis contract has been approved. If the student does not submit within the deadline, the student has used one examination attempt, unless a dispensation has been granted under section 14(7).

(4) If the student does not submit the thesis within the time frame specified in subsection (3), the Programme Director, or the person the Programme Director has empowered to do so, approves a modified problem formulation within the same field and lays down a new three-month deadline for submission at the same time. If the student does not submit the thesis by the new deadline, the

student may be granted a third examination attempt, see the Examination Order, in accordance with the same rules which applied to the second examination attempt.

(5) The rules in subsection (4) also apply for a master's thesis for which the student has not obtained at least the grade 02, see the Grading Scale Order.

(6) The master's thesis consists of a written report based on the analytical challenges examined during the internship, if an internship has been conducted, or during the master thesis period in general.

(7) The master's thesis addresses selected analytical issues relevant for the challenges examined during the internship or challenges agreed with the master thesis supervisor ("the innovation challenges"). The internship is concerned with practical problems in commercializing bio-innovations, and results are presented in terms of practical conclusions. Likewise, the innovation challenges, if no internship is conducted, should address real problems in commercializing bio-innovations.

(8) The main idea of the thesis is to revisit one or several analytical challenges so as to examine and reflect upon them in depth, from an academic perspective. That means situating the problem in the academic literature, applying advanced theoretical and methodological tools, critically considering the strength of conclusions etc. These reflective revisiting of previous practical problems may be undertaken in papers which in combination meets the requirements for the thesis while they separately refer to the internship or the innovation challenges.

(9) The bio-science behind the innovations considered in the Internship project or considered with the innovation challenges matters for their commercialization e.g. by having implications for innovation alternatives (and hence risks for imitation), or for the rate of technological change etc. These factors matter significantly for commercialization of science-based innovations. The thesis must bring out these relationships between the science, the innovation and implications for commercialization, demonstrating the student's ability to span and connect issues in bio-science with its business potentials and limitations.

Internship

(10) BIO students have an option to work as interns in companies directly involved in bio-based business. BIO students are themselves responsible for getting an internship.

(11) During the 16 weeks' full-time (37 hours per week) internship students should work on a project or a set of tasks meeting the requirements of:

- Involving application of a range of the skills acquired in the third semester courses.
- Allowing productive use of their ability to combine these commercialization skills with their bio-science background.
- Presenting issues suitable for further analysis and reflection in the student's master's thesis.

(12) The host company assigns one or several mentors for the student, and the student seeks a supervisor with the support of the BIO programme.

(13) This course does not have a separate exam but is part of the master's thesis.

(14) BIO students may pursue a more academic master thesis process (following CBS general guidelines for master thesis work), if they prioritise this or if they are not successful with their internship applications. .

(15) It is very important that all core courses are passed before an internship starts, as it bears directly on the skills the student can offer as part of the internship.

Examinations

5. The programme consists of the examinations listed below. The learning objectives and the regulations of the individual examinations are prescribed in CBS' online course catalogue, the UCPH online course catalogue and the DTU online course catalogue, respectively. Direct links to the individual examinations are inserted in the table below; see also the links in section 4(3) as regards courses at UCPH and DTU.

1st year - at University of Copenhagen (UCPH)

Exam name	Exam form	Gradingscale	Internal/external exam	ECTS
Compulsory courses	See individual course description	See individual course description	See individual course description	7.5
Restricted electives	See individual course description	See individual course description	See individual course description	37.5
Electives	See individual course description	See individual course description	See individual course description	15

1st year - at Technical University of Denmark (DTU)

Exam name	Exam form	Gradingscale	Internal/external exam	ECTS
Courses autumn	See individual course description	See individual course description	See individual course description	30
Courses spring	See individual course description	See individual course description	See individual course description	30

2nd year - Copenhagen Business School (CBS)

Exam name	Exam form	Gradingscale	Internal/external exam	ECTS
Innovation Challenges in BioBusiness	Written sit-in exam on CBS' computers	7-point grading scale	Internal exam	7.5
Bio Markets	Oral exam based on written product	7-point grading scale	External exam	7.5
Bioentrepreneurship	Oral exam	7-point grading scale	Internal exam	7.5
Finance and Accounting in Bio-Business	Oral exam	7-point grading scale	External exam	7.5
Master's Thesis	Oral exam based on written product	7-point grading scale	External exam	30

Prerequisites for registering for the exam – compulsory activities

5A. The following courses have compulsory assignments or other compulsory activities, see section 13. Further specifications and regulations are listed in the relevant course description in the online course catalogue, see the below link(s).

Course	Number of mandatory activities
Bioentrepreneurship	1

Body of external examiners

6. This degree programme is covered by the body of external examiners for the business administration programmes, except for the first year for which the examinations are covered by the partner university’s regulations, including rules about external examiners.

Pass requirements

7. The general pass requirements are stipulated in section 26.

8.-10. (Not in use.)

Part 2: General regulations for master's (candidatus) programmes

11. The teaching is organised in a collaboration between the Programme Director, the course coordinators and the teachers. The Study Board approves the organisation of the teaching.

Examination language

12. Examinations are conducted in English; see however subsection (2).

(2) If a course has been taught in a language other than English, the examination is conducted in that language.

(3) The Study Board may decide to deviate from the rules stipulated in subsections (1)-(2), except when documenting the student's skills in a specific other language is part of the objective of the examination.

(4) The provisions in subsections (1)-(2) apply to oral and written sit-in examinations and to all types of written take-home assignments (seminar papers, projects etc.) subject to assessment.

Prerequisites for participating in the exam: compulsory activities

13. Besides the examinations listed in section 5, which are included in the final grade point average, on some courses there are one or more compulsory activities. That means that as part of the teaching, one or more written assignments must be submitted and/or one or more oral presentations or other compulsory activities must be carried out. In order for students to participate in the final examination of the course in question, it is a condition that, within a set deadline, the required number of compulsory activities have been submitted/carried out and have been approved by the teacher. What is evaluated is the student's effort; i.e. whether the student has made a try at solving/answering the assignment or has participated in the activity. A blank or irrelevant submission is not regarded as having participated in the activity. Students who do not fulfil the requirements for participating in the examination have used an examination attempt, see section 14(6). Further specifications regarding the number of compulsory activities, format etc. are stated in the course description of the individual course.

(2) A student who, within the deadline determined under subsection (1), is short on having one or more activities approved as regards the required number of approved activities in the course may, to a reasonable extent, be given one or more extra assignments/participate in one or more extra activities, prior to the ordinary examination (1st examination attempt) in the final examination in the course, see however subsection (3). However, it is a precondition that the student has participated in all set activities, unless it can be documented that lack of submission/participation was caused by illness or similar circumstances. If necessary for practical reasons, a different type of activity may be decided.

(3) In courses where the number of set activities during the teaching period is higher than the number of activities that are required to be approved (x number of y number set activities must be approved), the student may not be given extra assignments/participate in extra activities prior to the ordinary examination in the final examination in the course; this also applies in cases of illness or similar circumstances.

(4) A student who, prior to the re-exam (2nd examination attempt) in the final examination in the course, is still short on having one or more activities approved as regards the required number of

approved activities in the course may, to a reasonable extent, be given extra assignments/participate in extra activities prior to the re-take examination. However, it is a precondition that the student has participated in all set activities, unless it can be documented that lack of submission/participation was caused by illness or similar circumstances. Further specifications regarding the number of compulsory activities, format etc. are stated in the course description of the individual course.

(5) For a student who is to participate in a re-exam under programme regulations which are entered into force after the first time the student was registered for the course in question, the student shall not be subject to any new requirements about compulsory activites resulting from the newer programme regulations.

Registration for and withdrawal from courses and exams

14. CBS registers the student for the 60 ECTS comprising the coming year of study, and in addition CBS makes a semestrial registration for the student to any not completed courses from previous years of study.

(2) The students register for electives via the Self Service. Students not registered for mandatory courses and electives for a total of minimum 60 ECTS in a year of study, must register for electives, including summer school courses, corresponding to the lacking ECTS in the coming year of study, resulting in the student being registered for a minimum of 60 ECTS in the coming year of study.

(3) If the registration made under subsection (1) is more than 60 ECTS for the student's second year of study, the student may withdraw from elective courses, so that the student is registered for no more than a total of 60 ECTS, or the student may apply for an individual study plan.

(4) The student can be deregistered from one or more courses or course elements where 1) the students is an elite athlete, or where 2) there are extraordinary circumstances, including impairment, and where the student will be unable to fulfil the registration requirement, or where 3) the student is an entrepreneur, see section 18, or where 4) the student is the chairperson of a voluntary organisation under *Dansk Ungdoms Fællesråd (DUF)* and where the student will be unable to fulfil the registration requirement. Deadlines for submitting dispensation applications are determined on the student intranet.

(5) When selecting students for elective courses, a draw is made among the students who fulfil the conditions for taking the elective course in question if there are more applicants for the course than there are available places. For certain electives the selection is not made by lot, but on the basis of a motivational essay; this will be stated on the list with the offered electives on cbs.dk.

(6) Students are automatically registered for an examination or examinations when they are registered for a course or course element with which one or more examinations are associated. Withdrawal from the ordinary exam (1st examination attempt) is not possible, and students have used an examination attempt, see section 27(1), unless an exemption has been granted pursuant to subsection (7). Students who do not fulfil the requirements for participating in the examination as laid down by the university, see section 13(1), have used an examination attempt, see section 27(1), unless an exemption has been granted pursuant to subsection (7).

(7) The university may grant exemptions from the rules set out in subsection (6) where 1) the students is an elite athlete, or where 2) there are extraordinary circumstances, including impairment, or where 3) the student is an entrepreneur, see section 18, or where 4) the student is the chairperson

of a voluntary organisation under *Dansk Ungdoms Fællesråd (DUF)*, see the University Programme Order. Deadlines for submitting dispensation applications are determined on the student intranet.

(8) When a student has used one or more exam attempts in a mandatory course, the student cannot deregister from the course, see s. 12() of the University Programme Order.

(9) The university may grant an exemption to the rule stipulated in subsection (8) if warranted by extraordinary circumstances. When assessing whether extraordinary circumstances apply, none of these circumstances can be taken into consideration: prolongation of the period of study; academic aptitude; and the student's desires as regards the academic content of the degree programme. In addition, in order for an exemption to be granted, the extraordinary circumstance must be both directly linked to the course in question and, over a longer period of time, be preventing the student from completing the mandatory course.

(10) When a student has used one or more exam attempts in an elective course, the student cannot deregister from the course, see s. 13(1) of the University Programme.

(11) The university may grant an exemption to the rule stipulated in subsection (10) if warranted by extraordinary circumstances. When assessing whether extraordinary circumstances apply, none of these circumstances can be taken into consideration: prolongation of the period of study; academic aptitude; and the student's desires as regards the academic content of the degree programme. In addition, in order for an exemption to be granted, the extraordinary circumstance must be both directly linked to the course in question and, over a longer period of time, be preventing the student from completing the elective course.

Re-exams

15. Students are automatically registered for the re-exam (2nd and 3rd examination attempt) when the student has not passed the exam in question. Within a deadline, the student can withdraw from a re-exam (2nd and 3rd examination attempt), see subsection (5). However, it is not possible to withdraw from the 2nd and 3rd examination attempt as regards the master's thesis. If the student has not withdrawn within the deadline, the student has used and examination attempt, see section 27(1).

(2) On programmes with two annual examination periods (semester examinations), students who have not passed an ordinary examination are automatically registered for the re-exam (2nd examination attempt) in the same examination period or immediately thereafter.

(3) On programmes with more examination periods than in subsection (2), students who have not passed an ordinary examination are automatically registered for the re-exam (2nd examination attempt), which will be held as soon as possible; however, no later than six months after the ordinary examination.

(4) The rules on automatic registration for a re-exam (2nd examination attempt) are dispensed with if the student is not offered the opportunity to fulfil the requirements laid down pursuant to section 13(1) and (3) before the second examination attempt is held. The student is registered for the next examination attempt as soon as possible.

(5) The deadline for withdrawal from an examination is 1 month before the start of the examination in question. However, a student who awaits an assessment is exempt from this deadline as regards the re-exam of the course in question.

(6) For the requirements regarding documentation etc. concerning illness during an examination, reference is made to CBS' rules regarding illness in connection with an examination. Attention must be paid to the documentation deadline stated in those rules.

(7) Re-exams are subject to the learning objectives of the ordinary examination of the examination in question.

(8) Re-exams are conducted according to the examination regulations of the ordinary examination of the examination in question, except when:

1. the examination regulations for the examination in question explicitly contain differing provisions for the re-exam, or
2. it is a written examination and the number of registered candidates for the re-exam warrants that it may most appropriately be held as an oral examination.

(9) It is not possible to determine another examination form for the re-exam of the master's thesis.

Study start test

16. The student must pass the study start test in order to continue on the programme. An online-course will be available prior to the study start test, and the student will be able to take the online-course as many times as needed. The purpose of the study start test and the online course is to make the students acquainted with academic integrity and provide them with an introduction to source management and correct referencing. In order to pass the study start test, the student must show that he/she knows the rules on academic conduct.

(2) The study start test is held within the first to 2 months from the beginning of the programme. The study start test is a multiple-choice test, and the student has 2 attempts to pass the exam. The re-take will be held within the first 3 months from the beginning of the programme and is also a multiple-choice test.

(3) The student is automatically registered for the study start test. If the student does not participate in the exam, he/she fails the exam and has used one attempt. If a student fails the study start test, he/she will be able to participate in the re-take. If the student does not participate in the re-take, he/she has used one attempt. If the study start test is not passed after 2 attempts, the university will cancel the student's enrolment.

(4) The university may grant exemptions from subsection (1) and (2) when warranted by extraordinay circumstances.

Extraordinary re-exams and offers of re-assessment/re-exam

17. If an extraordinary re-examination is arranged or offered in accordance with section 30 of the Examination Order (regarding examination irregularities) or the offer of a re-evaluation/re-examination is given in accordance with section 38 or 41 of the Examination Order (regarding complaints about the exam), the re-examination is subject to the learning objectives of the ordinary examination of the examination in question.

(2) Examinations under subsection 1 can be conducted in accordance with the regulations of the re-exam if the examination is an offer of an extraordinary re-exam.

Entrepreneurs

18. Students who are entrepreneurs in parallel with their studies must document that they are either self-employed with a turnover and productive assets or are part of an entrepreneurial environment, e.g. university incubators and regional growth environments, cf. section 14 (2) of the University Programme Order.

(2) A student who has a registered CVR number in a start-up company with relevance for the student's studies or is able to document that he/she has been enrolled in one of the programmes which are offered by Copenhagen School of Entrepreneurship (CSE) or the like is considered an entrepreneur under subsection (1). The student must follow the registered entrepreneurship programme in accordance with the continuous requirements of the programme.

Examination forms

19. Examinations are organised as individual examinations or as group examinations. The specific examination form of a given examination, including whether it is an individual or a group examination, or a mixture of the two, is stated in the relevant course description, see links in section 5.

(2) At both individual and group examinations the student's individual performance must be assessed, and grading must be individual, see subsections (3)-(4).

(3) At oral group examinations the individual student must be examined in such a way that it is ensured that the student's individual performance is assessed.

(4) If a written product is produced by more than one student, and if there is no oral defence of the product, it must be stated in the group product which parts of the product the individual student has written, so that individual assessments can be made of the individual students' performances. It must be stated both in the table of contents and at the introduction of the parts of the product which the individual student is responsible for. The individual student's student number is to be noted, not the student's name. The introduction, the problem statement, methodology sections, and the conclusion – including any subconclusions – can be written jointly. If it within the given exam format makes sense to write other relevant sub-elements of the assignment jointly, it must be described in the exam regulations in the course description for the course.

(5) For group examinations, see subsection (1), rules about those of the following factors that are relevant for the examination form in question must be stated in the regulations of the individual examination:

1. maximum group size
2. the allotted time at the oral examination – see subsection (3)
3. requirements regarding individual contributions – see subsection (4).

(6) Where it is stipulated in the regulations of a given examination that it is a group examination, it is stated in the course description if the students can choose to take the examination as an individual examination instead, see however subsection (7). When the examination in question contains both a written and an oral part, both parts must then be taken as an individual examination.

(7) The student can choose to write the master's thesis individually. When the master's thesis has been made by a group, the student can choose to have an individual oral exam.

(8) When it is an oral exam based on a written product, the following applies to all variations:

1. Submission of the written product is a requirement to be able to attend the oral examination.
2. Both the written product and the oral presentation count in the assessment.
3. The assessment is an overall evaluation of the written product and the oral presentation.

(9) If the written element is of a limited extent and only serves as a basis for a broader oral examination in the syllabus (e.g. as at an oral exam based on a synopsis) it will usually be the oral element that constitutes the central basis of the evaluation. The written element will usually only have a marginal effect on the grade.

(10) If the written element clearly constitutes a greater part of the effort, and is therefore the element most central in achieving the learning objectives for this exam (e.g. as a final written exam with oral defense), it will usually be this element that constitutes the central basis of the evaluation. The oral element will usually only have a marginal effect on the grade.

Examination rules

20. All students have an obligation to familiarise themselves with and to observe the examination rules of the examinations which they participate in, including the general rules that apply to the individual examination. Those rules are in particular:

- The examination rules, as stipulated in the relevant course description, see links in section 5.
- *Rules about written sit-in examinations at CBS, including rules about electronic aids*, see section 21(3).
- *Rules about online oral exams*
- Rules on good academic conduct, see section 4 of *Copenhagen Business School's rules and regulations on academic conduct, including penalties*.

(2) Audio and video recordings of an examination or of the examiners' discussion of a student's performance are not allowed, unless such recordings are considered an integral part of the examination process. Such recordings will then be made by CBS.

(3) It is stipulated in the examination regulations of the individual examination what the maximum number of pages is for a given written product. This pertains to the examination forms written home assignment and oral exam based on a written product. In addition, the following applies for the written product with these two examination forms:

1. In the page count the front page, the bibliography and any appendices are not included. Appendices are not part of the assessment.
2. All pages must have a margin of min. 3 cm in top and bottom and min. 2 cm to each of the sides. The font must be minimum 11 points.
3. The table of contents, tables, diagrams, illustrations etc. are not included in the number of characters, but will not justify exceeding the maximum number of pages.
4. On average, one page must not contain more than 2,275 characters (including spaces).

(4) Upon digital submission the student declares that the submitted product complies with the rules for good academic conduct, form requirements and maximum size, via a digital declaration of authorship.

(5) Any violation of rules and regulations under subsections (1)-(2) will be sanctioned in accordance with *Copenhagen Business School's rules and regulations on academic conduct, including penalties.*

(6) Violation of form or layout requirements stipulated in subsection (3)-(4) or form requirements laid down under section 19(4) may result in a rejection of the exam paper, see section 22 of the Examination Order. If the exam paper is rejected, it will not be assessed, and the student will have used an exam attempt.

Examination aids

21. The examination aids that students are allowed to bring with them to written sit-in examinations are specified in the examination regulations of the individual examination/course.

(2) Unless otherwise stated in the examination regulations, see subsection (1), no examination aids, whether written or technical, are allowed in the examination room, except simple writing and drawing utensils.

(3) In cases where the examination regulations, see subsection (1), stipulate that electronic aids can be brought to the examination room, the provisions stipulated in *Rules about written sit-in examinations at CBS, including rules about electronic aids* apply.

Examinations under special circumstances

22. The Study Board may decide to deviate from the examination regulations stipulated for the individual examination with the purpose of allowing students with special needs to sit examinations under special circumstances. Such exemption can be granted to students who are physically or mentally disabled, to students whose mother tongue is not Danish, and to students who have similar difficulties when this is considered necessary in order to place them on even terms with their fellow students in the examination situation. It is a condition that it does not change the academic level of the examination.

(2) When it is stipulated in the objectives of the examination in question that the student's spelling and writing skills are included in the assessment, the Study Board may grant exemption from this to a student who is able to document a relevant and specific impairment.

(3) Students who wish to apply for permission to sit an exam under special circumstances according to subsection (1) or apply for an exemption according to subsection (2) must submit an application via dispensation.cbs.dk. no later than 2 months before the exam is to take place.

Conducting virtual examinations and examinations abroad

23. The university may conduct oral exams as virtual examinations.

(2) The Programme Director decides, when warranted by special extraordinary circumstances, whether - an oral exam can be conducted as an online oral exam.

(3) When an examination is conducted as a virtual exam CBS' rules about online oral exams apply.

23a. The university may conduct examinations at a Danish representation or at other locations abroad, provided the reason for doing so is that the student is unable to participate in the university's examinations in Denmark for practical or financial reasons and if the student and the exam location

reach an appropriate agreement. Danish examinations held abroad must comply with all the other rules laid down in the Examination Order.

(2) The Programme Director decides whether the examination can be conducted abroad and appoints or approves persons to organise the practical aspects of conducting the examination abroad.

(3) The university defrays the special costs associated with conducting examinations abroad.

(4) The Ministerial Order on Payment for the Services of Civil Servants Serving Abroad (Bekendtgørelse om betaling for tjenestehandlinger i udenrigstjenesten) applies to conducting examinations at Danish representations abroad.

(5) The university may ask the student to pay part or all of the costs incurred by the university to conduct the examination abroad. However, it is a condition that the student confirms in writing in advance his or her willingness to pay the costs in question, on the basis of an estimate made by the university of the expected costs. The university may make it a condition for conducting the examination that the amount is paid in advance.

(6) When an examination is conducted abroad, the conditions and regulations in CBS' guidelines for examinations conducted abroad apply.

Assessment

24. Examinations are either internal or external:

- Internal examinations are assessed by one or more teachers (internal examiners) appointed by CBS from among the teachers at the university or from other universities that offer the same or similar study programmes.
- External examinations are assessed by one or more internal examiners and one external examiner (in Danish: censor) appointed by the Danish Agency for Higher Education and Science.

(2) It is stipulated in the exam regulations of the individual examination whether it is an internal or an external examination, see link in section 5.

(3) Assessment of the examinations is carried out in accordance with the Grading Scale Order.

(4) Compulsory assignments and class participation, see section 13, are assessed by the teacher(s) of the specific course. The assessment type 'Approved/Not approved' is used.

Announcement of results

25. In connection with examinations where the result is not announced immediately after the examination, the result must be announced within 4 weeks after the examination has been held, see however subsection (2). The month of July is not included in the calculation of these 4 weeks.

(2) In connection with bachelor projects, master's (candidatus) theses and master's projects, the result must be announced no later than 6 weeks after the project/thesis has been submitted.

(3) When special circumstances warrant it, the Programme Director can set aside the deadlines stipulated in subsections (1) and (2). If the assessment cannot be completed by the fixed deadline,

the student(s) must be notified as soon as possible and be informed about the reason for the delay and when the result will be announced.

Pass requirements

26. Each examination must be passed separately. An examination shall be passed when the student achieves a grade of at least 02 or the assessment ‘Pass’.

(2) Each examination can be retaken separately. However, passed examinations cannot be retaken.

(3) If a grade consists of several partial grades for various categories of performance (partial examinations), the grade shall be the average of the partial grades, rounded off to the nearest grade on the grading scale, see however subsection (4). The grade shall be rounded up if the average is half-way between two grades.

(4) If the partial grades are given different weights when the combined grade is to be calculated, this is stipulated in the exam overview in section 5. If so, the grade shall be the sum of the individual grades, each multiplied by the weighting of the grade, divided by the sum of the weightings and then rounded off to the nearest grade on the grading scale. The grade shall be rounded up if the average is half-way between two grades.

(5) If an examination consists of partial examinations, each partial examination can be retaken separately. However, passed partial examinations and not-passed partial examinations that are part of a passed examination cannot be retaken.

(6) Any requirements about a certain grade on the grading scale being required as achieved in one or more partial examinations are stipulated in section7.

(7) If an elective course has partial exams, the pass requirements for the specific elective course apply.

(8) The calculation of the overall grade point average is based on the weights of the individual grades, which are listed in the table in section 5.

(9) If a student retakes an examination or another type of assessment, the highest grade applies – see however section 42 of the Examination Order.

27. Students have a maximum of three attempts in passing each examination, see however subsection (2). The Study Board may grant more attempts, if warranted by extraordinary circumstances. The question of academic aptitude may not be included when assessing whether extraordinary circumstances apply.

(2) No later than 16 months after the end of the teaching of the course, the student must participate in the third examination attempt if the course is no longer offered. If the course is offered each semester, the deadline for completing the course is 10 months after the end of the teaching of the course.

(3) Students who are to have their class participation assessed a second time may require an examination instead. However, where class participation includes practical exercises, it cannot be replaced by an examination.

Diploma

28. CBS issues a diploma to students who have completed their study programme, in accordance with the requirements stipulated in section 51 of the Examination Order. The diploma is issued to the graduate no later than 2 months after the announcement of the result of the final examination. July is not included in the calculation of these 2 months.

(2) Students who leave the programme without having completed it are entitled to receive a transcript documenting the completed parts of the programme, with the relevant number of ECTS credits stated.

Leave

29. A student may be granted leave from the programme on personal grounds. The specific rules for obtaining leave and the provisions that apply to students while on leave are stipulated in CBS' *Rules regarding leave on bachelor and master programmes at CBS*.

Programme regulations

30. The programme regulations and various regulations etc. referred to in this document are publicly available on CBS' website, more specifically on studieordninger.cbs.dk and in the study administrative rules (SAR).

Exemption from the programme regulations

31. The university may, when warranted by extraordinary circumstances, grant exemptions from those rules in the programme regulations which are solely laid down by the university.

(2) An exemption from the programme regulations that requires an exemption from a ministerial order may be brought before the Danish Agency for Higher Education and Science.

Credit transfer

32. Programme elements passed at another university are regarded as equivalent to corresponding programme elements covered by these programme regulations.

(2) The Study Board may grant approval for students to substitute passed programme elements from another Danish or foreign programme of the same level, for programme elements covered by these regulations.

(3) Decisions under subsections (1) and (2) are made on the basis of a professional assessment.

33. Students who, as part of their studies, wish to complete programme elements at another university or another institution of higher education in Denmark or abroad may apply to their home university for pre-approved credit transfer for planned programme elements.

(2) Approval of pre-approved credit transfer pursuant to subsection (1) may only be granted if, in connection with the application for preapproved credit transfer, the student undertakes to submit to the home university the necessary documentation to show whether the programme elements have been passed or failed upon completion of the programme elements for which pre-approved credit transfer has been granted. Students must also consent to the home university requesting the

necessary information from the host institution if students are unable to procure the documentation themselves.

(3) Once documentation is available that the student has passed the programme elements for which pre-approved credit transfer has been granted, the home university administratively approves the transfer of the credit to the relevant programme at the university.

(4) In cases where the programme elements for which pre-approved credit transfer has been granted are, for example, not offered by the host institution, the university may, upon the student's request, change the approval of pre-approved credit transfer pursuant to subsection (1). The student is responsible for and is obliged to take the initiative to compose a proposal for a study plan. The university offers academic support if requested by the student. In special cases, the chair of the Study Board may approve changes to the Study Board’s decisions about pre-approved credit transfer.

(5) Decisions under subsections (1) and (4) are made on the basis of a professional assessment.

(6) Credit transfer of Master theses is not possible when the thesis is the basis of the awarding of a different title in another Master programme.

34. Programme elements which students wish to have transferred from other programmes will be transferred on the basis of the normalised workload specified in ECTS points and stipulated in the relevant degree regulations. Due to the structure of the programme, discrepancies may occur between the equivalent number of ECTS credits and the actual amount of ECTS transferred, as the number of ECTS credits for the programme must total the number of ECTS credits stated in section 1(1).

(2) If the programme element in question is assessed according to the 7-point grading scale or the 13-point grading scale at the academic institution at which the examination was taken, and if this programme element equates or replaces a programme element which according to the exam regulations of these study regulations is assessed according to the 7-point scale or the 13-point scale, the grade will be transferable, but converted into the 7-point scale if assessed according to the 13-point scale. In all other cases, the assessment will be transferred as ‘Pass’. Examinations transferred as ‘Pass’ are not included in the calculation of the final grade point average.

35. Applications for pre-approval or credit transfer must be sent to the Study Board via credit.cbs.dk. See guidance on credit transfer applications on the student intranet.

(2) Concerning complaints about credit transfer decisions, see part 3.

Part 3: Complaints

Complaints about examinations etc.

36. A student is entitled to file a complaint about an examination or other assessment. Concerning the specific rules and procedures, including deadlines, for filing written and reasoned complaints reference is made to the rules in part 9 of the Examination Order and to CBS' guidelines on CBS' student intranet.

Complaints about decisions concerning credit transfer

37. Complaints about decisions made by the Study Board on whether education qualifications acquired at another Danish University may replace parts of the programme (credit transfer) as well as complaints about the decisions made by the Study Board on whether Danish or foreign education qualifications, not yet passed, may replace parts of the programme (pre-approval of credit transfer), may be brought before the Appeals Board for decisions on credit transfer, see Ministerial Order no. 1517 of 16 December 2013 on the Appeals Board for decisions on credit transfer in university study programmes.

(2) The deadline for filing a complaint is 2 weeks from the date when the complainant was informed of the decision. The complaint must be addressed to the Appeals Board for decisions on credit transfer but sent to the President of CBS; the reasoned complaint should be sent to CBS Legal, Solbjerg Plads 3, 2000 Frederiksberg. It is also possible to send the complaint to: legal@cbs.dk. CBS has the option to process the application again. If the decision is upheld, CBS will forward the complaint to the Appeals Board, accompanied by a statement. CBS will give the complainant the opportunity to comment on the statement within a time limit of 1 week. The complainant's comments, if any, will be enclosed when the complaint is forwarded to the Appeals Board. The Appeals Board will make the final administrative decision.

38. Complaints about decisions made by the Study Board on whether education qualifications acquired abroad may replace parts of the programme (credit transfer) may be brought before the Qualifications Board, see Assessment of Foreign Qualifications etc. Act.

(2) The deadline for filing a complaint is 4 weeks from the date when the complainant was informed of the decision. The complaint must be addressed to the Appeals Board for decisions on credit transfer but sent to the President of CBS; the reasoned complaint should be sent to CBS Legal, Solbjerg Plads 3, 2000 Frederiksberg. It is also possible to send the complaint to: legal@cbs.dk. CBS has the option to process the application again. If the decision is upheld, CBS will forward the complaint to the Qualifications Board, accompanied by a statement. CBS will give the complainant the opportunity to comment on the statement, within a time limit of 1 week. The complainant's comments, if any, will be enclosed when the complaint is forwarded to the Qualifications Board. The Qualifications Board will make the final administrative decision.

Complaints about other decisions

39. Complaints about decisions made by the Study Board or the Programme Director according to these programme regulations have to be filed with the President of CBS. The deadline for filing a complaint is 2 weeks from the date when the complainant was informed of the decision.

(2) A decision made by CBS according to subsection (1) may be appealed by the complainant to the Danish Agency for Higher Education and Science when the complaint is concerned with an error of

law or procedure. The deadline for lodging an appeal is 2 weeks from the date when the complainant was informed of the decision. The reasoned appeal should be addressed to the agency but sent to CBS Legal, Solbjerg Plads 3, 2000 Frederiksberg. It is also possible to send the complaint to: legal@cbs.dk. CBS will forward the appeal to the agency, accompanied by a statement. CBS will give the complainant the opportunity to comment on the statement, with a time limit of at least 1 week. The complainant's comments, if any, will be enclosed with the other case files when the appeal is forwarded to the agency.

(3) Moreover, students are referred to CBS' Guidelines regarding students' right to file a complaint about decisions made by study boards, programme directors and programme administration.

Complaints about the teaching etc.

40. Complaints about the teaching, academic supervision or other issues concerning the organisation of the degree programme can be brought before the Study Board.

Commencement and transition regulations

41. These Programme Regulations are effective for students enrolled on the programme in September 2022 or later, and for students who are transferred to these Programme Regulations, see section 42.

(2) The 2021 Programme Regulations are repealed as of 1 September 2022.

42. Students who began their studies under the 2021 Programme Regulations, or according to the transition regulations in those regulations were transferred to the 2021 regulations, are transferred to these 2022 Programme Regulations and shall complete the remainder of their studies under these Programme Regulations.

Appendix

Competency Profile for MSc in Business Administration and Bioentrepreneurship

Upon completion of the programme, the student is expected to know/be able to:

- Account for theoretical approaches to business venture creation in lifescience, and apply the theoretical perspectives in composing a business plan. On this basis, to validate the underlying working hypotheses in which the business plan is based on.
- Discuss and assess the particular conditions affecting commercialization of life sciences, hereunder, strategic choices, business models, financing, corporate governance, sales, marketing, regulatory affairs, and be able to assess and conduct a market---analysis, a distribution--- and sales analysis, as well as a marketing plan.
- Conduct IP analysis, hereunder initial freedom to operate, novelty and patentability searches.
- Compose and write a business plan offering a convincing presentation of a bio venture. The element of the business plan should reflect skillful application of theories and tools from the course.
- Demonstrate understanding of the lifescience and business concepts presented in the course curriculum and in lectures as well as an appropriate application of theories, concepts and methods.
- Apply relevant theories of control and finance to managerial problems in both entrepreneurial and established firms in the lifescience sector.
- Analyze how management control and finance affects internal operations and external relationships.
- Discuss appropriate structures and mechanisms for controlling and financing innovation and product development.
- Demonstrate understanding of central concepts and theoretical foundations of markets, marketing, and strategy, including their interdependencies.
- Discuss how various concrete marketing instruments (e.g. product design, pricing, communication) can be used and combined to achieve commercially successful products.
- Identify and develop specific characteristics of biotechnology-related markets and their implications for firm-level decision-making.
- Conduct a market and commercialization analysis, which includes the adequate application of theoretical concepts, the collection and analysis of informative data, and the communication of results and their implications.

- Make informed choices with respect to R&D projects.
- Describe and assess the potential for formal and informal external knowledge sourcing and how it may help the organization in its pursuit of the next generation of innovations.
- Formulate innovation based strategies in a high-tech settings and account for their use.
- Reflect on how companies can effectively manage highly creative and skilled individuals, such as scientists.
- Acquire professional skills in strategy formulation and management.