IHC - Master of Science (MSc) in Business Administration and Innovation in Health Care

Preamble

Pursuant to section 45 of Ministerial Order no. 1119 of 19 September 2025 on Full-time Programmes at Universities and Corporate Master Programmes (the University Programme Order); Ministerial Order no. 288 of 17 February 2026 on Admission and Enrolment on Full-time Programmes at Universities and Corporate Master Programmes (the Admission Order); Ministerial Order no. 1121 of 19 September 2025 on University Examinations and Assessments (the Examination 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 Business Administration and Innovation In Health Care*, in Danish *cand.merc. i sundhedsinnovation* (candidatus/candidata mercaturae), abbreviated *cand.merc.(si.)*.

(2) This programme is governed by The Study Board for Market and Innovation.

(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 Innovation in Health Care programme.

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

From CBS

- HA almen
- BSc in Business Administration and Service Management
- HA(it.).

From other educational institutions

- Bachelor i folkesundhedsvidenskab (KU)
- Bachelor i IT og sundhed (KU).

(3) Admission to the MSc in Business Administration and Innovation in Health Care 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. 30 ECTS-points within one or more of the following areas:

- Organisation
- Quantitative methods
- Economics
- IT
- Epidemiology
- Human biology
- Pathology
- Physiology/anatomy
- Biochemistry/organic chemistry.

(4) The language requirement is English B with minimum grade level 2.0, see: 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 Master of Science (MSc) in Business Administration and Innovation in Health Care, cand.merc.(si.), is a theory-based graduate-level programme, emphasizing the training of actionable innovation skills.

(2) The objective of MSc (IHC) is to offer a distinctive, new set of skills to employers in the Danish and international health care systems. These skills will be targeted specifically at the public and private organizations of the system which over the coming decades will take health care through a major transformation. The buildings blocks of that transformation will come from a multitude of innovations at all levels of the health care system, involving both its public and commercial parts and new interdependencies between the two. MSc (IHC) graduates will be trained to select, initiate, manage and implement innovations in this complex setting.

(3) Innovations in health care have economic and organizational dimensions. They must fit into complex institutional and regulatory settings. They have a strong design component and, and they often involve IT. The objective of the programme is to provide students with relevant analytical and actionable skills allowing them to innovate while taking these different perspectives into account.

(4) Health care innovations typically involve a variety of disciplines and organisations. It is essential that students are prepared to operate in highly heterogeneous setting. The programme must train students in complex, multidisciplinary problem solving.

(5) Through participation in the programme, students should also acquire the ability to collaborate with people from different professions in working with and solving problems that involve a variety of fields.

Competency profile

3.The Study Board has developed a competency profile, which describes the expected learning outcomes of this degree programme:

Purpose and academic profile

The Master of Science (MSc) in Business Administration and Innovation in Health Care (IHC) is a theory-based graduate-level program emphasizing the training of actionable innovation skills.

The objective of the IHC-programme is to offer a set of capabilities to graduates that will help them to catalyze innovation in health care systems (including healthcare providers, firms, and start-ups) both in Denmark and internationally. These skills will be targeted specifically at the public and private organizations of healthcare system which over the coming decades will take health care through major transformations. IHC students will be trained to scout, initiate, manage, and implement innovations in this complex setting in the context of both existing healthcare organization or firms, or by establishing new ventures.

Innovations in healthcare must fit into complex institutional and regulatory settings and typically involve a variety of disciplines and organizations. It is therefore essential that students are prepared to operate in highly heterogeneous settings. IHC students should also acquire the ability to collaborate with people from different backgrounds in problem solving.

Learning outcomes

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

Knowledge Graduates will:

- Possess advanced, research based understanding of healthcare systems, including technological, economic, organizational, regulatory, and societal drivers shaping innovation and public–private collaboration.
- Understand major international healthcare system models, their institutional contexts, and how these influence innovation conditions.
- Demonstrate research based knowledge of healthcare work practices, professional roles, patient relationships, and theories, processes, and data analytics relevant to healthcare innovation and commercialization.

Skills Graduates will:

- Apply scientific theories, methodologies, and analytical tools to identify, analyze, and address innovation opportunities, implementation challenges, and commercialization pathways in healthcare.

- Conduct rigorous qualitative and quantitative data collection and analysis, and critically assess methods, evidence, and innovation tools.
- Assess commercialization aspects such as IPR, regulation, markets, financing, and business models, and communicate research based insights to specialist and non specialist audiences.

Competences Graduates will:

- Independently initiate, manage, and evaluate innovation processes and projects in complex healthcare environments, including diffusion and scaling for sustainable impact.
- Navigate and manage collaboration across public and private actors, disciplines, and sectors while balancing regulatory, professional, and organizational interests.
- Apply an integrated, ethical perspective on innovation impacts and take responsibility for continuous professional development in healthcare innovation.

Content and structure

4. The graduate programme in Innovation in Health Care offers courses and training in within the economics and management of Innovation in Health Care.

(2) 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.

(3) Courses in the first semester present the main disciplinary building blocks: Two 7.5 ECTS courses introduce students to the quantitative methodological skills and to the models of innovation challenges and process, followed by two 7.5 ECTS courses in a comparative approach to health care systems, and in the organization of health care innovation, respectively. Throughout the second semester, students work on an innovation project, organized in a 15 ECTS project course. This course also includes workshops on specific innovation tools referring e.g. to team dynamics, data analysis, innovation models and IPR. Alongside the project course, students follow courses introducing them to digital health and to innovations in clinical processes.

(4) In the third semester the student chooses between a number of tracks (of 30 ECTS), see subsection (7).

(5) The student chooses the entire track as a package.

Structure

(6) The below table lists the structure of the programme and the ECTS credits of the individual courses. The course descriptions are available in the online course catalogue.

1st year courses

Course	ECTS
Health Care Innovation and Management	7.5
Managerial Statistics for Innovation	7.5
The Organization of Health Care Innovation	7.5
Health Systems and Innovation	7.5
Foundations of Health Care IT	7.5
Innovation in Clinical Processes and Health Care Delivery	7.5
The Health Care Innovation Project	15

2nd year courses

Course	ECTS
Elective Track	30
Master's Thesis	30

(7) In third semester the student can chose between the following elective tracks:

- Track 1: Assessment and Digital Trends in Healthcare
- Track 2: Bio and Health Care Entrepreneurship

Tracks 1 includes one course at University of Copenhagen (UCPH).

Elective track on Assessment and Digital Trends in Healthcare (Track 1) :

Course	ECTS
Frontiers of Digital Healthcare	7.5
Health Innovation Assessment and Advanced Cost Benefit	15
Register Based Epidemiology (at UCPH)https://kurser.ku.dk/course/sitk23001u/2025-2026	7.5

Elective track on Bio and Health Care Entrepreneurship (Track 2)

Course	ECTS
Bio-Markets	7.5
Finance and Accounting in Bio-Business	7.5
Innovation Strategy in BioBusiness	7.5
Bioentrepreneurship	7.5

4A: In the academic year 2026/27 students also have the possibility to go on a full-semester exchange stay at NOVA School of Business and Economics in Lisbon, Portugal.

Elective track at NOVA School of Business and Economics (NOVA SBE) in Lisbon, Portugal (Track 3)

Course	ECTS
Applied Entrepreneurship	7
Entrepreneurial Strategy	3.5
Technology Strategy	3.5
Entrepreneurship	3.5
Business Model Innovation	3.5
Strategic Foresight and Scenario Planning	3.5
Science-Based Entrepreneurship and Innovation	3.5
Leadership and Change Management	3,5

(4) There will be a selection process for the exchange programmes based on the following criteria:

- Bachelor diploma
- Grade transcript from IHC (download from self-service)
- Resume/CV in English

Master’s thesis

4B. 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 15 November 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 15 May 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) For more information regarding the content of the master’s thesis, please see the student intranet my.cbs.dk.

(7) The thesis project must address a practical challenge in healthcare innovation. Whenever possible, students must interact and collaborate with a “problem owner” in industry or in healthcare organizations to secure practical relevance of the topic of the thesis and of its contributions to the solution to that problem.

Examinations

5. The programme consists of the examinations listed below. The learning objectives and the regulations of the individual examinations are prescribed in the online course catalogue. Direct links to the individual examinations are inserted in the table below.

1st year

Exam name	Exam form	Gradingscale	Internal/external exam	ECTS
Health Care Innovation and Management	Written sit-in exam on CBS' computers	7-point grading scale	Internal exam	7.5
Managerial Statistics for Innovation	Written sit-in exam on CBS' computers	7-point grading scale	Internal exam	7.5
The Organization of Health Care Innovation	Oral exam based on written product	7-point grading scale	Internal exam	7.5
Health Systems and Innovation	Oral exam based on written product	7-point grading scale	Internal exam	7.5

Exam name	Exam form	Gradingscale	Internal/external exam	ECTS
Foundations of Health Care IT	Oral exam based on written product	7-point grading scale	External exam	7.5
Innovation in Clinical Processes and Health Care Delivery	Written sit-in exam on CBS' computers	7-point grading scale	External exam	7.5
The Health Care Innovation Project	Oral exam based on written product	7-point grading scale	Internal exam	15

2nd year

Exam name	Exam form	Gradingscale	Internal/external exam	ECTS
Electives	See the individual course descriptions	See the individual course descriptions	See the individual course descriptions	30
Master's Thesis	Oral exam based on written product	7-point grading scale	External exam	30

The exams amount to 120 ECTS credits in total.

(2) Elective tracks

Assessment at Track 1: Assessment and Digital Trends in Healthcare (30 ECTS)

Exam name	Exam form	Gradingscale	Internal/external exam	ECTS
Frontiers of Digital Healthcare	Oral exam based on written product	7-point grading scale	Internal exam	7.5
Health Innovation Assessment and Advanced Cost Benefit	Oral exam based on written product	7-point grading scale	Internal exam	15
Register Based Epidemiology (UCPH)	See links below	See links below	See links below	7.5

Link to the exams in Register Based Epidemiology at UCPH can be found here:Course in Register Based Epidemiology - 2025/2026 .

Assessment of Track 2 : Bio and Health Care Entrepreneurship (30 ECTS)

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

The exams of track 3 at Nova School of Business and Economics

(3) Details regarding the exams at Nova SBE are stipulated in the appendix in part 4 of these programme regulations.

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
Health Care Innovation and Management	1
The Health Care Innovation Project	1

Body of external examiners

6. This degree programme is covered by the body of external examiners for the business administration programmes. It is possible to supplement the body of external examiners, so that the joint body of external examiners for this programme covers all the courses of this degree programme.

Pass requirements

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

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. In addition to the examinations referred to in section 5, which form part of the overall examination result, courses may include compulsory activities. This 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 completed. It is a requirement for participation in the final examination of the course that the required number of compulsory activities have been submitted/completed and approved by the teacher before a specified deadline. Further provisions regarding the number, form and other conditions of the activities are set out in the course description for the individual course.

(2) The student's effort is assessed as *"approved/not approved"* based on whether the assignment has been attempted/answered or whether the activity has been carried out. A blank or irrelevant submission does not count as participation in the activity.

(3) If the student does not fulfil the requirements for participation in the examination, one examination attempt is used, cf. section 14(6), however see subsections (4)–(5).

(4) A student who, after expiry of the deadline set out in subsection (1), lacks approval of one or more activities in relation to the required number of approved activities in the course may, following an individual assessment and to a reasonable extent, be given one or more additional assignments or participate in one or more additional activities prior to the ordinary examination (first examination attempt) in the final examination of the course. This is subject to the condition that the student has participated in all set activities, unless the lack of submission/participation is due to exceptional circumstances such as illness. If necessary for practical reasons, this may involve a different type of activity or resubmission of a previously non-approved piece of work in a revised form.

(5) A student who, prior to the re-examination (second examination attempt) in the final examination of the course, still lacks approval of one or more activities in relation to the required number of approved activities in the course, may, to a reasonable extent, be given additional assignments or activities prior to the re-examination. This is subject to the condition that the student has participated in all set activities, unless the lack of submission/participation is due to exceptional circumstances such as illness.

(6) A student who has not participated in any of the compulsory activities is not eligible to be given additional activities prior to either the ordinary examination or the re-examination. The student will have used one examination attempt and will be deregistered from the re-examination.

(7) A student who is to participate in a re-examination under a later programme regulation is not subject to any requirements for compulsory activities that may have been introduced in the course after the first time the student was registered for the course.

Registration for and withdrawal from courses and exams

14. CBS registers the student for the 60 ECTS credits 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 credits in the coming year of study, resulting in the student being registered for a minimum of 60 ECTS credits in the coming year of study.

(3) Within a withdrawal period, the students could withdraw from courses they are registered for if the registration made under subsection (1) is more than 60 ECTS for a year of study/30 ECTS for a semester, so that the individual student is registered for a total of 60 ECTS for a year of study/30 ECTS for a semester. There is a withdrawal period before both the spring semester and the autumn semester.

(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 or elective, the student cannot deregister from the course, see s. 56(1) 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, for an exemption to be granted, the extraordinary circumstance must be both directly linked to the course in question and, over a longer period, be preventing the student from completing the mandatory 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's 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.

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

16. 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

17. 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

18. 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

19. 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

20. 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

21. 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

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

(2) The university 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's rules about online oral exams apply.

22a. 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 university 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 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's guidelines for examinations conducted abroad apply.

Assessment

23. 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

24. In connection with written examinations, the result must be announced within 4 weeks after the activity is conducted, see however subsection

(2). When special circumstances warrant it, the university can set aside the deadlines stipulated in subsections (1). 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

25. 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 section 7. If no such requirements are stipulated in section 7 the overall course must be passed. Thus, a partial grade can be -03 or 00 if the total grade according to subsection 4 is at least 02.

(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.

26. Students have a maximum of three attempts in passing each examination, see however subsection (2) and section 16(3). 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

27. CBS issues a diploma to students who have completed their study programme, in accordance with the requirements stipulated in 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 and letter according to the ECTS-scale.

Leave

28. 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's *Rules regarding leave on bachelor and master programmes at CBS*.

Programme regulations

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

Exemption from the programme regulations

30. 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

31. 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.

32. 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) Pre-approval of a programme element to substitute an element is granted according to a professional assessment, and if the student has not already used an exam attempt in the element.

(3) 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.

(4) 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.

(5) 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.

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

(7) 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.

33. Programme elements which students wish to have transferred from other programmes will be transferred on the basis of the normalised workload specified in ECTS credits 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 creditstransferred, 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.

34. 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.

35. [not in use]

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's guidelines on CBS's 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. 826 of 16 June 2023 on credit transfer in university study programmes (meritbekendtgørelsen).

(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 Act no 579 of 1 June 2014 on Assessment of Foreign Qualifications etc.

(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 may be appealed 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’s 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 2026 or later, and for students who are transferred to these Programme Regulations, see section 42(1).

(2) The 2025 Programme Regulations are repealed as of 1 September 2026.

42. Students who began their studies under the 2025 Programme Regulations, or according to the transition regulations in those regulations were transferred to the 2025 Programme Regulations, are transferred to these 2026 Programme Regulations, so that these are effective for the remainder of the programme, see however subsection (2).

(2) Students who have not passed the exam *Innovation Challenges in BioBusiness* will have to take the exam with the new title *Innovation Strategy in BioBusiness.*

Part 4: Appendix - regulations for the Portugal Platform

43. Learning objectives and rules regarding exams at Nova School of Business and Economics

Applied Entrepreneurship

PREREQUISITE(S)

NA

COURSE UNIT AIMS

This course is an introduction to the diversified nature of entrepreneurship and new venture creation, taking a practical approach through applied

learning in a concrete project to be started. This course unit aims to be a hands-on experiential learning opportunity about how

founders/entrepreneurs build startups/companies. Besides that, through lectures, case studies, presentations by guests, and discussions, the

course focuses on the entrepreneur's point of view during the process of starting a new business.

COURSE UNIT CONTENT

This course provides insight and methodologies, tools and processes to discover opportunities, create and kickstart a new startup, both as

creating your own business as well as proactively starting a new venture inside a corporate (intrapreneurship). We will be covering the critical

steps needed to build a new venture, fostering real hands-on learning on what it is like to start a company.

The goal, within the constraints of a classroom and a limited amount of time, is to create an entrepreneurial experience for students with all of

the pressures and demands of the real-world in an early-stage startup. The class is designed to give students the experience of how to work as a

team and turn an idea into a company.

This course takes participants down the pathway to building an idea into a venture. It is not about writing a business plan or doing library

research. Students will be teaming up to build a project from scratch and will be talking to actual customers and partners for their idea and

learning the chaos and uncertainty of how a startup works. They will learn how to use a business model to brainstorm each part of a company

and Customer Development to get out of the classroom and interact with real prospects to see if anyone other than themselves would want/use

their product.

Each week's class is organized around:

1. A lecture, guest presentations and discussions

2. Team presentations on their "lessons learned" from getting out of the building and iterating with the market.

The course outline covers the following major topics:

1. Overview of Entrepreneurship

2. Opportunities and Idea generation

3. Problem Analysis

4. Constructing the Value Proposition

5. Business Model Generation and Innovation

6. Business Model Validation

7. Problem-Solution fit and Product-Market fit

8. Funding and Raising investment

9. The Scaling-up Process

10. Pitch Presentation

LEARNING OBJECTIVES

Upon completion of this course, students should be able to:

A. Knowledge and Understanding

Entrepreneurship concept and process; Business Model generation, development and innovation; Customer Development process; Lean Startup

validation cycle; Starting-up and scaling-up for traction; Financing and fund-raising.

B. Subject-Specific Skills

Understanding an industry (team project related); Business Strategy; Business Research & Validation; Pitching

C. General Skills

Idea-generation, Teamwork, Hypothesis testing, Systematization of learnings and Presentation skills.

DEMONSTRATION OF THE COHERENCE OF THE SYLLABUS WITH COURSE UNIT AIMS/LEARNING

OBJECTIVES

This class provides a hands-on approach to the Entrepreneurship body of knowledge, covering the entrepreneur profile and journey, techniques

and methodologies, along with practices to develop entrepreneurial mindset, skillset and toolset.

TEACHING AND LEARNING METHODS

Pre-requisites

1. Interest in Entrepreneurship and motivation to at least evaluate launching their own business.

2. Passion, curiosity, resilience and agility. Interest in discovering how an idea can become a real company.

3. Each participant must commit to class time, plus five additional hours a week for Market Validation.

4. Amount of Work - Teams will be spending a significant amount of time in between each of the classes outside the university, talking to

customers and testing hypotheses. Getting out of the building is what the effort is about. If students cannot commit the time, then this course

probably is not for them.

Class Culture

Entrepreneurs/Startups communicate much differently than the university culture most of the students are familiar with. At times it can feel

brusque and impersonal, but in reality, is focused and oriented to create immediate action in time- and cash-constrained environments. We have

limited time, and we push challenge, and question teams in the hope they will quickly learn. We will be direct, open, and tough, just like the real

world. Of course, these comments are not personal, but part of the process. We also expect students to question us, challenge our point of view if

they disagree, and engage in a real dialogue with the teaching team. This approach may seem harsh or abrupt, but it is all part of our wanting

teams to learn to challenge themselves quickly and objectively and to appreciate that as entrepreneurs they need to learn and evolve faster than

they ever imagined possible.

ASSESSMENT

The Assessment criteria aim to evaluate not only theoretical learning but also the practical and applied dimension of this course.

The final grade will be composed of:

1. Practical grade (30%) - including weekly lessons learned presentations, class attendance and participation.

Participation means attendance and participation in the class discussions (Individual, 1 to 20)

Lessons learned presentations (Grade is the same for all group members, 1 to 4, in the end scaled to 1 to 20)

2. Peer Evaluation (10%) - each student will be evaluated by their peers within each team (Individual grade, 1 to 20)

3. Final Pitch Presentation (30%) - There will be 2 pitch presentations during the semester: midterm pitch and final pitch.

In the middle of the semester, each team will give a value proposition pitch (outlining the validated problem and solution) to the teaching team

(up to 2 min presentation + 2 min Q&A). This value proposition pitch accounts for 10%.

At the end of the semester, each team will do a final pitch to a group of potential investors and/or entrepreneurs in addition to the teaching team

(3 min presentation + 2 min Q&A). This final pitch accounts for 20%

4. Final Exam (30%) - (Individual grade, 1 to 20)

FAQ:

Is there any minimum grade?

You are required to have a minimum grade of 9,5 in all the assessment components, except for Peer Evaluation.

Does everyone in the team get the same grade?

No. Individual participation and contribution are also considered. Not only in classes, but also each student should be present in the group's

lessons learned and participate in the work done. Besides, you also get to grade your team members on their contribution to peer evaluation.

What are the rules for the Resit Exam?

If you fail the course on the continuous assessment, you have the opportunity to do the resit exam. In the resit period, the exam counts form

100% of the student's final grade.

BIBLIOGRAPHY

The Startup Owner's Manual, Steve Blank & Dorf

Business Model Generation, Alexander Osterwalder, et al

The Lean Startup, Eric Ries

Entrepreneurial Strategy

PREREQUISITE(S)

NA

COURSE UNIT AIMS

At the end of the course, you should be able to:

1. Explain why a buoyant transfer market is fundamental to an entrepreneurial economy;
2. Focus on the process through which entrepreneurial firms are able to gather the strategic resources needed to support their growth and bring their products and services to market;
3. Understand the typology of resource providers available to entrepreneurs, as well as their incentives;
4. Understand the liquidity events through which the entrepreneurial cycle ends, as well as their differences and similarities;
5. Develop written and oral communication skills through group discussions, in-class presentations and coursework;
6. Think critically about entrepreneurial organizations' issues and dilemmas. This will be accomplished by gathering and synthesizing

   information, analyzing alternative perspectives and options, and presenting a considered opinion or course of action.

Students who achieve the objectives above will successfully complete the course.

COURSE UNIT CONTENT

Session 1:

Introduction to the Course. What is strategy? What is Entrepreneurship?

Session 2 :

Raising Capital: Understanding the Alternatives

Session 3 :

Angel Investing

Session 4:

Venture Capital & Corporate Venture Capital

Sessions 5:

Exiting Options: IPOs & Acquisitions

Sessions 6:

Company pitches and course wrap-up

LEARNING OBJECTIVES

As stated above

DEMONSTRATION OF THE COHERENCE OF THE SYLLABUS WITH COURSE UNIT AIMS/LEARNING

OBJECTIVES

The course contents are closely aligned with the learning objectives laid out by the curriculum.

TEACHING AND LEARNING METHODS

The course will be based on case studies, group exercises and a mix of lectures and class discussions.

Case Studies. Roughly half of the sessions will be devoted to the analysis and discussion of cases. The case method is an effective pedagogical

tool to sharpen your analytical and decision-making skills and it requires you to be an active participant in decision making. Moreover, the case

method provides a vehicle by which to apply theories, concepts, and frameworks that we will discuss in class or that you wil find in the assigned

readings. Finally, the discussion constitutes an opportunity to defend your position and to learn from others, by listening to their comments and

insights.

Interactive Lecture. The remaining portion of the sessions follows an interactive lecture format, which is aimed at the introduction of the

theories, frameworks and concepts applicable to the course. These lectures lay the foundations for a well-grounded discussion of the cases that

will follow. Please note that the lectures will often be accompanied by assigned readings, which are meant to be complementary to the subject

matter covered in class. This means that the lectures and the readings are not substitutive in nature and that I expect you to be active during the

former and fully prepare the latter prior to class.

ASSESSMENT

10% Peer evaluation

10% Attendance and participation

40% Company pitch / report & investing decision

40% Final exam

BIBLIOGRAPHY

As above.

ADDITIONAL INFORMATION

Course Impact Relation

Throughout the teaching period, the course equips students with foundational skills that will enable them to develop further understanding in

future courses, directly related with the SDG Agenda.

Technology Strategy

PREREQUISITE(S)

NA

COURSE UNIT AIMS

The aim of this course is to guide the students through what strategy and strategic options can entail when considering the technology sectors

and the development of novel solutions, in constantly evolving market dynamics and players. This will be accomplished both by analyzing

theoretical frameworks, studying historic cases and debate current day and ongoing cases in the market.

At the end of the course students should be able to analyze technology cases and understand different options in place, the benefits and perils of

each.

COURSE UNIT CONTENT

Week 1: Introduction to strategy and technology, Review of the objectives of the course

Introduction to the case list and the team challenge

Topics in cases can cover any of the following:

- Early technology management: asia, romans and europe

- The modern technology: From Edison and Ford to the 70s

- Current technology: the digital era of the computer, the internet and mobile communications

- Future technology: explorations of mars, quantum computing

LEARNING OBJECTIVES

A:

Knowledge and Understanding

Technology

Technology cycles

Technology players

B:

Subject-Specific Skills

Different historic cases on technology

C:

General Skills

Case analysis

Strategy

DEMONSTRATION OF THE COHERENCE OF THE SYLLABUS WITH COURSE UNIT AIMS/LEARNING

OBJECTIVES

By covering a wide range of technology related cases students are able to practice the thought process of analyzing, evaluating and defining

options in technology strategy contexts.

TEACHING AND LEARNING METHODS

Case studies, historic and current.

ASSESSMENT

Contigent on the number of enrolled students, grading will be done as follows.

20% - class participation / peer evaluation

30% - team report

50% - exam

BIBLIOGRAPHY

Fast Second: How Smart Companies Bypass Radical Innovation to Enter and Dominate New Markets, Markides and Geroski, 2004

Geoffrey Moore, Crossing the Chasm, 2014

Adner, R. 2006, ¿Match your innovation strategy to your innovation ecosystem, Harvard Business Review, 84(4) 98-107.

Entrepreneurship

PREREQUISITE(S)

NA

COURSE UNIT AIMS

Entrepreneurship is one of the most exciting and dynamic areas of business, with entrepreneurship skills being required not just to

become founders, but to succeed in corporate, non-profit and research settings. The aim of this course is to equip students with the

broad range of skills and perspectives required to pursue a career in entrepreneurship or to apply entrepreneurship to their career.

The goal is to combine the theoretical (yet applied) knowledge related to the multiple aspects of new venture creation with a hands-on approach.

This approach includes learning from case studies and the literature, as well as a first-hand perspective, where students develop their own

business idea, plan it, and pitch it in front of an audience. Overall, the course provides students with frameworks to develop opportunities and

convert them into coherent business solutions whether for start-up purposes or for the launch of new corporate initiatives.

COURSE UNIT CONTENT

The course will cover the core aspects of entrepreneurial thinking whilst working with student teams on their group projects. This means that

session content will be adjusted to student progress

Overall, the course will cover 5 topics, over 6 sessions:

Week 1: Introduction to Entrepreneurship: Ideas, Businesses and Processes

Week 2: Entrepreneurial Thinking - Effectuation, Ideation and Business Ideas.

Week 3: Evaluating Entrepreneurial Ventures: From Ideas to Opportunities to Business

Week 4: Entrepreneurial Metrics - Funding the Entrepreneurial Venture

Week 5: Leading and Scaling Entrepreneurial Ventures

Week 6: Final Group Presentations and Review

LEARNING OBJECTIVES

A: Knowledge and Understanding

1. Development of a holistic understanding of a new business proposal and steps to launch it;
2. Understanding of the unique elements of entrepreneurial behaviour:
3. Understanding of the behavioural, strategic, managerial and organizational challenges faced by entrepreneurs.

B: Subject-Specific Skills

1. Selection of a business idea in accordance with its potential and the abilities of the entrepreneurial team;
2. Developing the design of a business model for a new venture;
3. Presentation/Pitch of the complete start-up design: organization, team and capital requirements.

C: General Skills

1. Critical thinking;
2. Communication skills;
3. Strategic skills;
4. Relational skills.
5. Presentation & pitching skills

DEMONSTRATION OF THE COHERENCE OF THE SYLLABUS WITH COURSE UNIT AIMS/LEARNING

OBJECTIVES

The group projects will aim to simulate the difficulties and learnings of developing a real life business venture.

TEACHING AND LEARNING METHODS

The course will be delivered in six sessions, balanced between lectures, case study discussions and group work. Students will be expected to

work (in groups) on a business idea, delivering a final business pitch in the last session.

ASSESSMENT

Final grade will be based on both individual and group work. All the components are mandatory, and students must obtain a minimum

grade of 9,5/20 in each one of them to succeed :

1. Group assignment- Business Plan (50%)

Students should form groups of 4/5 and will work on a business idea throughout the program, delivering a final business plan in the last session,

and presenting it in class. Final group assignment grade will be calculated according the following formula:

* 40% on the Business Plan.

* 40% on the Pitch Presentation.

* 20% on Peer Evaluation (each member of the group will be asked to evaluate the contribution of the other members ¿ this will be confidential)

2. Final individual exam (50%)

BIBLIOGRAPHY

Innovation and Entrepreneurship, John Bessant, Joe Tidd (2011) 2 Edition , Wiley

Effectual entrepreneurship. Read, S., Sarasvathy, S., Dew, N., Wiltbank, R., & Ohlsson, A. (2011). New York, NY: Routledge

New venture creation: Entrepreneurship for the 21st century . Timmons, J.A., & Spinelli, S. (2010). New York, NY: McGraw-Hill

Leading at the Speed of Growth: Journey from Entrepreneur to CEO. Catlin, K., Matthews,J. (2008) Wiley.

Additional readings will be provided during the course, including: Class handouts. Exercises and cases. PowerPoint slides of the lectures.

ADDITIONAL INFORMATION

Course Impact Relation

Throughout the teaching period, students are challenged to actively engage in the entrepreneurial process, experiencing through a "hands-on"

approach the theoretical understanding of the course. As business solutions can be developed to tackle a variety of different problems, students

ought to have a broader perspective on the different challenges across the SDG Agenda and how they can be applied into their own venture

ideas. This understanding is then evaluated through the assessment forms.

Business Model Innovation

PREREQUISITE(S)

NA

COURSE UNIT AIMS

The aim of this course is to enable students to better understand, decompose and analyze business or operational models in organizations.

Students will work individually and in groups, studying, debating and evolving business models from a wide variety of industries and strategies.

At the end of the course, students should be able to look at any organization and try to explain the connectedness of its actions through a business model and theorize novel approaches it could take or compare with what competition is doing. Students should be able to identify the

business model as a characterizing trait of an organization.

COURSE UNIT CONTENT

The aim of this course is to enable students to better understand, decompose and analyze business or operational models in organizations.

Students will work individually and in groups, studying, debating and evolving business models from a wide variety of industries and strategies.

At the end of the course, students should be able to look at any organization and try to explain the connectedness of its actions through a

business model and theorize novel approaches it could take or compare with what competition is doing. Students should be able to identify the

business model as a characterizing trait of an organization.

LEARNING OBJECTIVES

A: Knowledge and Understanding

- Decompose the actions of an organization as a business model
- Compare, contrast and critique with other organizations in an industry
- Define purpose and design alternative business models

B: Subject-Specific Skills

- Frameworks used to analyze business models
- Case study

C: General Skills

- Teamwork
- Analytical thinking
- Multi-disciplinary
- Business and industry assessment

DEMONSTRATION OF THE COHERENCE OF THE SYLLABUS WITH COURSE UNIT AIMS/LEARNING OBJECTIVES

Business models are an applied topic in business, by definition. The program for this course mimics that nature as closely as possible and offers

a very practical, hands-on framework for defining, designing, analyzing, arguing and evolving business models.

TEACHING AND LEARNING METHODS

This class requires an investment towards effective class participation. Cases will be presented, either in class by the instructor, by student teams

or through literature. Most of the takeaways will come from the quality of the discussion happening in class.

ASSESSMENT

There is no exam for this class and it is replaced by an Individual Take-home exam / Essay (50% of final grade).

Other elements of assessment are:

Class participation (individual): 10%

Business model presentation (team): 20%

Business model report (team): 20%

BIBLIOGRAPHY

- Playing to Win: How Strategy Really Works; by A.G. Lafley, and Roger L. Martin
- Creating Great Choices: A Leader's Guide to Integrative Thinking; by Jennifer Riel
- HBR's 10 Must Reads on Business Model Innovation¿ by Harvard Business Review (compilation)
- Business Model Innovation: Concepts, Analysis, and Cases; by Allan Afuah
- Design a Better Business: New Tools, Skills, and Mindset for Strategy and Innovation¿ by Patrick Van Der Pijl, Justin Lokitz, Erik van der Pluijm, Maarten van Lieshout
- The Invincible Company: How to Constantly Reinvent Your Organization with Inspiration From the World's Best Business Models, by Dr. Alexander Osterwalder

Strategic Foresight and Scenario Planning

PREREQUISITE(S)

NA

COURSE UNIT AIMS

This course aims to provide students with a solid background in Scenario Planning and Strategic Foresight, which is particularly relevant in the

context of accelerating change, turbulence, uncertainty, and unpredictability that characterizes current times.

The course complements its key theoretical and methodological contents with a full hands-on simulation of a Foresight / Scenario building

process based in real challenges presented to the students by an invited organization.

The focus of the course will be on developing skills in three critical activities (and their tools) for the world of today:

- Scanning the organizational environment by exploring different types of approaches and tools;
- Simulation of possible futures through the development and exploration of strategic scenarios;
- Strategic agility and resilience through the explicit articulation of Foresight and Scenarios with Strategic
- Management concepts and tools.

COURSE UNIT CONTENT

0. Hands-on groupwork: overview, key steps and examples

1. Foresight, Horizon Scanning and Scenarios: principles and key concepts

- The concept of Foresight. Forecasting versus Foresight. Scenarios as the main Foresight tool
- Principles, Benefits and Applications of Foresight and Scenarios
- Uncertainty management and organizational learning: the role of Foresight and Scenarios in Strategy
- Hands-on simulation part 1: launching the case; defining the focal issue and the time horizon

2. Horizon scanning, trends, megatrends, uncertainties, wild cards, and weak signals

- Creating a shared language for scanning with key concepts and examples
- Hands-on simulation part 2: key concepts in action - looking for drivers of change

3. Developing Scenarios.

- Scenario Planning approaches
- The Intuitive Logics School of Scenario Building ("the Shell School")
- Hands-on simulation part 3: a crucial stage of the process - choosing key uncertainties
- Hands-on simulation part 4: building scenario structures

4. From scenarios to strategy

- Implications and options. Exploring Scenarios using different Strategy tools
- Hands-on simulation part 5: from anticipation to action

5. Other Scenario Planning schools and methods

LEARNING OBJECTIVES

Upon completion of this course, students should be able to:

A. Knowledge and Understanding

- Understand Strategic Foresight theoretical and methodological bases and the various ways of trying to anticipate the future;
- Understand the applicability of Foresight and Scenarios to organization strategy;
- Know how to apply the key concepts and techniques that integrate the main Foresight and Scenarios methodologies of construction of Scenarios;
- Understand how to promote a new strategic thinking regarding current and future challenges with direct impact on competitiveness and on the way organizations envision, plan and manage their businesses.

B. Subject-Specific Skills

- Understand and apply key concepts of Strategic Foresight, Horizon Scanning and Scenarios;
- Seize the concept of Scenarios as instruments for simulating possible futures, recognizing the importance of uncertainties as Scenarios' raw material;
- Introduce foresight and scenario planning tools in strategy and innovation processes in order to help systematically explore and shape the future, uncover possibilities and arrive at results.

C. General Skills

- Expand teamwork, synthesis, communication and presentation skills;

- Develop problem-solving, strategic thinking and decision-making capabilities;
- Develop critical thinking, research skills and the capacity to analyse and interrelate content generated by different fields of knowledge.

DEMONSTRATION OF THE COHERENCE OF THE SYLLABUS WITH COURSE UNIT AIMS/LEARNING

OBJECTIVES

The contents related to the principles and key concepts of Foresight, Horizon Scanning and Scenarios (Part 1) contribute directly to create a

shared language and solid background in Scenario Planning and Strategic Foresight. Parts 2 ("Horizon scanning, trends, megatrends,

uncertainties, wild cards and weak signals"), 3 "Developing Scenarios"), 4 ("From scenarios to strategy") and 5 ("Other Scenario Planning

schools and methods") go into detail and develop "the art and practice" of Strategic Foresight and Scenarios focusing on three process

components: scanning the organizational environment, simulation of possible futures and articulation with strategy definition and

decision-making.

TEACHING AND LEARNING METHODS

- Primary learning method: learning-by-doing (practice by doing) / active learning
- Other learning methods: learning-by-examples (demonstration) and learning-by-teaching [teach other(s)]

Expository/lecturing and inquiry-based methods will also be used. Hands-on Methodology: this is a participatory and interactive course where,

through a full simulation of a Foresight/Scenario Building process, the students address a real challenge presented by an invited organization and

experiment the identification of drivers of change and uncertainties, build Scenarios and identify their strategic implications.

ASSESSMENT

50% - Group assignment (group assignment grades will be awarded on an individual basis based on each student's

contribution measured through overall group performance and a peer assessment process). The deadline for the

upload of the report in the Moodle platform will be disclosed in the first class.

50% - Final individual exam (date tbd).

Students will be asked to propose a group constitution that complies with as many as possible of Nova SBE's diversity rules. Independently of

the grade obtained in the group assignment, in order to pass this course participants must have a grade of at least 8 out of 20 in the final exam. In

accordance with the school norms, there is no procedure for grade improvement after passing a course (no re-sit or second-course enrolment).

BIBLIOGRAPHY

Main:

- Goodwin, P., Wright, G. (2014) Decision Analysis for Management Judgment ("Chapter 16 Scenario planning: an alternative way of dealing with uncertainty"). 5th Edition, John Wiley & Sons, New York. (Available at the School Library)
- Guillén, M. F. (2020) 2030 - How Today's Biggest Trends Will Collide and Reshape the Future of Everything. FLINT (The History Press), Cheltenham. (Available at the School Library)
- Van der Heijden, K. (2005) Scenarios - the Art of Strategic Conversation. 2nd Edition. John Wiley and Sons, London. (Available at the School Library)

Other:

- Alvarenga, A., et al (2019) Scenarios for population health inequalities in 2030 in Europe: the EURO-HEALTHY project experience. International Journal for Equity in Health. (Available on Moodle)
- Amer, M., Daim, T.U., Jetter, A. (2013) A review of scenario planning. Futures, 46, 4623-4640. (Available on Moodle)
- Cheah, S. L. (2020) (Ed.) Strategic Foresight - Accelerating Technological Change. De Gruyter, Berlin/Boston. (Available at the School Library)
- Fortes, P.; Alvarenga, A.; Seixas, J.; Rodrigues, S. (2015) Long-term energy scenarios: Bridging the gap between socio-economic storylines and energy modelling. Technological Forecasting and Social Change, Volume 91, February, Pages 161-178. (Available on Moodle)
- Godet, M. (1994) From anticipation to action: a handbook of strategic prospective. Future-oriented studies Series, UNESCO, Paris, http://unesdoc.unesco.org/images/0009/000970/097082eb.pdf [Consulted in June 2022]
- Hines, A., Bishop, P. (2015). Thinking about the Future. 2nd Edition, Hinesight Edition. (Available at the School Library)
- Porter, M. E. (1998), The Competitive Advantage: Creating and Sustaining Superior Performance. Free Press, New York (republished with a new introduction) [particularly the chapter about Scenarios]. (Available at the School Library)
- Technological Forecasting and Social Change (https://www.sciencedirect.com/journal/technological-forecasting-and-social-change) [Consulted in June 2022] [a journal of reference whose articles you can freely explore] (Login via OpenAthens with email credentials)
- Wack P. (1985) Scenarios: Shooting the Rapids. Harvard Business Review, 63(6), 139-150. (Available on Moodle)
- Wack P. (1985) Scenarios: Uncharted waters ahead. Harvard Business Review, 63(5), 73-89. (Available on Moodle)

ADDITIONAL INFORMATION

See https://web.microsoftstream.com/video/6c7f3d56-81e2-4186-800d-2ecb0d977edc for a full vídeo presentation of the course by the course

instructor and professor.

Course Impact Relation

Throughout the teaching period, the course explores the importance of Foresight and Scenario Planning & Thinking for long-term individual and

collective thinking and action, and challenges students to reflect, discuss and deepen understanding on SDGs (for instance, and depending on

the challenge adressed, SDG 9 as well as its relation to other challenges such as clean energy (SDG 7) and other topics across the SDG Agenda

(new patterns of mobility, environmental sustainability, social disparities, etc). This understanding of the tools and contents for long-term

thinking and action is then evaluated through the assessment process.

Science-based Entrepreneurship and Innovation

PREREQUISITE(S)

NA

COURSE UNIT AIMS

The aim of this course is to show how new global business ventures based on real scientific breakthroughs are planned and built. The

crucial role of startups and entrepreneurship in modern societies is well understood; however, entrepreneurial projects differ greatly

depending of various factors, notably in terms of the added value of the products or services they aim to bring to the market. Many of

the most valuable business breakthroughs of the last few decades were brought about by companies built upon cutting-edge science and

technology. In this course students will be exposed to the specificities of businesses that are born out of research and development

(R&D) in various ifields of knowledge - such as biotech, biomedicine, cleantech, foodtech and nanotech - and they will learn how to

build a value proposition in such complex technological areas.

COURSE UNIT CONTENT

Students will learn about, and be able to elaborate on, topics including capital requirements and funding strategies, the importance of

intellectual property, product development cycles, regulatory hurdles, and critical skills needed to bring revolutionary, science-based

products and services to the market. Emphasis will be given to the early (startup) stages of company creation and growth.

LEARNING OBJECTIVES

A. Knowledge and Understanding

Show a g ood grasp of the differences between traditional SMEs and Innovation-Driven Enterprises (IDEs); understand the specificities of business models in different technological fields; communicate effectively a science-based value proposition; build a business case starting from a science-based value proposition.

B. Subject-Specific Skills

Building a science-based value proposition; communicating scientific concepts; understanding critical skills in

technology-intensive startup companies.

C: General Skills

Communication, leadership, innovative thinking, entrepreneurial thinking.

DEMONSTRATION OF THE COHERENCE OF THE SYLLABUS WITH COURSE UNIT AIMS/LEARNING OBJECTIVES

Taking into consideration the fundamental purpose of this course, the syllabus puts emphasis on the hands-on, project-based, interactive nature

of the course, where students learn by doing and each project developed in class is different from the next.

TEACHING AND LEARNING METHODS

Students will hear from Faculty and from 3-5 invited speakers - namely scientist-entrepreneurs, venture capital investors, startup

mentors, etc. - about specific cases of science-based entrepreneurship. Thus learning will be mostly based on real entrepreneurial cases

and on the direct interaction with key players in those cases. Open discussions will be promoted in order to make learning as interactive

as possible.

ASSESSMENT

Assessment will be based on (a) a final exam (50% of grade), and (b) a group presentations at the end of the term (50%). A

very positive class participation may lead to the award of up to one bonus point. Both the presentations and the exam questions will

focus on a Value Proposition for an innovative business or initiative based (directly or indirectly) in science - e.g. a new startup, a new

investment vehicle, or a new solution for the support of startup creation.

Value Propositions will take into account the following questions:

- What is the idea behind the Business; how can be it taken from the idea/research stage to the market, what critical steps are required for its implementation;
- Why should funds and/or labor be applied to develop the Business; what return will entrepreneurs and investors have; what impact will the Solution make on society and on the economy;
- Who are the clients, buyers and investors for the Business, what is the market and how it is evolving, who will benefit from its existence;
- What type and scale of financing is needed to achieve certain selected milestones in the development or implementation of the Business;
- Why is the Business unique; what are competing solutions and what are their relative strengths and weaknesses.

Particular attention will be paid to the evolution of the Value Proposition from mid-term to final presentation / exam.

BIBLIOGRAPHY

EU IPR Helpdesk: Introduction to IP

Bill Aulet: Disciplined Entrepreneurship

Alexander Osterwalder: Value Proposition Design

Tony Fadell: BUILD - an unorthodox guide to making things worth making

Tom Eisenmann: Why Startups Fail

Executive Summaries and slide decks of Startups presented during the course

Leadership and Change Management

PREREQUISITE(S)

NA

COURSE UNIT AIMS

This course will focus on the relationship between organizations and change. Leadership emerges as a driver of change because the work of a leader is to constantly look forward and provide the necessary changes for the organization. The leaders role as a change agent will be a focus of the course. In addition, various models of change will be introduced and explored. Understanding various methods of bringing about change will be discussed during classes.

COURSE UNIT CONTENT

Leadership and Management: Complementary roles

Leader, followers, and leadership

Definition of Leadership: A review

A critical review of the trait approach to leadership

Change in Organizations

LEARNING OBJECTIVES

Knowledge and Understanding

- Define and compare differences between leadership and management
- Examine leadership as a process that drives changes
- Examine the leaders role as it relates to bringing about constructive change to an individual, a team, and an organization
- Research, analyze, and discuss how to bring about change and remove the barriers to change including resistance to change
- Discuss and evaluate differing Change Management models

Subject Specific Skills

- Critical thinking on organizational change
- Self-assessment of ones own leadership attributes
- Interpersonal relations

General Skills

- Communication (written, verbal and graphical)
- Team work
- Analytical skills

TEACHING AND LEARNING METHODS

A variety of teaching and learning methods will be used in this course. Every session will have lectures, educational videos, paper and case study discussions by students.

ASSESSMENT

(A) What to ask the person in the mirror? 1 individual report: 15%

Instructions

Good leaders are competent in leading themselves. This report will consist in a self-analysis exercise: Who do you want to be as a leader? What have you done so far? How do you learn? Whats your major competence? What do you have to change about yourself?

For inspiration you can read Kaplans HBR paper What to ask the person in the mirror? (January 2007, and Boaz and Foxs McKinsey Quarterly paper Change Leader, Change thyself (March, 2014). Imagine your leadership journey and prepare a two-page report . Please note: this is not a confession: it is a reflexive moment. Good leadership is also about self-reflection. Use it as a time to think about the journey you are about to begin.

This report is due on the 23 rd of September by 1 p.m. (Please deliver the report via moodle) . Please don't send the reports by email. Presentation guidelines: 2 pages, Times New Roman, 12, line spacing 1.5, Top and Bottom margins: 2.5 cm; Left and Right margins: 3 cm.

(B) Bad leadership 1 group presentation: 35%

Instructions

Identify a leadership process that, for some reason and according to some criteria, has failed (from the arts, business, politics, religion, history, sports). What can we learn from the case about management? Submit the choice to the instructors approval .

Your group (4-5 students) will present the case to the class. Describe why that person was initially a good leader and then explain why the process has failed? What has changed? What can we learn from it?

Presentation followed by discussion should take up to 25 minutes . Groups should be prepared to stimulate class discussion. Every member of the group has to take part and participate in the presentation/discussion.

The presentation materials (including powerpoint slides) must be uploaded in moodle before the BEGINNING of the session in which it is presented (link in the moodle page to upload the pdf file).

Evaluation will be performed with a 180º feedback process. The final grade for the groups assignment is calculate by: 50% Professors evaluation + 50% students average evaluation

Students evaluation of group presentation: 180º feedback report.

Evaluation is individual (each student is going to evaluate the other groups presentations). A link will soon be available , and students will fill the survey during/after class.

Please keep in mind that students evaluations must be submitted no latter than the end of the weekend. Forms sent on the following week will not be considered.

C) Final exam: 50%

A mandatory final exam will take place on October 17 th at 11 a.m. (Room to be announced).

BIBLIOGRAPHY

See the course description.

ADDITIONAL INFORMATION

In this course, students are also challenged to reflect, discuss and deepen their understanding on SDGs 8 and 16, namely by exploring the relationship between organizations and change and the role of leadership as a driver of change. This understanding is then evaluated through the assessment forms, as well as it is reflected in the suggested bibliography.