



**Karolinska  
Institutet**

Course syllabus for

## **Entrepreneurship in the life sciences, 6 credits**

Entreprenörskap inom livsvetenskaperna, 6 hp

This course has been cancelled, for further information see Transitional provisions in the last version of the syllabus.

Please note that the course syllabus is available in the following versions:

[Autumn2012](#) , [Autumn2013](#) , [Autumn2014](#) , [Autumn2015](#) , [Autumn2016](#) , [Autumn2018](#) , [Autumn2019](#)

Course code	4BP024
Course name	Entrepreneurship in the life sciences
Credits	6 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Bioentrepreneurship
Level	AV - Second cycle
Grading scale	Pass with distinction, Pass, Fail
Department	Department of Learning, Informatics, Management and Ethics
Decided by	Programnämnd 7
Decision date	2012-03-30
Revised by	Education committee LIME
Last revision	2018-03-06
Course syllabus valid from	Autumn 2018

### **Specific entry requirements**

A Bachelor's degree or a professional degree equivalent to a Swedish Bachelor's degree of at least 180 credits in health care, biomedicine, biology, cellular and molecular biology, pharmaceuticals, chemistry, medicine or biotechnology. English language skills equivalent to English B at Swedish upper secondary school.

### **Objectives**

The course aims to introduce the concepts of innovation and entrepreneurship within the life science sector. The course also creates a basis for the rest of the programme regarding the pedagogic model and the learning activities.

Upon completion of the course, the student should be able to:

Regarding knowledge and understanding

- explain bioentrepreneurship and describe its components and forms,

Regarding skills and abilities

- design a business idea and apply basic business tools,

Regarding judgment and approach

- show understanding for and apply feedback.

## Content

The course deals with the phenomenon of innovation and entrepreneurship, and the creation of life science companies and projects. There will be learning activities and assignments (examinations) linked to the three learning outcomes.

The course will follow two main themes;

- 1) Explain and communicate bioentrepreneurship (covers the first and third learning outcome) and
- 2) Design thinking and business tools (the second learning outcome).

### **Explain and communicate (bio)entrepreneurship:**

In this part of the course we will ask the questions “What is an innovation” and “Who is the entrepreneur”? We will talk about different forms of entrepreneurship and how they link to each other. In this part of the course we will also practice scientific writing, as well as oral and visual communication to develop your poster projects. You will also be introduced to peer-to-peer feedback work that you will carry out in teams of two during the course, to develop each other’s work. You will practice coaching of each other and different models for review and feedback.

### **Design Thinking:**

Whether you want to build up a profitable business or create a sustainable social enterprise, you will always have to think about the value of your product/service. This leads you inevitably to the person who is supposed to buy/use it, to the user. Design Thinking, as a user-centred problem-solving process helps teams develop products or services creatively without losing the link to the user. Design Thinking is best learned by doing, so we will jump right into the active learning experience.

### **Business tools:**

You will be introduced to several business tools developed and used to help assess ideas, business and future models. We will start with a classical tool, the NABC then Link it to the Value Proposition Canvas, VPC. Afterwards, we will learn how to implement the Lean Canvas model.

## Teaching methods

The course is given at the master's level, where the students are assumed to be familiar with the most common study methods in higher education. The fundamental pedagogical view is based on entrepreneurial learning and requires active student participation. The teaching consists of lectures, seminars, interactive workshops, a case exercise and a team and an individual project. A business model will be developed as project work in teams. The focus for the business model will be to find a need, solve a real problem and sell an idea. The students will also conduct a minor research study communicated as a scientific poster as well as work on their peer-to-peer feedback skills.

## Examination

The examination consists of

- a written report from the team project (Fail/Pass),
- an oral presentation and opposition of that project (Fail/Pass),
- a scientific poster including an abstract (Fail/Pass/Pass with distinction)
- an individual reflection from peer-to-peer review work (Fail/Pass/Pass with distinction).

In order to pass the course the student needs to obtain the grade pass on all examinations. To obtain a “pass with distinction” on the course, the student also needs to get the grade “pass with distinction” on the scientific poster (including abstract) and the peer-to-peer review.

### **Compulsary attendance**

Attendance seminars and presentations are compulsory. The course director assesses if and, in that case, how absence can be compensated. Before the student has participated in all compulsory parts or compensated absence in accordance with the course director's instructions, the student's results for respective part will not be registered in LADOK.

### **Limited number of examinations**

Students who have not passed the regular examination are entitled to participate in five more examinations. If the student has failed six examinations/tests, no additional examination or new admission is provided.

Participation in an examination is defined as an occasion on which a student attends an examination, even if the student submits a blank examination paper. If a student has registered to sit an examination, but does not attend the examination, this is not defined as participation in the examination.

## **Transitional provisions**

After each course occasion there will be at least six occasions for the examination within a two-year period from the end of the course.

## **Other directives**

The course language is English.

Course evaluation will be carried out in accordance with the guidelines established by the Board of Higher Education.

Oral evaluation in the form of course council meetings will be carried out during the course.

## **Literature and other teaching aids**

### **Mandatory literature**

*Løwe Nielsen, Suna*

#### **Entrepreneurship in theory and practice : paradoxes in play**

Second edition. : Cheltenham, Glos : Edward Elgar Publishing Limited, [2017] - xxviii, 334 pages  
ISBN:1-78536-445-6 LIBRIS-ID:21084749

[Library search](#)

### **Recommended literature**

*Stickdorn, Marc; Schneider, Jakob*

#### **This is service design thinking : basics, tools, cases**

1. paperback ed : Amsterdam : BIS Publ., 2011 - 373 S.  
ISBN:978-90-6369-279-7 LIBRIS-ID:13863372

URL: [Länk](#)

[Library search](#)

*Osterwalder, Alexander; Pigneur, Yves*

#### **Business model generation : a handbook for visionaries, game changers, and challengers**

*Clark, Tim*

Hoboken, N. J. : Wiley, cop. 2010 - 278, [3] s.

ISBN:978-0-470-87641-1 (pbk.) LIBRIS-ID:11901379

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