



ME2824 From Science to Business- Concepts in Biotechnology 7.5 credits

Från forskning till företagande

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for ME2824 valid from Spring 2015

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Industrial Management

Specific prerequisites

Students must have a minimum of 120 university points.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

The learning outcomes for the course can be subdivided into two broad areas; i) Biotech business including finance, strategy, law and regulations and ii) Entrepreneurship and innovation. After the course the students will be able to:

Biotech business

- Express understanding for the field of biotechnology business
- Understand and demonstrate knowledge of the development and management of biotechnology businesses
- Argue for advantages and disadvantages with public and private financing of early stage companies
- Communicate basics in strategy and tools for science-based companies (business plan, collaboration between large and small companies, corporate intelligence, role of boards, human resource management etc.)
- Demonstrate theoretical knowledge within the overall legal and regulatory framework for science-based businesses (EU and US corporate law, patenting law, regulatory authorities)
- Integrate knowledge of key skill-sets for early-stage entrepreneurship and handle complexity within areas such as market and IP analysis, target product profile, business plan and budgeting.

Entrepreneurship and innovation

- Understand and demonstrate how discoveries and inventions are commercialized
- Analyse, clearly communicate and discuss the context of entrepreneurship with both a specialist and non-specialist audience
- Analyse and clearly communicate and discuss the context of entrepreneurship to both a specialist and non-specialist audience
- Apply their understanding and knowledge of the basics of innovation and entrepreneurship in a broader context and relate to their own field of study
- Use their new skills and continue to independently learn more about the area of innovation and entrepreneurship
- Demonstrate understanding in the theory of clusters of innovation
- Express knowledge for the universities role in the innovation system

Course contents

The course deals with the development and management of biotechnology businesses, with a focus on commercializing discoveries and inventions. The course consists of seminars based on practice and theory of the different stages of business development as well as a group-project presented in writing and orally.

In the seminars students meet practitioners and researchers with a Swedish and international background. The practitioners present specific experiences from starting and running knowledge intensive young businesses or from the financial, legal, political or corporate strategy fields. The broad picture is given by researchers in sociology or business administration with an insight in academic discoveries, start-up companies, venture capital, business expansion and selling of companies.

In the group-project and case studies students from different schools will work together on topic of their choice from one of the main areas of the course.

The course is divided into four components:

1. Innovation and entrepreneurship
2. Law and regulations
3. Finance
4. Strategy

Disposition

A combination of guest speakers with theoretical and real-life experiences of starting, running and developing science based companies. Interactive seminars with focus on discussions on the different topics combined with actual use of the provided knowledge.

Course literature

Information om kurslitteratur kommer att meddelas inför kursstart.

Will be announced at the start of the course.

Examination

- PRO1 - Project, 7.5 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Group-thesis, case assignment and oral presentations.

There is compulsory attendance in the seminars, casework and presentations. Failure to attend obligatory parts of the course may be compensated for by completion of assignments, decided on in agreement with the course leadership and judged on a case-to-case basis.

Grading scale:

Fail (F), Fail (Fx), Sufficient (E), Satisfactory (D), Good (C), Very good (B), Excellent (A)

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.