Biotechnology Project

Programme course

6 credits

Projektkurs i bioteknik

TFYA45

Valid from:

Determined by
Board of Studies for Industrial Engineering and Logistics

Date determined

Main field of study
Engineering Biology

Course level
Second cycle

Advancement level
A1X

Course offered for
- Industrial Engineering and Management - International, M Sc in Engineering
- Industrial Engineering and Management, M Sc in Engineering

Prerequisites
Chemistry, Technical Biochemistry , Applied Cell Biology , Technical microbiology

Intended learning outcomes
Through the project students with a management and economic profile will be trained on assimilating and synthesizing specific biotechnical contents to support business decisions. The students will independently plan, conduct and present a business assessment of the biotechnical subject areas introduced in the course, establishing a link between the research and development contents and its possible commercial exploitation. Upon this course the students should be able to:

- Extract key information (main ideas, keywords, references, institutions, companies, funding) from short technical presentations (conference format).
- Expand their knowledge and overview a technical subject by screening the field at different levels, identifying key concepts and supporting them by technical references.
- Scope the technical concepts, discovering opportunities to formulate a feasible product idea.
- Communicate concrete technical concepts and speculative ideas in an unambiguous way, both orally and in written form.
- Assess the potential market of a product, formulate a feasible business strategy and build a business case.
- Formulate the oral communication of a business idea (elevator pitch) and a technical written plan supporting it.

Course content
The course will provide a practice-based experience in the process of transforming biotechnological research and development concepts into a commercial exploitation.
The initial phase of the project exposes the students to a biotechnological concept to be assimilated and explored. The final phase integrates the explored technical background and aims at identifying a business opportunity, assessing the potential market and formulating a strategy to penetrate it. The analysis will also include an estimation of the cost, time and risk related to the proposed product.

Teaching and working methods
The methods of instruction will be: core lectures defining the subject areas and key literature, group presentations and discussions, group reports, guest presentations and consults with the instructor.
The course runs over the entire spring semester.

Examination

PRA1	Project	6 credits	U, 3, 4, 5

Grades
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Department
Institutionen för fysik, kemi och biologi

Director of Studies or equivalent
Magnus Boman

Examiner
Daniel Filippini

Education components
Preliminary scheduled hours: 48 h
Recommended self-study hours: 112 h

Course literature
Utvalda föreläsningarna kommer att tillhandahålla nyckelreferenser som inkluderar böcker, vetenskapliga publikationer, produktbroschyrer och specialiserade internet-sites.