UNIVERSITY OF BORÅS

Industrial microbiology
Industriell mikrobiologi
7.5 credits

Ladok Code: 42K19C
Version: 2.0
Established by: The Teaching Committee 2013-05-23
Valid from: Autumn 2013

Education Cycle: Second cycle
Main Field of Study (Progressive Specialisation): Chemical Engineering (A1N)
Disciplinary Domain: Technology
Prerequisites: Meets requirements for acceptance to a graduate engineer programme.
Subject Area: Chemical Engineering
Grading Scale: ECTS-credits

Content

- Outer and inner structures of prokaryotes
- Energy productions, metabolism and genetics of prokaryotes
- Microbial growth
- Industrial Applications
- Appled Microbiology

Learning Outcomes

After completing this course the student must be able to:

- *Knowledge and understanding*

1.1 describe microbial outer and inner structures
1.2 give an overview of microbial metabolism
1.3 explain the basic principles of microbial genetics
1.4 discuss and analyze the connection between culture media and growth as well as growth and impact parameter
1.5 discuss and analyze some, for the industry, important microorganisms and their products

- *Skills and Abilities*

2.1 perform standard laboratory microbiological techniques

Forms of Teaching

Possible teaching methods are: Lectures, and laboratory work.

Forms of Examination

The course will be examined through the following examination elements:

Learning outcomes:
Credits: 5.5
Gradingscale: ECTS-credits

Learning outcomes:
Credits: 1.5
Gradingscale: Fail (U) or Pass (G)

Learning outcomes:
Credits: 0.5
Gradingscale: Fail (U) or Pass (G)

Student rights and obligations at examination are in accordance with guidelines and rules for the University of Borås.

Literature and Other Teaching Materials

Literatire

Madigan M, Matinko J M, Parker J: Brock Biology of Microorganisms, Prentice Hall
Supplementary material.

Student Influence and Evaluation

The head of department and teacher responsible for the course are responsible for ensuring that students are invited systematically and regularly to put forward their views on the course. The results of these assessments, which take place either verbally or in writing, form the basis for the structure of the course.

Miscellaneous