UNIVERSITY OF SKÖVDE

TRANSLATION FROM SWEDISH

COURSE SYLLABUS

Molecular Biodesign - II G2F

15 credits

Course code: BV509G
Version number: 7
Valid from: 1 January 2025
Ratified by: Curriculum Committee for Bioscience
Date of ratification: 1 July 2024

1. General information about the course

The course is provided by the University of Skövde and is named Molecular Biodesign - II G2F (Molekylär biodesign - II G2F). It comprises 15 credits and is a first-cycle course. The level of progression is G2F.

The course is a part of the main field of study in Bioscience. The disciplinary domain of the course is Natural Sciences.

2. Entry requirements

Entry requirements for this course are the following passed courses: BV317G Molecular Genetics G1F and BV320G Molecular Biodesign I G1F (or the equivalent).

3. Course content

The course focuses on an experimental project in bioscience in which a biomolecule is studied experimentally. The project involves planning, implementation, evaluation, as well as presentation. The purpose of the course is to apply knowledge in project management and entrepreneurship as well as learn more advanced experimental techniques in biotechnology.

4. Objectives

After completed course the student should be able to:

- conduct and assimilate a scientific literature search related to a specific project in molecular biodesign,
- plan, conduct, and evaluate an experimental project in biosciencie and perform a risk analysis
- orally and in writing present result that emanate from an experimental project in bioscience.

5. Examination

The course is graded A (Excellent), B (Very good), C (Good), D (Satisfactory), E (Sufficient) or F (Fail).

A final grade of the course is only issued when all the examination parts have been passed and is determined by a weighted average of the grades for the examination parts Written assignment and Written report. The average value is rounded to the nearest integer (half rounded up) and translated into a final grade of the course.

The examinations of the course consist of the following modes of assessment:

- **Written assignment**
  5.5 credits, grades: A/B/C/D/E/F
- **Laboration**
  5 credits, grades: G/U
- **Written report**
  3 credits, grades: A/B/C/D/E/F
- **Oral presentation**
  1.5 credits, grades: G/U

Students with a permanent disability who have been approved for directed educational support may be offered adapted modes of assessment.

6. Types of instruction and language of instruction

The teaching comprises quiz (associated with the laboration), laborations, supervision, and presentations.

The teaching is conducted in English.

7. Course literature and other educational materials

Glick, B. R., and Patten, C. L. (2017). *Molecular Biotechnology - Principles and Applications of Recombinant DNA*. (5th ed.) Washington, DC: ASM Press. ISBN 9781555819361.

Kurnaz, I. A. (2015). *Techniques in Genetic Engineering*. (1st ed.) Boca Raton: CRC Press. ISBN 9781482260892. (bok), **or**

Kurnaz, I. A. (2015). *Techniques in Genetic Engineering*. (1st ed.) Boca Raton: CRC Press. ISBN 9781482260908. (e-bok)

Scientific articles and protocols.

8. Student influence

Student influence in the course is ensured by means of course evaluation. The students are informed about the results of the evaluation and potential measures that have been taken or are planned, based on the course evaluation.

9. Additional information

Further information about the course, as well as national and local governing documents for higher education, is available on the website of the University of Skövde.