

## COURSE DETAIL

### MOLECULAR BIOTECHNOLOGY

**Country**

Sweden

**Host Institution**

Lund University

**Program(s)**

Lund University

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Biological Sciences Bioengineering

**UCEAP Course Number**

156

**UCEAP Course Suffix****UCEAP Official Title**

MOLECULAR BIOTECHNOLOGY

**UCEAP Transcript Title**

MOLECULAR BIOTECH

**UCEAP Quarter Units**

12.00

**UCEAP Semester Units**

8.00

## Course Description

This course reviews some of the most exciting topics within yeast and mammalian genetics, cell biology, and molecular biology, and looks for possible applications of these topics in biotechnology, medicine, drug development, food technology, etc. This course also provides a view on innovations, patents, start-up companies, and is therefore a good preparation for work in biotech and biomedical industry. The course includes an experimental part on either genetics, cell biology, molecular biology, or bioinformatics of bacterial, yeast or mammalian cells, trying to solve applied problems in the lab. For example, you can do a screening for mutants of suicide genes useful for anti-cancer gene therapy, or analyze the genome of a yeast important in wine industry, etc. This course also contains a large literature project on molecular and cell biology or genetics topics, which also have an applied aspect. For example, you can write a project on: molecular targets for novel antibiotics against multi-resistant microbes, GMO yeast strains in future food products, efficient and selective delivery systems in gene therapy, etc. The "classical" exam is replaced by written project reports and their oral presentations. The course concludes with two comprehensive written projects and two oral presentations of the selected theoretical and lab projects.

## Language(s) of Instruction

English

## Host Institution Course Number

BIOR31

## Host Institution Course Title

MOLECULAR BIOTECHNOLOGY

## Host Institution Campus

Science

## Host Institution Faculty

## Host Institution Degree

## Host Institution Department

Biology

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