



Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

SLUkurs

Syllabus

PNS0166 Biomaterials on nanoscale, 5.0 credits

Syllabus approved

2018-10-02

Subjects

Chemistry/Biology

Education cycle

Third cycle

Grading scale

Pass / Failed

The requirements for attaining different grades are described in the course assessment criteria which are contained in a supplement to the course syllabus. Current information on assessment criteria shall be made available at the start of the course.

Language

English

Prior knowledge

Basic knowledge in chemical biology and molecular sciences.

Objective, including learning outcomes

After completing the course the student shall be able to

-Discuss the nature and purpose of biomaterials and understand their relation to bio-based materials.

- Discuss and argue on the current trends and approaches in production and application of biomaterials.
- Discuss and argue on potential future requests for nanoscale biomaterials.

Content

The course will provide insights into most important questions in production and applications of nanosized biomaterials. In a series of lectures, delivered by world leading researchers, an overview of classes of biomaterials will be presented. There will also be provided an introduction to the most useful characterization techniques with focus on Environmental Electron microscopy and Atomic Force Microscopy. Each lecture is followed by a round-table discussion with students. The students will also have to go through selection of research papers and produced a short summary report that has to be discussed in the final discussion session.

Requirements for examination

Short literature report. Besides, students are expected to take active part in discussions after each lecture.

Additional information

PhD-students and postdocs from SLU and other Swedish Universities are welcome to register for this course, although the SLU PhD-students will be given priority.

Max number of participants: 15

Min number of participants: 5

NB! The lectures are open to everyone.

For more information contact Galia Zamaratskaia. Galia.Zamaratskaia@slu.se

Responsible department

Department of Molecular Sciences