SK2541 Simulation and Modelling of Biological Systems 1.5 credits

Simulering och modellering av biologiska system

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

The course plan applies from and including HT 2024 according to school head decision: S-2023-1384. Decision date: 2023-10-16

Grading scale

P, F

Education cycle

Second cycle

Main field of study

Engineering Physics

Specific prerequisites

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After passing the course, the student must be able to:

- Model and simulate biological systems in a quantitative way
- Analyze and discuss sensitivities of models

Course contents

The course is an extension of the course SI1336 Simulation and modeling and requires that the student has either completed SI1336 or is registered for SI1336 at the same time as this course. The course consists of a modeling and simulation project within biological systems. The student must develop the project themselves, which may, for example, deal with populations or reactions in a cell. Particular focus is placed on discovering and understanding sensitivities of models for biological systems.

Examination

- PRO1 - Project, 1.5 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.