COURSE DETAIL

MODELLING BIOLOGICAL SYSTEMS
Country Sweden
Host Institution Lund University
Program(s) Lund University
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Biological Sciences
UCEAP Course Number 102
UCEAP Course Suffix
UCEAP Official Title MODELLING BIOLOGICAL SYSTEMS
UCEAP Transcript Title MODELLING BIO SYSTM
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description
The course starts with an introduction to scientific theory, basic mathematics, and programming. Thereafter, applied mathematical methods in biology, with examples from different subject areas such as biochemistry, ecology and physiology, are addressed. The course also contains analytical methods for biological systems. Through this course students are able to: describe the usage, interpretation and limitations of models solve mathematical tasks in basic algebra and analysis; do basic programming in R; describe the use of genetic algorithms and artificial neural networks in modelling; design a model of a biological system, given a specific task or question; fit a model to data; use mathematical and numerical methods to analyze simple dynamic, statistic or probabilistic models, such as stability analysis, optimization or risk analysis.

Language(s) of Instruction
English

Host Institution Course Number
BIOS13

Host Institution Course Title
MODELLING BIOLOGICAL SYSTEMS

Host Institution Course Details

Host Institution Campus
Science

Host Institution Faculty

Host Institution Degree

Host Institution Department
Biology

Course Last Reviewed

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