

# 57390

## Modelling fluctuating populations

### Kurssikoodi

57390

### Tyyppi

Syventävä opinto.

### Kurssisivut

[Modelling fluctuating populations, fall 2006](#)

### Contents

This course is based on the book "Modelling fluctuating populations" by Nisbet and Gurney (1982).

A short list of the topics: Systems driven by fluctuating parameters, general principles, mathematical techniques for analyzing driven systems; Delayed regulation, distributed delays; Linear and non-linear birth-death processes in a static environment, demographic stochasticity, stationary and quasi-stationary probability distributions, extinction times; Stochastic environments, quasi-cyclic fluctuations.

### Laajuus

10 op.

### Esitietovaatimukset

Some familiarity with ordinary differential equations.