

2016-05-01

Department of Sociology

## **Syllabus for "Models of Social Change and Social Stability", 7.5 HEC second cycle**

### **Course content**

Social change and social stability has constituted an essential field of research within sociology ever since the discipline was established as academic. This course introduces important formalised models and methods used to describe and analyse social change and social stability. Its main focus is on demonstrating how simple formalised models can help explain significantly more complex social dynamics than what would have been possible to describe using traditional/conventional theories expressed in everyday language.

**Preliminary learning outcomes (minor changes may occur, the final learning outcomes will be presented when the course starts)**

After completing this course students are expected to:

#### **I. Knowledge and understanding**

- Be able to account for the following concepts
  - Threshold values
  - Stable equilibria
  - Cyclic equilibria
  - Critical conditions
  - Chaotic conditions
  - Self-organising systems
  - Phases and phase transitions
  - Positive and negative feedback



## II. Accomplishment and competence

- Be able to describe the models below and the dynamics they cause
  - The SI, SIS and SIR models
  - The Schillings segregation model
  - Cellular automats
  - Models of self-organising critical systems
  - Evolutionary models
  - Models for rational acting and their limitations
  - Neural networks
  - Agent-based models
  
- Be able to identify social situations where above mentioned models could contribute to increased understanding of the social dynamics involved

## III. Values and evaluation

- Be able to critically discuss whether a model is applicable to describe a social phenomenon

## Teaching

The teaching is provided in the form of 8 combined seminars/lectures and 2 compulsory laboratory sessions/exercises.

## Forms of examination

a. The course assessment is in the form of a takehome exam and a specialised paper on how one elective model in the course has been utilised in empirical research. The grades Fx and F leads to an oral retake.

b) The assessment uses the following criterion-referenced grades: A=Excellent, B=Very good, C=Good, D=Satisfactory, E=Sufficient, Fx=Not sufficient, F=Fail. The following four dimensions are considered:

1. Account of the following concepts

- Threshold values



- Stable equilibria
- Cyclic equilibria
- Critical conditions
- Chaotic conditions
- Self-organising systems
- Phases and phase transitions
- Positive and negative feedback

## 2. Description of the models below and the dynamics they cause

- The SI, SIS and SIR models
- The Schillings segregation model
- Cellular automats
- Models of self-organising critical systems
- Evolutionary models
- Models for rational acting and their limitations
- Neural networks
- Agent-based models

## 3. Discussion of social situations where the above mentioned models could contribute to increased understanding of the social dynamics involved

## 4 Demonstration of ability to critically discuss whether a specific model is applicable to describe a social phenomenon

A summarising assessment of the course work for each dimension is made by the examiner using three steps:

Good  
 Passed (some insufficiencies)  
 Failed

For the grade A, no insufficiencies of any dimension are allowed.

For the grade B, insufficiencies (level Passed) for one dimension are allowed.

For the grade C, insufficiencies (level Passed) for two dimensions are allowed.

For the grade D, insufficiencies (level Passed) for three dimensions are allowed.

For the grade E, insufficiencies (level Passed) for all dimensions are allowed.

Failing one dimension or not carrying out laboratory sessions leads to the grade Fx.

Failing more than one dimension leads to the grade F.



c) Students with the grade Fx or F are entitled to take further examination as long as the course is provided in order to achieve at least grade E. A student with the grade E or higher is not entitled to another examination to raise his/her degree. Students who received grade Fx or F on exams twice from the same examiner can request to be evaluated by another examiner. Such requests should be sent to the Director of Studies. Students can request to have examination according to this syllabus up to three semesters after the syllabus is no longer valid. Such requests should be sent to the Director of Studies.



### **Required reading**

Schelling, T. S. 1978. *Micromotives and Macrobehavior*. New York: Norton.

### Articles

Some 15 original articles to be specified as the course starts