



**LUND**  
UNIVERSITY

School of Economics and Management

## **NEKP22, Economics: Microeconomics - Strategic Interaction, 7.5 credits**

*Nationalekonomi: Mikroekonomi - strategisk interaktion, 7,5  
högskolepoäng*

**Second Cycle / Avancerad nivå**

---

### **Details of approval**

The syllabus was approved by The Board of the Department of Economics on 2011-06-07 and was last revised on 2022-09-13. The revised syllabus applies from 2022-09-13, autumn semester 2022.

### **General Information**

This is a single subject master course in economics. The course is either obligatory or optional within a number of master programmes at Lund University.

*Language of instruction:* English

Teaching may be in Swedish if all registered students have a good knowledge of Swedish.

*Main field of studies*

Economics

*Depth of study relative to the degree requirements*

A1F, Second cycle, has second-cycle course/s as entry requirements

### **Learning outcomes**

#### **Knowledge and understanding**

Students shall:

- understand and be able to describe the concepts of static and dynamic game, perfect, complete and incomplete information, strategic and extensive form, and strategic substitutes and complements,
- understand and be able to describe the solution concepts dominance (strict and weak), iterated strict dominance, rationalisability, Nash equilibrium, subgame perfect equilibrium, and perfect Bayesian equilibrium, as well as the interrelations among these concepts,

- be able to formalise competitive situations and other social and economic interaction problems as games.
- understand and be able to describe the basic concepts of mechanism design; strategy-proofness; the Groves-Clark mechanism; The Gibbard-Satterthwaite theorem,
- understand and be able to describe the basic concepts of social choice theory; Mays Theorem; Arrows Impossibility theorem,
- understand and be able to describe the basic concepts of matching theory; many-to-one matching; two-sided-matching markets; strategy-proofness; stability; the core,
- get knowledge of how alternative behavioral assumptions can be incorporated in games and which new predictions this can give.

### **Competence and skills**

Students shall have the ability to independently:

- analyse competitive situations and other social and economic interaction problems as games with appropriate solution concepts,
- describe and discuss their knowledge.

### **Judgement and approach**

Students shall be able to pursue further studies in the subject and to search for and evaluate information with a high degree of independence.

### **Course content**

The first part of the course deals with non-cooperative game theory and its economic applications. The main focus is on static and dynamic games with complete information, but also simpler games with incomplete information, in particular signalling games, are considered. The second part of the course deals with mechanism design theory, social choice theory and matching theory. The main focus is on basic concepts but some time will be allocated to dynamic processes/algorithms and computational procedures. The course ends with a small part where games with alternative behavioral assumptions are introduced.

### **Course design**

1. Teaching: Tuition consists of lectures and exercises.

### **Assessment**

1. Examination: The examination consists of a written exam and home assignments. The written exam takes place at the end of the course. There will be further opportunities for examination close to this date. Points from home assignments are valid on examinations during the term when the home assignment has been completed. Other forms of examination may be used to a limited extent.
2. Limitations on the number of examination opportunities: –

The University views plagiarism very seriously, and will take disciplinary action against

students for any kind of attempted malpractice in connection with examinations and assessments. Plagiarism is considered to be a very serious academic offence. The penalty that may be imposed for this, and other unfair practices in examinations or assessments, includes suspension from the University for a specified period.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

*Subcourses that are part of this course can be found in an appendix at the end of this document.*

## Grades

Marking scale: Fail, E, D, C, B, A.

1. Grading: Grade (Definition), Points or percentage out of maximum points, Characteristic

A (Excellent), 85–100, A distinguished result that is excellent with regard to theoretical depth, practical relevance, analytical ability and independent thought.

B (Very good), 75–84, A very good result with regard to theoretical depth, practical relevance, analytical ability and independent thought.

C (Good), 65–74, The result is of a good standard with regard to theoretical depth, practical relevance, analytical ability and independent thought.

D (Satisfactory), 55–64, The result is of a satisfactory standard with regard to theoretical depth, practical relevance, analytical ability and independent thought.

E (Sufficient), 50–54, The result satisfies the minimum requirements with regard to theoretical depth, practical relevance, analytical ability and independent thought, but not more.

U (Fail), 0–49, The result does not meet the minimum requirements with regard to theoretical depth, practical relevance, analytical ability and independent thought. Students have to receive a grade of E or higher in order to pass a course.

2. Weighting grades from different parts of the course: –

3. Grading scales for different parts of the course: –

## Entry requirements

Students admitted to the Master Programme in Economics and have passed the courses NEKN21 “Advanced Microeconomic Analysis” or an equivalent course are qualified for this course. For other students, at least 90 ECTS-credits in economics are required. These must include the course NEKN21 “Advanced Microeconomic Analysis” or an equivalent course. The courses NEKN32 “Mathematical Methods, Advanced level” (primarily) and NEKP32 “Mathematical Methods – Dynamic Optimisation” (secondarily) are recommended.

## Further information

1. Transitional regulations: –

2. Limitations in the period of validity: –

3. Limitations: –

4. Similar courses: –

5. Limitations in renewed examination: –

## Subcourses in NEKP22, Economics: Microeconomics - Strategic Interaction

Applies from H11

1101 Microeconomics - Strategic Interaction, 7,5 hp  
Grading scale: Fail, E, D, C, B, A