

# Aufbaukurs “Topics in Microeconomics“

## 5St. WS 06/07

### **General Remarks**

The course „Topics in Microeconomics“ will be taught in English. It consists of a weekly 3-hour lecture (LV-Nr.: 432033, lecturers: Anita Gantner and Alexander Konovalov) as well as a 2-hour proseminar (LV-Nr.: 432034, lecturer: Alexander Konovalov).

Why do we need to study microeconomic theory? The simple answer is a better understanding of economic activity, which helps an agent in an economic system to better understand the way markets work. This, in turn, allows him to achieve better outcomes for himself.

The 3-hour lecture will start by covering basic consumer theory. We will study how market demand is derived from the utility maximizing behaviour of individual consumers and how it changes with prices and income. We will investigate how choices of agents are affected by conditions of uncertainty and decisions that have to be taken over time.

In general equilibrium model, multiple agents trade the goods among themselves in attempt to make themselves better off. We will answer the questions of what is the outcome of such a process and whether such an outcome is desirable. Finally, we touch the subject of information economics and study situations of information asymmetry, that is, situations where some economic agents possess some knowledge that others do not.

The 2-hour proseminar will approach the questions above from the side of the producer. We will study the technology of a firm and see how this constrains a firm's goal of profit maximization. We will study optimization and comparative statics in order to predict outcomes and the effect of changes to these outcomes at the optimum. We will see why profit maximization and cost minimization as two possible approaches to represents a firm's goal are just two sides of the same coin.

While we focus on private goods in the first part, the provision of public goods will be a topic for the second part of the seminar. Private goods are usually purchased and consumed by individuals, and the purchaser can exclude others from consuming his good. This is not the case for public goods. For example, clean air is a public good since nobody can be excluded from breathing it, even if he has not contributed anything to keeping the air clean. The challenging question here is how to ensure that people contribute the efficient amount for a public good. We study a price system that supports an efficient allocation of the public good as well as some other mechanisms that reveal the true value of each agent for the public good.

### **Requirements**

Basic knowledge of microeconomics as well as the willingness to deal with formal models.

## Target group

Students of the upper division.

## Course credits within the curriculum

Within the curriculum of the majors VWL, BWL, IWW and WIPÄD this course will be credited as follows (the required number of courses, resp. hours according to the curriculum of each major is added in parenthesis):

<b>Studienrichtung</b>	<b>Anrechenbarkeit im Studienplan</b>
<b>VWL</b>	<ul style="list-style-type: none"> <li>- als Aufbaukurs VWL, Wirtschaftstheorie gem. § 7 Abs. 2 (a) (1 Kurs)</li> <li>- als wirtschaftswissenschaftlicher Kurs gem. § 7 Abs. 3 (a) (ein Wahlkurs)</li> <li>- als Freies Wahlfach gem. § 8 (insgesamt 15 Stunden)</li> </ul>
<b>BWL</b>	<ul style="list-style-type: none"> <li>- als volkswirtschaftlicher Kurs gem. § 7 Abs. 2 (d) (2 Kurse)</li> <li>- als Wirtschaftswissenschaftlicher Kurs gem. § 7 Abs. 3 (a) (ein Wahlkurs)</li> <li>- als Freies Wahlfach gem. § 8 (insgesamt 15 Stunden)</li> </ul>
<b>IWW</b>	<ul style="list-style-type: none"> <li>- als volkswirtschaftlicher Kurs gem. § 7 Abs. 2 (f) (2 Kurse)</li> <li>- als Wirtschaftswissenschaftlicher Kurs gem. § 7 Abs. 3 (a) (ein Wahlkurs)</li> <li>- als Freies Wahlfach gem. § 8 (insgesamt 15 Stunden)</li> </ul>
<b>WIPäd</b>	<ul style="list-style-type: none"> <li>- als volkswirtschaftlicher Kurs gem. § 7 Abs. 2 (d) (1 Kurs)</li> <li>- als Freies Wahlfach gem. § 8 (insgesamt 15 Stunden)</li> </ul>

## Time and Place

The 3-hour lecture will take place weekly on Wednesdays from 14:00-16:30 in SR 9, starting October 4, 2006

The corresponding 2-hour proseminar will take place weekly on Thursdays from 14:15-15:45 in SR 9, starting October 5, 2006.

The preliminary meeting for this class will take place on Wednesday, October 4, 2006 at 14:00 in SR 9.

## **Outline of Contents**

### **3-Hour Lecture:**

#### **1. Consumer Theory**

Consumer preferences, utility maximization  
Comparative statics, the Slutsky equation  
Budget constraints, aggregate demand

#### **2. Equilibrium Analysis**

Walrasian equilibrium, Pareto optimality  
Existence of Walrasian equilibrium  
The first and the second welfare theorems  
Stability of equilibrium

#### **3. Uncertainty and Time**

Lotteries, expected utility and risk aversion  
Intertemporal preferences and general equilibrium over time  
Asset markets

#### **4. Information**

The principal-agent problem, hidden action  
Moral hazard, hidden information  
Adverse selection, signalling

### **2-Hour Proseminar:**

#### **1. Producer Theory**

Technology of a firm, production functions, returns to scale  
Profit maximization, factor demand function, profit function  
Cost minimization, conditional factor demand functions, cost function

#### **2. Welfare**

Welfare criteria, welfare functions  
Optimal taxation

#### **3. Public Goods**

Efficient provision of a public good  
Private provision of a public good  
Lindahl equilibrium, Demand revealing mechanisms

#### **4. Externalities**

An example of a production externality  
Solutions to the externality problem: Pigovian taxes, Property rights  
Efficiency conditions with externalities

#### **References:**

The main textbook will be

Varian, H., *Microeconomic Analysis*, 3<sup>rd</sup> ed., Norton & Co. 1992

#### **Grading Scheme for this course:**

The course will be completed with a written “Fachprüfung”, which includes material from both parts of the course. The overall grade is the grade of the written “Fachprüfung”. Exam date is January 25, 2007, 14:00-16:00 in HS1.

In order to present yourself to the “Fachprüfung”, each part (lecture and proseminar) has to be passed with a positive result. Your performance in each part of this course includes regular homework assignments as well as three exams. The exam dates will be November 8, 14:00-16:00 in UR3, December 7, 14:00-16:00 in SR9 and January 25, 2007, 14:00-16:00 in HS1.

#### **Registration**

Registration by computer (period allotted: 18.09.2006 00:00 - 06.10.2006 16:00). In addition, attendance at the preliminary meeting (Wednesday, October 4, 2006 at 14:00 in SR 9) is required.