



## Syllabus

### Macroeconomics of Unemployment (2023/24)

(Module: Labor Markets and the Macroeconomy)

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**General information:** This is a free elective module in the 3<sup>rd</sup> semester in the Master's program in Economics at the University of Hohenheim. It consists of lectures and accompanying tutorials. Lectures and tutorials will take place on campus.

**Frequency:** once a year (winter term)

**Credits (lecture plus tutorials):** 6 ECTS

**Course language:** English

**Examination type:** written exam on campus (90 minutes) at the end of the semester with the possibility of retake near the beginning of the following semester.

**Objective:** Unemployment can only be understood in a general equilibrium (macroeconomic) context. The lecture focuses on the causes of unemployment from a theoretical perspective. The discussion is based on matching models, labor union models, efficiency wage models and models including minimum wages. Based on these models, students learn to evaluate the welfare and incentive effects of labor market institutions such as labor unions, unemployment insurance, minimum wages, and employment protection. Empirical studies are used to shed some light on the plausibility of the different theoretical models. Accompanying tutorials offer students the opportunity to get a deeper understanding of the topics dealt with in the lecture. Students *must* attempt to solve the problem sets – in groups or individually. One of the major goals of the course is to acquaint the students with the analytical tools commonly used in this research area. The *only* way to become proficient in their use is to solve exercises on one's own.

## Course requirements

A solid understanding of microeconomics as taught in the first master semester is necessary (modern macro models are “microfounded”).

Knowledge of the module “Topics in Labor Economics” is helpful, but not necessary.

**Literature:** Selected chapters from:

- Cahuc, P., S. Carcillo and A. Zylberberg (2014), Labor Economics, 2<sup>nd</sup> edition, MIT Press (you can also use the first edition).
- Pissarides, C.A. (2000), Equilibrium Unemployment Theory, 2<sup>nd</sup> edition, MIT Press.
- Sorensen, P.B. and H.J. Whitta-Jacobsen (2005), Introducing Advanced Macroeconomics, McGraw-Hill.

Additional literature is announced in the lectures.

## Contents

### 1. Job Reallocation and Unemployment

- 1.1. Job Flows, Worker Flows and Unemployment
  - 1.1.1. International Differences in Unemployment
  - 1.1.2. Job Creation and Destruction
  - 1.1.3. Worker Reallocation
  - 1.1.4. The Beveridge Curve
- 1.2. Transaction Costs in the Labor Market
  - 1.2.1. Main Ideas of the Matching Model
  - 1.2.2. The Matching Function
  - 1.2.3. Flow Equilibrium and the Beveridge Curve
  - 1.2.4. Poisson Processes
- 1.3. The Matching Model
  - 1.3.1. The Behavior of Firms
  - 1.3.2. The Behavior of Workers
  - 1.3.3. Wage Bargaining
  - 1.3.4. The Wage Curve
- 1.4. Labor Market Equilibrium
  - 1.4.1. The Determination of Wages, Tightness, and the Unemployment Rate
  - 1.4.2. Comparative Statics
  - 1.4.3. Calibrating the Model
- 1.5. Out-of-Stationary State Dynamics
  - 1.5.1. The Dynamics of Vacancies and Unemployment
  - 1.5.2. Aggregate Shocks and Reallocation Shocks

## **2. Labor Unions and Unemployment**

- 2.1. Unions in Germany in comparison to other countries
- 2.2. Utility function
- 2.3. Partial equilibrium
- 2.4. General equilibrium
- 2.5. Modifications of the basic model
  - 2.5.1. Different utility functions for the labor union
  - 2.5.2. The Nash-bargaining model
  - 2.5.3. Labor unions and taxes
- 2.6. Bargaining structure and unemployment
  - 2.6.1. The Calmfors-Driffill hypothesis
  - 2.6.2. Empirical verification of the Calmfors-Driffill hypothesis

## **3. Efficiency Wages in a Partial Equilibrium Setting**

- 3.1. Main Idea of Efficiency Wages
- 3.2. A Simple Efficiency Wage Model
- 3.3. The Causes of Efficiency Wages
- 3.4. A Closer Look at the Shirking Model
- 3.5. Empirical Evidence in Support of Efficiency Wages

## **4. Efficiency Wages in a Macroeconomic Framework**

- 4.1. Price Setting and Wage Setting by the Individual Firm
- 4.2. The Wage-Setting Curve
- 4.3. The Price-Setting Curve
- 4.4. Macroeconomic Equilibrium
- 4.5. Main Implications

## **5. Minimum Wages**

- 5.1. Theoretical Analysis of Minimum Wages
  - 5.1.1. The Perfect Competition Model
  - 5.1.2. Monopsonistic Labor Markets
- 5.2. Empirical Evidence