

# Epidemiology and Empirical Health Economics

Summer Term 2023

*Wolfgang Frimmel*

## 1 Target Group:

Students from the Master Program Economic and Business Analytics and anyone who is interested in topics of Epidemiology and health economics

## 2 Language:

Course will be offered in English

## 3 Prerequisites:

KS+IK Empirical Economics and ideally Health Economics I

## 4 Course requirements:

- Exam: you are required to achieve at least 50% of possible points; 50% of the grade
- Presentation: You are assigned to present a research topic; 50% of the grade

## 5 Time and place:

see KUSSS

## 6 Course material:

Material will be available on KUSSS

## 7 Literature:

- David Celentano and Moyses Szklo, **Gordis Epidemiology**, 6th Edition, Elsevier
- List of papers will be announced in class

## 8 Outline of the course:

1. Introduction into Epidemiology, historical overview
2. Global Health Developments
3. Epidemiological measures:
  - morbidity
  - mortality
  - risk
  - reliability of diagnostic and screening tests
4. Infectious diseases and the Covid-19 pandemic
5. Introduction into survival models and measures of prognosis: (5-year survival, relative survival, Kaplan-Meier estimate)
6. Methods in epidemiology and empirical health economics:
  - Overview over study types in epidemiology (observational, cohort studies, case-control studies)
  - Randomized Controlled trials
  - Differences-in-Difference method
  - Event-Study Design
7. Topics in Epidemiology and Empirical Health Economics (for student presentations):
  - Occupational Epidemiology and Aging
  - Vaccinations and infectious diseases
  - Environmental risk factors
  - Screening and prevention
  - Economic consequences of diseases
  - Risky health behavior: Smoking, alcohol, drugs
  - ...