Course: **Epidemiology**

Objectives: Develop knowledge on the history, spectrum, role and modern applications of epidemiology in both public health and clinical practice. Present basic principles and methods of epidemiology.

Description: Epidemiology primarily focuses on the occurrence and distribution of diseases in population. This basic science helps to identify environmental and genetic risk factors for disease and to explain its pathogenesis. Epidemiology encompasses a broad range of subdisciplines, like clinical, nutritional, environmental, social, occupational or genetic and molecular epidemiology.

The main topics are the following:

- Measuring disease occurrence (morbidity and mortality)
- Causation in epidemiology
- Types of epidemiologic studies (observational, experimental)
- Assessing the validity and reliability of diagnostic tests
- Bias, confounding and interaction in epidemiologic studies
- Epidemiology of specific system diseases (e.g. neuroepidemiology)
- Ethical issues in epidemiology

Literature: Porta M. A dictionary of epidemiology. Fifth edition. Oxford University Press, Oxford, 2008.
Rothman KJ. Epidemiology. An introduction. Oxford University Press, Oxford, 2002.
Gordis L. Epidemiology. Fourth edition. Saunders Elsevier, Philadelphia, 2009.

Teaching: case study/conversations
180 hours
Examination: oral examination

ECTS:6

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