



## DEPARTMENT OF ONCOLOGY-PATHOLOGY

### **K7F5275, Basic Tumor Histopathology, 1.5 credits (hec)**

Grundläggande kurs i tumörhistopatologi, 1,5 högskolepoäng

*Third-cycle level / Forskarnivå*

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#### **Approval**

This syllabus was approved by the The Committee for Doctoral Education on 2023-12-07, and was last revised on 2024-09-20. The revised course syllabus is valid from spring semester 2025.

#### ***Responsible department***

Department of Oncology-Pathology, Faculty of Medicine

#### **Prerequisite courses, or equivalent**

No prerequisite courses, or equivalent, demanded for this course.

#### **Purpose & Intended learning outcomes**

##### **Purpose**

The core of this course is based on lectures and microscopic sessions tutored by expert pathologists. This approach gives an opportunity to the participants to learn the morphology/histology of different human cancers and the corresponding normal tissues and to get understanding of the complex histology of human cancers. Molecular pathology, digital pathology and AI-applications are also important parts of the course.

##### **Intended learning outcomes**

At the end of the course the participants should be able to:

- Distinguish normal from malignant cells in tumor tissues and be acquainted with the morphology/histology of the different tumor types and tumor grades.
- Recognize cellular processes in the tumor tissue and its microenvironment like mitosis, cell proliferation, pleomorphism, lineage differentiation, tumor stage, necrosis, apoptosis, neural and vascular invasion, vascularisation.
- Summarize the essence of important methods in pathology; immunohistochemistry, molecular pathology and AI-based image analysis.

## Course content

- Tumor histopathology and grading. Introduction.
- Endocrine tumors.
- Breast tumors.
- Prostate tumors.
- Gastrointestinal tumors.
- CNS tumors.
- Hematological malignancies.
- Sarcoma.
- Gynecological cancers.
- Tumor handling and biobanking.

## Forms of teaching and learning

The first day will include an introductory lecture covering general aspects of tumor morphology/histopathology and grading.

In the following days the participants will get familiar with the morphology, clinical aspects and treatment of the most common cancer types. Separate lectures in molecular pathology, digital pathology and AI. The last day will include an oral examination (individual presentations).

### *Language of instruction*

The course is given in English

## Grading scale

Pass (G) /Fail (U)

## Compulsory components & forms of assessment

### Compulsory components

All sessions are compulsory, due that each session is exclusive and cannot be compensated for later on. If absent, a spot is guaranteed for next time the course is given.

### Forms of assessment

Oral examination by individual presentation last day.

## Course literature

Mandatory literature:

Handouts/notes from all lectures (will be provided).

Recommended literature:

Basic Pathology, Robbins and Kumar, 2022

ISBN: 9780323790185