Course syllabus for

Introduction to translational pathology, 4.5 credits

Introduktion till translationell patologi, 4.5 hp
This course has been cancelled, for further information see Transitional provisions in the last version of the syllabus.
Please note that the course syllabus is available in the following versions:
Autumn2021 , Autumn2024

Course code	4BI113
Course name	Introduction to translational pathology
Credits	4.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Biomedicine
Level	AV - Second cycle
Grading scale	Fail (U) or pass (G)
Department	Department of Biosciences and Nutrition
Decided by	Programme committee for study programmes in biomedicine
Decision date	2021-02-25
Revised by	Programme committee for study programmes in biomedicine
Last revision	2024-03-11
Course syllabus valid from	Autumn 2024

Specific entry requirements

A Bachelor´s degree or a professional degree worth at least 180 credits in biomedicine, biotechnology, cellular and molecular biology, medicine, or the equivalent. Proficiency in English equivalent to the Swedish upper secondary school course English 6/English B.

Objectives

The aim of the course is that the student should learn mouse histology and compare it to human histology. In order to understand human disease-like manifestations in mouse models, such as in genetically modified mice, normal mouse histology and its similarities and differences to human histology must be understood. Additionally, the course provides knowledge of procedures for the collection and processing of samples for histological analyses, which is essential for the evaluation of sample quality and identification of possible artefacts.

On completion of the course, the student should be able to:

- explain in theory how to dissect male and female mice and collect samples from these for biomedical research,
- explain how to process histological samples,
- demonstrate knowledge of mouse histology
- discuss spontaneous pathological alterations in different mouse strains,
- describe the most important differences between mouse and human histology.

Content

This course covers the following topics:

1. Theory of mouse dissection
2. Theory of histological sample preparation
3. Mouse histology, demonstrated online, in common mouse strains
4. Mouse versus human comparative anatomy and histology

Teaching methods

The course is at Master's level, where students are assumed to be familiar with the most common study methods in higher education. The fundamental pedagogical view is based on learning as an active research process.

Structured learning activities include on-line videos, individual web microscopy and on-line exercises. During the course an individual learning diary is built by the student. Also, included learning activity is peer-reviewing a student friends learning diary.

Examination

A completed learning diary and performed peer-review of student friends learning diary. Graded Pass or Fail.

Compulsory participation
This is an online course run from the Institute of Biomedicine, the University of Turku, Finland. To complete the course the student must participate in and perform all teaching and learning activities

The course examiner assesses if and, in that case, how absence from compulsory components can be compensated for. A student's study results cannot be finalised/registered until the student has participated in the compulsory components or compensated for their absence in accordance with the examiner's instructions. Absence from a compulsory component may mean that the student cannot compensate for absence until the next time the course is given.

Limitations of the number of examinations or practical training sessions
Students who have not passed the regular examination are entitled to participate in five more examinations. If the student has failed six examinations/tests, no additional examination or new admission is provided.

The number of times that the student has participated in one and the same examination is regarded as an examination session. Submission of a blank examination is regarded as an examination. An examination for which the student registered but not participated in, will not be counted as an examination.

If there are special grounds, or a need for adaptation for a student with a disability, the examiner may decide to deviate from the syllabus's regulations on the examination form, the number of examination opportunities, the possibility of supplementation or exemptions from the compulsory section/s of the course etc. Content and learning outcomes as well as the level of expected skills, knowledge and abilities may not be changed, removed or reduced.

Transitional provisions

The course has been cancelled and was offered for the last time in the fall semester of 2023. The course has been replaced with another, and examination will be provided according to the guidelines in the syllabus for 4BI133.

Other directives

This course is run by Institute of Biomedicine, University of Turku, Finland in an online mode.

The course language is English and examination is performed in English.

Course evaluation will be carried out in accordance with the guidelines established by the committee for Higher Education.

Literature and other teaching aids

Online material in the learning platform at the University of Turku. The obligatory study book of the course is Comparative Anatomy and Histology, edited by Piper Treuting and Suzanne Dintzis.