Course syllabus for

Tissue Biology, 4 credits

Vävnadsbiologi, 4 hp
This course syllabus is valid from autumn 2018.
Please note that the course syllabus is available in the following versions:
Autumn2018 , Autumn2019 , Autumn2021 , Autumn2022 , Autumn2023

Course code	1BI040
Course name	Tissue Biology
Credits	4 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Biomedicine
Level	G2 - First cycle 2
Grading scale	Pass with distinction, Pass, Fail
Department	Department of Laboratory Medicine
Decided by	Programme committee for study programmes in biomedicine
Decision date	2018-03-23
Course syllabus valid from	Autumn 2018

Specific entry requirements

At least the grade pass at the courses Introduction to Biomedical Science, and General and Organic Chemistry, and at least the grade pass at the parts Basal metabolism (3 credits) and Biochemical laboratory methods (2 credits) of the course Medical Biochemistry, and the part Cell biology (6 credits) of the course Cell Biology and Genetics, within the Bachelor's Programme in Biomedicine.

Objectives

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

Regarding knowledge and understanding

- explain the specialized functions of different cell types,
- describe the composition of different tissues and explain how the component cells contribute to the function of the tissue,
- explain the underlying theory and the application of the most common tissue analysis methods.

Regarding competence and skills

- identify tissues and their component cells in histological tissue sections,
- plan a laboratory tissue analysis project.

Content

Initially, general aspects on the structure of tissues and central morphological concepts within histology are presented. The emphasis of the course lies on understanding the histological appearance of different organ systems and the connection to their functions. Description of different methods for tissue analysis such as histological preparation techniques, histochemical methods, electron microscopy and digital image analysis of tissues form the central theme of the course. The students will also plan a laboratory tissue analysis project. The course includes a tour of the Pathology clinic.

The course is divided into the following parts:
Tissue biology, 3 credits
Laboratory tissue analysis project, 1 credit

Tissue biology, 3.0 hp

Grading scale: VU

Laboratory tissue analysis project, 1.0 hp

Grading scale: VU

Tissue biology, 3.0 hp

Grading scale: GU

Teaching methods

The teaching will be in the form of lectures, digital microscopy of histological preparations, demonstrations, seminars and a laboratory tissue analysis project.

Examination

Tissue biology (3 credits). The examination consists of a written examination. Graded Fail/Pass/Pass with distinction.
Laboratory tissue analysis project (1 credit). The examination consists of a written experimental plan and an oral examination of the plan. Graded Fail/Pass.

The final grade for the whole course is based on the grade for the Tissue biology part (written examination). To pass the whole course the grade pass must be been obtained also for the laboratory tissue analysis project.

Compulsory participation
The laboratory tissue analysis project, seminars and the demonstrations are compulsory. The course director assesses if and, in that case, how absence can be compensated. Before the student has participated in all compulsory parts or compensated absence in accordance with the course director's instructions, the student's results for respective part will not be registered in LADOK.

Limited 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.

Transitional provisions

After each course occasion there will be at least six occasions for the examination within a two-year period from the end of the course.

Other directives

The course language is English.

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

Oral evaluation in the form of course council meetings will be carried out during the course.

Literature and other teaching aids

Mandatory literature

Course hand-outs

Recommended literature

Ross, Michael H.; Pawlina, Wojciech.

Histology : a text and atlas : with correlated cell and molecular biology

6. ed. : Philadelphia : Wolters Kluwer/Lippincott Williams & Wilkins Health, c2011
ISBN:9781451101508 (International ed.) LIBRIS-ID:12030789
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