



**Karolinska
Institutet**

Course syllabus for

Tissue Biology, 5 credits

Vävnadsbiologi, 5 hp

This course syllabus is valid from spring 2009.

Please note that the course syllabus is available in the following versions:

Spring2009 , Spring2011 , Spring2012 , Spring2014

Course code	1BI005
Course name	Tissue Biology
Credits	5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Biomedicine
Level	G2 - First cycle 2
Grading scale	Excellent, Very good, Good, Satisfactory, Sufficient, Fail, Fail
Department	Department of Laboratory Medicine
Decided by	Programnämnden för biomedicinprogrammen
Decision date	2008-10-13
Revised by	Programnämnden för biomedicinprogrammen
Last revision	2008-11-10
Course syllabus valid from	Spring 2009

Specific entry requirements

The students should have pass on all courses on term 1 and at least 11 ECTS from term 2.

Objectives

After completing the course, the student should: -be able to describe principally different cell types and their specialized functions -understand the structure of different tissue types, and how the cells of these tissues cooperate to give optimal functionality from molecular to tissue level -recognize, name and give detailed descriptions of different tissue types and their cells in histological samples -be able to describe principles of basic pathology -be familiar with the theory and practice of different types of tissue analysis preparations -know the underlying principles of the most common tissue analysis methods -be able to independently plan, conduct, evaluate and summarize the experimental findings in a standard written format

Content

The course starts with an introduction to the general aspects of tissue structure and key morphological

terms used in histology. It then continues with a review of the normal structure of the various organ systems: musculoskeletal, circulatory, metabolic, respiratory, reproductive, urinary, endocrinal, and the liver/pancreas. Also dealt with are basic principles of pathology, such as cell damage, cell death, wound healing, inflammation and tumour pathology. A fundamental feature of the course is the study and application of various methods of tissue analysis, such as histological preparation techniques, histochemistry and immunofluorescence. Students are also introduced to microscope techniques, including fluorescence microscopy, confocal microscopy, laser dissection microscopy, and electron microscopy.

Teaching methods

Lectures on tissue cell types, tissue structures and basic disease mechanisms. The lectures are general in scope and are designed to facilitate the self-study of the course literature. Supervised microscopy of histological samples. Methods of tissue analysis are taught through lectures, demonstrations and a laboratory-based project.

Examination

The Examination consist of 3 written parts: Laboratory-based project (Pass/Fail); Histological samples (1-5 points, where 3 points is required to pass the course) and; Final Exam (1-5 points, where 3 points is required to pass the course). To pass the course, students must obtain a pass grade in all three written examinations. The final grade (A-F) is based on the results of examination of knowledge in histological samples and the final examination. Compulsory events: The experimental work and demonstrations of histological slides are compulsory. The course responsible person will determine whether and how the student can make up absences from compulsory events. Before the student has participated in compulsory events or made them up, the events will not be recorded in LADOK. Limitation of number of test opportunities: A student who does not obtain a pass grade on an ordinary examination is offered a maximum of five additional opportunities to sit the examination. If a student has not passed the examination after a total of four attempts it is recommended that the student retake the whole course at the next opportunity. Following this the student is permitted to sit the examination on another two occasions. A student who fails the examination on six occasions is not permitted to sit the examination again or to retake the course. Participation in an examination is defined as on occasion on which a student attends an examination, even if the student submits a blank examination paper. If a student has registered to sit an examination, but does not attend the examination, this is not defined as participation in the examination.

Literature and other teaching aids

Stevens, Alan; Lowe, James S.

Human histology

3. ed. : Philadelphia, Pa. : Elsevier Mosby, 2005 - vi, 464 s.

ISBN:0-7234-3342-9 (hft.) : £31.99 LIBRIS-ID:9504745

[Library search](#)