



**Karolinska
Institutet**

Course syllabus for

The Structure and Function of the Organ Systems, 27 credits

Organsystemens struktur och funktion, 27 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:

Spring2008 , [Spring2010](#) , [Spring2011](#) , [Spring2013](#)

Course code	2TL011
Course name	The Structure and Function of the Organ Systems
Credits	27 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Not applicable
Level	GX - First cycle
Grading scale	Pass, Fail
Department	Department of Physiology and Pharmacology
Participating institutions	<ul style="list-style-type: none">• Department of Neuroscience• Department of Dental Medicine
Decided by	Programnämnden för tandläkarprogrammet
Decision date	2007-10-12
Revised by	Programnämnden för tandläkarprogrammet
Last revision	2007-11-14
Course syllabus valid from	Spring 2008

Specific entry requirements

According to the established programme syllabus.

Objectives

Part 1. The Anatomy and Histology of the Organ Systems, 7.5 HE credits (The Anatomy and Histology of the Organ Systems) After the course, the student should be versed in medical terminology, be able to understand the normal organisation of the body at cellular, tissue, organ and organ systematic levels and be able to account for the anatomy of the organ systems divided into: the musculoskeletal system, the nervous system with sensory organs and skin, and circulation, respiration, digestion, urogenital organs and endocrine organs. be able to account for the histology of the organ systems divided in: the

musculoskeletal system, the nervous system with sensory organs and skin, and circulation, respiration, digestion and urogenital and endocrine organs. Part 2. Histological Aspects of Human Tissues, 3 HE credits (Histological Aspects of Human Tissues) After the course, the student should be able to use a microscope, be able to identify cell types and tissues in histological preparations by means of microscopes. Part 3. The Physiology of the Organ Systems, 7.5 HE credits (The Physiology of the Organ Systems) After the course, the student should be able to understand the normal body function at cellular, tissue, organ and organ systematic levels, be able to account for normal body functions concerning the nervous system, muscle function, motor function, circulation, respiration, digestion, renal function, fluid balance, acid-base regulation and endocrinology. understand the relationship between the structure and function of the organ systems, have practical knowledge of and be able to account for examination forms for cranial nerve function, vision, taste, muscle function, blood pressure, cardiac and lung function and respiratory regulation. Part 4. Oral Anatomy, 3 HE credits (Oral Anatomy) After the course, the student should be able to account for the macroscopic structure of the throat and the head, be able to identify and palpate the anatomic structures of the throat and the head, understand the relationship between the macroscopic structure and function of the throat and the head Part 5. Synthesis of Structure and Function of Organ Systems, 6 HE credits (Synthesis of Structure and Function of Organ Systems) After the course, the student should independently be able to integrate, synthesise and present acquired knowledge of the structure, organisation and function of the organ systems.

Content

The course contains sections about general and oral anatomy, histology and physiology. The integration between structure and function takes place in stages in five parts with two introductory sections focused on structure with certain functional applications, followed by a renewed overview of the organ systems with an emphasis on function. After that, an advancement section follows that deals with specific aspects on the structure and function of the throat and head. In a final the part, a synthesis of structure and function takes place. Part 1. The Anatomy and Histology of the Organ Systems, 7.5 HE credits (The Anatomy and Histology of the Organ Systems) The part comprises medical terminology and the anatomy and histology of the organ systems divided into: the musculoskeletal system (skeleton, musculature and support tissue), the nervous system with sensory organs and skin, and circulation, respiration, digestion, urogenital organs and endocrine organs. Part 2. Histological Aspects of Human Tissues, 3 HE credits (Histological Aspects of Human Tissues) The part includes the histological structure of tissues and organs. Part 3. The Physiology of the Organ Systems, 7.5 HE credits (The Physiology of the Organ Systems) The part includes the normal body functions concerning the nervous system (including integrative brain functions, the autonomous nervous system, sensory physiology, sensory function, muscle function and motor function), circulation, respiration, digestion, renal function, fluid balance and acid-base regulation, endocrinology, reproduction and oral physiology. Part 4. Oral Anatomy, 3 HE credits (Oral Anatomy) Specialisations in the organ systems, in areas that are of special importance to odontology. Part 5. Synthesis of Structure and Function of Organ Systems, 6 HE credits (Synthesis of Structure and Function of Organ Systems) Synthesising all parts of the knowledge field to an overall view on the organ systems and their functions.

The Anatomy and Histology of the Organ Systems, 7.5 hp

Grading scale: GU

Histological Aspects of Human Tissues, 3.0 hp

Grading scale: GU

The Physiology of the Organ Systems, 7.5 hp

Grading scale: GU

Oral Anatomy, 3.0 hp

Grading scale: GU

Synthesis of Structure and Function of Organ System, 6.0 hp

Grading scale: GU

Teaching methods

Part 1. The Anatomy and Histology of the Organ Systems, 7.5 HE credits (The Anatomy and Histology of the Organ Systems) The teaching is given in the form of lectures. Part 2. Histological Aspects of Human Tissues, 3 HE credits (Histological Aspects of Human Tissues) The working methods include teacher-supervised demonstrations, group microscopy lectures and individual microscopy with and without teacher supervision. Part 3. The Physiology of the Organ Systems, 7.5 HE credits (The Physiology of the Organ Systems) The teaching is given in the form of lectures and compulsory laboratory sessions. Part 4. Oral Anatomy, 3 HE credits (Oral Anatomy) The teaching is given in the form of lectures, group studies with and without teacher supervision and teacher-supervised dissections. Part 5. Synthesis of Structure and Function of Organ Systems, 6 HE credits (Synthesis of Structure and Function of Organ Systems) The working methods include lectures as well as independent studies during the final part of the course.

Examination

Part 1. The Anatomy and Histology of the Organ Systems, 7.5 HE credits (The Anatomy and Histology of the Organ Systems) The knowledge acquisition is controlled through a written test. An approved result of the test is required for admission to the final examination in the course. The test is provided as one regular and two make-up opportunities before examination. Part 2. Histological Aspects of Human Tissues, 3 HE credits (Histological Aspects of Human Tissues) Knowledge about the histological appearance of the human tissues is examined in a practical test. Part 3. The Physiology of the Organ Systems, 7.5 HE credits (The Physiology of the Organ Systems) Attendance is required at the compulsory laboratory sessions according to above. Missed opportunities are made up according to instructions from the course provider. The knowledge acquisition is controlled through a written test. An approved result of the test is required for admission to the final examination in the course. The test is provided as one regular and two make-up opportunities before examination. Part 4. Oral Anatomy, 3 HE credits (Oral Anatomy) The knowledge acquisition is controlled through an oral test. An approved result of the test is required for admission to the final examination in the course. The test is provided as one regular and two make-up opportunities before examination. Part 5. Synthesis of Structure and Function of Organ Systems, 6 HE credits (Synthesis of Structure and Function of Organ Systems) Overall view and synthesis are controlled in a final examination. If the student's examination has not passed, the student gets 2 more examination opportunities. After that, the student is recommended to retake the course and is given 3 more examination opportunities. If the student has not passed after 6 trials, he/she has no more admission to the course. (HF chapter 6, section 11 a).

Transitional provisions

If the course is closed down or undergoes major changes, examination under a previous literature list and learning outcomes will be offered no more than one academic year after the implementation of the revision/close-down.

Other directives

Course evaluation is carried out according to the guidelines established by the Board of education.

Literature and other teaching aids

There is no literature specified for this course. Please contact the department for more information.