DEPARTMENT OF PHYSIOLOGY AND PHARMACOLOGY

C3F2644 Human Physiology - an Overview, 3 credits (hec)

Människans fysiologi - en översikt, 3 högskolepoäng

Third-cycle level / Forskarnivå

Approval

This syllabus is approved by the The Committee for Doctoral Education on 2023-11-01, and is valid from Spring semester 2024.

Responsible department
Department of Physiology and Pharmacology, Faculty of Medicine

Prerequisite courses, or equivalent

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

Purpose & Intended learning outcomes

Purpose

KI is a medical university with research and education in medicine and health. All PhD students have to obtain basic knowledge regarding the human body in health and disease in case they lack basic higher education knowledge in the field of medicine.

The aim of the course is to give PhD students without a medical background a basic overview and introduction to human physiology. The students will gain a basic understanding of how the human organ systems function and interact under normal conditions. The content covered in this course will be useful for further studies where knowledge about human biology is of value.

Intended learning outcomes

After completing the course, the student will gain a basic understanding of how the human organ systems function and interact under normal conditions. The content covered in this course will be useful for further studies where knowledge about human biology is of value.

More specifically, the student will be able to:
- Demonstrate knowledge and understanding of basic functions and interactions between organ

systems in the human body.
- Demonstrate a critical and scientific approach to literature sources for the different course tasks.

Course content

- Overview of cellular and integrative physiology
- Basic anatomy
- Biochemistry and cell biology
- Nervous system
- Endocrinology
- Digestive system
- Cardiovascular physiology
- Renal physiology
- Respiration
- Basic immunology

Forms of teaching and learning

Different learning methods such as problem based learning, lectures and a hands-on human lab session will be used. Full time during two consecutive weeks.

Language of instruction
The course is given in English.

Grading scale

Pass (G) /Fail (U)

Compulsory components & forms of assessment

Compulsory components

Examinations and the hands-on human lab are required. Students that are absent during the quiz or the lab must perform a make-up quiz/lab. Students that are absent from the exam or do not obtain a passing grade in the first examination will be offered a second examination.

Forms of assessment

To pass the course, the student must demonstrate that the learning outcomes have been achieved. Oral and written examinations are used for student assessment.

Course literature

Recommended literature:

Medical Physiology- a cellular molecular approach
Boron, Walter F.; Boulpaep, Emile L.

Update 2 ed.: Philadelphia, Pa: Saunders Elsevier, cop, 2012 - xii, 1337 s.
ISBN 9780808924494 (international ed) ISBN:9781437717532 LIBRIS-IS: 12505054
This book is very extensive, only parts will be covered in the course. Can be used to look up relevant information.

Fysiologi
Lundeberg, Thomas; Lännergren, Jan; Ulfendahl, Mats; Westerblad, Håkan.
5., [rev.] uppl.: Lund: Studentlitteratur, 2012 - 354 s.
ISBN:978-91-44-07747-5 LIBRIS-ID:13508738
In Swedish.

Optional literature:

Medical physiology
Rhoades, Rodney A.; Tanner, George A.
2. ed.: Philadelphia: Lippincott Williams & Wilkins, cop. 2003 - 781 s.
ISBN:0-7817-1936-4 LIBRIS-ID:8871240

Color Atlas of Physiology
Despopoulos A.; Silbernagl S.
6th [rev.] ed.: Thieme, pp 1-456, 2008
ISBN: 9783135450063 LIBRIS-ID:16371845 (electronic)

Physiology
Costanzo Linda S.
4th ed.: Philadelphia, PA: Saunders Elsevier, pp 1-493, 2010
ISBN:978-1-4160-6216-5 LIBRIS-ID:11768941