Course syllabus for

Integrative Physiology, 15 credits

Integrativ fysiologi, 15 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:
Autumn2015 , Autumn2017

Course code	1BI024
Course name	Integrative Physiology
Credits	15 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 Physiology and Pharmacology
Decided by	Programme Committee 7
Decision date	2015-04-09
Course syllabus valid from	Autumn 2015

Specific entry requirements

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

Objectives

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

- describe the normal physiological state and homeostasis mechanisms in the human body,
- explain how selected diseases develop, and how they are diagnosed and treated,
- account for basic anatomical structures in the various organ systems,
- account for the functions of the various organ systems in the body, and how they communicate with each other,
- provide a general account for how the various organ systems are regulated,
- provide a general account for how intracellular signaling occurs in various specialised cells,
- identify relevant original and overview articles dealing with specific topics in physiology, and analyse and consolidate these in the form of a presentation,

- take into account ethical considerations in research on humans.

Content

The course focuses on physiological principles and regulatory mechanisms within the following areas: membranes and nerves; autonomic nervous system; muscle (skeletal, heart, and smooth muscle); heart and circulation; respiration; kidney, fluid and electrolyte balance, acid-base control; gastrointestinal tract; endocrinology; regulation of body temperature; exercise physiology; environmental physiology.

The course is divided into the following parts:

Integration of practical features, 4 hp Part time exam, laboratory practicals and seminars. **Project work, 3 hp** The project work involves searching, analysing and summarising current literature, ending in an oral presentation. **Integration of the course contents, 8 hp**

Teaching methods

Teaching will be in the form of lectures, laboratory practicals, seminar work and a project that serve to describe and illustrate the functional characteristics of the different organ systems.

Examination

Integration of practical features (4 credits). The examination consists of an oral quiz that covers the material given in the first part of the course, and presentations of given problems. Graded Fail/Pass.

Project work (3 credits). The examination consists of an oral presentation. Graded Fail/Pass.

Integration of the course contents (8 credits). The examination consists of a written exam. Graded Fail/Pass/Pass with distinction.

The final grade for the whole course is based on the grade for the part Integration of the course contents. To obtain the grade Pass (Pass) in the whole course, the grade pass must have been obtained for the other parts on the course.

Compulsary participation
Laboratory practicals and seminars 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
Students who have not passed the regular examination are entitled to participate in five more examinations. If the student is not approved after four examinations, he/she is recommended to retake the course at the next regular course date, and may, after that, participate in two 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

Medical physiology : principles for clinical medicine
Rhoades, Rodney; Bell, David R.

3. ed. : Philadelphia : Lippincott Williams & Wilkins, cop. 2009 - 816 s.
ISBN:978-0-7817-6852-8 LIBRIS-ID:10702457
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