



Course syllabus

Faculty of Social Sciences

Department of Sport Science

1IV206 Människans fysiologi, 7,5 högskolepoäng

1IV206 Human Physiology, 7.5 credits

Main field of study

Sport Science

Subject Group

Sport Science

Level of classification

First Level

Progression

G1F

Date of Ratification

Approved 2017-05-17

Revised 2021-06-29 by Faculty of Social Sciences. Revision of content, examination and modules. Standard text added.

The course syllabus is valid from spring semester 2022

Prerequisites

1IV201 Human Anatomy 7.5 credits, or the equivalent.

Objectives

After completing the course, students shall be able to:

- explain how physical movement is generated from thought to skeletal movement,
- identify and analyse the factors that have an impact on the power, speed, effect and endurance of muscle contractions,
- describe, explain and test metabolic traits and evaluate their relevance to performance and health,
- explain the concept of homeostasis and describe homeostatic functions, and explain how homeostasis can be maintained during exercise,
- identify physiological performance factors for different types of athletes,
- compare and anticipate physiological adaptations during different kinds of exercise.

Content

The course discusses the structure, function and adaptation of the nervous system and the skeletal muscles during exercise. Homeostasis, hormones, metabolism, energy consumption and exhaustion are also addressed. The cardiovascular system and the structure, physiology and adaptation of the lungs during exercise are other important aspects discussed in the course.

Type of Instruction

Teaching consists of lectures, seminars and practical sessions. Mandatory attendance at seminars and practical sessions.

Examination

The course is assessed with the grades Fail (U), Pass (G) or Pass with Distinction (VG).

Examination of the course objectives takes place by means of a written exam comprising 5 credits (Fail/Pass/Pass with Distinction), a written laboratory report comprising 1 credit (Fail/Pass), and minor written tests comprising 1.5 credits (Fail/Pass).

In order to receive a grade of Pass in the entire course, all the examination assignments must as a minimum be assessed as Pass. To be awarded a final grade of Pass with Distinction, the written exam must be assessed as Pass with Distinction.

A retake of the examination is provided in accordance with the Local Regulations for First-Cycle and Second-Cycle Courses and Examination at Linnaeus University.

Should the university determine that a student is entitled to special educational support due to impairment, the examiner may provide the student with an adapted test or the student may carry out the examination in an alternative way.

Course Evaluation

A course evaluation is carried out either during or at the end of the course. Results and analysis of the evaluation are presented to the students who have completed the course, as well as to the students at the following course date. The course evaluation is conducted anonymously.

Credit Overlap

The course cannot be included in a degree along with the following course/courses of which the content fully, or partly, corresponds to the content of this course: 11V120 Science of Sport Medicine, module 1 Advanced Anatomy and Physiology 7.5 credits.

Other

This course is included in the Sport Science Programme - Physical Activity, Health and Outdoor Recreation.

Required Reading and Additional Study Material

Kenney, W Larry, Wilmore, Jack & Costill, David (Latest edition). *Physiology of Sport and Exercise*. Champaign, Illinois: Human Kinetics Publishers, (621 p.).

Scientific articles are also included, approximately 50 pages.