



Course syllabus

Nämnden för grundnivå och avancerad nivå inom fakultetsnämnden för hälsa, socialt arbete och beteendevetenskap

Department of Sport Science

4IM111 Idrottsmedicin - Idrottsfysiologi, 7,5 högskolepoäng

Sports Medicine - Exercise Physiology, 7.5 credits

Main field of study

Sport Science

Subject Group

Medicine

Level of classification

Second Level

Progression

A1N

Date of Ratification

Approved 2010-12-15

Revised 2021-01-29 by School of Education, Psychology and Sports Science. Standard text added and revision of content, type of instruction, examination and course literature. The course syllabus is valid from autumn semester 2021

Prerequisites

180 credits of which 15 credits in Anatomy/Physiology (at least 7.5 credits in Physiology).

Sport and Health, Sport Science, 90 credits or the equivalent.

Other education - Degree of Master of Science in Medicine, Degree of Bachelor of Science in Physiotherapy or Degree of Bachelor of Science in Nursing.

Objectives

After completing the course, students shall be able to:

- explain optimal physiological conditions in the body during physical activity, training and competition,
- explain the skeletal muscle's ability to generate power during training and competition,
- explain metabolic changes in the body during physical activity and training,
- account for human neurological conditions of movement,
- on the basis of current research, understand the importance of physical activity and training to the performance with regard to physical fitness, strength, mobility and coordination,
- analyse and apply training models with specialisation in endurance and weight training.

Content

The course focuses on advanced knowledge of the human anatomy and physiology in connection with health and performance oriented physical activity. The course also addresses in what ways different training methods impact the cardiovascular, metabolic, neurological and hormonal effects in connection with fitness and weight training. Body composition and nutrition and the effects on the performance are also discussed in the course.

Type of Instruction

Teaching takes place in the form of lectures, case reports, article analysis and discussions held in forums.

Examination

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

Examination takes place by means of a written take-home exam, article analyses and digital tests.

In order to receive a grade of Pass, the course objectives must be attained. For a grade of Pass with Distinction in the entire course, the take-home exam requires the grade of 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 new students at the following course date. The course evaluation is conducted anonymously.

Required Reading and Additional Study Material

Required reading

Kenney Larry W., Wilmore Jack & Costill David (2019). *Physiology of sport and exercise* (7th ed.) Human Kinetics, (648 p.) ISBN: 9781492574866

Compendiums and scientific publications, comprising approximately 200 pages.

Works of reference

Mujika, Inigo (2010). *Formtoppning i teori & praktik*. Stockholm: SISU idrottsböcker. ISBN: 978-91- 85433-85-8