CM2005 Sports and Exercise Physiology 15.0 credits

Idrotts- och arbetsfysiologi

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

The course plan was established from spring 2023 according to school head decision: C-2022-2246. Decision date: 2022-10-11

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Technology and Health

Specific prerequisites

A bachelor's degree, corresponding to at least 180 ECTS credits, in Engineering Physics, Electrical Engineering, Computer Science, Mathematics or equivalent.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

The student shall:

- have a thorough knowledge of the methods used in sports physiology and be able to evaluate the advantages and disadvantages of different test methods,
- be able to integrate and use there knowledge to handle complex sports physiological issues,
- be able to discuss different theories in the field of sports physiological problems,
- independently be able to carry out his/her own in-depth work within sports physiology.

Course contents

The course covers studies in the following thematic areas:

- metabolism,
- circulation and respiration,
- fatigue, performance and training,
- environmental physiology, nutrition, dietary supplements and oxidative stress,
- physical activity and health,
- physiological and biochemical test methodology.

At the center of the course is the connection to the research situation, the use of test methods, the theory connection, and the connection between theory and practical sport. A literature study (in-depth study) within a self-chosen sports physiological area (comprising about 5 credits) is included in the course

Examination

- RED1 - Accounts, 15.0 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

The following examination forms apply in the course:

- a written final exam on the course syllabus. At the examination, the student has access to all course material and must demonstrate the ability to integrate knowledge from different sources,
- Written examination of the course book through short-term questions. These examinations (a total of 5) are carried out before the teacher-led teaching at each theme area and intend to ensure sufficient knowledge at the undergraduate level,

- written and oral presentation of the thesis.
- To be able to complete the final examination, a minimum of two-thirds of the course's teaching opportunities are required and that all theme area examinations are approved.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.