

Sport Nutrition – from theory to practice

IDROTTSNUTRITION – FRÅN TEORI TILL PRAKTIK

15 credits - 15 högskolepoäng

Course code: FAIDNU

Level: Master's level

Main Field of Study: Sport Science

Progressive specialization: A1N

Disciplinary Domain: Sports

Subject group: Sport Science

Established by: Utbildnings- och forskningsnämndens kursplaneutskott 2025-12-05

Version: 2

Valid from: Spring semester 2026

Entry requirements

90 credits in Sports Science (or a degree in a subject with a focus on physical activity or medicine), including at least 15 credits in Human Biology (or equivalent).

Intended learning outcomes

Knowledge and understanding

- describe and articulate the human body's need of energy, nutrients and fluids in connection to training and competition for different types of athletes in varying contexts out of a biochemical, physiological and practical point of view.

Skills and abilities

- understand, explain and employ 1. methods for measurement of energy expenditure, body composition and substrate metabolism and 2. how these parameters can be altered by nutrition
- plan nutritional intake to maximize training adaptation and sport performance for different types of athletes and in different settings

Evaluation ability and approach

- describe and reason about food choices, meal timing and specific nutritional needs in different contexts before, during and after training/competition
- understand, evaluate and reflect on how different diets, specific nutrients and nutritional supplements affect performance, training adaptation, weight and health among athletes

Course content

The course consists of a primarily theoretical unit and a primarily practical unit with the following contents:

Theoretical part:

- Exercise biochemistry, physiology and endocrinology

- Metabolism and requirements of macro- and micronutrients
- Antioxidants, the immune system and Redox-reactions with exercise
- Fluid balance and thermoregulation
- Nutritional supplements

Practical part:

- Nutrition for training adaptations and exercise performance
- Body composition and weight management
- Substrate metabolism, glucose control and energy turnover
- Counseling and nutritional planning in sports

Examination

(2301) 7.5 hp, Skriftlig tentamen rörande teoretiska moment, Tregradig skala
(2301) 7.5 credits, *Written examination regarding theoretical aspects,, Three-grade scale*

(2302) 7.5 hp, Inlämningsuppgift rörande praktiska moment, Tregradig skala
(2302) 7.5 credits, *Written assignment regarding practical aspects, Three-grade scale*

For each test, an ordinary test opportunity and an ordinary retest opportunity are arranged. Ordinary re-examination (opportunity 2) is offered no earlier than two weeks and no later than six weeks after the student has been notified of the grading decision from the first examination opportunity. If the student does not meet this within the set time, the grade fails and the student is referred for re-examination.

In addition to regular exams and regular re-examinations, additional re-examinations are given (opportunity 3 or more) for both theoretical and practical examinations. At least three examination opportunities must be offered within one year for each examination within a course opportunity.

A student who does not fully meet the goals of an examination may, at the decision of the examiner, be given the opportunity to supplement to achieve a passing grade. It is only possible to supplement up to pass, not to higher grades. Normally, the student is assigned the supplementary assignment in connection with the grade being announced on the regular examination occasion. Completion must be submitted within two weeks after the student is notified of the test result, but before the next re-examination.

If the student has a decision from GIH on special educational support due to disability or other reasons, the examiner has the right to give an adapted test or let the student complete the test in an alternative way.

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Course requirements

Parts of the course require practical and active participation on the part of the student. Practical/laboratory lessons and are compulsory. In the absence of a course requirement (compulsory teaching elements), after a decision by the examiner, the opportunity for a replacement assignment can be given. The assignment must be submitted no later than in connection with the completion of a module or course.

Grades

In the course you are given one of the grades Passed with Distinction (VG), Passed (G) and Failed (U). For the grade Passed (G) on the entire course, Passed (G) is required on all the course's examinations and completion of the course's elements specified as Course Requirements are required. For a grade of VG on the entire course, VG on all examinations of the course is required.

Latest at the start of the course, the student must receive precise information about grading criteria for each level.

Student influence and course evaluation

In accordance with 1 chapter section 14 of the Higher Education Ordinance (1993: 100) arranges a written course evaluation after completing the course. Feedback from the results to the students is done after completing the course evaluation.

Course evaluations should focus on the students' learning and the pedagogical process in the course, where learning outcomes, learning activities and the outcome of the examination form the basis for a pedagogical reflection as well as the quality of the course.

Type of instruction

The teaching is conducted in English.

The course is mainly based on digital teaching that can be carried out remotely. Teaching opportunities corresponding to 10 full days will be located at GIH. Teaching takes place in the form of lectures, seminars, workshops and laboratory work.

Other information

In the event that a course has ended or undergone major changes, the student after the change or the abolition of the course must be guaranteed at least three additional examinations (in addition to the regular examination) for a period of at least one year, but no longer than two years after the course has ended / changed.



COURSE SYLLABUS

In the case of traineeships and placements, the same applies, but limited to only one additional opportunity.

Literature and list of references

Scientific articles that will be stated in the course-PM and provided to the student at the start of the course are also mandatory