Course syllabus for

Diet, physical activity and fitness - assessment and evaluation, 10 credits

Kost, fysisk aktivitet och fitness - mätmetodik och utvärdering, 10 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:
Spring2022 , Autumn2022 , Autumn2023 , Autumn2024

Course code	4NT002
Course name	Diet, physical activity and fitness - assessment and evaluation
Credits	10 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Nutrition Science
Level	AV - Second cycle
Grading scale	Pass with distinction, Pass, Fail
Department	Department of Biosciences and Nutrition
Decided by	Education committee BioNut
Decision date	2021-08-19
Revised by	Education committee BioNut
Last revision	2023-03-10
Course syllabus valid from	Autumn 2023

Specific entry requirements

A Bachelor's degree or a professional degree equivalent to a Swedish Bachelor's degree of at least 180 credits in biomedicine, cellular and molecular biology, pharmaceutics, medicine, nutrition, or the equivalent. And proficiency in English equivalent to English B/English 6.

Objectives

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

- suggest and justify appropriate methods for measuring dietary intake, physical activity, fitness (condition/strength) and anthropometry, at individual and group level in different given situations.
- critically discuss the absolute and relative validity of the methods covered in the course.
- apply the latest global recommendations for physical activity at individual and group level.
- apply the concepts of quality and quantitative aspects in dose-response relationship between physical (in)activity and health.

- design a brief assessment tool for use in nutrition epidemiology.
- carry out and evaluate outcomes of selected tests for cardiorespiratory fitness and body strength.
- calculate sample size, effect sizes and statistical power for different study designs and assessment methods.
- carry out appropriate statistical tests using SPSS to evaluate relative and absolute validity (using biomarkers) and precision of assessment methods for diet, physical activity and body composition.
- perform basic statistic analyses in R
- Write a short report according to standard scientific structure.

Content

This course aims to give the student a deeper understanding of modern methods for assessing dietary intake, physical (in)activity and fitness, both at the individual and group level. This course covers study design, choice of assessment methodology, body composition, recommendations, calculation of study power and number of measurement days. Data is collected on all students and statistical software will be used to compare methods and assess their validity and precision. The course also provides a deeper understanding of how to evaluate reported nutrient intake and physical activity for different groups in comparison to relevant reference values. The role of quantitative and qualitative aspects of physical activity to promote (global) health and to prevent and treat disease is also covered. The students also receive training in using SPSS and R.

Teaching methods

This course consists of lectures (live and recorded), discussions, journal club, seminars, a group work and a number of practical assessments for physical activity and fitness, complemented with dietary data from the course "Diet and health - scientific evidence, recommendations and sustainability" from earlier in the program.

Examination

The examination consists of written exam (graded Pass/Fail), a group work (graded Pass/Fail), and an individual written report (graded Pass with distinction/Pass/Fail). To pass the course, all examination tasks must fulfil the criteria for Pass. Final grade is based on the written report. The grading criteria for all examinations are provided in Canvas.

In the case a student fail an assignment, the individual assignment can be complemented to get a pass. The assignment can be resubmitted a maximum of five more times. After six failed assignments, no further examination opportunities will be given for that assignment. A student who has failed two examinations for a course or part of a course, is entitled to have another examiner appointed unless special reasons speak against it.

Compulsory participation:
Group work, practical assessments, journal club and some seminars are compulsory. The examiner assesses if and, in that case, how absence from compulsory parts can be compensated. Before the student has participated in all compulsory parts or compensated absence according to the examiner's instructions, the student's study results cannot be finalized. Absence from a compulsory activity may result in that the student cannot compensate absence until the next time the course is given.

If there are special reasons, or need for adaptions for a student with a disability, the examiner may decide to depart from the syllabus's regulations on examination form, number of examination opportunities, possibility of complementation of or exemption from compulsory activities, etc. Content and learning outcomes as well as the level of expected skills, knowledge and abilities must not be altered, removed or lowered.

Other directives

The course language is English.

Literature and other teaching aids

Reports, articles and other prescribed literature are listed at course start and will be available electronically.

American College Of Sports Medicine

Acsms health-related physical fitness assessment

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