Course syllabus for

Aging and Age-Related Disorders from a Biological, Epidemiological and Clinical Perspective, 15 credits

Åldrande och åldersrelaterad sjuklighet ur ett biologiskt, epidemiologiskt och kliniskt perspektiv, 15 hp
This course syllabus is valid from autumn 2023.
Please note that the course syllabus is available in the following versions:
Autumn2023 , Spring2024

Course code	2QA343
Course name	Aging and Age-Related Disorders from a Biological, Epidemiological and Clinical Perspective
Credits	15 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Not applicable
Level	Second cycle, in-depth level of the course cannot be classified
Grading scale	Pass, Fail
Department	Department of Neurobiology, Care Sciences and Society
Decided by	Education committee NVS
Decision date	2022-12-13
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 health care or medicine. Alternatively, a degree in social work. And proficiency in English equivalent to English B/English 6.

Objectives

The purpose of the course is to gain comprehensive theoretical and methodological knowledge on aging and health from a biological to a societal level, to address the complexity and heterogeneity of health in older age.

On completion of the course, the student should independently be able to:

- explain the biological, social, psychological, and environmental aspects of aging, as well as of human longevity and global aging
- outline the multidimensional determinants of morbidity and dysfunction from a life-course

perspective
- describe the development of physical and cognitive deficits in normal and pathological aging from a clinical perspective
- explain the main causes and consequences of the most prevalent geriatric syndromes

Content

The course consists of two parts.

Aging and age-related morbidity from a biological and epidemiological perspective, 7.5 hp

Grading scale: GU

Biological, social, psychological and environmental aspects of aging (including active aging and quality of life), including demography and longevity (including theories of aging) as well as risk and protective factors for morbidity from a life-course perspective.

Aging and age-related morbidity from a clinical perspective, 7.5 hp

Grading scale: GU

Physical and cognitive function and geriatric syndromes (eg, multimorbidity and polypharmacy, frailty, functional decline/disability, falls, delirium, pressure ulcers and urinary incontinence).

Teaching methods

The content of the course is based on recent research findings in the field, followed by different activities where students are asked to critically reflect in relation to their work/professional role. The learning activities will consist of a blended-learning approach with campus meetings mixed with online teaching in the form of lectures, group discussions, and seminars. Group discussions and seminars require active participation.

Examination

The course is examined through group assignments (formative assessment) and individual written assignments (summative assessment). In addition, active participation in group discussions and peer review of other students' assignments are required.

The examiner decides whether, and if so how, absence from or failure to complete compulsory course elements can be made up. Study results cannot be reported until the student has participated in or completed compulsory course elements or compensated for any absence in accordance with instructions from the examiner. Absence from, or failure to complete a compulsory course element could mean that the student cannot retake the element until the next time the course is offered.

Late examinations will not be considered. Students who do not submit their assignment on time are referred to the re-examination. The examiner will decide whether a student has special reasons for the delay.

Students who have not passed the regular examination are entitled to participate in five more examinations. This does not apply when the course has been discontinued or undergone major changes. Students who do not pass the examination after three completed examinations can be offered to retake parts or the entire course one more time. This option will be subject to course availability.

If there are special reasons, or a need for adaptation for students with disabilities, the examiner may decide to deviate from the syllabus' regulations in terms of examination form, number of examinations, possibility of supplementation or exemption from compulsory educational elements, etc. Content and

learning outcomes as well as the level of expected skills, knowledge and abilities must not be changed, removed or lowered.

Other directives

Language: English

Course evaluation is carried out according to the guidelines that are established by the Committee for Higher Education, basic and advanced level, at Karolinska Institutet.

The course may not be credited in a degree together with another course the student has completed and passed the contents of which completely or partly correspond to the contents of this course.

Literature and other teaching aids

Scientific publications.

Marengoni A, et al.

Aging with multimorbidity: a systematic review of the literature

Ageing Research Reviews, 2011

URL: Aging with multimorbidity: a systematic review of the literature

Barnett K, Mercer SSW, Norbury M, Watt G, Wyke

Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study

Lancet, 2012

URL: Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study

Clegg A, et al.

Frailty in elderly people

Lancet, 2013

URL: Frailty in elderly people

Solomon A, et al.

Advances in the prevention of Alzheimer's disease and dementia

J Intern Med., 2014

URL: Advances in the prevention of Alzheimer's disease and dementia

Chatterji S, Byles J, Cutler D, et al.

Health, functioning, and disability in older adults - Present status and future implications

Lancet, 2015

URL: Health, functioning, and disability in older adults - Present status and future implications

Olde Rikkert MGM, Melis RJF, Cohen AA, Geeske P

Why illness is more important than disease in old age

Age & Ageing, 2020

Rizzuto D, et al.

Lifestyle factors related to mortality and survival: a mini-review

Gerontology, 2014

URL: Lifestyle factors related to mortality and survival: a mini-review

López-Otín C, et al.

The Hallmarks of Aging

Cell, 2013
URL: The Hallmarks of Aging

Vaupel JW
Biodemography of human ageing

Nature, 2010
URL: Biodemography of human ageing

Kingston A, Wohland P, Wittenberg R, et al
Is late-life dependency increasing or not? A comparison of the Cognitive Function and Ageing Studies

Lancet, 2017
URL: Is late-life dependency increasing or not? A comparison of the Cognitive Function and Ageing Studies

Ferraro KF, Shippee TP
Aging and Cumulative Inequality: How Does Inequality Get Under the Skin?

Gerontologist, 2009
URL: Aging and Cumulative Inequality: How Does Inequality Get Under the Skin?