DEPARTMENT OF NEUROBIOLOGY, CARE SCIENCES AND SOCIETY

H1F6030, Cognitive Aging, Neuropsychology and Cognitive Diagnostics, 1.5 credits (hec)

Kognitivt åldrande, neuropsykologi och kognitiv diagnostik, 1,5 högskolepoäng

Third-cycle level / Forskarnivå

Approval

This syllabus was approved by the The Committee for Doctoral Education on 2024-09-10, and is valid from spring semester 2025.

Responsible department

Department of Neurobiology, Care Sciences and Society, Faculty of Medicine

Prerequisite courses, or equivalent

No prerequisite courses, or equivalent, demanded for this course.

Purpose & Intended learning outcomes

The course aims to offer an introduction to neuropsychological assessment in an aging population, with a special focus on age-related cognitive changes and their neural correlates. An additional purpose is to increase understanding of cognitive aging and how to differentiate between non-pathological cognitive aging and early signs of pathology.

Intended learning outcomes

At the end of the course, the doctoral student should be able to:

· Describe different cognitive domains and their general relationship to neural correlates.

· Define and describe common neuropsychological concepts and techniques for measurement.

· Use critical thinking when motivating or criticizing neuropsychological investigation methodologies and cognitive diagnostics in aging.

· Explain the basic principles of cognitive aging and contrast "normal" with early-stage

pathological aging in a critical way.

·   Discuss how prevention and lifestyle changes have the potential to protect against negative impacts on the brain and cognition.

Course content

The course addresses topics in both epidemiological and clinical research. The course describes common neuropsychological concepts and techniques, including neuropsychological examination and cognitive diagnostics. A particular focus will be on cognitive aging what separates a "normal" cognitive trajectory from an "abnormal" trajectory, and how preventive actions might delay the onset of cognitive impairment.

Forms of teaching and learning

The course runs daytime for 1 week full-time with key lectures by invited scientists, group work, and discussions in small groups and the entire class. Lectures will aim to give a deeper picture of the subject and provide concrete examples of how relevant phenomena can be investigated, and how disorders in different cognitive domains can be detected in clinical contexts. In addition, group exercises will provide the students with opportunities to familiarize themselves with different cognitive tests.

Language of instruction

The course is given in English

Grading scale

Pass (G) /Fail (U)

Compulsory components & forms of assessment

Mandatory attendance to all scheduled activities. Absence can be compensated with supplementary written task.

The examination part includes oral presentations by the students and general discussions between all participants. The students should demonstrate their knowledge, skills, and critical understanding included in the intended learning outcomes stated above in a concluding examination seminar at the end of the last day and discussions during the course. They should also reflect on the aspects that are relevant to their own research in the discussions.

Course literature

Relevant original research and review papers will be provided by the course organizers as

recommended reference literature.

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