Course syllabus

Cognitive aging

(7.5 credits, fall semester 2017)
“Cognitive aging”

Course Content: The aim of the course is to provide an extended understanding of how different cognitive functions change with increasing adult age as well as the neural underpinnings for these changes. The course will focus on normal, successful, and pathological cognitive aging as well as predictors and correlates of different cognitive trajectories in old age. The course will further discuss the methodological challenges associated with longitudinal and life span research.

Organizers: The course is arranged by Aging Research Center (ARC: a FORTE center focused on research on aging and health affiliated to Karolinska Institutet and Stockholm University) in collaboration with the Department of Psychology at Stockholm University.

Language: English

Course credits: 7,5

Course period: September 11th-October 27th 2017

Course level: Doctoral level

Sign up: Application for graduate course should be sent to course administrator.

Course Administrator: Monica Karlsson, monika.karlsson@psychology.se.se, +46 8163845.

Course Coordinator and Examiner: Erika Jonsson Laukka, senior researcher at ARC, Erika.Jonsson.Laukka@ki.se, +46 739 072 661 (EJL)

Other Lecturers

Lars Bäckman, Professor, ARC
Lars.Backman.1@ki.se (LB)

Yvonne Brehmer, Senior Researcher, ARC
Yvonne.Brehmer@ki.se (YB)

Grégoria Kalpouzos, Senior Researcher, ARC
gregoria.kalpouzos@ki.se (GK)

Martin Lövdén, Professor, ARC
martin.lovden@ki.se (ML)

Goran Papenberg, Senior Researcher, ARC
goran.papenberg@ki.se (GP)

Jonas Persson, Senior Researcher, ARC
jonas.persson.1@ki.se (JP)
Course structure

The course will be based on a series of lectures presenting each topic covered during the course. The lectures will be followed by seminars, during which students critically discuss empirical and theoretical articles related to these main themes. Course requirements: (a) Generate and discuss central questions prior to each seminar based on the lecture and course literature, (b) Seminar attendance, and (c) Active participation in the seminars. Supplementary assignments are offered to students who fail to attend maximum two seminars.

Expected learning outcomes

Having finalized the course, students will be able to:

- Describe different methodological approaches in cognitive aging research and critically discuss advantages and disadvantages with these approaches
- Describe normal and pathological cognitive trajectories in aging as well as risk and protective factors for age-related cognitive decline
- Explain the neural underpinnings of cognitive decline and describe the methods by which these can be measured
- Generate examples of interventions that may prevent cognitive decline and dementia
- Reflect on and critically review the concept of cognitive aging and its underlying causes

Examination

Prior to each seminar, the students are to generate discussion questions based on the lecture and the course literature. These should be sent to the seminar leader in written format. Seminar attendance is mandatory and active participation is required during the seminars.

Grade and grade criteria: The grading in the course is on a pass or fail basis:

Pass: For a passing grade, the doctoral student has completed the written individual assignments and showed active participation in the seminars.

Fail: The expected learning outcomes are not met, such that the written assignments have been solved insufficiently, the student has missed more than two seminars, or has not actively participated in the seminar discussions.

Course literature: The course literature consists of empirical papers and review papers related to the lectures and seminars, in total approximately 550 pages.