

The Psychobiology of Stress and Sleep	
Course number	2672
Program	The Neurosciences
Language	English
Credits	3.0
Date	2013-03-11 -- 2013-03-22
Level	Doctoral level
Responsible KI department	Department of Clinical Neuroscience
Specific entry requirements	Basic knowledge of neurobiological concepts is required.
Learning outcomes	At the end of the course the student will be able to thoroughly describe key concepts relating to models of sleep and stress, and have a detailed understanding of neurophysiological reactions to different exposures and the basic mechanisms by which recovery, wakefulness, performance, health and behavior are affected in different groups of individuals including for instance women/men, children/adolescents/adults, general population/clinical groups. The student will also be able to identify and gain experience of relevant methodologies used in research, intervention and treatment within this research field. Critically evaluate and analyze research designs and findings within in the areas of sleep and stress research. This involves suggesting and choosing between other feasible and relevant research designs, biomarkers, self-reports and ways of collecting data among different groups of individuals. Providing a rationale for choosing an adequate research design for investigating own research questions of health promoting aspects of recovery.
Contents of the course	The course provides an overview of theories and models within the fields of sleep and stress with a specific emphasis and critical discussion of current central models and concepts and their operationalization in various settings and groups of individuals (e.g., women/men, children/adolescents/adults, general population/clinical groups). The course also covers research methods and research designs among various groups. Also, various measures including clinical classifications are discussed. Additionally, the course allows students to critically analyze various issues relating to interventions, treatment and methodological choices and research ethics in research and at the clinic.
Type of teaching	Interactive lectures and seminars will provide knowledge in the different areas of sleep and stress for the use of the doctoral student in the preparation of the examination assignment. Students will be asked to use IT to identify relevant research publications and other web-material that help in solving

	course assignments and writing up exam papers. Doctoral students will be supervised when preparing the written exam paper, which is to be presented and discussed at the final exam seminar.
Examination	The examinations will be done in a mandatory seminar, with oral as well as written contributions from each participant. The examination has two main parts: 1) Power point presentation with a review of a selected topic of stress and sleep, as agreed upon with the course leader. 2) Written (2-3 pages) and oral presentation of a study that includes a choice of methodology as being argued for considering the current state of knowledge/knowledge gaps relating to the research areas of sleep and stress.
Compulsory elements	The examination seminar is mandatory. This involves presenting and being active in discussing other student papers.
Number of students	8 - 16
Selection of students	Selection will be based on 1) the usefulness of the course for the doctoral student in his/her research project 2) the motivation given in the application for the course 3) date for registration as a doctoral student
More detailed information	Freskati Hagväg 16A
Course directors	
Earlier evaluation of the course	Not available
Syllabus coordinator	Torbjörn Åkerstedt Department of Clinical Neuroscience Torbjorn.Akerstedt@ki.se