



**Karolinska  
Institutet**

Course syllabus for

# **Clinical medicine - Neuro, senses and psyche, 30 credits**

Klinisk medicin - inriktning neuro, sinnen och psyke, 30 hp

This course syllabus is valid from autumn 2016.

Please note that the course syllabus is available in the following versions:

Autumn2011 , Spring2012 , Spring2014 , Spring2015 , Spring2016 , Autumn2016 , Autumn2017 , Spring2019 , Spring2020 , Autumn2020 , Spring2021 , Spring2022 , Autumn2022 , Autumn2023 , Spring2025

Course code	2LK063
Course name	Clinical medicine - Neuro, senses and psyche
Credits	30 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Medicine
Level	AV - Second cycle
Grading scale	Pass, Fail
Department	Department of Clinical Neuroscience
Participating institutions	<ul style="list-style-type: none"><li>• Department of Learning, Informatics, Management and Ethics</li><li>• Department of Medical Epidemiology and Biostatistics</li><li>• Department of Clinical Sciences, Danderyd Hospital</li><li>• Department of Neurobiology, Care Sciences and Society</li><li>• Department of Clinical Science, Intervention and Technology</li><li>• Department of Clinical Science and Education, Södersjukhuset</li></ul>
Decided by	Programnämnd 2
Decision date	2011-04-13
Revised by	Programme Committee 2
Last revision	2016-04-21
Course syllabus valid from	Autumn 2016

## **Specific entry requirements**

Passed all courses semester T1-T7.

A student failing due to shortcoming in knowledge skills or attitudes, thus jeopardizing patient security and/or trust in medical care, could be assigned for a new clinical rotation only after having completed the individual plan.

# Objectives

*Aim:* The objective of the course is that the student, based on the perspectives of primary care and specialised care, should broaden and deepen their medical skills within the knowledge areas of neurology, ophthalmology, otorhinolaryngology, psychiatry/substance use medicine and rehabilitation medicine.

*Intended learning outcomes* The level descriptors are structured according to the SOLO taxonomy (S1-S4) and the skill outcomes according to Miller's pyramid (M1-M4)\*.

## Knowledge and understanding

The student should be able to

- analyse symptoms, causes, risk factors and natural progress of disease; reflect on differential diagnoses and comorbidity as well as account for principles of investigation and treatment for common, acute and critical conditions in the nervous system, the sensory organs and the mind (S3)
- analyse how psychological and social problems can lead to and influence disease as well as choice of treatment; describe different communication strategies and how these may be applied in consultations with patients with disrupted function in nervous system, sensory organs and mental faculties (S3)
- determine appropriate level of care for different conditions as well as the need for rehabilitation efforts for diseases in nervous system, sensory organs and mind; discuss the importance of continuity in treatment and care (S3) (PV)
- analyse how knowledge built on evidence (science and proven experience) relate to assessment and management in individual patient meetings (S3) (VetU)

## Skills

The student should be able to

- independently establish rapport with patients; obtain a medical history, carry out a basic medical exam based on the specialties included in the course and make reasonable differential diagnostic considerations, taking comorbidity into account; diagnose and demonstrate how to manage common, acute and critical conditions in nervous system, sensory organs and mind (M3) (PV)
- reflect upon one's own values and those of others, analyse problems related to ethics, gender and diversity in clinical practise and research; explain how one's own values and attitudes influence behaviour in encounters with patients and their families and with health care personnel (S3) (VetU, PD)
- act in accordance with relevant Swedish law, document clinical information (M4) and cooperate and communicate with different caregivers and authorities as well as with patients and their families (M3) (PD, PV)

## Attitudes

- The student should have a pedagogical and patient-focused attitude towards patients (PD, PV)
- and act in a respectful manner toward patients, other students, teachers and staff as well as take active responsibility for her/his learning and professional development

# Content

The course is divided into seven modules. The core subjects are neurology, rehabilitation medicine,

ophthalmology, otorhinolaryngology, psychiatry and substance use medicine, with a strong emphasis on the primary care perspective. An integration with previously acquired medical clinical knowledge and skills is achieved by learning from diverse medical problems encountered in primary care. The modules Neuro, Senses and Mind contains teaching of physical and mental examination skills, theoretical knowledge on pathology and diseases and treatment methods related to the clinical fields. Basic science is integrated into the teaching of the structure and functions of the nervous system and the sensory organs and with pharmacology.

**Neuro, 6.5 hp** The main field of study is neurological diseases, injuries and conditions. In addition, rehabilitation medicine is included, with a focus on physical disabilities and restriction of activity and participation related to injuries and diseases in the nervous system. **Senses, 7.5 hp** This module comprises two components: Ophthalmology and Otorhinolaryngology. Teaching covers theoretical knowledge on pathology and diseases, physical examination skills and treatment methods related to each component. **Psyche, 11.5 hp** This module comprises the two components Psychiatry and Substance use medicine. There is a strong emphasis on communication skills and attitudes as well as criteria based diagnostics. **Professional development, 0.5 hp** (PU) Professional Development consist of two days that focus medical ethics related to neurological rehabilitation and immigration, as well as a one day workshop lead by the mentor, including self assessment. The teaching aims to develop self-reflection and the ability to act according to current laws, considering ethical principles and human rights. **Primary care, 1.5 hp** The student will manage patients under supervision in primary care, according to patient-focused methodology and have a primary care perspective on commonly occurring conditions, relevant for the course. **Scientific development, 0.5 hp** The teaching intends to develop an ethical and scientific approach to medical research and clinical activities. It contains criteria-based diagnostics in psychiatry, the difference between evidence-based science and proven experience as well as discussions of how clinical factual assessments can be value laden. **Integration and examination, 2 hp** The course includes several elements that, while focusing on a primary care perspective, integrate the different modules of the course. Teachers from all modules participate on these occasions, as preparation for the written final examination.

## Teaching methods

Teaching with an emphasis on learning outcomes for knowledge and understanding is given as lectures, seminars, group assignments/workshops, case-based teaching within health care, individual self-assessments, study visit, individual studies (sometimes with computer support) as well as literature studies. Formative assessments are given during clinical placements, sit-ins, a written examination corrected by the students and with a teacher led discussion, at oral presentations of group assignments and a written assignment. Teaching with an emphasis on learning outcomes for skills and attitudes take place in clinical placement, case-based teaching within health care, skills training and workshops.

Students may be assigned to clinical placements on evenings and weekends.

## Examination

At clinical placements, the student is assessed continuously by supervisors according to evaluation templates. The examiner then set the grade (Pass/Fail) on the basis of these assessments. Absence from a compulsory course element could mean that the student can not retake the element until the next time the course is offered. If there is not sufficient basis for assessing the achievement of a student in clinical placement, supplementary qualification may be achieved through additional clinical placing. Repeated absence may lead to the grade Fail. If a student has failed a clinical placement, the element can be redone only once. Learning outcomes with concerning respectful behaviour and responsibility for one's own learning can also be assessed outside established examinations, for example at lectures and through other course related contacts.

*Neuro* Compulsory participation: Module introduction, case-based teaching in health care (bedside teaching and demonstrations), clinical placement (student clinic) and seminars where the student is

assessed continuously. Examination: One practical and one written examination.

*Senses* Compulsory participation: Component otorhinolaryngology: Proficiency training. Clinical placement, where the student is assessed continuously, including placement at emergency ward. Active contribution to prepared discussion at seminars, as the student's achievement and attitude are assessed continuously. Study visits and auscultations at outpatient clinic and surgery department, since their contribution to learning cannot be achieved in any other way. Component ophthalmology: Proficiency training (Examining skills and training), clinical placement (student clinic) and seminars. Examination: Component otorhinolaryngology: Practical examination, written examination. Subcomponent ophthalmology: Practical examination, an oral and a computer-based written examination as well as retinal examination with papillary assessment.

*Mind* Compulsory participation: Clinical placement, including emergency ward in psychiatry and substance use medicine, respectively. Active contribution to prepared discussions at seminars, where the student's achievement and attitude are assessed continuously. Filled-out certificate for need of compulsory care, according to the Psychiatric Care Act. Oral presentation of group assignment, where knowledge as well as oral presentation technique are assessed formatively. Two formative assessments (sit-in) according to set criterias, of the student's communication skills, diagnostic ability and clinical reasoning. Examination: Completed clinical placement with the grade Pass.

*Professional skills (PU)* Compulsory participation: Workshop and self assessment lead by mentor, seminar in medical ethics, lecture about integration and human rights. Examination: Passed achievement in seminar as above. Formative assessment by mentor during workshop. *Primary care (PV)* Examination: Written reflection upon a recorded consultation. Passed achievement in clinical placement.

*Scientific development (VetU)* Examination: Written examination

*Integration and examination* Examination: Written examination that mainly is based on the primary care perspective, emphasising integrative aspects, and therefore also can include testing of knowledge about relevant aspects from earlier courses of the medical programme. The examination can only be taken at the designated premises. Maximum number of examinations per student is limited to a total of six.

The course coordinator decides whether, and if so how, absence from compulsory course elements can be made up. Study results cannot be reported until the student has participated in compulsory course elements or compensated for any absence in accordance with instructions from the course coordinator.

The examiner may, with immediate effect, interrupt a student's clinical placement (or equivalent) if the student demonstrates such serious deficiencies in knowledge, skills or attitude that patient safety or patient confidence in healthcare is at risk. If a clinical placement is interrupted in this way the student is deemed to have failed that element and to have used up one clinical placement opportunity. In such cases, an individual action plan should be set up stating which activities and tests are required before the student is qualified for a new clinical placement on the course.

## Transitional provisions

If a course has been closed down or undergone major changes, at least two additional examinations (excluding regular examinations) in the previous contents are provided during a period of a year from the date of the change.

## Other directives

Course evaluation takes place according to the guidelines that have been stated by the Board of Education at Karolinska Institutet.

\* The aims are structured according to the SOLO taxonomy and Miller's pyramid SOLO taxonomy:

S1) simple (e. g. know, identify)

S2) composite (e. g. account for, describe)

S3) related (e. g. analyse, relate)

S4) extended (e. g. theorize analyse)

Miller's pyramid:

M1) know

M2) know how one carries out

M3) be able to show

M4) be able to carry out professionally

## Literature and other teaching aids

### Recommended literature

#### *Neuro*

##### **Neurologi**

*Fagius, Jan; Nyholm, Dag*

5. uppl. : Stockholm : Liber, 2012 - 584 s.

ISBN:9789147107902 LIBRIS-ID:13613704

[Library search](#)

##### **Rehabiliteringsmedicin : [teori och praktik]**

*Borg, Jörgen*

1. uppl. : Lund : Studentlitteratur, 2015 - 431 s.

ISBN:9789144101965 LIBRIS-ID:18356908

[Library search](#)

#### *Senses*

*Anniko (red.), Matti*

##### **Öron- näs- och halssjukdomar, huvud- och halskirurgi, bok med eLabb**

4. uppl. : Liber, 2012 - s.

ISBN:9789147107766 LIBRIS-ID:14225703

[Library search](#)

##### **ÖNH-handboken**

*Friis-Liby, Janne; Groth, Anita*

1. uppl. : Lund : Studentlitteratur, 2010 - 362 s.

ISBN:978-91-44-04883-3 LIBRIS-ID:11788045

URL: [Interaktivt webbmateriäl](#)

[Library search](#)

*Kugelberg, Maria; Ygge, Jan; Robertsson, Jakob*

##### **Ögonboken**

1. uppl. : Stockholm : Liber, 2010 - 240 s.

ISBN:978-91-47-09942-9 LIBRIS-ID:12028510

[Library search](#)

**Mind**

Choose one of the two psychiatry textbooks (Ottosson or ed. Herlofson) and one of two textbooks for substance use syndromes.

*Ottosson, Jan-Otto*

**Psykiatri**

8., [uppdaterade] uppl. : Stockholm : Liber, 2015 - 558 s.

ISBN:9789147114283 LIBRIS-ID:17735270

[Library search](#)

**Psykiatri**

*Herlofson, Jörgen; Ekselius, Lisa*

1. uppl. : Lund : Studentlitteratur, 2009 - 746 s.

ISBN:978-91-44-04026-4 (inb.) LIBRIS-ID:11369004

*Or later edition*

[Library search](#)

**MINI-D 5 : diagnostiska kriterier enligt DSM-5**

Pilgrim Press, 2014 - 410 s.

ISBN:9789198997916 LIBRIS-ID:17238133

*Available as loan. If lost, student must pay compensation by purchase value.*

[Library search](#)

**Beroendemedicin**

*Franck, Johan; Nylander, Ingrid*

2., uppdaterade och omarb. uppl. : Lund : Studentlitteratur, 2015 - 370 s.

ISBN:9789144099859 LIBRIS-ID:17225002

[Library search](#)

*Heilig, Markus*

**Beroendetillstånd**

2. [dvs 3.] uppl. : Lund : Studentlitteratur, 2011 - 253 s.

ISBN:978-91-44-07336-1 (inb.) LIBRIS-ID:12283810

[Library search](#)

**Scientific development**

*Lynöe, Niels; Juth, Niklas*

**Den medicinska etikens ABZ**

Institutionen för odontologi, 2009