



**Karolinska  
Institutet**

Course syllabus for

## **Acute Internal Medicine, 7.5 credits**

Akut internmedicin, 7.5 hp

This course has been cancelled, for further information see Transitional provisions in the last version of the syllabus.

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

Autumn2012 , Autumn2016 , Spring2018

Course code	2LK095
Course name	Acute Internal Medicine
Credits	7.5 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 Medicine, Huddinge
Decided by	Programnämnd 2
Decision date	2012-04-24
Revised by	Programme committee for study programme in medicine
Last revision	2024-06-18
Course syllabus valid from	Spring 2018

## **Specific entry requirements**

All credits from semesters 1-9 and registration for the course "Clinical Medicine With a Specialisation in Reproduction and Development".

## **Objectives**

The general aim of the course is for the student, on completion of the course, to acquire advanced knowledge and skills in a structured treatment of seriously ill patients on a medical emergency department. In general the aims include that the student establishes an attitude and skills in how one coordinates work in a team and exercises the physician's role as leader of this team. The course is an advanced course and is based on the knowledge and skills that the students have acquired in earlier courses.

The knowledge is structured according to the SOLO taxonomy and the skills according to Miller's pyramid. \*

### **Skills**

The student should be able to:

- in a professional manner identify, deal with and treat acute patients with failing vital functions, acute unconscious patients and other serious / life-threatening internal medical conditions with a structured treatment according ABCDE-concept (M3).
- practical skills to be able to process and stabilise patients. These skills include amongst other things basic knowledge to establish free airway, managing tools for oxygen inhalation therapy (M4) non-invasive ventilation (NIV), measures for circulation failure, CPR, defibrillation and cardioversion, construction of peripheral venous and fluid infusion (M4), lumbar puncture and sterile technique (M4)
- in a structured way summarise the patient's medical history and disease progression for a safe and secure communication between care-givers (M4).

### **Attitude**

The student should be able to:

- show ability to, with the patient in focus and with respect for integrity and autonomy, act in a team. Special emphasis is placed on the physician's task and ability to exercise leadership. It is important to have an open attitude and demonstrate an understanding for his/her own and others' behaviour in stressful situations (S3).
- show the ability to handle the weaknesses and limitations in knowledge (S4).
- show a critical and scientific approach (S3).

### **Knowledge and understanding**

The student should be able to:

- in an advanced way analyse and theorise around diagnosis/differential diagnoses, acute measures, investigation, need for monitoring and choice of nursing level (S3).
- analyse ECG, understand and remedy disorders in acid/alkaline, liquid or electrolyte balance (S3).
- relate to ethical considerations in emergency care and understand (S3) principles of handling of complications or acute deterioration in a patient with treatment limitations and the meaning of palliative care.

## **Content**

This is a practically-aimed advanced course in how acute conditions such as respiration difficulties, circulatory failure, unconsciousness, chest pains and poisonings can be dealt with on a medical emergency department. The course is mainly based on practical learning but with initial whole-group lectures with a focus on common acute issues in internal medicine.

In the course, simulations are included with scenario training and training on a simulator centre. At the Clinical Training Centre (CTC), diagnostic and therapeutic measures such as free airway, CPR, oxygen therapy, CPAP, BiPAP, vein and arterial sampling, lumbar puncture, catheterisation and sterile technique are trained. Advanced knowledge in ECG diagnostics and artery gas analyses is given in seminars.

A theoretical case is discussed with case methodology in groups, where the participants are active, suggesting diagnoses, differential diagnoses and other considerations for follow-up measures, examination and treatments. The course also deals with ethical considerations about treatment limitations and what palliative measures can amount to.

In the course, supervised clinical placement on the medical emergency department Karolinska Huddinge is also included during daytime and on call.

The course integrates internal medicine with physiology, chemistry, pharmacology, anaesthesia and intensive care. Specialists from internal medicine, cardiology and emergency care participate.

Integrating assignments:

- Unconsciousness/coma
- Dyspnea
- Chest pain
- Heart arrests
- Abnormal heart activity
- Fever

## Teaching methods

The course consists of supervised practical exercises in the form of scenario training, seminars in small groups, lectures, group assignments with written assignments and individual assignments with knowledge acquisition. In the course, clinical placement on the medical emergency department Karolinska Huddinge is also included during daytime and on call.

## Examination

*Compulsory modules:* Team training, seminars, skills training, written assignment with oral presentation.

Examination takes place through participation in compulsory parts.

For practical skills, clinical arguments and team work, feedback is given directly by the supervisor in connection with the assignment.

### Limitations of the number examination or practical training sessions

The number of examination and practical training sessions follows Karolinska Institutet's local guidelines. Because a large part of the course is simulation exercises in prepared locations with materials, these can as a rule be offered only once and repeated only after a discussion with 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.

### Eligibility

A student who has failed a placement/equivalent as a consequence of serious deficiencies in knowledge, skills or attitudes such that patient security or the patients' trust for healthcare have been jeopardised qualifies for a new placement opportunity only when the individual action plan has been completed.

## Transitional provisions

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

## Other directives

The course connects to and enhances core knowledge in the study programme in medicine.

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

The course may not be included in a degree at the same time as an advanced course completed inside or outside the country, the contents of which fully or essentially corresponds to the current course contents.

If you are uncertain \x{2013} contact the study guidance.

\* The knowledge is tiered according to the SOLO taxonomy: S1) simple (e.g. know, identify), S2) composite (ex. account for, describe), S3) related (ex. analyse, relate), and S4) extended (ex. theorise, analyse). The skills are structured according to Miller's pyramid: M1) know, M2) know how to carry out, M3) be able to show, and M4) be able to carry out professionally.

## Literature and other teaching aids

### **Behandlingsprogram för Stockholms Läns Landsting: Akut Internmedicin**

Stockholms Läns Landsting,

### **Behandlingsprogram för Stockholms läns landsting - Hjärtintensivvård**

Stockholms läns landsting,

### **Defibrillering och läkemedel : A-HLR Kursbok**

*HLR-rådet*

Göteborg : Stiftelsen för HLR, 2006 - 50 s.

ISBN:82-91823-66-9 LIBRIS-ID:10354578

[Library search](#)

### **Utdelat material**

Institutionen för medicin, Huddinge,

*Lind, Lars; Olsson, Thomas; Säfwenbergs, Urban*

### **Akutmedicin**

3., [uppdaterade och kompletterade] uppl. : Stockholm : Liber, 2009 - 203 s.

ISBN:978-91-47-09387-8 LIBRIS-ID:11717257

[Library search](#)

*Jern, Sverker; DuttaRoy, Smita; Jern, Helene*

### **Klinisk EKG-diagnostik**

[Ny, utök. och omarb. utg.] : Ljungskile : Sverker Jern utbildning, 2010 - 259 s.

ISBN:978-91-633-6666-6 LIBRIS-ID:11863020

[Library search](#)

*Longo, Dan L.; Harrison, Tinsley Randolph*

### **Harrison's principles of internal medicine. Principles of internal medicine : Vol. 1. Chapters 1-223.**

18th ed. : New York : McGraw-Hill, [2011], c2012. - 1796, 158 s.

ISBN:978-0-07-174889-6 (set) LIBRIS-ID:12297840

[Library search](#)

*Longo, Dan L.; Harrison, Tinsley Randolph*

### **Harrison's principles of internal medicine. Principles of internal medicine : Vol. 2. Chapters 224-397.**

18th ed. : New York : McGraw-Hill, [2011], c2012. - S. 1797-3610, 158 s.

ISBN:978-0-07-174889-6 (set) LIBRIS-ID:12297843

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