



**Karolinska
Institutet**

Course syllabus for

Pharmacology, 5 credits

Farmakologi, 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:

Autumn2007 , Autumn2011 , Spring2015

Course code	2TL005
Course name	Pharmacology
Credits	5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Not applicable
Level	GX - First cycle
Grading scale	Pass, Fail
Department	Department of Physiology and Pharmacology
Decided by	Styrelsen för utbildning/Programnämnden för tandläkarprogrammet
Decision date	2007-05-14
Revised by	Education committee DENTMED
Last revision	2020-03-23
Course syllabus valid from	Spring 2015

Specific entry requirements

For admission to the course, it is required that the course The Structure and Function of the Organ Systems is passed.

Objectives

The general aim of the course is that the students should acquire basic knowledge within basic pharmacology which then constitutes the basis for additional studies within the subject area Clinical Pharmacolog.

On completion of the course, the student can

Knowledge and understanding

- account for principles of the effects of drugs in the organism and how drugs exercise their effects and for pharmacokinetic and the pharmacodynamic concepts.
- account for the most important therapeutic effects, adverse drug reactions, main modes of action and pharmacokinetic distinctive features of drugs that are included in the prescription rights of

- dental practitioners, as well as (at a more general level) for other drugs
- account for drugs within different fields of therapy that can influence oral health
- account for mechanisms behind interindividual variations in the effects of drugs, drug interactions and special aspects of dependency and abuse of drugs, the use of drugs in connection with pregnancy, breast feeding and drug treatment of aging comorbid patients and of using plant based drugs and natural remedies
- account for environmental aspects of using drugs
- account for how one prescribes drugs and uses FASS and other prescription tools.

Judgement and approach

- profit and critically evaluate both producer independent pharmaceutical information and information from pharmaceutical producers

Content

- Administration, absorption, distribution and elimination of drugs, factors that influence these processes, pharmacokinetic fundamental concept.
- Various types of receptors and other types of proteins that mediate drug effects, dose-effect relationships, pharmacodynamic fundamental concept.
- Adverse drug reactions, interactions and interindividual variation in drug effect.
- Effects on neurotransmission, neuropsychotropic drugs and drugs at neurological diseases.
- Analgesic, anti-inflammatory and immunomodulating drugs.
- Local anesthetic.
- Antibiotics and chemotherapeutics.
- Drug and salivary secretion.
- Drugs at cardiovascular diseases (including diuretics), blood clotting problems, diseases in the respiratory system and the gastrointestinal canal, plant based drugs and natural remedies, development of new drugs.
- Abuse and dependence on drugs, special aspects of the use of drugs in connection with pregnancy and breast feeding and of aging comorbid patients.
- Environmental aspects on using drugs.
- Basic principles of prescription and using FASS and other decision tools.

Teaching methods

Different parts of the course are carried out in the form of lectures, group work, seminars and/or laboratory sessions.

Group work and laboratory sessions are compulsory.

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. Absence from a compulsory course element could mean that the student can not retake the element until the next time the course is offered.

Examination

Written examination

A Pass grade also requires attendance at compulsory course elements.

If the student's examination has not passed, the student gets 2 more examination opportunities. After that, the student is recommended to retake the course and is given 3 more examination opportunities. If the student has not passed after 6 trials, he/she has no more admission to the course. (HF chapter 6,

section 11 a).

Transitional provisions

The course has been cancelled and was offered for the last time in the autumn semester of 2019. Examination will be provided until the autumn of 2020 for students who have not completed the course

Other directives

A course evaluation is carried out according to the guidelines established by the Board of Education.

Literature and other teaching aids

Farmakologi

Lindström, Erik; Norlén, Per

3. uppl. : Stockholm : Liber, 2014 - 443 s.

ISBN:9789147114221 LIBRIS-ID:16357182

[Library search](#)

Rang, H. P.; Dale, M. Maureen

Rang and Dale's pharmacology Pharmacology

7. ed. : Edinburgh : Churchill Livingstone, 2011 - 792 p.

ISBN:978-0-7020-3471-8 (pbk.) LIBRIS-ID:12148717

[Library search](#)

Fredholm, Bertil B.

Basal farmakologi

1. uppl. : Lund : Studentlitteratur, 2014 - 301 s.

ISBN:9789144050362 LIBRIS-ID:15122334

[Library search](#)

FASS : läkemedel i Sverige : förteckning över humanläkemedel

Stockholm : Läkemedelsinformation (LINFO), 1995-

ISSN:1400-6588 LIBRIS-ID:8267116

URL: [Fass webbplats](#)

Läkemedelsboken.

Stockholm : Läkemedelsverket, 2011 - PDF-fil (1269 s.)

LIBRIS-ID:12199366

URL: [Online via Läkemedelsverket](#)