



**Karolinska
Institutet**

Course syllabus for

Pharmacology and Pathology 1, 7.5 credits

Farmakologi och sjukdomslära 1, 7.5 hp

This course syllabus is valid from autumn 2020.

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

Autumn2012 , Autumn2014 , Autumn2015 , Autumn2017 , Autumn2020

Course code	2DS005
Course name	Pharmacology and Pathology 1
Credits	7.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Not applicable
Level	AV - Second cycle
Grading scale	Pass, Fail
Department	Department of Laboratory Medicine
Decided by	Programnämnden 9
Decision date	2012-09-26
Revised by	Education committee NVS
Last revision	2020-03-15
Course syllabus valid from	Autumn 2020

Specific entry requirements

Qualification as a nurse certified by the National Board of Health and Welfare

Objectives

On completion of the course, the student should be able to understand and apply general pharmacological principles and the legislation regulating the use of drugs.

This course should, together with Pharmacology and pathology part 2, lead to qualification requirements for a specialist nurse to apply for prescription right of drugs for patients according to the Swedish National Board of Health and Welfare's Regulation (2001:16) of qualification requirements in the prescription of drugs

Part 1: General pharmacology, 4.5 higher education credits

On completion of the part, the student should be able to understand and apply pharmacodynamic and pharmacokinetic principles related to:

- origin of effects and side effects of drugs
- pharmaceutical form and administration methods

- age, sex and genetic variability, and environmental factors
- pregnancy and breast feeding
- relation between dose, concentration and the effect of drugs
- origin of adverse drug reactions, interactions and problems related to omitting drugs

Part 2: Drug-related legal framework, 3 higher education credits

A student should, on completion of the part, be able to analyse and apply:

- Pharmacy law (2015:315) and Pharmacy regulation (2015:458), and related regulations and general guidelines
- LVFSF 2016:50 The Medical Products Agency's regulations of security assurance of drugs
- The regulations and general guidelines of the Swedish National Board of Health and Welfare (SOSFS 2000:1 and SOSFS 2012:9) of drug management in the health care
- Regulation (SOSFS 2011:1) of qualification requirements for nurses in the prescription of drugs
- The regulations of the Medical Products Agency (LVFS 2007:12) of the prescription and distribution of drug etc

Student should also be able to:

- describe and understand principles of clinical drug trials

Content

The course consists of two parts:

General pharmacology, 4.5 hp

Grading scale: GU

The main contents of the part focus on pharmacodynamic respective pharmacokinetic principles.

Drug-related legal framework, 3.0 hp

Grading scale: GU

The main contents of the part consist of laws and regulations concerning drugs and drug management, including the nurse's drug prescription.

Teaching methods

The course is IT-based. The teaching is based on a problem-oriented and collaborative approach to learning in which the tasks provide opportunities for the student to take active responsibility for their learning. The used teaching methods are individual study assignments, work in groups, virtual discussions and seminars and lectures.

The examiner 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 examiner. 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

Part 1: All the outcomes are examined through an individual written examination.

Part 2: Pharmacy law and Drug legislation and related regulations and general guidelines are examined

by an individual written examination.

For a Pass in the course, the grade Pass is required in all parts.

Students who do not pass a regular examination are entitled to re-sit the examination on five occasions more. If the student has failed a total of six examinations/tests, no additional examination is given. Each occasion the student participates in the same test counts as an examination. Submission of a blank exam paper is regarded as an examination. In case a student is registered for an examination but does not attend, this is not regarded as an examination.

If there are special grounds, or a need for adaptation for a student with a disability, the examiner may decide to deviate from the syllabus's regulations on the examination form, the number of examination opportunities, the possibility of supplementation or exemptions from the compulsory section/s of the course etc. Content and learning outcomes as well as the level of expected skills, knowledge and abilities may not be changed, removed or reduced

Other directives

Course evaluation takes place in accordance with the guidelines established by the Board of Education.

Literature and other teaching aids

Simonsen, Terje; Aarbakke, Jarle; Hasselström, Jan

Illustrerad farmakologi. : 1 Principer och tillämpningar

4. [uppdaterade] utg., varav den tredje på svenska : Stockholm : Natur & Kultur, 2016 - 276 s.

ISBN:9789127142374 LIBRIS-ID:17414557

[Library search](#)

Böttiger, Ylva; Eliasson, Erik; Lindh, Jonatan

Att lyckas med läkemedel

1. uppl. : Stockholm : Studentlitteratur, 2014 - 156 s.

ISBN:9789144084947 LIBRIS-ID:16016342

[Library search](#)

Läkemedelsboken [Elektronisk resurs].

Uppsala : Läkemedelsverket, [2013] - 1275 s.

LIBRIS-ID:14878607

URL: [Fritt tillgänglig via Läkemedelsverket](#)

FASS

senaste uppl. : Läkemedelsinformation AB,

URL: www.fass.se