

**SYLLABUS**

# **Pharmacology and Pharmaceutical Calculation 3 credits M0092H**

**Farmakologi och läkemedelsberäkning**

**Course syllabus admitted: Spring 2019 Sp 3 - Spring 2020 Sp 4**

**DECISION DATE  
2018-06-14**

# Pharmacology and Pharmaceutical Calculation 3 credits M0092H

## Farmakologi och läkemedelsberäkning

### First cycle, M0092H

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	U G#	Medicinsk vetenskap	Medicine

## Entry requirements

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and documented skills in English language and Basic entry requirements and three years of post-secondary nursing training from countries outside the EU/EEA and Switzerland; the National Swedish Board of Health and Welfare issued a decision to investigate in the form of a proficiency test for nurses. A pass in Swedish according to the provisions for basic entry requirements for the first cycle, Swedish B or Swedish 3, with the lowest grade of pass/E.

## Selection

The selection is based on 1-165 credits.

## Examiner

Johanna Sundbaum

## Course Aim

At the end of the course, the student is expected to be able to:

Knowledge and understanding

- account for basic pharmacodynamics
- account for pharmaceutical forms and methods of administration
- account for interactions and adverse effects of pharmaceutical products
- account for the current legislation and statutes in the field

Competence and skills

- apply the relevant legislation and statutes
- apply FASS (Swedish medicines information portal) in order to ensure correct medication management
- apply medication preparation for different forms of administration
- apply pharmacovigilance

Judgement and approach

- assess the adequacy of medication management and calculation in relation to condition, age, sex and weight
- reflect on and assess the impact of medication on the environment and natural resources

## Contents

Pharmacology:

- pharmacokinetics and pharmacodynamics
- adverse reaction mechanisms and interaction mechanisms
- administration and dosage of medications
- legislation and statutes governing medication management
- risks and quality aspects of medication management, treatment
- sustainable development

Pharmaceutical calculation:

- units and unit changes
- calculation of dose, active substance and strength
- calculation of dilution, infusion rate and infusion time

## Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.

Learning takes place through activities that promote interaction between students themselves and between teachers and students. In this course, for example, literature studies, group work, laboratory experiments/simulations, workshops and seminars are used to aid student learning.

Lectures are given in the chosen knowledge areas. Participation in laboratory experiments/simulations, workshops and seminars is mandatory.

## Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided. The course is examined individually through written and/or oral examinations. To pass the course the learning objectives must be met, which means passing the course as well as active participation in the mandatory parts. Students must get 100% in the pharmaceutical calculation exam. Grades are set by the examiner.

## Overlap

The course M0092H is equal to M0114H

## Literature. Valid from Spring 2018 Sp 3

## Course offered by

Department of Health Sciences

## Modules

Code	Description	Grade scale	Cr	Status	From period	Title
0001	.	U G#	0.5	Mandatory	S18	
0002	.	U G#	1	Mandatory	S18	
0003	.	U G#	1.5	Mandatory	S18	

## Last revised

by 2018-06-14

## Syllabus established

by Prefekt vid Institutionen för hälsovetenskap 2018-06-14