



**Karolinska  
Institutet**

Course syllabus for

## **Pathology, 4 credits**

Patologi, 4 hp

This course syllabus is valid from autumn 2017.

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

[Autumn2016](#) , [Autumn2017](#) , [Autumn2019](#) , [Autumn2021](#) , [Autumn2022](#)

Course code	3DC003
Course name	Pathology
Credits	4 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 Laboratory Medicine
Decided by	Education committee Labmed
Decision date	2016-05-13
Revised by	Education committee LABMED
Last revision	2017-05-04
Course syllabus valid from	Autumn 2017

## **Specific entry requirements**

Qualification in biomedical laboratory science of 180 credits or Bachelor of Science in biomedical laboratory science of at least 180 credits. Furthermore, knowledge is required in Swedish and English equivalent to Swedish B and English A (with at least the Pass grade).

## **Objectives**

The general aim of the course is that the students should provide knowledge and understanding of disease mechanisms relevant for diagnostic cytology.

### **Knowledge and understanding**

To pass the course, the student should be able to:

- Relate the causes and the effects of different cell adaptations, cell injuries and cell deaths to the development of different diseases and their relevance to cytologic diagnostics
- Evaluate the effects of inflammation and healing of tissue to the development of different diseases and the results of diagnostic cytology
- Summarise the mechanisms behind tumour development, tumour pathology and tumour

- classification and their relevance for diagnostic cytology in relation to normal cells and tissues
- Relate cell death, healing, inflammation, hyperplasia, metaplasia, dysplasia to cancer development

### Skill and ability

To pass the course, the student should be able to:

- Histologically identify different cell types relevant for diagnostic cytology and account for their specialised functions
- Relate the received knowledge and the understanding to the development of diseases and the relevance for diagnostic cytology
- Independently be able to search and evaluate information about a selected diseases and the relevance for diagnostic cytology, compile the material in writing and present the results orally

### Judgement ability and approach

To pass the course, the student should be able to:

- Apply a scientific and reflecting attitude

## Content

The course starts with different, for diagnostic cytology relevant, types of normal cells and tissues. Thereafter, general disease processes and their connection to development of diseases that are diagnosed with cytologic methods are treated. After survey of disease mechanisms, selected diseases relevant for diagnostic cytology are discussed.

During a project work the students will perform an in-depth study of diseases relevant for diagnostic cytology and present these.

**Project work, 1 hp** Independent search of information about selected diseases, collection of the material in writing and oral presentation. **Basic and organ pathology, 3 hp** Cells and cell processes involved in the development of diseases, and their relevance for diagnostic cytology.

## Teaching methods

The teaching includes lectures and project work.

## Examination

The part "Project work, 1 credit" is examined by a presentation of a project work. Grades: Pass (G), Fail (U)

The part "Basic and organ pathology, 3 credits" is examined by a written examination. Grades: Pass (G), Fail (U)

Student who is not passed after the regular examination/examination session have the right to participate at further 5 examination sessions. If the student has carried out 6 failed examinations/tests no additional occasion will be given. An examination for which the student registered but not participated in is not counted as an examination.

Compulsory participation The project work is compulsory. The course coordinator assesses, how absence can be compensated.

## Transitional provisions

Examination according to this syllabus will be provided during one year after the decision to terminate the course or revision of the syllabus.

## Other directives

Course evaluation will be carried out in accordance with the guidelines established by the Board of Education.

## Literature and other teaching aids

### Course literature

#### *Mandatory literature*

Handed-out course material

#### *Recommended literature*

*Lakhani, Sunil R.; Dilly, Susan A.; Finlayson, Caroline J.*

**Basic pathology : an introduction to the mechanisms of disease**

4. ed. : London : Hodder Arnold, 2009 - 329 p.

ISBN:034095003X LIBRIS-ID:11305684

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