Faculty of Medicine

LÄMA42, Pathobiology 1, 28.5 credits

Patobiologi 1, 28,5 högskolepoäng

First Cycle / Grundnivå

Details of approval

The syllabus was approved by Committee for Biomedical, Medical and Public Health Education on 2014-03-25 to be valid from 2014-03-25, autumn semester 2014.

General Information

The course is included in semester 4 of the Master of Science programme in Medicine and is taught in parallel with 1.5 credits of the professional development component of the programme. It is compulsory.

Language of instruction: Swedish
English-language literature is used.

Main field of studies	*Depth of study relative to the degree requirements*
Medicine	G2F, First cycle, has at least 60 credits in first-cycle course/s as entry requirements

Learning outcomes

Knowledge and understanding

On completion of the course, the students shall be able to

- explain how inflammation arises and describe manifestations of inflammation, and the subsequent repair and healing process
- explain how immunity arises, how the immune system combats infection and tumour disease and describe pathological processes caused by the immune

system
- explain how specific bacteria, viruses, parasites and fungi give rise to disease, how they can avoid the immune system and how they develop resistance to antimicrobial agents
- describe, in outline, the principles of laboratory and imaging diagnosis of pathological conditions and post-mortem examinations
- explain mechanisms of action of antimicrobial, anti-inflammatory and immunosuppressant drugs, and of preparations that are used in the treatment of cancer, and basic principles of drug metabolism and drug effects
- explain how cancer occurs and progresses and how tumours are classified
- describe and explain functional changes and pathological conditions in the blood and circulatory system, lungs and respiratory passages, the central nervous system, and in autoimmune disease, immune deficiency disease, amyloidosis and metabolic disease
- account for the etiology, pathogenesis, natural course, complications and prognosis of diseases discussed, integrating laboratory and image diagnosis aspects, and know the incidence and prevalence of the most important pathological conditions

Competence and skills
On completion of the course, the students shall be able to

- use correct terminology and a language suited to knowledgeable colleagues
- present and critically review research articles within the subject areas of the course
- interpret and assess results and opinions from laboratory examinations
- use a medical history to identify descriptions of symptoms or abnormal examination findings, possible explanations or pathological causes and propose further laboratory and imaging diagnostic examinations

Judgement and approach
On completion of the course, the students shall be able to

- assess their need of knowledge and take responsibility for their own knowledge development
- reflect on the value and intergrit of people, and ethical aspects of post-mortem examinatio

Course content

The course focuses on pathological processes and pathological mechanisms, and aims to provide understanding and knowledge of general mechanisms as causes and explanations of the origin and course of various pathological conditions. The course also provides basic knowledge of laboratory medical diagnosis and pharmacological treatment in different pathological conditions. The course links to normal biology from previous semesters and Pathobiology 2 in the subsequent semester, and

provides knowledge to prepare for forthcoming clinical semesters..

The course learning outcomes comprise some of the basic scientific skills of most of the clinical and laboratory situations of the medical degree programme.

Course design

The course work proceeds on the basis of PBL cases and with lectures, laboratory sessions, demonstrations, post-mortems, seminars, written assignments and the study of articles as supplementary teaching components.

All scheduled tuition, except lectures, is compulsory.

Assessment

Scope and structure of the assessment:

Written exam based on the learning outcomes stated for the course (15 credits)

Course portfolio (13.5 credits) consisting of:

- passed PBL work, including an article presentation
- self-assessment of PBL work
- Documentation of attendance at compulsory components
- Implementation of a written assignment described at the beginning of the course

Students who have failed examinations are entitled to re-take an exam four times. Further opportunities may be granted after a special application.

Subcourses that are part of this course can be found in an appendix at the end of this document.

Grades

Marking scale: Fail, Pass.

Entry requirements

To be admitted to the course, students must have passed all exams of semester 2 of the programme and completed course components up to and including semester 3.

Further information

The course has the same content as the course Pathobiology 1 (LÄLA42). The course includes the previous course General Pathobiology (LÄLX41, LÄMX41) and parts of the previous course in Special Pathobiology (LÄLX56 and LÄMX56).

Subcourses in LÄMA42, Pathobiology 1

Applies from V12

1201 Written Test, 15,0 hp
Grading scale: Fail, Pass
1202 Portfolio, 13,5 hp
Grading scale: Fail, Pass

Applies from V09

0801 Written Test, 21,0 hp
Grading scale: Fail, Pass
0802 Portfolio, 7,5 hp
Grading scale: Fail, Pass