Course syllabus for

Ocular Anatomy, Physiology and Diseases 2, 7.5 credits

Ögats anatomi, fysiologi och sjukdomar 2, 7.5 hp
This course syllabus is valid from autumn 2022.
Please note that the course syllabus is available in the following versions:
Autumn2020 , Autumn2022

Course code	1OP072
Course name	Ocular Anatomy, Physiology and Diseases 2
Credits	7.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Not applicable
Level	GX - First cycle
Grading scale	Pass with distinction, Pass, Fail
Department	Department of Clinical Neuroscience
Decided by	Education committee CNS
Decision date	2020-04-01
Revised by	Education committee CNS
Last revision	2022-02-23
Course syllabus valid from	Autumn 2022

Specific entry requirements

Passed results of at least 45 credits from the Study Programme in Optometry's semester 1 and 2.

Objectives

After the course, the student should be able to
1) describe and account for the embryology of the eye
2) describe and account for the structure and function of the vitreous body
3) describe and account for the structure and function of the retina and the chorioid
4) describe and account for the optic nerve, the visual pathway and visual cortex structure and function
5) handle instruments for diagnosis and discovery of lesions in the rear part of the eye, and assess the most commonly occurring changes on the fundus
6) apply methods to examine and rank the front segments of the eye (cornea, eyelid edges, lens, light path, subtarsalt, iris) in high enlargement
7) list, describe and differential diagnose commonly occurring lesions in the rear part of the eye, and reflect on further handling

8) list and describe chemical or radiation-related injuries in the eye
9) carry out and assess a visual field screening in relation to anatomical structure
10) carry out screening by means of Amsler's test
11) describe differences in occurrence of diseases in the rear segments of the eye, based on an ethnic and global health perspective.

In addition to the above the student should, in a level-suited optometry-, care- and scientific perspective, be able to
12) demonstrate knowledge of the disciplinary foundation of the field, knowledge of current research and development, and knowledge of the relationship between science and proven experience
13) search, collect, and describe information in a presented problem, and discuss phenomena, issues and situations critically, independently identify, formulate and solve problems in writing, and carry out assignments within given time frames
15) formulate scientific text in writing.

Aim 12-15 should be seen in relation to the document "Vetenskaplig strimma Optikerprogrammet" (Scientific Thread in Study Programme of Optometry).

Content

The course includes the following: anatomy, physiology and diseases in the rear parts of the eye, and examination methodology for evaluation of the rear segments of the eye (OCT, fundus camera, ophthalmoscope and perimeter).

In addition to this the course is part of the teaching of general scientific knowledge within the program. In relation to teaching of general scientific knowledge, the students continue to broaden their knowledge related to the scientific base of optometry, science and proven experience and scientific communication. They also develop their knowledge and understanding, skills and abilities, their judgement, scientific thought and attitude, in relation to optometry and a lifelong learning. The teaching of general scientific knowledge is described in a separate document.

The course is divided in the following three modules:

Clinical work, 2.5 hp

Grading scale: GU

The module includes practical skills training.

Theoretical understanding, 2.5 hp

Grading scale: VU

The module includes theoretical understanding and renewal of the topic-specific contents of the course.

Scientific development, 2.5 hp

Grading scale: GU

The module includes assignments in KI's virtual learning environment, the scientific thread in the programme and written assignments.

Teaching methods

The course includes self-study, demonstrations, test, laboratory sessions, theoretical overviews (e.g. lectures, seminars, flipped classroom, case methods), practical exercises, and written assignments. The students are given a possibility to train practical skills but must take a great responsibility themselves.

Some course elements are compulsory, see heading "Examination".

Examination

The course is examined in the following way:

Module 1, Clinical work
a) practical test, is graded U (Fail) or G (Pass)
b) compulsory seminars according to schedule

The module is graded U or G. The grade G requires G on examination a) as well as fulfillment of compulsory course elements.

Module 2, Theoretical understanding
a) written examination, is graded U, G or VG (Pass with distinction)
Re-examination may take place orally.

The module is given the same grade as the written examination, U, G or VG.

Module 3, Scientific development
a) compulsory assignments in KI's virtual learning environment
b) compulsory written assignments
c) compulsory seminars and demonstrations as per schedule, a part of the scientific thread in the programme

The module is graded U or G. The grade G requires fulfillment of compulsory course elements.

Course grade
The entire course is graded U, G or VG. The grade G requires G on all modules. The grade VG requires G on module 1 and 3, and VG on module 2.

Absence from or unfullfillment of compulsory course element
The examiner decides whether, and if so how, absence from or unfulfillment of compulsory course elements can be made up for.
Study results cannot be reported until the student has participated in or fulfilled compulsory course elements, or compensated for any absence/ failure to fulfill in accordance with instructions from the examiner. Absence from or unfulfillment of a compulsory course element may imply that the student can not retake the element until the next time the course is offered.

Possibility of exception from the course syllabus' regulations on 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 knowledge, skills and attitudes may not be changed, removed or reduced.

Transitional provisions

If the course is cancelled or goes through substancial changes, information about interim regulations will be stated here.

Other directives

Course evaluation takes place in accordance with KI's local guidelines. Compilation of the students' answers in course questionnaires and the course coordinator's analysis of these are published on KI's public course web.

Some teaching may be in English.

Literature and other teaching aids

Clinical ophthalmology : a systematic approach

Kanski, Jack J.; Bowling, Brad; Nischal, Ken K.; Pearson, Andrew

7. ed. : Edinburgh : Butterworth-Heinemann, 2011 - ix, 909 s.
ISBN:978-0-7020-4093-1 (hbk.) LIBRIS-ID:12189545
Library search

Remington, Lee Ann.

Clinical anatomy and physiology of the visual system

3rd ed. : St. Louis : Elsevier/Butterworth-Heinemann, c2012. - ix, 292 p.
ISBN:1437719260 LIBRIS-ID:20698295
Library search

Lönwe, Bo

Ögonsjukdomar i primärvården

Tornqvist, Kristina; Bengtsson-Stigmar, Elisabeth

[Ny utg.] : Malmö : Leo Pharma Nordic, cop. 2005 - 123 s.
ISBN:91-974368-4-4 LIBRIS-ID:10697668
Library search

Bergmansson, Jan P.G

Clinical ocular anatomy and physiology

Texas eye research and technology center, 2009 - 218 p
ISBN:13:978-0-9800-708-1-1
Library search

Ehlers, Justis P.; Shah, Chirag P.

The Wills eye manual : office and emergency room diagnosis and treatment of eye disease.

5th ed. /b editors, Justis P. Ehlers, Chirag P. Shah ; associate editors, Gregory L. Fenton, Eliza N. Hoskins, Heather : Philadelphia : Wolters Kluwer / Lippincott Williams & Wilkins, c2008. - xvii, 455 p.
ISBN:978-0-7817-6962-4 LIBRIS-ID:11823109
Library search

Lang, Gerhard K.

Ophthalmology : a short textbook

Stuttgart : Thieme, 2000 - xviii, 586 s.
ISBN:3-13-126161-7 LIBRIS-ID:4669549
Library search

Remington, Lee Ann

Clinical anatomy of the visual system

2. ed. : St. Louis; Mo : Elsevier Butterworth Heinemann, 2005 - xi, 292 s. : ill.
ISBN:0-7506-7490-3
Library search

Saude, Trygve

Ocular anatomy and physiology

London : Blackwell Science, cop. 1993 - vii, 168 s.
ISBN:0-632-03599-4 LIBRIS-ID:9066980
Library search