



**Karolinska
Institutet**

Course syllabus for

Ocular Anatomy, Physiology and Diseases 2, 7.5 credits

Ögats anatomi, fysiologi och sjukdomar 2, 7.5 hp

This course has been cancelled, for further information see Transitional provisions in the last version of the syllabus.

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

[Autumn2013](#) , [Autumn2015](#) , [Spring2017](#) , [Autumn2017](#)

Course code	1OP046
Course name	Ocular Anatomy, Physiology and Diseases 2
Credits	7.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Optometry
Level	G2 - First cycle 2
Grading scale	Pass with distinction, Pass, Fail
Department	Department of Clinical Neuroscience
Decided by	Programnämnd 8
Decision date	2012-05-08
Revised by	Education committee CNS
Last revision	2016-10-19
Course syllabus valid from	Spring 2017

Specific entry requirements

Passed results of at least 45 higher education credits from the Optometry program 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) list, describe and differential diagnose commonly occurring lesions in the rear part of the eye, and reflect on wider handling

7) list and describe chemical respective radiation damage in the eye

8) carry out and assess a visual field examination

9) describe the differences in the incidence of diseases of the posterior segment from an ethnically and global health perspective.

And, as part of the teaching in general scientific knowledge, the student should be able to show:

10) knowledge of the disciplinary foundation of the field and knowledge of current research and development and knowledge of the relationship between scholarship and best practice,

11) ability to search, collect, and describe information in a problem and to discuss phenomena, issues and situations critically

12) the ability to identify independently, formulate and solve problems in writing and to carry out assignments within given time frames and

13) ability to formulate scientific text in writing.

Aim 9-13 should be seen in relation to the document "Vetenskaplig strimma Optikerprogrammet".

Content

The course contains the following parts: Anatomy, physiology and diseases in the rear parts and study of the eye and evaluation of rear segments. In addition to this the course is part of the teaching of general scientific knowledge within the program. In connection with this the students will continue to specialize within scholarship scholarship and best practice and scientific communication. They will also develop his knowledge and understanding, his skills and abilities his judgement and his 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 into three (3) parts:

Clinical Work, 2 hp Part 1 includes written assignments and group assignment, and clinical work.

Theoretical Understanding, 4 hp Part 2 includes theoretical understanding and renewal of the topic-specific contents of the course. **Investigative Techniques, 1.5 hp** Part 3 includes the ability to carry out clinical practical methodology.

Teaching methods

The course comprises self-study, demonstrations, laboratory sessions, theoretical overviews (in the form of lectures, seminars, Case methods, practical exercises), study visits and written assignments. The students are given a possibility to train practical skills but must take a great responsibility themselves.

Examination

The examination comprises:

Part 1, Clinical work, examines the learning outcomes 1 up to 13. Compulsory participation applies at demonstrations, test, laboratory sessions, seminars, study visits and at practical/clinical exercises. in case of absence, measures to be taken are discussed with the course director. The part is graded according to the scale Fail/Pass.

Part 2, Theoretical understanding, examines the learning outcomes 1 up to 13. The part is examined with a written test. Re examination may be oral. The part is graded according to the scale Fail/Pass/Pass with distinction.

Part 3, Investigative Techniques, examine aim 5 and 6 in the form of practical test on handling of ophthalmic instruments. The part is graded according to the scale Fail/Pass

The whole course is graded according to the scale Fail/Pass/Pass with distinction. A Pass grade requires a Pass grade in all the parts. For a Pass with distinction, a Pass grade in parts 1 and 3, and Pass with distinction in part 2 are required.

Criteria for assessing practical tests are established in separate documents.

A student who fails the regular examination has the right to participate at additional five examinations. If the student fails six examinations/test there will be no additional examination. As an examination, the times that the student has participated the same test are counted. Submission of blank exam is counted as an examination. Examination to which the student has registered but not participated in is not counted as an examination.

Transitional provisions

If the course is closed down or undergoes major changes, students who have not completed the course are given the possibility, during four semesters from the date when the student first registered in the course, to be examined under the then current syllabus. After four semesters, the student is examined by the new syllabus.

Other directives

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

Teaching in English can occur.

Literature and other teaching aids

Saude, Trygve

Ocular anatomy and physiology

Fletcher, R.

London : Blackwell Science, 1993 - vii, 168 s. : ill.

ISBN:0-632-03599-4

[Library search](#)

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](#)

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 - 586

ISBN:3131261617

[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](#)