



**Karolinska  
Institutet**

Course syllabus for

# **Ocular Pharmacology and Diagnostics, 7.5 credits**

Okulär farmakologi och diagnostisk undersökningsmetodik, 7.5 hp

This course syllabus is valid from spring 2017.

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

Autumn2012 , Spring2017 , Autumn2022

Course code	3OP011
Course name	Ocular Pharmacology and Diagnostics
Credits	7.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Optometry
Level	AV - Second cycle
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**

Degree of Bachelor of Science in Optometry about 180 credits and professional status qualification as optician with contact lens qualification. Or Nurse degree of at least 180 credits, professional status qualification as nurse and 60 credits supplementation within eye care.

Knowledge in Swedish and English equivalent Swedish B and English A (with at least the Pass grade).

## **Objectives**

After the course, the student should be able to:

- 1) describe and reflect on general pharmacological principles
- 2) describe and reflect over how different medication interact,
- 3) describe, discover and reflect on how medication may affect the eye negative,
- 4) describe, choose appropriate and use diagnostic medication at eye examination,
- 5) examine and evaluate the topography and aberrations of the eye
- 6) examine and evaluate main chamber including use of Gonioscopy lens,

- 7) examine and evaluate the lens and the vitreous body
- 8) examine and evaluate eye pressure with different types of tonometers,
- 9) examine and evaluate the eye fundus with advanced examination techniques (90D lens, binocular indirect and laser techniques, and
- 10) examine and evaluate the visual field,
- 11) define the concept of screening and apply it in relation to different global conditions and populations.

## Content

The course contains the following parts: General pharmacological principles, how medication can influence one another side effects at ocular diagnostic medication, different diagnostic medication, their usage and study of the topography and aberrations of the eye, the use of Gonioscopy lens and 90D lens, visual fields and measurements of intra ocular pressure and laser techniques for study of the retina.

The course is divided into two (2) parts:

**Assignments and Clinical Work, 4 hp** Include submission of written assignments and implemented group assignment and accomplished clinical work. **Theoretical Understanding, 3.5 hp** Comprises a theoretical understanding and application of the subject-specific contents of the course.

## Teaching methods

The course is initiated with labs, exercises, a theoretical overview and demonstrations. The theoretical overview is made through different tuition forms (Case methodology, lectures etc). The students are given a possibility to train practical skills but must take a great responsibility themselves.

## Examination

The examination comprises:

- 1) Clinical examination. Examine the aims 4 to 10.
- 2) Written/Oral examination. The written/oral tests examine the aims 1 to 11.

In order to pass the part "Assignments and clinical work" assignments has to be completed and clinical examination passed. The clinical work is assessed through formative assessment and practical test in diagnostic examination technique. In case of absence from demonstrations, exercises and clinical work, compensation is discussed with course the director. The part is graded according to the scale Fail/Pass/Pass with distinction.

The part Theoretical understanding is examined through a written test. Re examination may be oral. This part is graded according to the scale Failed/Passed/Passed with distinction.

The whole course is graded according to the scale Failed/Passed/Passed with distinction. To overall pass the course the mark pass must be obtained for both parts. To overall pass the course with distinction the mark pass with distinction must be obtained for both parts.

A student who fails the regular examination has the right to participate at additional five examinations. If the student has failed six times, no additional examination will be offered. Each time a students attend an examination it is counted. Submission of blank exam is counted as an examination. Examination to which the student registered but not participated be counted not as 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 under 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

### **Optometry : science, techniques and clinical management**

*Rosenfield, Mark; Logan, Nicola; Edwards, Keithq (Keith H.)*

2nd ed. : Edinburgh ;a New York : Butterworth Heinemann Elsevier, 2009. - xi, 555 p.

ISBN:978-0-7506-8778-2 (alk. paper) LIBRIS-ID:11689845

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*Hopkins, G. A.; Pearson, R. M.q (Richard M.); Davies, P. H. O'Connorq (Patrick Henry O'Connor)*

### **Ophthalmic drugs : diagnostic and therapeutic uses**

5th ed. : Edinburgh : Butterworth Heinemann/Elsevier, 2007. - vii, 331 p.

ISBN:978-0-7506-8864-2 (pbk.) LIBRIS-ID:11090439

[Library search](#)

*Grosvenor, Theodore P.*

### **Primary care optometry**

5th ed. : St. Louis, Mo. : Butterworth-Heinemann/Elsevier, c2007 - xiii, 510 p.

ISBN:0-7506-7575-6 LIBRIS-ID:10438993

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*Carlson, Nancy B.; Kurtz, Daniel*

### **Clinical procedures for ocular examination**

3rd ed. : New York : McGraw-Hill, cop. 2004 - 487 p.

ISBN:0-07-137078-1 (pbk.) : £34.99 LIBRIS-ID:9072254

[Library search](#)

### **Clinical techniques in ophthalmology**

*Madge, Simon N.*

Edinburgh : Churchill Livingstone Elsevier, 2006. - xi, 302 p.

ISBN:978-0-443-10304-9 LIBRIS-ID:11784889

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