Course syllabus for

Ocular Pharmacology and Diagnostics, 7.5 credits

Okulär farmakologi och diagnostisk undersökningsmetodik, 7.5 hp
This course syllabus is valid from autumn 2022.
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	2022-03-23
Course syllabus valid from	Autumn 2022

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/ Swedish 3 and English A/ English 6 (with lowest grade Passed).

Students who have failed their VIL (clinical training opportunity) after demonstrating serious deficiencies in understanding, skill, or professional attitude, and done this to the degree that client or patient safety or client/ patient/ employer trust for the healthcare has been jeopardised, will qualify for a new VIL opportunity only after completion of an individual action plan.

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
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 the following two modules:

Assignments and clinical work, 4.0 hp

Grading scale: VU

Include submission of written assignments and implemented group assignment and accomplished clinical work.

Theoretical understanding, 3.5 hp

Grading scale: VU

Comprises a theoretical understanding and application of the subject-specific contents of the course.

Teaching methods

The course includes labs, clinical exercises (VIL), 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.

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

Examination

The course is examined in the following way:

Module 1, Written assignments and clinical work, examines aim 4-10
a) practical test in diagnostic examination methodology, is graded U (Fail), G (Pass) or VG (Pass with distinction)
b) written assignments, each graded U or G
c) test in ocular pharmacology, graded U or G
d) compulsory ophthalmic examination

The module is graded U, G or VG.
The grade G requires G on examination a, b and c, as well as fulfillment of compulsory course elements.

The grade VG requires VG on examination a, G on examination b and c, as well as fulfillment of compulsory course elements.

Module 2, Theoretical understanding, examines aim 1-11
a) written examination, is graded U, G or VG
The module is given the same grade as written examination, U, G or VG.

Course grade
The entire course is graded U, G or VG.
The grade G on the entire course requires at least G on module 1 and 2.
The grade VG requires VG on both module 1 and 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.

Guidelines in case of failure of VIL
The examiner may, with immediate effect, interrupt a student's clinical placement (or equivalent) if the student demonstrates such serious deficiencies in knowledge, skills or attitude that patient safety or patient confidence in healthcare is at risk. If a clinical placement is interrupted in this way the student is deemed to have failed that element and to have used up one clinical placement opportunity. In such cases, an individual action plan should be set up stating which activities and tests are required before the student is qualified for a new clinical placement on the course.

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 substantial changes, information about interim regulations will be stated here.

Other directives

Course evaluation takes place according to guidelines established by Karolinska Institutet.

Teaching in English may 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
Library search

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
Library search

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
Library search