



**Karolinska
Institutet**

Course syllabus for

Contact Lenses 1, 4.5 credits

Kontaktologi 1, 4.5 hp

This course syllabus is valid from spring 2021.

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

Spring2021 , Spring2023 , Spring2024 , Spring2025

Course code	1OP075
Course name	Contact Lenses 1
Credits	4.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Optometry
Level	G1 - First cycle 1
Grading scale	Pass with distinction, Pass, Fail
Department	Department of Clinical Neuroscience
Decided by	Education committee CNS
Decision date	2020-10-14
Course syllabus valid from	Spring 2021

Specific entry requirements

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

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 have 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 apply criteria for fitting of a soft spherical contact lenses including over refraction
- 2) describe and apply criteria for fitting of a soft toric contact lenses including over refraction
- 3) perform topography and interpret the result in relation to the contact lens fittings that are included in the course
- 4) show basic knowledge of production and material related to contact lenses and contact lens solution
- 5) put in and take out soft contact lenses on oneself alone and on other,
- 6) describe maintenance and give patient instructions related to soft contact lenses.

In addition to the above the student should, in a level-suited optometry-, care- and scientific perspective, be able to

- 7) demonstrate broad knowledge about the disciplinary foundation of the field,
- 8) demonstrate broad knowledge and understanding within optometry, included knowledge of the disciplinary foundation of the optometry, knowledge of applicable methods in the area, advanced study within some part of the field and orientation in current research issues,
- 9) show ability to search, collect and reflect on information in a problem and to discuss phenomena, issues and situations critically and
- 10) formulate scientific text in writing.

Aim 7-10 should be seen in relation to the document "Vetenskaplig strimma Optikerprogrammet" (Scientific streamline in optometry program).

Content

The course contains the following parts: Basic knowledge of production and material, related to contact lenses and contact lens solutions, repetition of contact lens related anatomy, physiology and fitting of soft spherical and toric contact lenses. Maintenance of soft lenses and patient instructions related to these lenses.

The fitting of a contact lens takes place in clinical training opportunity.

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, 2.0 hp

Grading scale: GU

The module includes VIL, portfolio and formative assessment of clinical proficiencies and patient care and a practical test in the form of fitting a soft contact lens.

Theoretical understanding, 2.0 hp

Grading scale: VU

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

Scientific development, 0.5 hp

Grading scale: GU

The module includes assignments in KI's virtual learning environment, the scientific streak 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/ clinical exercises (VIL), portfolio and written assignments. The students are given a possibility to train practical skills but must take a great responsibility themselves.

Examination

The course is examined in the following way:

Module 1, Clinical work, examines the learning outcomes 1 up to 7.

- a) continuous examination of clinical proficiencies and patient care in connection with VIL (Fail/Pass)
- b) compulsory portfolio according to instructions
- c) practical test in the form of an alignment of soft contact lens including over refraction. The test is performed on patient based on existing vision screening (Fail/Pass)
- d) compulsory seminars and demonstrations as per schedule

The module is given the grade Fail or Pass. The grade Pass requires Pass on examination assignment a) and c), and fulfillment of compulsory course elements.

Module 2, Theoretical understanding, examines the learning outcomes 1 up to 11.

- a) written examination (Fail/Pass/Pass with distinction)
- Re-examination may take place orally.
- b) compulsory seminars and demonstrations as per schedule

The module is given the grade Fail, Pass or Pass with distinction. The grade Pass requires Pass on written examination and fulfillment of compulsory course elements. The grade Pass with distinction requires Pass with distinction on written examination, and fulfillment of compulsory course elements.

Module 3, Scientific development, examines the learning outcomes 1-10.

- a) compulsory assignments in KI's virtual learning environment according to instructions
- b) written assignments in the form of case studies that also are presented orally (Fail/Pass)
- c) compulsory seminars and demonstrations as per schedule

The module is given the grade Fail or Pass. The grade Pass requires Pass on examination assignment b), and fulfillment of compulsory course elements.

Course grade

The entire course is given the grade Fail (U), Pass (G) or Pass with distinction (VG).

The grade Pass on the entire course requires Pass on all modules.

The grade Pass with distinction requires Pass on module 1 and 3, Pass with distinction on module 2.

Absence from or unfulfillment 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.

Limitation of the number of practical test or training sessions

Students who do not pass a regular examination are entitled to re-sit the examination on five more occasions. If the student has carried out six failed tests, no further examination opportunity is given. Each occasion the student participates in the same test counts as an examination. In case a student is registered for an examination but does not attend, this is not regarded as an examination. To be valid for judgement, the examination must be submitted at the given time, or the student will be referred to the next examination occasion.

Regarding VIL, the number of times a student has the right to participate/go through the course and be assessed on the same is limited to two (2) times.

Guidelines in case of failure

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 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

Mandatory literature

Benjamin, William J.; Borish, Irvin M.

Borish's clinical refraction

2nd ed. : St. Louis, Mo. : Butterworth-Heinemann/Elsevier, c2006. - xviii, 1694 p.

ISBN:0-7506-7524-1 LIBRIS-ID:10580274

[Library search](#)

Bennett, Edward

Clinical Manual Of Contact Lenses

Lippincott Williams And Wilkins.UK.20081225,

ISBN:9780781778299

[Library search](#)

Contact lenses

Phillips, Anthony J. q (Anthony John); Speedwell, Lynne

5th ed. : Edinburgh ; a New York : Butterworth-Heinemann, 2007 - xvi, 665 p.

ISBN:0750688181 LIBRIS-ID:10439031

[Library search](#)

Gasson, Andrew; Morris, Judith

The contact lens manual : a practical guide to fitting

3. ed. : London : Butterworth-Heinemann, 2003 - 450 p.

ISBN:0-7506-5548-8 (pbk.) LIBRIS-ID:8947219

[Library search](#)

Manual of contact lens prescribing and fitting : with CD-ROM

Hom, Milton M.; Bruce, Adrian S.

3. ed. : St. Louis : Butterworth-Heinemann Elsevier, cop. 2006 - xvii, 749 s.

ISBN:0-7506-7517-9 LIBRIS-ID:10099341

[Library search](#)

Reference literature

Bennett, Edward

Manual of Gas Permeable Contact Lenses

Butterworth Heinemann, 2004

ISBN:0-7506-4912-7

[Library search](#)

Efron, Nathan

Contact lens complications

2. [completely rev. and updated] ed. : Edinburgh ; b Butterworth-Heinemann, c 2004 : Butterworth-Heinemann, 2004 - xxxi, 256 p.

ISBN:0-7506-5534-8 LIBRIS-ID:9654988

[Library search](#)

Sweeney, D.q (Deborah)

Silicone hydrogels : continuous wear contact lenses

2nd ed. : Edinburgh : Butterworth-Heinemann, 2004. - 332 p.

ISBN:0-7506-8779-7 LIBRIS-ID:9485236

[Library search](#)

Veys, Jane; Meyler, John; Davies, Ian

Essential contact lens practice

Oxford : Butterworth-Heinemann, 2002 - 160 s.

ISBN:0-7506-4912-7 (pbk) LIBRIS-ID:5574027

[Library search](#)

Rabbetts, R. B.

Clinical Visual Optics

4:e upplaga : Oxford: Butterworths - 488s. : 2007

ISBN:0-7506-8874-2

[Library search](#)

Clinical procedures in primary eye care

Elliott, David B.

3rd ed. : Edinburgh ;a New York : Elsevier/Butterworth Heinemann, 2007 - xii, 342 p.

ISBN:978-0-7506-8896-3 LIBRIS-ID:11008167

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