



**Karolinska  
Institutet**

Course syllabus for

## **Contact Lenses and Chemistry, 4.5 credits**

Kontaktlinser och kemi, 4.5 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

Course code	1OP062
Course name	Contact Lenses and Chemistry
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	Programnämnd 8
Decision date	2013-05-07
Revised by	Education committee CNS
Last revision	2020-04-01
Course syllabus valid from	Autumn 2015

## **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:

- 1) list and describe basic principles and concepts within organic chemistry
- 2) list and describe the characteristics of polymeric materials and the chemical composition in relation to contact lenses,
- 3) describe and apply criteria for alignment of soft contact lenses
- 4) put in and take out soft contact lenses on oneself alone and on other,
- 5) describe maintenance and patient instructions related to soft contact lenses,
- 6) show broad knowledge about too the subject area relevant ordinances.

And that the student in should be able to show:

- 7) ability to evaluate knowledge at the scientific level
- 8) ability to search and evaluate knowledge at the scientific level

- 9) understanding of the importance of to follow the knowledge development
- 10) ability to review critically, assess and use relevant information and to discuss new facts, phenomena and issues
- 11) ability to identify his need of additional knowledge and that continuous develop his skills
- 12) the ability to identify independently, formulate and solve problems and to carry out assignments within given time frames
- 13) ability to account in writing too and discuss information.

Aim 7-13 should be seen in relation to the document "Vetenskaplig strimma Optikerprogrammet".

## Content

The course contains the following parts: general organic chemistry, polymer chemistry, repetition of contact lens related anatomy, physiology and alignment soft contact lenses, maintenance of and patient instructions related to soft contact lenses and laws and regulations related to contact lenses and contact lens fitting. In addition to this is the course a part of 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 in general scientific knowledge is described in a separate document.

The course is divided into two (2) parts:

### Clinical work, 2.5 hp

Grading scale: VU

Include written assignments and group assignment and clinical work.

### Theoretical understanding, 2.0 hp

Grading scale: VU

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

## Teaching methods

The course comprises self-study, demonstrations, laboratory sessions, theoretical overviews (in the form of lectures, seminars, Case methods, practical exercises), placement and written assignments.

## Examination

The course will be examined towards the following aims and in the following way:

Part 1 examines all aims. Compulsory participation applies at demonstrations, test, laboratory sessions, seminars, study visits and at practical/clinical exercises and passed practical test in soft contact lenses. in case of absence, measures to be taken are discussed with the course director. The examination written assignments and practical test soft contact lenses. The part is graded according to the scale Fail/Pass.

Part 2 examines all aims and is examined with written examinations. Re examination may be oral. The part is graded according to the scale Fail/Pass/Pass with distinction.

The whole course is graded according to the scale Fail/Pass/Pass with distinction. For Passed is required passed at part 1 and 2. For a Pass with distinction, a Pass in part 1 and a 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

The course has been cancelled and is offered for the last time in the spring semester of 2020. Last examination according to this syllabus will be provided the fall semester of 2021 for students who have not completed the course.

## Other directives

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

The course is based on knowledge acquired in previous courses in the program.

## Literature and other teaching aids

*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](#)

*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

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*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](#)

*Östlund, Kurt*

**Kontaktologi : lärobok i elementär och fördjupad kontaktlinsteknik och angränsande ämnen**

Stockholm : [Förf.], 1980 - x, [1], 345 s., 18 pl.-s.

ISBN:91-7260-391-7 (inb.) LIBRIS-ID:7629066

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