Course syllabus for

Eye movements and binocular vision, 4.5 credits

Ögonrörelser och binokulärseende, 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:
Spring2008 , Spring2010 , Spring2011

Course code	1OP006
Course name	Eye movements and binocular vision
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	Programnämnden för Optikerprogrammet
Decision date	2007-10-17
Course syllabus valid from	Spring 2008

Specific entry requirements

Standardised admission requirements E.1.

Objectives

1) - describe and account for the external muscles of the eye - their processes, function and movements, innervation and vascular supply, 2) - carry out and interpret the results in an ocular motion test 3) - describe and account for human power of accommodation - how it is encouraged and changed with age, and describe and account for pupil responses and how these are interconnected with accommodation 4) - carry out and interpret the results of an ocular accommodation test (push-up) and of a static and dynamic pupil response test, 5) - describe, account for and reflect on the binocular vision - its advantages, preconditions, and function, 6) - carry out and interpret the results in suppression (polarised, 4 prism basis and Mallett) and stereotest (Lang, Titmus and TNO), 7) describe and account for foris and tropies - their cause, occurrence, classification and related symptoms, 8) carry out and interpret the results in a cover testing for foris and tropies (only type (fori/tropy) and direction), 9) - account for and describe different binocular abnormalities - their cause, occurrence, tests for, and possible treatment, 10) - apply focimeter for measuring prismatic lenses.

Content

The course contains the following parts: The external muscles, motion test, accommodation, accommodation test, presbyopia, pupil function and test, preconditions and function of binocular vision, tests for suppression and stereoscopic vision, foris and tropies, and cover tests, binocular abnormalities and focimeter. The course starts with self-study and continues with exercises, theoretical overviews and demonstrations. The theoretical overview is made through various tuition forms (Internet-based, Case methodology, whole-group lectures etc). The students are given a possibility to train practical skills but must take a great responsibility themselves. The course is divided in three parts: 1) Mandatory attendance - 1 credit (Mandatory attendance - 1 ECTS credit). Compulsory attendance comprises attendance in compulsory demonstrations, laboratory sessions and exercises. 2) Assignments and focimeter skills - 1 credit (Assignments and focimeter skills - 1 ECTS credit). Comprises submission of a log book, and other written assignments and a practical test of focimeter. 3) Theoretical understanding - 2.5 credits (Theoretical understanding - 2.5 ECTS credits). Comprises a theoretical understanding and application of the subject-specific contents of the course.

Mandatory attendance, 1.0 hp

Grading scale: VU

Compulsory attendance comprises attendance at compulsory demonstrations, test, laboratory sessions, seminars, study visits and at practical/clinical exercises.

Assignments and focimeter skills, 1.0 hp

Grading scale: VU

Comprises written assignment and practical tests in focimeter.

Theoretical understanding, 2.5 hp

Grading scale: VU

Comprises a theoretical understanding and application of the subject-specific contents of the course.See separately documents for criteria at practical test.

Teaching methods

The course comprises self-study, demonstrations, laboratory sessions, theoretical overviews, exercises, workshop and written assignments.

Examination

The examination comprises: 1) Mandatory attendance. 2) Assignments and focimeter skills. Examination of learning outcomes 1 to 10. 3) Written/Oral examination. Examination of outcomes 1 to 9. In the part Mandatory attendance, attendance is required in demonstrations, seminars, laboratory sessions and 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. The part Assignments and focimeter skills, requires submission of a log book and other written assignments, and a practical test of focimeter. The part is graded according to the scale Fail/Pass. The part Theoretical understanding is examined through written/oral examinations. The part is graded according to the scale Fail/Pass/Pass with distinction. For admission to the examinations, completed Mandatory attendance and submitted assignments are required. The entire course is graded according to the scale Fail/Pass/Pass with distinction. For a Pass grade in the course, a Pass grade is required for all its parts. A Pass with distinction requires a Pass grade in parts 1 and 2 and a pass with distinction in part 3.

Transitional provisions

When a student fails an examination, there will be an opportunity for a new examination. All in all, 6 opportunities for a new examination are provided for all parts

Other directives

Course evaluation will be carried out in accordance with the guidelines established by the Board of Education. The course is given in parallel with the course the Anatomy and physiology of the eye and is, at the same time, based on knowledge acquired in previous courses.

Literature and other teaching aids

Evans, Bruce J. W.; Pickwell, David

Pickwell's binocular vision anomalies : investigation and treatment

4. ed : Oxford : Butterworth-Heinemann, 2002 - 450 s..

ISBN:0-7506-4714-0 LIBRIS-ID:5573911

Library search

Steinman, S.; Garzia, B.

Foundations of Binocular Vision - A Clinical Perspective.