Course syllabus for

Vascular Diagnostics, 7.5 credits

Fysiologisk kärldiagnostik, 7.5 hp
This course syllabus is valid from autumn 2016.

Course code	2QA260
Course name	Vascular Diagnostics
Credits	7.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Not applicable
Level	Second cycle, in-depth level of the course cannot be classified
Grading scale	Pass, Fail
Department	Department of Laboratory Medicine
Decided by	Board of Higher Education
Decision date	2016-06-30
Course syllabus valid from	Autumn 2016

Specific entry requirements

At least 120 credits in which should be included a Degree of Bachelor of Science in Biomedical Laboratory Science with specialisation clinical physiology or a nurse degree. Or 120 credits from the Study Programme in Medicine. Furthermore, Swedish B are required/Swedish 3 and English A/English 6 with lowest the grade Pass/E.

Objectives

The general aim of the course is that the student based on earlier education in health care should receive advanced knowledge in clinical physiological diagnostics at arterial and venous disease. On completion of the course, the student should be able to demonstrate increased understanding of pathophysiological processes and treatment strategies in the field of vascular diagnostics. The course intends also to encourage the student to develop their clinical skills but foremost to further work on methodology and research within vascular diagnostics.

On completion of the course, the student should be able to:

Knowledge and understanding:

- Account for different methods used for characterization of vessel function.
- Specify the technologies used to provide safe diagnostics while addressing different questions within vascular diagnostics

- Account for the occurrence, cause, symptoms, diagnosis and treatment of different vascular disorders
- Account for blood flow and blood pressure in different vascular beds in healthy subjects as well as in pathological conditions. Be able to establish degree of e.g. vascular stenosis and venous reflux
- Account for future methods (such as ultrasound with 3D-technology) within vascular diagnostics and their importance for a more safe and cost-effective diagnosis

Skills and abilities:

- Choose and apply adequate methods for diagnostics of different vascular disorders
- Relate vascular anatomy (artery and vein) to ultrasound images to perform an adequate examination
- At a general level; discuss pathophysiological processes including normal hemodynamics and alterations related to vascular disorders
- Calculate and interpret the results of vascular examinations with regards to the most common diagnoses
- Demonstrate how to compile the results of performed examinations into a clinical report.
- Analyze and reflect upon the sources of errors for the different methods.

Self-evaluation and attitude:

- Reflect upon the own need of professional development to meet the requirements of the health care system
- Reflect upon good teamwork with different professionals

Content

The course describes different diagnostic methods to assess commonly occurring vascular disorders. The students are trained to assess and interpret results of vascular examinations as well as understand the grade of pathology and relate these findings to normal relations. A good understanding of physiology is obtained through, among other activities, practical exercises in small groups. Clinical patient cases are discussed during course seminars.

Teaching methods

Different working methods such as individual study assignments, work in groups, virtual discussions, seminars, workshops, lectures and practical exercises/demonstrations.

Examination

The students are examined through written examination, written assignment as well as oral presentation.

A student who has failed in the regular examination is entitled to participate in five more examinations. If the student has failed six examinations/tests, no more examinations are offered. Each occasion the student participates in the same examination counts as an examination. Submission of a blank exam paper is regarded as an examination occasion. Examination occasion for which the student has registered but not participated in, does not count as a examination occasion.

Transitional provisions

Examination will be provided during a period of two years after a possible closing of the course. Examination can be carried out according to an earlier literature list during a period of one year after the date of a renewal of the literature list.

Other directives

A web-based course evaluation is carried out at the end of the course with feedback to the students.

Language of instruction is Swedish.

Literature and other teaching aids

Jonson, Björn; Wollmer, Per; Brauer, Kerstin
Klinisk fysiologi : med nuklearmedicin och klinisk neurofysiologi

3., [omarb.] uppl. : Stockholm : Liber, 2011 - 397 s.
ISBN:91-47-10363-9 LIBRIS-ID:12239801
Library search

Klinisk fysiologisk kärldiagnostik
Jogestrand, Tomas; Rosfors, Stefan

Lund : Studentlitteratur : b Svensk fören. för klinisk fysiologi, 2002 - 396 s., xii pl.-s. i färg
ISBN:91-44-02189-5 LIBRIS-ID:8394446
Library search

Kärlsjukdomar : lärobok i medicinsk angiologi
Lindgärde, Folke; Thulin, Thomas; Östergren, Jan

2., [väsentligt omarb. och uppdaterade] uppl. : Lund : Studentlitteratur, 2005 - 288 s.
ISBN:91-44-03456-3 LIBRIS-ID:9759160
Library search

Trush, Abigail; Hartshorne, Tim
Vascular Ultrasound - How, Why and When

Elsevier Limited, 2010

Zierler, R. Eugene; Dawson, David L.
Strandness's duplex scanning in vascular disorders

Fifth edition. : Philadelphia : Wolters Kluwer, [2016] - xxi, 556 pages
ISBN:9781451186918 LIBRIS-ID:19530428
Library search