



**Karolinska
Institutet**

Course syllabus for

Sports Medicine and Sports Medicine Research Technique, 30 credits

Idrottsmedicin och idrottsvetenskaplig metodik, 30 hp

This course has been cancelled, for further information see Transitional provisions in the last version of the syllabus.

Course code	2QA035
Course name	Sports Medicine and Sports Medicine Research Technique
Credits	30 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Not applicable
Level	AV - Second cycle
Grading scale	Pass with distinction, Pass, Fail
Department	Department of Molecular Medicine and Surgery
Decided by	Styrelsen för utbildning
Decision date	2008-07-15
Revised by	Board of Higher Education
Last revision	2014-06-23
Course syllabus valid from	Autumn 2008

Specific entry requirements

Completion of the education as a physiotherapist, nurse, physical education teacher or other completed higher education of 120 credits in the area of sports and fitness, or at least 240 credits within the Study Programme in Medicine. Furthermore, knowledge is required in Swedish and English equivalent to Swedish B and English A (with at least the Pass grade).

Objectives

The student should, on completion of the course, have enhanced knowledge and understanding of how medical subjects are related to physical activity and sports.

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

1. on the basis of advanced knowledge in sports physiology, sports traumatology, sports rehabilitation and a sports injury epidemiology reflect and explain the relationship between sports/physical training and sports-related injuries, and between sports-related injuries and their rehabilitation.
2. choose adequate evaluation instruments to evaluate both physical status of the uninjured athlete and different physical parameters after rehabilitation of an injured athlete before returning to sports.

3. design, carry out and document a literature study based on current scientific findings in the sports medical area.

4. identify and carry out preventive actions against sports injuries, and account for how adequate rehabilitation and evaluation after a sports injury should be conducted.

Content

The course gives a scientific insight into current research in sports medicine, including sports physiology, sports traumatology, sports rehabilitation, and a sports injury epidemiology.

Part 1

Sports Medicine, 14 higher education credits

The following sub-parts are treated in the part:

- Specialisation in sports traumatology including strain injuries and problems
- Rehabilitation after sports-related injuries
- Sports physiology including diet and nutrition
- Risk factors of sports-related injuries and problems, injury mechanisms, and sports injury prevention

Part 2

Areas of general medicine, 4 higher education credits

The following sub-parts are treated in the part:

- Infection and sports
- Women and sports
- The special sports problems of children and youths
- Sports physiology
- Sports-related societal and behavioural science

Part 3

Research methodology and statistics, 4 higher education credits

The following sub-parts are treated in the part:

- Basic research methodology with different design of research projects
- Models for performance reports
- Documentation of research projects
- Reviewing of scientific articles
- Basic statistics
- Practical laboratory sessions with various measuring instruments used in sports medicine

Part 4

Project work, 8 higher education credits

The following sub-parts are treated in the part:

- Literature search
- Documentation of literature study
- Oral presentation of the study of literature

Sports Medicine, 14.0 hp

Grading scale: VU

Areas of general medicine, 4.0 hp

Grading scale: VU

Research methodology and statistics, 4.0 hp

Grading scale: VU

Project work, 8.0 hp

Grading scale: VU

Teaching methods

The course sessions consist of lectures, video demonstrations and discussions of diagnostics, acute treatment and rehabilitation in different case studies, i.e. patients with typical sports-related injuries and clinical joint diagnostics. Some teaching will take place in seminars, in which the students work in groups with different problem-oriented assignments in the sports medical area. Furthermore, teaching of research methodology and statistics, and practical laboratory sessions with the use of various research equipments will take place. In addition to this, literature studies and review of scientific articles are included. All parts in the course should be permeated by a reflective attitude to sports based on the positive as well as the negative effects of sports on health.

Examination

The course is examined in the following way:

Part 1: Written examination

Part 2: Written examination

Part 3: written and oral examination

Part 4: oral presentation and written documentation of literature study

For a Pass with distinction in the entire course, the grade Pass with distinction is required in all examination parts.

Compulsory participation: 80% attendance is required. If this is not fulfilled, individual written assignments are required. There is no possibility to re-take the course.

Transitional provisions

The course has been cancelled. Examination will be provided until the spring semester of 2015 for students who have not completed the course.

Other directives

Language of instruction: mainly Swedish, but English-speaking guest lecturers may be involved.

Evaluation of the course will take place in connection with the course closure and be conducted in accordance with the guidelines established by the Board of Education.

Literature and other teaching aids

Carlsson, Christian

Crosstraining : kombinationsträning för alla idrotter

Farsta : SISU, 2001 - 110 s.

ISBN:91-88941-08-6 LIBRIS-ID:8382255

[Library search](#)

Ekstrand, Jan; Karlsson, Jon

Fotbollsmedicin

Solna : Svenska fotbollförb., 1998 - 496 s.

ISBN:91-88474-06-2 (inb.) LIBRIS-ID:8381690

[Library search](#)

Forsberg, Artur; Holmberg, Hans Christer; Woxnerud, Katarina

Träna din kondition

[Ny uppl.] : Farsta : SISU idrottsböcker. Malmö, 2002

ISBN:91-88941-50-7 (korr.)z 91-87660-36-9 LIBRIS-ID:8551203

[Library search](#)

Förebygga, behandla, rehabilitera idrottsskador : en illustrerad guide

Bahr, Roald (red); Mæhlum, Sverre (red)

Stockholm : SISU idrottsböcker, 2004 - 416 s.

ISBN:91-88941-83-3 (inb.) LIBRIS-ID:9397588

[Library search](#)

Hassmén, Peter; Hassmén, Nathalie; Plate, Johan

Idrottspsykologi

Stockholm : Natur och kultur, 2003 - 398, [1] s.

ISBN:91-27-09149-X (inb.) LIBRIS-ID:9066912

[Library search](#)

Idrottsskador : frontlinjen inom behandling och rehabilitering

Karlsson, Jon; Renström, Per; Holmström, Eva; Forsberg, Artur

Stockholm : Centrum för idrottsforskning, 2007 - 336 s.

ISBN:91-87154-17-X LIBRIS-ID:10520361

[Library search](#)

Johansson, Fredrik

Fysisk träning för ungdom

Farsta : SISU idrottsböcker, 2003 - 135 s.

ISBN:91-88941-69-8 LIBRIS-ID:9122275

[Library search](#)

Kenttä, Göran; Svensson, Michael

Idrottarens återhämtningsbok : fysiologiska, psykologiska och näringsmässiga fakta för snabb och effektiv återhämtning

Stockholm : SISU Idrottsböcker, 2008 - 376 s.

ISBN:91-88941-91-4 LIBRIS-ID:10902273

URL: <http://www.idrottsbokhandeln.se/Images/Article/Omslagsbild/Mellan/690.jpg>

[Library search](#)

Peterson, Lars; Renström, Per

Skador inom idrotten : handbok om förebyggande, behandlande och rehabiliterande åtgärder för aktiva, ledare, instruktörer, sjukgymnaster, läkare m.fl.

Tunek, Viveka; Brokop, Susanne; Roos, Ole

3., [uppdaterade och omarb.] uppl. /b översättning av Viveka Tunek, Susanne Brokop, kapitel 21 ;

[konstnärer: Lennart : Stockholm : Prisma, 2003 - x, 534 s.

ISBN:91-518-3995-4 (inb.) LIBRIS-ID:8904870

[Library search](#)

Svantesson, Ulla; Thomeé, Roland; Karlsson, Jon

Idrottarens spänstbok : spänst och elasticitet i muskler och senor

Farsta : SISU, 2001 - 152 s.

ISBN:91-88941-02-7 LIBRIS-ID:7776774

[Library search](#)

Carlsson, Marianne; Rönér Douhan, Gunel

Statistik : en introduktion

2. uppl. : Saltsjö-Boo : Tiger, 1993 - 80 s.

ISBN:91-88606-00-7 LIBRIS-ID:8381886

[Library search](#)

Hassmén, Nathalie; Hassmén, Peter

Idrottsvetenskapliga forskningsmetoder

Stockholm : SISU idrottsböcker, 2008 - 414 s.

ISBN:978-91-85433-29-2 LIBRIS-ID:10686708

URL: <http://www.idrottsbokhandeln.se/Images/Article/Omslagsbild/Mellan/674.jpg>

[Library search](#)

Patel, Runa; Davidson, Bo

Forskningsmetodikens grunder : att planera, genomföra och rapportera en undersökning

3., [uppdaterade] uppl. : Lund : Studentlitteratur, 2003 - 149 s.

ISBN:9789144022888 LIBRIS-ID:8868468

[Library search](#)