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Valid from 1 July 2009

LUNDS UNIVERSITET
Medicinska fakulteten

Board of Rehabilitation Sciences Education, NRU

IDRN05 Medical and Technical Aspects of Sport and Physical Performance

7.5 Higher education credits Second cycle

General Information

Main field
Sport Sciences

Subject
Sports medicine and sport technology, focusing on exercise prescription, sport-specific performance testing, injury prevention and analysis of forces in human movement.

Type of course
Compulsory course in the Master of Sport Sciences programme and can be given as a special course for professionals. The courses within the programme have to be studied in the stated order. The course complies with the regulations of the Higher Education Ordinance (1993:100 with later amendments).

Language of instruction
English

Learning Outcomes

Knowledge and understanding
On completion of the course the student shall be able to

- describe in detail the guidelines for exercise prescription and testing,
- independently analyse and reflect on theories and strategies to prevent sports injuries,
- apply biomechanical principles to human physical performance, training and injury prevention.

Skills and abilities
On completion of the course the student shall be able to

- demonstrate selected concepts in exercise physiology laboratory techniques and practical work.

Judgment and approach
On completion of the course the student shall be able to

- •independently reflect and show awareness of individual resources and needs in relation to sports medicine and sport technology,
- •independently and critically interpret information,
- reflect about his/her personal development and the need of further knowledge in the subject area.

Course Content

The course will contribute to increased knowledge and understanding of selected topics in the area of sports medicine and sport technology. Specific course topics will include exercise prescription for healthy subjects, sport-specific performance testing, epidemiology and prevention of sports injuries and analysis of forces related to human physical performances. The theoretical parts of the course are supplemented with group activities, laboratory work and a parallel individual assignment.

Subjects examined
Medical and technical aspects of sport and physical performance 7.5 credits

Instruction and Examination

Instruction
The course includes lectures, group activities and laboratory work. Supervision is done from an internet-based platform (LUVIT). Attendance at lectures, group activities, laboratory work and LUVIT discussions is compulsory.

Examination
Examination consists in oral and written reports from the group work and a written report from the individual assignment.

Grades

Grades are set for a completed course. One of the grades Pass with distinction, Pass or Fail is awarded.

A student who has passed a course will be given a certificate to that effect by the higher education institution, on request.

Admission Requirements

Besides the basic eligibility, i.e. a Bachelor´s degree of at least 180 credits or an equivalent foreign degree, a special qualification in the English language, i.e. English B or its equivalent, is required.

Literature

See appendix.

Further Information

Number of examinations, new examiner etc.

Theoretical courses
One examination and one opportunity to retake the examination are arranged soon after the course. Students who do not achieve a pass on either of these occasions will be able to retake the examination on a later occasion. Students who have failed an examination on a theoretical course are entitled to retake the examination four times.

New examiner
A student who has failed two examinations on a course or sub-course is entitled to have another examiner appointed, unless there are special reasons to the contrary. (SFS 2006:1053) The request is made to the Programme Director.

Appendix: Literature

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ACSM's Guidelines for Exercise Testing and Prescription/American College of Sports Medicine. (2006). Baltimore: Lippincott Williams & Wilkins. (185 pages)

Kjaer, M., Krogsgaard M., Magnusson P., Engebretsen L., Roos H., Takala T., Woo S. (ed). (2003) *Textbook of Sports Medicine: Basic Science and Clinical Aspects of Sports Injury and Physical Activity.* Oxford: Blackwell Publishing. (355 pages)

Åstrand, K., Rohdahl K., Dahl H., Strömme S. (2003) *Textbook of Work Physiology: Physiological bases of exercise.* Champaign, IL: Human Kinetics. (541 pages)

Additional literature up to 100 pages may be added.