



COURSE SYLLABUS

Orthotic Management and Biomechanics II, 7.5 credits

Orthotic Management and Biomechanics II, 7,5 högskolepoäng

Course Code: HOMN10	Education Cycle: First-cycle level
Confirmed by: Utbildningsrådet Sep 18, 2018	Disciplinary domain: Medicine
Valid From: Aug 24, 2020	Subject group: MT2
Version: 1	Specialised in: G2F
Reg number: Department of Rehabilitation	Main field of study: Prosthetics and Orthotics

Intended Learning Outcomes (ILO)

Upon completion of the course students should have the ability to:

Knowledge and understanding

- compare and contrast the mechanical properties of various orthotic components and devices
- compare and contrast different orthotic management options for lower limb, trunk and neck
- explain the biomechanical properties of the trunk and neck related to orthotic interventions
- explain how a patient centered approach is used in developing individual goals.

Skills and abilities

- apply a patient centered approach
- justify the choice of orthotic interventions using mechanical and biomechanical principles
- generate patient management decisions based upon best available evidence
- perform an independent assessment of a client and design a management plan based upon best available evidence
- design and manufacture an orthotic device in accordance with the management plan
- select and use appropriate outcome measures to evaluate interventions regarding function, quality and safety
- summarize and document clinical processes in a patient's medical record in accordance with regulations.

Judgement and approach

- critically evaluate one's own performance throughout the course
- demonstrate professionalism in contact with clients and peers, ensuring that all interactions are made with respect, empathy, honesty and with consideration of cultural diversity, life situations and other factors that shape a person's identity
- distinguish when a client benefits from interprofessional teams and what other health professionals can contribute to the management plan
- reflect on an intervention considering ethical, personal, social and societal factors.

Contents

- knee orthoses
- hip orthoses
- knee ankle foot orthoses
- hip knee ankle foot orthoses
- cervical orthoses
- cervicothoracic orthoses
- thoracolumbosacral orthoses
- lumbosacral orthoses
- cervicothoracolumbosacral orthoses
- scoliosis management
- seating systems
- hernia truss
- breast prostheses
- biomechanics of the trunk and neck
- patient centered care

Type of instruction

The course is implemented upon a combination of patient centered practical sessions, case based teaching and theoretical instruction.

The teaching is conducted in English.

Prerequisites

General entry requirements and completed courses (passing grade) with 60 credits from semester 1 and 2, and completed courses (passing grade) with 45 credits from semester 3 and 4.

Examination and grades

The course is graded A, B, C, D, E, FX or F.

The course examination will be based upon one case seminar, an individual written examination and performance in patient sessions.

A university lecturer serves as examiner for the course.

Registration of examination:

Name of the Test	Value	Grading
Individual written examination	5.5 credits	A/B/C/D/E/FX/F
Case seminar	1 credit	U/G
Interaction with patients	1 credit	U/G

Other information

Attendance requirements

During the course attendance is compulsory during practical sessions.

Temporary interruption of a course

The School of Health and Welfare may suspend a student's participation in clinical training or other practical activities during the course if a student demonstrates gross unfitness/incompetence when applying skills. A student whose work-based training or other practical activities have been canceled due to gross inadequacy/incompetence may not continue study before the course director or examiner has verified and approved that the student has the knowledge and skills required. In connection with a decision on suspension, the decision will specify the grounds on which the suspension is based. After the decision, an individual plan will be established for the student where knowledge and skills gaps are specified, the degree of support the student is entitled to, and the terms and date(s) for examination(s).

Course literature

Lusardi M. M., & Nielsen C. C. (Eds.). (2013). *Orthotics and Prosthetics in Rehabilitation*. St Louis, Mo. : Saunders/Elsevier.

Fisk, J.R., Lonstein, J.E., & Malas, B.S. (2017). *The Atlas of Spinal Orthotics*. Exceed Worldwide, 2017.

The most recent editions of the course literature should be used.

Additional relevant journal articles will be used.