COURSE SYLLABUS

Orthopaedic Technology, Deepening, 12 credits

Ortopedteknik, fördjupning, 12 högskolepoäng

Course Code:	HOJN15	Education Cycle:	First-cycle level
Confirmed by:	Utbildningsrådet May 12, 2014	Disciplinary domain:	Medicine
Valid From:	Aug 24, 2015	Subject group:	MT2
Version:	1	Specialised in:	G2F
Reg number:	2014/1611(122) Avdelningen för rehabilitering/Department of Rehabilitation	Main field of study:	Prosthetics and Orthotics

Intended Learning Outcomes (ILO)

Upon completion of the course students should have the:

Knowledge and understanding

- to evaluate and critically review relevant research evidence and proven techniques within the field of prosthetics and orthotics
- to explain different treatment options within prosthetics and orthotics.

Skills and abilities

- to select and compare different treatment options within prosthetics and orthotics
- to arrive at a decision regarding a prosthetics or orthotics related problem using process based thinking
- to present several alternate solutions to a problem that satisfactorily meets the mechanical and functional requirements
- to evaluate the effect of an intervention.

Judgement and approach

- to identify a user's critical needs from a global perspective and relate this to prosthetic and orthotic management
- to evaluate their own performance throughout the course.

Contents

The course addresses treatment alternatives and rehabilitation in relation to;
- spinal orthoses
- knee-ankle-foot-orthoses (KAFO)
- knee-orthoses (KO)
- paediatric prosthetics and orthotics
- prostheses for hip disarticulation amputees
- seating

Type of instruction

This course is presented in the form of lectures, group work, seminars and laboratory sessions.

The teaching is conducted in English.

Prerequisites

The requirement to enter this course is basic eligibility for higher education. The student must also have a passing grade in Ortopeadic Technology, basic course, 6 credits, Anatomy and physiology, basic course, 7,5 credits, Anatomy and Physiology of the Musculo-Skeletal System, 4,5 credits, Linear algebra and function theory, 9 credits, Single Variable Calculus, 6 credits, Psychology, 7,5 credits, Scientific Methodology and Statistics, 6 credits, Pathology related to prosthetics and orthotics, 7,5 credits, Prosthetics and orthotics, rehabilitation, 6 credits, Biomechanics, 15 credits. Furthermore a passing grade in at least 22,5 credits of the Ortopaedic Technology, intermediate course, 30 credits and attendance in the Applied mechanics and material science course, 15 credits, or equivalent..

Examination and grades

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

Examination will be based upon one individual oral presentation, one individual written assignment and one individual written exam.

A lecturer will serve as examiner for this subject.

Registration of examination:

Name of the Test	Value	Grading
Individual oral presentation	2 credits	U/G
Written assignment	6 credits	A/B/C/D/E/FX/F
Individual written exam	4 credits	A/B/C/D/E/FX/F

Other information

Attendance requirements

During the course attendance is compulsory to seminars, laboratory sessions and field visits.

Course literature

Hsu, J.D., Michael, J.W., & Fisk, J.R. (2008). *AAOS Atlas of Orthoses and Assistive Devices*. Philadelphia: Mosby Elsevier.

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

McRae, R. (2010). *Clinical Orthopaedic Examination*. Edinburgh: Churchill Livingstone Elsevier.

Smith, D.G., Michaels, J.W., & Bowker, J.H. (Ed.). (2004). *Atlas of Amputations and Limb Deficiencies: Surgical, Prosthetic and Rehabilitation Principles*. Rosemont, Illinois: American Academy of Orthopaedic Surgeons.

The latest edition of the course literature should be used.

Additional current journal articles.