COURSE SYLLABUS

Prosthetic and Orthotic Management of the Upper Limb, 7.5 credits

Prosthetic and Orthotic Management of the Upper Limb, 7,5 högskolepoäng

Course Code:	HPLN13	**Education Cycle:**	First-cycle level
Confirmed by:	Director of Education Apr 11, 2023	**Disciplinary domain:**	Technology
Valid From:	Aug 28, 2023	**Subject group:**	MT2
Version:	1	**Specialised in:**	G2F
		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

- explain relevant treatment strategies and interventions for upper limb orthotic management considering best available evidence
- explain relevant treatment strategies and interventions for upper limb prosthetic management considering best available evidence
- describe biomechanical principles relevant to the subject area.

Skills and abilities

- palpate and name the anatomical structures of the musculoskeletal system of the upper body and account of their functions
- perform an independent assessment to determine the desired function of a prosthetic or orthotic device and communicate this with the patient
- discuss interventions and outcomes in accordance with relevant laws, regulations and quality registers
- critically evaluate the relevance of current science and proven experience within the subject area
- show familiarity with frequently used materials and equipment necessary in the production of devices for the upper limb
- manufacture orthoses and prostheses for the upper limb in accordance with occupational health and safety guidelines
- use appropriate outcome measures to evaluate interventions.

Judgement and approach

- continually evaluate and improve one's own contribution/performance.

Contents

- managament of fractures
- the role of the P&O in upper limb rehabilitation team

- fundamentals of AI and its application in P&O
- materials, design and manufacturing techniques in upper limb device production
- prosthetics for the upper limb
- orthotics for the upper limb
- management of burns
- soft tissue biomechanics related to stretching
- current research and evidence within the subject area
- terminology for the upper limb orthoses and prostheses

Type of instruction

The course is conducted through lectures, case seminars and laboratory sessions including patient meetings.

The teaching is conducted in English.

Prerequisites

General entry requirements and passed courses from Prosthetics and Orthotics Bachelor programme semester 1, and taken all courses in semester 2 or the equivalent.

Examination and grades

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

The examination will be based upon individual written examination, patient interaction and oral examination.

A university lecturer serves as examiner for the course.

Registration of examination:

Name of the Test	Value	Grading
Individual written examination	4.5 credits	A/B/C/D/E/FX/F
Patient interaction	2 credits	U/G
Oral examination	1 credit	U/G

Other information

Attendance requirements

During the course attendance is compulsory during laboratory 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

Chui, Yen, S.-C., Lusardi, M. M., & Jorge, M. (2019). *Orthotics and Prosthetics in Rehabilitation* (Fourth edition.). Elsevier.

Krajbich. (2016). *Atlas of amputations and limb deficiencies: surgical, prosthetic, and rehabilitation principles. Vol. 1, General topics, upper limb* (4. ed.) American Academy of Orthopaedic Surgeons.

Van Lede, P. & van Veldhoven, G. (1998). *Therapeutic hand splints: a rational approach. Volume 1, Mechanical and biomechanical considerations.* Provan.

Van Lede, P. & van Veldhoven, G. (2002). *Therapeutic hand splints: a rational approach. Volume II, Practical applications*. Provan.

The most recent editions of the course literature should be used.
Additional relevant journal articles will be used.