



KURSPLAN

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

Prosthetic and Orthotic Management of the Upper Limb, 7.5 credits

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| Kurskod: | HPLN13 | Utbildningsnivå: | Grundnivå |
| Fastställd av: | Utbildningschef 2023-04-11 | Utbildningsområde: | Tekniska området |
| Gäller fr.o.m.: | 2023-08-28 | Ämnesgrupp: | MT2 |
| Version: | 1 | Fördjupning: | G2F |
| | | Huvudområde: | Ortopedteknik |

Lärandemål

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

Kunskap och förståelse

- 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.

Färdighet och förmåga

- 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.

Värderingsförmåga och förhållningssätt

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

Innehåll

- management 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

Undervisningsformer

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

Undervisningen bedrivs på engelska.

Förkunskapskrav

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 och betyg

Kursen bedöms med betygen A, B, C, D, E, FX eller F.

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

A university lecturer serves as examiner for the course.

Poängregistrering av examinationen för kursen sker enligt följande system:

| Examinationsmoment | Omfattning | Betyg |
|--------------------------------|------------|----------------|
| Individual written examination | 4,5 hp | A/B/C/D/E/FX/F |
| Patient interaction | 2 hp | U/G |
| Oral examination | 1 hp | U/G |

Övrigt

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 unfit/fitness/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).

Kurslitteratur

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.