KURSPLAN

Orthotic Management and Biomechanics II, 7,5 högskolepoäng

Orthotic Management and Biomechanics II, 7.5 credits

Kurskod:	HOMN13	**Utbildningsnivå:**	Grundnivå
Fastställd av:	Utbildningsrådet 2023-04-11	**Utbildningsområde:**	Medicinska området
Reviderad av:	Utbildningsrådet 2024-04-09	**Ämnesgrupp:**	MT2
Gäller fr.o.m.:	Hösten 2024	**Fördjupning:**	G2F
Version:	2	**Huvudområde:**	Ortopedteknik

Lärandemål

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

Kunskap och förståelse

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

Färdighet och förmåga

- apply a client centered approach throughout the course
- justify the choice of orthotic interventions using mechanical and biomechanical principles
- generate client management decisions based upon best available evidence
- perform independent assessments of a client and design a management plan
- 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 client's simulated medical record in accordance with regulations.

Värderingsförmåga och förhållningssätt

- 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 and life situations
- 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.

Innehåll

- orthotic treatment for lower limb including knee and hip (KAFO, HpO, HKO, HKAFO)*

- orthotic treatment for trunk and neck (SIO, LSO, TLSO, CO, CTO, CTLSO)*
- scoliosis management
- seating treatment and devices
- external devices for soft tissues relating to thorax and pelvis (e.g. hernia truss, breast prostheses)
- biomechanics of the trunk and neck
- client centered care and application of ICF in treatments.

*Abbreviations of orthoses according to ISO 8549-3.

Undervisningsformer

The course is implemented upon a combination of client centered practical sessions, case based teaching, workshops and lectures.

Undervisningen bedrivs på engelska.

Förkunskapskrav

General entry requirements and passed courses in semester 1, 2, and 3, and taken courses in semester 4 from the Prosthetics and Orthotics Bachelor Programme, or equivalent.

Examination och betyg

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

The course examination will be based upon an individual written examination and performance in practical examinations.

Practical Examination elements include workshops and laboratory sessions which will only be provided once per group of students during the course, due to the complexity and one-off nature, and required sequence of this content.

A university lecturer serves as examiner for the course.

Poängregistrering av examinationen för kursen sker enligt följande system:

Examinationsmoment	Omfattning	Betyg
Individual written examination	5,5 hp	A/B/C/D/E/FX/F
Practical examinations	2 hp	U/G

Övrigt

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).

Kurslitteratur

Chui, K.C., Yen, S.C., Lusardi, M.M., & Jorge, M. (Eds). (2020). *Orthotics & prosthetics in rehabilitation* (4th. ed.). Elsevier Saunders.

Webster, J., & Murphy, D. (Eds). (2019). *Atlas of orthoses and assistive devices* (5th. ed.). Elsevier.

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

McRae, R. (2010). *Clinical orthopaedic examination* (6th. ed.). Churchill Livingstone/Elsevier.

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