

Course syllabus

Verksamhetsförlagd utbildning i sjukvården Clinical Training in Biomedical Engineering

EXTA56, 5 credits, G1 (First Cycle)

Valid for: 2023/24

Faculty: Faculty of Engineering, LTH

Decided by: PLED BME

Date of Decision: 2023-04-13

General Information

Main field: Technology.

Compulsory for: BME1

Language of instruction: The course will be given in Swedish

Aim

The course gives general knowledge on Swedish healthcare, professional conduct and patients, secrecy, etc. The aim of the first part of the course with lectures is to describe the use of biomedical engineering in clinical routine, applying in particular to those clinics of the hospital which are technology intense. A deeper understanding of the diagnostic and therapeutic procedures, described at the lectures, is gained when the student is auscultating at the clinics. A number of procedures, for example involving the measurement of chemical or electrical quantities, are studied at the laboratory exercises. Teachers at the medical faculty are responsible for the course, and the course runs in its entirety at the hospital.

Learning outcomes

Knowledge and understanding

For a passing grade the student must

- good understanding of biomedical engineering and its significance in Swedish healthcare
- describe the most important parts of the official secrets act.

Competences and skills

For a passing grade the student must

- be able to view biomedical engineering from the patient's perspective.
- to describe, in oral and written form, the diagnostic and therapeutic methods treated in the course.

Judgement and approach

For a passing grade the student must

- to acquire information from the lectures and sort out what is important.
- to be able to interpret and discuss information with the clinical staff.

Contents

Topics like clinical physiology, clinical chemistry, neurophysiology, radiation physics, ophthalmology will be treated. Note that the course content can vary to some extent from year to year.

Examination details

Grading scale: UG - (U,G) - (Fail, Pass)

Assessment: To pass the course the student is required to attend to lectures and laboratory exercises, passed laboratory reports, passed report for a specific theme, as well as passed course in resuscitation.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Admission

Admission requirements:

- The student must have passed in any of the parts of the course EITA01 Introduction to medicine and technology and taken the necessary vaccinations (see Kursinfo) in order to start the course

The number of participants is limited to: No

The course overlaps following course/s: EXTA55

Reading list

Contact and other information

Course coordinator: Fredrik Holmqvist, fredrik.holmqvist@med.lu.se

Further information: In order to get access to the course, a health screening must be submitted latest the date specified by the course coordinator. If necessary, certificates of vaccinations must also be presented.