



HL1016 Medical Measurement and Monitoring 7.0 credits

Medicinsk mätteknik

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

Grading scale

A, B, C, D, E, FX, F

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Basic knowledge of medicine and medical technology equivalent to course HL1201

Basic knowledge of electricity and measuring techniques equivalent to course HE1200

Practical knowledge of usage of laboratory measurement equipment from the laboratory part of HE1200.

Intended learning outcomes

After completion of the course, the students will be able to

infer requirements and limitations for medical instrumentation for a specific context of use
bygga, modifiera och utvärdera medicinsk mätteknik på ett självständigt sätt

explain the function, identify characteristics and motivate the choice of a instrumentation
technology given specific requirements

build, modify and evaluate medical instrumentation in an independent way

analyse and interpret physiological data, measurements, and signals

illustrate, summarize, and
explain information in concise and clear form

Course contents

- Design of Medical Instrumentation
- Medical transducers and signal processing
- Physical diagnostics
- Monitoring technologies
- Medical measurement techniques in the medicine

Examination

- RED1 - Account, 7.0 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.