Level: bachelor

Course title: Metrology and standardization

Status: elective

ECTS: 6

Requirements: Methods of measurement and data processing

Learning objectives

Introducing students to:

- Terms of standards, reference methods and metrology.
- Organization and operations in reference and accredited laboratories,
- Legal metrology.

Learning outcomes

Students learn to work in the reference and accredited laboratories.

Syllabus

Theoretical instruction

Measurement. The importance of measurement. Industrial and scientific metrology. Legal metrology. Standards. International organization for standardization. National metrology institutes. Primary laboratories, reference laboratories, accredited laboratories. Accreditation. Calibration, verification of control measures. Traceability and calibration. Legal metrological control. Legal control of measuring instruments. Sources of metrology data.

Practical instruction

The exercises follow the content of lectures.

| Weekly teaching load | | | | Other: |
|----------------------|--------------|----------------|-------------------|--------|
| Lectures: 3 | Exercises: 1 | Other forms of | Student research: | |
| | | teaching: 1 | | |