

STUDY PROGRAMME	CHEMICAL ANALYSIS, 653F18001
SUBJECT TITLE	Standardisation and Metrology
NUMBER OF CREDITS	3
DURATION OF SUBJECT	Total: 80 hours (48 contact hours, 32 self-study hours)
TEACHING PERIOD	Autumn Semester
SUBJECT CONTENT	<p>Subject objective Provide students with the basic knowledge of standardisation and metrology and develop skills which are in compliance with Lithuanian and international regulatory documents.</p> <p>Learning outcomes Be able to: find needed information sources for standardisation and metrology; examine standardization and metrology documents; describe the units of measurement and their systems; describe characteristics of the metrological traceability; analyse technical and legal documents of the product, and requirements for product and environmental labelling; discuss the finalising procedures of the results of measuring instrument verification; analyse Lithuanian and international regulatory and legal documents used in testing laboratories.</p> <p>Content (topics)</p> <ol style="list-style-type: none"> 1. Introduction to standardisation and metrology. International, regional and national standardisation organisations 2. Lithuanian standardisation system. Structure of standards 3. Types of standards. Product standard. Corporate and process standards. Service standards 4. Test methods standards 5. Metrics and measurements. International system of units. Standards 6. Metrological traceability 7. Measuring devices. Precision classes. Verification and calibration 8. Interlaboratory comparative tests 9. Chemical metrology 10. Process and product management, and evaluation of measurement 11. Quality management and quality assurance. EN ISO 9000 standards. EN 45000 standards 12. The operation of testing laboratories and accreditation. ISO 17025 and ISO 14000 standards 13. The certification bodies. Production certification
ASSESSMENT	Cumulative assessment (intermediate settlements, self-study, examination)
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