

<b>Study program:</b> Geodesy				
<b>The type and level of study:</b> Basic academic studies				
<b>Course title:</b> <b>GEODETIC METROLOGY</b>				
<b>Teacher:</b> Delčev Siniša				
<b>Status of the course:</b> Mandatory				
<b>ECTS:</b> 5				
<b>Conditional course:</b> No				
<b>The course aims</b> Students were introduced with classification of metrology, system of units and tasks and method of the geodetic metrology.				
<b>Outcome of the course</b> Students were introduced with the analysis of measuring methods in general and with the analysis of measuring methods of the measurand used in geodesy. Students were trained to be able to use the analysis of measuring methods in further calculations with different types of geodetic problems.				
<b>The content the course</b> <i>Theoretical classes:</i>				
1. week	The subject, objectives and tasks of geodetic metrology. The principles of metrology.			
2. week	International system of units and measures.			
3. week	Analysis of the methods for measuring of horizontal angles - the determination of certain sources of error in the measurement, classification errors toward the character.			
4. week	Analysis of the methods for measuring of horizontal angles - the determination of certain sources of error in the measurement, classification errors toward the character.			
5. week	Terms used to evaluate the accuracy of measurement of horizontal angles, accuracy requirements.			
6. week	Analysis of the methods for measurement of height differences - the determination of certain sources of error in the measurement, classification errors toward the character.			
7. week	I colloquium.			
8. week	Analysis of the methods for measurement of height differences - the determination of certain sources of error in the measurement, classification errors toward the character.			
9. week	Terms used to evaluate the accuracy of measurement of height differences, the conditions of accuracy.			
10. week	Analysis the methods of optical and mechanical measuring the length - determination of certain sources of error in the measurement, classification errors toward the character. Terms used to evaluate the accuracy of measurement accuracy requirements.			
11. week	Analysis methods of measuring the length of the electro-optical distance meters - determination of certain sources of error in the measurement, classification errors toward the character. Terms used to evaluate the accuracy of measurement accuracy requirements.			
12. week	Analysis methods of measuring the length of the electro-optical distance meters - determination of certain sources of error in the measurement, classification errors toward the character. Terms used to evaluate the accuracy of measurement accuracy requirements.			
13. week	Metrological assurance of determining the vector by using GPS technology - analysis of measuring methods, the determination of certain sources of error in the measurement, classification errors toward the character expressions for estimation of accuracy of measurement accuracy requirements.			
14. week	Metrological assurance of measuring of gravity acceleration - analysis of measuring methods, the determination of certain sources of error in the measurement, classification errors toward the character expressions for estimation of accuracy of measurement accuracy requirements.			
15. week	II colloquium.			
<i>Practical teaching: Exercises</i> Introduction with instruments for measuring and determination of individual sources of error.				
<b>Literature</b> 1.S. Delčev: Geodetska metrologija, Akademska misao, Beograd, ISBN 978-86-7466-640-1, 2016.				
<b>Number of active teaching classes</b>				Other classes: 0
Theoretical classes: 2	Practical teaching: 2	Other forms of teaching: 0	Study research work: 0	
<b>Methods of teaching practice:</b> lectures, exercises, colloquiums, consultations.				
<b>Evaluation of knowledge (maximum point score: 100)</b>				
<b>Pre exam duties</b>	<b>points</b>		Final exam	<b>points</b>

activity during the lectures	<b>5</b>	written exam	<b>(40)</b>
practical teaching	<b>5</b>	oral exam	<b>50</b>
colloquium-s	<b>40</b>	-	-