COURSE		**LAND SURVEYING I**		
LECTURER		Asst. Prof. Džanina Omičević		
STUDY	***STATUS***	***SEMESTER***	***NUMBER OF LESSONS L+E***	***ECTS***
B - G	Compulsory	1	2+3	6

OBJECTIVES

- The students will be acquanted with the basic notions and definitios in geodesy. They are skilled using geodetic instruments and survey method in control network (triangulation).
- Analise of geodetic measurements and method of calculate aproximate geodetic coordinate points.

LEARNING OUTCOMES

- Understanding the basic principes and use of geodetic instruments
- Independent implementation of methods for measuring horizontal directions, elevation angle and length
- processing measurements and methods of determining the approximate coordinates of points of the network.

COURSE CONTENT

- Basic terms, principles and definitions in geodesy. Field of aplications. Historical development of geodesy. Shape and dimension of Earth. Coordinate and coordinate systems. Basic terms of geodetic projection. Basic term of plane and map. Basic measurement theories, errors and kind or error. Analise of quality geodetic observations and wheighted obseravtions. Geodetic networks, kind of geodetic nets. Geodetic points stabilization and tophography. Basic terms of establishment horiyontal geodetic network, triangulacion. Numerizacion, stabilizacion, pozicion description of point and signalizacion geodetic points. Angle measumerent. Units, instruments and staff for measurment horizontal angle. Checking and rectification instrumens. Methods of measuring horizontal directions and angles. Observation of directions from ecscentric standpoint, and their reduction to the centree. The elements of coordinate calculus. Determination of approximate coordinates with arc cross section and the cross section of external and internal directions. Measuring distance with tape, optical and electronic distancemeter. Methods of distance measurement. The basics of trilateration.

RECOMMENDED LITERATURE

1. Mihailović, K. (1974): *Geodezija I*. Građevinska knjiga, Beograd.
2. Macarol, S. (1985): *Praktična geodezija*, Tehnička knjiga, Zagreb
3. Charles D. Ghilani and Paul R. Wolf, 2012. *Elementary Surveying - An Introduction to Geomatics,* 13/e, Prentice Hall, Toronto
4. Harvey, Bruce R. (2012): *Survey Computations,* School of Surveying and Spatial information System, The University of New South Wales - Australia

Examination:

During the classes the exam is taken from three parts. Each section is scored as follows: practical part - 10 points, partial exams - 40 points, a total of 50 points.

a) If a student realizes 55% points during the classes can take the oral exam. If a student realizes 55% of the points from oral exam score his form in accordance with the scale prescribed by the Law on Higher Education.

b) Students who did not pass the exam during the classes, take the written exam integrally rating form points achieved during the classes + points accomplished at the integral test. If a student realizes this way 55% of the points, take the oral part of the exam. The rating is determined in the same way as under a).

Cancelling exams: Students who have passed the exam, but are not satisfied with the results could void the exam and pass the final exam.

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