COURSE				LAND SURVEYING II	
LECTURER				Asst. Prof. Džanina Omičević Ph.D.	
STUDY	STATUS	SEMESTER	NUMBER OF LESSONS L+E		ECTS
B – G	Compulsory	2	3+3		7

OBJECTIVES

- The students are skilled for measuring basic quantities in levelling and polygonal network,
- measuring the details and for measurig data procesing.

LEARNING OUTCOMES

- Explain the procedures to be carried out during survey reconnaissance.
- Describe the observation, computation and adjustment of a traverse and level loop.
- andle, check and take care of delicate field instrumentation.
- Work in a team to carry out a survey of a small area using appropriate methods.
- Carry out basic survey computation.
- Report on survey operations.

COURSE CONTENT

- Basic terms, principles and definitions in geodesy. Field of aplications. Historical Definition of geodetic levelling network. Levelling, diferential and trigonometric levelling. Measuring verical angles, instruments and methods of surveying. Trigonometric levelling, approximate equation, influence of curvature of the Earth and atmospheric refrakcion. Differencial levelling, purpose, project, stabilizacion and pozicion description of point. General levelling and detailed levelling. Levelling, levelling staffs. Checing and rectification instruments and staff. Computations of heigh differences. Polygonometry, purpose, project of polygonometry, stabilizacion. Angle and linear measurements in polygonometry. Computations of coordinate of polygon points using approximate methods. Network of small points. Observations in network of small points, methods and rules. Computations of coordinates of small points. Detailed survey, purpose, operation rules. Survey methods, polar method and orthogonal method. Survey rules, selection of points depending on the scale. Instruments for detailed surveying, optical and electronics tahimeter. Computatios of coordinates of detailed points.

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.