Name subjects :		*ENGINEERING GEODESY*		
Code subjects	***Case status***	***Semester***	***Number of ECTS credits***	***Number of lessons (weekly)***
PO2IG	**Required**	**IV**	**4**	**2P+1V**

Study programs for which it is organized : Polytechnics , general studies

Conditionality other Subjects : None.

Idea studies subjects : Geodesy is a science which deals with by surveying Countries . It is divided into Scientific the part that deals with by studying shape and dimensions Countries and her/his gravitational field and on Practical the part that deals with by surveying land in order creation of topographic maps which are used for design construction and other utilities objects and for making cadastre land .

Goals studies subjects : *It* is only studied Practical part that is sufficient for the level education that uses Topographic business base production objects construction and jobs in urban planning . Yes , depending on the jobs which will perform or as manager project or as designer , as performer or member commissions there is enough knowledge about quality work , his appreciate and within performance . In case there isn't engaged surveyor , that in some cases simpler cases can independently to perform individual measurements angles , length and high altitude difference .

Outcomes learning : A student who successfully overcome this one subject , will be able to :
1. Understands and benefits basic collection technologies spatial data ;
2. B e n e ts geodetic substrates in processes urban planning design and planning ;
3. Applies cartographic interpretation spatial shape through different projections ;
4. Conclusion role engineering geodesy in transmission projected solutions on terrain .

Name and last name teacher and Associates : Prof. Dr. Mitar Čvorović, MA Miloš Pejaković

Teaching method and overcoming materials : lectures , exercises , tests , projects tasks .

WORK PLAN

Sunday :	*Name methodological unit for lectures (P), exercises (V) and others teaching contents (O); Planned shape checks knowledge (Pz)*	
Preparatory Sunday		Getting to know each other , preparing and enrollment semester .
And Sunday	***P/V***	Historical development . Division on scientific and practical part . Task practical Geographical parts and rectangular coordinates . Gauss -Kruger projection
II	***P/V***	National coordinate system . Division Projection levels on sheets R 1:5000;R1:2500;R 1:1000
III	***P/V***	Orientation longer in space and in the Projection Azimuth and directional angle . Oriented direction .
IV	***P/V***	Basic characteristics measuring instruments Methods for measuring angles corners
V	***P/V***	Measuring instruments length and methods measurements length . Hair and line forged length . Indirect determination length.Triangulation
VI	***PZ***	**Colloquium .**
VII	***P/V***	Definition leveling . Division leveling on General and Detailed leveler . Measuring instruments high altitude the difference . Level - principles constructions and measurement high altitude difference .
VIII	***P/V***	Trigonometry leveler
IX	***P/V***	Trigonometric and polygonal network as basis recording land . Basic principles method recording construction site topographic Polar substrate method collections data
X	***P/V***	GPS, Photogrammetric method collections data
XI	***P/V***	Production topographic mats – Cadastral and Ortho- photo Topographical plan key
XII	***P/V***	Presentation relief Interpolation isohypse Digital terrain model
XIII	***P/V***	Transfer project on terrain . Transmission on terrain : urban plots, projected building , construction and regulatory lines
XIV	***P/V***	Cadastre real estate , creation and development .
XV	***P/V***	Records Real estate . Real estate list . Overview records according to personal data and prem number cadastral plots
XVI	***PZ***	**Final exam .**
XVII		*Verification semester and enrollment rating*
XVIII		***Correctional exam deadline***

Obligations student in progress classes : lectures , exercises , discussions , project tasks .

Email consultations : YES

Load student

Sunday :	**In the semester :**
4 credits x 40/30 = 5 hours 20 minutes (total Sunday burden **Structure :** 2 hours lectures 1 hour of exercise 2 hours 20 minutes independent work, including consultations .	Total subject load 4x30 = 120h **Structure :** Teaching and closing exam : 5h20min x 16 weeks = 85h20min Necessary preparations ago beginning semester (administration , enrollment , verification): 5h20minx2=10h40min Additional preparation work and laying remedial exam time : 0-24h

Literature :

"PRACTICAL WORKSHOP IN GEODESY", Benka Pavel, Bulatović Vladimir, Sušić Zoran, Petković Marijana, Publisher : Faculty technical science , University of Novi Sad

M. Čvorović , Geodesy in Civil Engineering Part I , Unireks Nikšić 1992.

https://politehnika.udg.edu.me/

Shapes checks knowledge and evaluation :
Domestic assignments 10%, tests 10%, final exam 20%, theoretical part exam 30% and computationally part exam 30%.

Rating	A	B	C	D	E
Number point	90-100	80-89	70-79	60-69	50-59