Name subjects :		*Engineering Mathematics II*		
Code subjects	***Case status***	***Semester***	***Number of ECTS credits***	***Number of lessons (weekly)***
PO1IM2	**Required**	**II**	**6**	**2P+2V**

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

Conditionality other subjects : none conditionality .

Idea studies subjects : Develop ability at students to solve problems from areas differential and integral account .

Goals studies subjects : *Acquisition numerical knowledge methods in the field differential and integral account functions one and more realistic variable . Independently solving realistic problems by using appropriate software (Geogebra , Mathematica or some programmatically language).*

Outcomes learning : *A student who is successful overcome this one subject , will be able to :*
1. Master theoretical and practical knowledge of numerical methods in the field differential and integral account functions one and more realistic variable ;
2. R elationships and application basic concepts differential and integral account in solving problems ;
3. Independently solves problems by using appropriate software (Geogebra , Mathematica or some programmatically language);
4. In the morning techniques proofs basic assertions and theorem ..

Name and last name teacher and collaborators : prof. Dr. Kruna Ratković, MSc Ana Peković

Teaching method and overcoming Materials : *Lectures , exercises . Independent production tasks through project task and final exam . Consultations .*

WORK PLAN

Sunday :		*Name methodological lecture unit (P), computer (V) and laboratory (L) exercises ; Planned shape checks knowledge (Pz)*
Preparatory Sunday		Introduction , preparation and enrollment semester .
And Sunday	***P/V***	*Introduction to the subject and by the rules on subject ; Introduction*
II	***P/V***	*Basic concepts about the space R*
III	***P/V***	*Functions one realistic variable , borderline value and continuity*
IV	***P/V***	*Differential bill function one realistic variable ;*
V	***P/V***	*Tangent and normal surfaces , geometric interpretation*
VI	***P/V***	*Extreme values function two variables , examples with applications*
VII	***P/V***	*Required and sufficient conditions for extreme values ;*
VIII	***P/ Pz***	***Colloquium***
IX	***P/V***	*Indefinite Integral - definition and basic properties , method partial integrations , shifts variables , mean theorem values ;*
X	***P/V***	*Definite integral;*
XI	***P/V***	*Applications certain integrals – surfaces flat figure :*
XII	***P/V***	*Applications in technical sciences - length port , area rotary bodies , volume rotary bodies ;*
XIII	***P/V***	*Functions more realistic variable , partial extracts and total differential ;*
XIV	***P/V/L***	*Visualization with use mathematical software (Mathematica, Geogebra)*
XV	***P/V***	*Renewal materials*
XVI	***Pz***	**Final exam .**
XVII		*Verification semester and enrollment rating*
XVIII		***Correctional exam deadline***

Obligations student in progress teaching : active participation on hours lectures and exercises ; making project tasks .

Consultations by e- mail : YES

Load student

Sunday :
6 credits x 40/ 30 = 8 hours
– 2 hours lectures
– 2 hours exercise
– 4 hours independent work, including consultations .

In the semester :
Total workload for the subject 6x30 = 180h
Structure :
Teaching and final exam : 8 hours x 16 weeks = 128 hours
Necessary preparations before beginning semester (administration , enrollment , certification): 8hx2=16h
Additional preparation work and laying remedial exam time : 0-36h

Literature :

I. Slapničar : Mathematics 1, Faculty Electrical engineering , Mechanical engineering and Shipbuilding , Split, 2002;
I. Slapničar : Mathematics 2, Faculty Electrical engineering , Mechanical engineering and Shipbuilding , Split, 2002;

Shapes checks knowledge and evaluation :
Domestic assignments : **10%** , project assignment : **20%** , colloquium : **30%** and exam : **40%** .

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