



UNIVERSITETI / UNIVERSITY
"ISA BOLETINI"
MITROVICË

Course Curriculum Model (Syllabus)		
Faculty:	FACULTY OF MECHANICAL AND COMPUTER ENGINEERING	
Department:	Mechanical Engineering	
Level:	Bachelor	
Code of the course:	106 ME	
Course:	Fundamental of materials	
Course Status:	-	Mandatory, Elective
Semester:	(I)	Winter/ Winter
Number of hours per week:	2+0	
ECTS:	4	
Time / location:	Wednesday, 9 ⁰⁰ -10 ³⁰ , S308	
Year of studies:	2024/2025	
Lecturer:	Prof Dr. Hakif Zeqiri	
Assistant:	MSc Blerina Voca	
Contact details:	Professor	Assistant
Email:	hakif.zeqiri@umib.net	blerina.voca@umib.net
Telefon:		
C o u r s e d e s c r i p t i o n	This course provides an in-depth exploration of combustion processes and fossil fuels, covering the fundamental principles, characteristics, and applications of various combustion matters. Participants will gain a comprehensive understanding of motoric fuels, combustion fluid matters, petrochemical processes, and the environmental implications of combustion. The course also delves into the chemical structure of fossil fuels, coal chemistry, and explores practical aspects such as fuel processing and lubrication techniques.	
	P u r p o s e Introduction with materials of department which are used in engineering, beginning industrial water, source, processing up to their exploitation. Combustion matters, kinds and their exploitation, means for painting and librufication. It is explained way of selection and application of it in daily life and industry.	

L e a r n i n g o u t c o m e s	Upon completion of the course students are expected: • To be familiar with the materials that are used in sectors • To recognize their physic and chemical particularities of each material • To use them correctly and in a proper place • To recognize the advantages and disadvantages of each material to give the value of material particularities and to be able to do their diagnostification
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	Weeks	Lecture
P r o g r a m	<i>First week:</i>	Introduction in Combustion matters, notion, kinds, composition and characteristics of combustion matters.
	<i>Second week:</i>	Combustion fluid matters: motoric fuel, gas oil –diesel fuel, octane and citan number.
	<i>Third week:</i>	Combustion gas matters. Petrol and gas processing obtaining of synthetic fuels, gasoline, kerosene, oils.
	<i>Fourth week:</i>	Compositions with oxygen, matters.
	<i>Fifth week:</i>	Carbonization and environment
	<i>Sixth week:</i>	Origin and chemical structure.
	<i>Seventh week:</i>	Evaluation I
	<i>Eighth week:</i>	Cocks fissile coal chemical structure.
	<i>Ninth week:</i>	Petographic components, geological aspect of coal origin.
	<i>Tenth week:</i>	Classification of fossil coals, Composition of coals.
	<i>Eleventh week:</i>	Inorganic mass (ash), water, Technological processes used in fossil coals.
	<i>Twelfth week:</i>	Dehydration of lignite, Coal bricking.
	<i>Thirteenth week:</i>	Chemical enrichment of coals, Cocks formation. Compositions with Sulphur, Compositions with nitrogen.
	<i>Fourteenth week:</i>	Fuel physic and chemical particularities and their fractions. Means for painting and lubrication.
	<i>Fifteenth week :</i>	Evaluation II

Literature	
L i t e r a t u r e	[1] Hakif Zeqiri, MSc Fitim Zeqiri, Materialet e repartit, dispensë, 2013. FIMK. [2]. Maziva i podmazivanjemasine, MF, Beograd, 2007.

Lectures, exercises, individual work, experimental work, seminar papers, colloquia, essays, field work, group work, etc. Completed according to the specifics of your subjects!			
Contribution to student workload (which should correspond to student learning outcomes - 1 ECTS credit = 25 hours)			
Activity	Hours	Days/weeks	Total
Lectures	2	15	30
Exercise sessions (with TA)	2	15	30
Practical work	-	-	-
Office hours	2	2	4
Fieldwork	-	-	-
Midterms, seminars	4	2	8
Homework	2	5	10
Self-study	2	4	8
Final exam preparation	-	-	-
Time spent in exams	2	2	4
Projects, presentations, etc.	3	2	6
Total			100

E v a l u a t i o n	Teaching methodology: (according to the Statute and Regulation for studies of UMIB)		
	Tests / Colloquia (First Test) (Second test)	15% 15%	
	Practical test during exercises (Essay)		
	Workshop seminar		
	Interpretation and presentation of artistic creativity and other works.		
	Assignments and courses during the semester	15%	
	Professional practice.		
	Other, Continuity		
	Final exam	55%	
	Total	: 100%	
	Final grade	Pikēt (%)	Nota
		91 – 100	10
		81 - 90	9
		71 - 80	8
		61 - 70	7
		51 - 60	6

Criteria for regular attendance and rules of etiquette during the organization of the lesson are set.

Computer work:

Graphic works, I have to draw and write with a computer. In the works it is obligatory to respect the criteria for both the visual and the content aspect of the required works.

Ethics in teaching:

Graphic works should be personal works of each student. There will be no tolerance for copying, "borrowing" from the Internet or any other material. The same or similar works will have negative evaluations in the final evaluation of the student.

Time:

In agreement with the students, the deadlines for submitting works will be determined. There will be no tolerance for delays in the submission of works. Failure to arrive at the time when the assignment is explained does not justify the student for not submitting the paper. The deadline will be given earlier. If you are going to travel abroad, then you need to submit the paperwork in advance. The student has the right to request a consultation with the professor whenever he / she deems it reasonable and necessary for the performance of his / her work.

Rules of conduct and academic policies:

- active participation of students in lectures o participation in discussion, comments and free expression of opinion, opinion and academic position (with arguments)
- Mandatory independent work and use of additional sources of information (various scientific websites, scientific journals, conference proceedings, etc.)
- Respecting lecture schedules without compromising academic freedom (silent cell phones) of respecting the word, thoughts and ideas of colleagues,
- It is not allowed to arrive late and leave without a valid reason from the lecture, test or exam o preparation and holding of relevant lectures, (obligation of the teacher).
- if the student is absent more than four times without reason in lectures and exercises, does not receive the signature for attendance. o the student cannot take the exam without an official document,

if the student is dissatisfied with the grade obtained, has the right to complain in writing to the dean, within two working days after the announcement of the results, UMIB Statute o if the student does not follow the rules, in the exam uses tools that are not allowed, it is evaluated with a negative grade.

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Mitrovica; 15/05/2023

Prof Dr. Hakif Zeqiri