SYLLABUS

Basic data of the subject	
University	**University of Applied Sciences in Ferizaj**
Academic unit	**Faculty of Engineering and Informatics**
Program	**Industrial Engineering with Informatics**
Course title:	**Processing of Materials II**
Level:	**Bachelor**
Course status:	**Core**
Year of studies:	**III, Semester VI**
Number of hours per week:	**3**
Value in credit – ECTS:	**4**
Time / location:	
Course teacher:	
Contact details:	
Course description:	*This corse will provide un understanding of the processing of differferent polimer materials.*
Objectives of the course:	*The objective of this course is to introduce students to the methods of processing of polymer materials. Storage and processing of materials. Recognizing of additive usage. Methods for controlling materials and assembly of items from materials.*
Learning outcomes:	*After successful completion of the course, students will be able to:* • *recognize the processing properties of polymer materials,* • *select appropriate advanced materials processes for a given product or component recognising material, size, precision, and surface quality requirements,* • *know the methods of processing polymer materials.* • *know the methods for controlling polymer materials*
Prerequisites	*N/A*

Contribution to the student load (which must correspond with learning outcomes)			
Activity	**Hour**	**Day / week**	**Total**
Teaching	3	15	45
Practical work	-	-	-
Contacts with the teacher / consultations	1	5	5
Field exercises	-	-	-
Tests, seminars	8	1	8
Homework	1	10	10
Student self time study	2	10	20
Final exam preparation	1	10	10
Time spent in evaluation (tests, quizzes, final exam)	1	2	2
Projects, presentations,etc.			
Total			**100**

Teaching methodology:	*Lectures and exercises combined with case studies and classroom discussions.*
Assessment methods:	*First intermediate assesment 35%*

	Laboratory/clasrrom Exercises 15% *Final exam: 50%* ***Rating:*** *91-100 points – graded 10 (ten)* *81-90 points – graded 9 (nine)* *71-80 points – grade 8 (eight)* *61-70 points – grade 7 (seven)* *51-60 points – grade 6 (six)* *0-50 points – The student repeats the exam.*
Literature	
Basic literature:	1. *Fatmir Çerkini, **Teknika e përpunimit të materialeve polimere** (dispensë), Fakulteti i Shkencave të Aplikuara – Ferizaj* 2. *Teuta Çarçani ,,TEKNOLOGJIA KIMIKE ORGANIKE", Tiranë*
Additional literature:	1. *Prof. Assoc. Dr. Nexhat Qehaja, PËRPUNIMI I MATERIALEVE POLIMERE, Prishtinë, 2011/2012* 2. *Zehev Tadmor,Costas Gogos ,,PRINCIPLES OF POLYMER PROCESSING"-New Jersey,* 3. *Ing.Miroslav Nadj,,POLIMERNI MATERIJALI", Zagreb* 4. *Dipl.inž.Bogdan Rapajič,,PRERADA PLASTIČNIH MASA EKSTRUDIRANJEM", Beograd* 5. *Kemijski Kombinat ,,CHROMOS" -PLASTIČNE MASE -Katalog, Zagreb*

Designed lesson plan :

Week	
Week one:	*Introduction of syllabus, teaching methods and assessment methods.*
Week two:	*Building. Additions (additives). Methods of obtaining materials.Storage and regulation of materials.Comparison of plastic masses with metals. Identification of plastic masses.Processing properties of materials.*
Week three:	*Recycling and Reuse of Materials. Methods for controlling materials.*
Week four:	*Methods of processing materials. Modeling. Extrude technology.*
Week five:	*Extruding pipes and profiles. Calibration of pipes.Extrusion of corrugated pipes.Mistakes, defects in the pipe extrude technology, the cause and elimination of mistakes.*
Week six:	*Extruding profiles. Production of sheets and plates by extrusion. Extruding-blowing method. The principle of injection.*
Week seven:	*Test I*
Week eight:	*Injection channel types.Tunnel-shaped injection system. Special distribution channel systems.Shortcomings in the treatment of injection molded thermoplastics and related solutions.*
Week nine:	*Processing expect the injection ofs sparkling (TSG).*

Week ten:	*Production of hollow bristles by means of inflatable. Extruded-bristle method. Injectable press bridging.*
Week eleven:	*Plastic laminating. Impregnation. Principle of calendering of plastic materials.*
Week twelve:	*Flush with liquid compression. Diaphragm fracturing. Vacuum forming. Rotational forming.*
Week thirteen:	*Stamping. Laminators. Coextrusion process.*
Week fourteen:	*Production of spiral pipes. Welding methods of pipes. Assembly of plastic articles. Welding assembly. Appendix. Injection of elastomers. Processing of injection moldings. Injection pressure with internal gas pressure. Stamping by injection. Some modeling technology to quickly prototype.*
Week fifteen:	*Test II*

Academic policies and rules of conduct
Regular attendance of lectures and exercises is necessary, as well as active participation with discussion and solution of tasks. Not impeding the progress required for learning using mobile phones turned off or in silent mode.