



Course ID: HTHI01	Course name: SELECTED PRINCIPLES AND PROCESSES IN INDUSTRIAL CHEMISTRY		
Cycle: II (SECOND)	Year: I (FIRST)	Semester: I	ECTS credits: 4
Course status: ELECTIVE		Total course hours: 60 Lectures: 30 Laboratory: 30	
Teaching participants:	Teachers and associates with expertise in the field to which the subject belongs.		
Prerequisite for enrollment:	-		
Course aims:	To give students basic knowledge about the most important principles and processes in industrial chemistry, which are not only the basis for overcoming any technological process but also crucial in designing any chemical product procedures.		
Thematic course units:	<ol style="list-style-type: none">1. Principles of mass exchanges2. Principles of exchanging or transmission of heat3. Moving the balance of chemical processes4. Chemical reactors5. Principles of homogeneous and heterogeneous processes and reactors6. Catalytic processes7. Raw material enrichment8. Principles of electrochemical processes		

	9. Principles of purification and separation																																													
Learning outcomes:	The student will be able to: - Apply knowledge about the most important principles and processes in industrial chemistry based on the overcoming of knowledge from technological processes in designing any chemical product procedures.																																													
Teaching methodology:	1) Method of verbal exposure 2) Discussion method 3) Research method 4) Method of practical work																																													
Assessment methods and grading system:	<table border="1"> <thead> <tr> <th colspan="3">Grading criteria</th> </tr> <tr> <th>Criteria</th> <th>Maximal score</th> <th>Required score</th> </tr> </thead> <tbody> <tr> <td>1. Class attendance</td> <td>5</td> <td>3</td> </tr> <tr> <td>2. Class activities</td> <td>15</td> <td>8</td> </tr> <tr> <td>3. Midterms</td> <td>40</td> <td>22</td> </tr> <tr> <td>4. Final exam</td> <td>40</td> <td>22</td> </tr> <tr> <td>Total</td> <td>100</td> <td>55</td> </tr> <tr> <th colspan="3">Scores and grading</th> </tr> <tr> <th>Score</th> <th>Grade (B&H)</th> <th>Grade (ECTS)</th> </tr> <tr> <td>< 55</td> <td>5</td> <td>F, FX</td> </tr> <tr> <td>55-64</td> <td>6</td> <td>E</td> </tr> <tr> <td>65-74</td> <td>7</td> <td>D</td> </tr> <tr> <td>75-84</td> <td>8</td> <td>C</td> </tr> <tr> <td>85-94</td> <td>9</td> <td>B</td> </tr> <tr> <td>95-100</td> <td>10</td> <td>A</td> </tr> </tbody> </table>	Grading criteria			Criteria	Maximal score	Required score	1. Class attendance	5	3	2. Class activities	15	8	3. Midterms	40	22	4. Final exam	40	22	Total	100	55	Scores and grading			Score	Grade (B&H)	Grade (ECTS)	< 55	5	F, FX	55-64	6	E	65-74	7	D	75-84	8	C	85-94	9	B	95-100	10	A
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Literature:	: 1. M. Baerns, A.Behr, A.Brehm, J. Gmehling, H. Hofmann, U. Onken, A. Renken: Technische Chemie, Wiley-VCH, Weinheim,2006 2. A.Behr, D.W.Ager, J.Jörissen: Einführung in die Technische Chemie; Spektrum-Akademischer verlag,2010 3. Abulencia, P.J.&Theodore L. 2009,„Fluid flow for the Practicing Chemical Engineer“,John Wiley&Sons																																													