



Course ID: HTH356	Course name: INTRODUCTION TO CHEMICAL ENGINEERING		
Cycle: (I) FIRST	Year: III (THIRD)	Semester: V	ECTS credits: 2
Course status: MANDATORY		Total course hours: 45 Lectures: 30 Laboratory: 0	
Teaching participants:	Teachers and associates with expertise in the field to which the subject belongs.		
Prerequisite for enrollment:	-		
Course aims:	Introduction to simple mathematics performances of certain fizzcular-chemical legality on which technological operations are based.		
Thematic course units:	<ol style="list-style-type: none">1. History of chemical processing industry2. Balance of forces3. Operations and apparatus4. Aggregate states5. General aspects of fluid mechanics6. Transfer phenomena7. Transfer of the amount of movement8. Heat transfer9. Mass transfer		

	<p>10. simultaneous mass and heat transfer</p> <p>11. Examples of problem solving and calculation of basic chemical operations and apparatus</p> <p>12. Surface phenomena</p> <p>13. Chemistry engineer in the chemical process industry</p>																																													
<p>Learning outcomes:</p>	<p>The student will be able to:</p> <ul style="list-style-type: none"> - Siterate the history of the chemical process industry - analyze based on the physical-chemical legality of the technological surgery - Apply knowledge in the field of mass transmission, heat, transmission of the amount of movement, force equilibrium, fluid mechanics, surface phenomena in the field of chemical process industry 																																													
<p>Teaching methodology:</p>	<p>1) Method of verball exposure 2) Discussion method 3) Research Method</p>																																													
<p>Assessment methods and grading system:</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3" style="background-color: #e0e0e0;">Grading criteria</th> </tr> <tr> <th style="width: 30%;">Criteria</th> <th style="width: 30%;">Maximal score</th> <th style="width: 40%;">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 style="text-align: center;">Total</td> <td style="text-align: center;">100</td> <td style="text-align: center;">55</td> </tr> <tr> <th colspan="3" style="background-color: #e0e0e0;">Scores and grading</th> </tr> <tr> <th style="width: 30%;">Score</th> <th style="width: 30%;">Grade (B&H)</th> <th style="width: 40%;">Grade (ECTS)</th> </tr> <tr> <td style="text-align: center;">< 55</td> <td style="text-align: center;">5</td> <td style="text-align: center;">F, FX</td> </tr> <tr> <td style="text-align: center;">55-64</td> <td style="text-align: center;">6</td> <td style="text-align: center;">E</td> </tr> <tr> <td style="text-align: center;">65-74</td> <td style="text-align: center;">7</td> <td style="text-align: center;">D</td> </tr> <tr> <td style="text-align: center;">75-84</td> <td style="text-align: center;">8</td> <td style="text-align: center;">C</td> </tr> <tr> <td style="text-align: center;">85-94</td> <td style="text-align: center;">9</td> <td style="text-align: center;">B</td> </tr> <tr> <td style="text-align: center;">95-100</td> <td style="text-align: center;">10</td> <td style="text-align: center;">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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<p>Literature:</p>	<ol style="list-style-type: none"> 1. Rozgaj, Osnovi tehnoloških operacija, Univerzitet u Sarajevu, Sarajevo, 1976. 2. E. Ahmetović, M. Suljkanović, Toplinske operacije-toplinske osobine hrane, izmjenjivači topline i isparivači, TF, Tuzla 2007. (interna skripta) 																																													

3. D. M. Himmelblau, J. B. Riggs, Basic Principles and Calculations in Chemical Engineering: International Edition, Addison-Wesley, Pearson Education, 2003
4. R.M. Felder, R.W. Rousseau, Elementary Principles of Chemical Processes, 3th ed., John Wiley & Sons, Inc., 2005.