Course ID: NTH471	**Course name: TECHNOLOGICAL CALCULATION IN ENVIRONMENTAL PROTECTION**		
Cycle: (I) FIRST	**Year: IV (FOURTH)**	**Semester: VII**	**ECTS credits: 3**
Course status: MANDATORY		**Total course hours: 45** Lectures: 30 Laboratory: 15	
Teaching participants:	**Teachers and associates with expertise in the field to which the subject belongs.**		
Prerequisite for enrollment:	-		
Course aims:	Acquiring basic knowledge and analytical laboratory skills for analysis of environmental elements.		
Thematic course units:	1. The basics of chemical engineering 2. Chemical engineering - Principles 3. The quality and treatment of air 4. Solid waste 5. Water quality and treatment 6. pollution prevention 7. Process modeling 8. Health carelessness and accident management		
Learning outcomes:	The student will be able to: - Describe the principles of hemic engineering - evaluate the quality of air and water - evaluate the degree of pollution and take prevention		

<table>
<tr><td></td><td>- Apply environmental data in terms of better prevention</td></tr>
<tr><td>Teaching methodology:</td><td>1) Method of verball exposure
2) Discussion method
3) Research Method
4) Method of exercises - computational</td></tr>
<tr><td>Assessment methods and grading system:</td><td>
<table>
<tr><th colspan="3">Grading criteria</th></tr>
<tr><th>Criteria</th><th>Maximal score</th><th>Required score</th></tr>
<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>
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<tr><td>Literature:</td><td>1. M. Baerns, A. Behr, A. Brehm, J. Gmehling, H. Hofmann, U. Onken, A. Renken: Technische Chemie, Wiley-VCH, Weinheim,2006
2. Lin S., Water and wastewater calculations manual, in Handbook of Environmental Engineering Calculations, C.C. Lee (ed.), McGraw-Hill, New York, 1999.
3. P. J. Reynolds, J. S. Jeris, L. Theodore: Handbook of Chemical and Environmental Enginering Calculations, Wiley Interscience, New York, 2002.
4. F.R. Spellman, N. E. Whiting: Environmental Enginer's Mathematics Handbook, CRC Pres, Boca Raton, New York, Washington, 2005.</td></tr>
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