



Course ID: HNMI11	Course name: METHODOLOGY OF TEACHING AND LEARNING CHEMISTRY		
Cycle: SECOND	Year: FIRST	Semester: I	ECTS credits: 6
Course status: MANDATORY		Total course hours: 90 Lectures: 30 Laboratory: 60	
Teaching participants:	Teachers and associates with expertise in the field to which the subject belongs		
Prerequisite for enrollment:	-		
Course aims:	Acquisition of knowledge about teaching methods in chemistry and their use with an emphasis on logical thinking. Development of students' independence and a capacity for independent lifelong learning. Development of the curiosity for research.		
Thematic course units:	<ol style="list-style-type: none">1. Concept maps and development of the ability to connect different concepts.2. Application of concept analysis to chemistry teaching content3. The constructivist model of cognition4. Specifics of learning chemistry5. Bloom's taxonomy and its application6. Methods for evaluation of achieved chemical education7. The Quality School - W. Glasser		
Learning outcomes:	Knowledge: Skills: <ul style="list-style-type: none">• Link the results of evaluation with the planning of future teaching practice• Apply Bloom's taxonomy in the evaluation of student achievement• Construct concept maps for given chemical concepts Competences: <ul style="list-style-type: none">• Adapt classroom space and other physical conditions for individual, group or frontal work in chemistry teaching• Link knowledge of teaching strategies and methods in a specific classroom context		

Teaching methodology:	Oral presentation Discussion Research																																																
Assessment methods and grading system¹:	<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. Midterm</td> <td>25</td> <td>14</td> </tr> <tr> <td>4. Seminar</td> <td>15</td> <td>8</td> </tr> <tr> <td>5. 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. Midterm	25	14	4. Seminar	15	8	5. 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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Literature²:	<p>Mandatory literature</p> <ol style="list-style-type: none"> Arends, R.I. (1994). <i>Learning to Teach</i>. New York: McGraw-Hill, Inc. <p>Supplementary literature:</p> <ol style="list-style-type: none"> Bognar, L., Matijević, M. (2005). <i>Didaktika</i>. Zagreb: Školska knjiga. Dryden, G., Vos J. (2001). <i>Revolucija u učenju</i>. Zagreb: Educa. Kyriacou, C. (2001). <i>Temeljna nastavna umijeća</i>. Zagreb: Educa. Glasser, W. (2005). <i>Kvalitetna škola – škola bez prisile</i>. Zagreb: Educa. 																																																

¹ The grading structure for each subject is determined by the Council of the organizational unit before the beginning of the academic year in which the subject is taught as per Article 64, paragraph 6 of the Law on Higher Education of Sarajevo Canton

² The Senate of the higher education institution, as an institution, or the Council of the organizational unit of the higher education institution, as a public institution, determines by a special decision, which is published on its website before the beginning of the academic year obligatory, mandatory and recommended textbooks and manuals, as well as other recommended literature based on which exams are prepared and taken as per Article 56, paragraph 3 of the Law on Higher Education of the Sarajevo Canton