



<b>Course ID:</b> HNMI02	<b>Course name: ACTIVE LEARNING IN CHEMISTRY</b>		
<b>Cycle:</b> SECOND	<b>Year:</b> FIRST	<b>Semester:</b> I	<b>ECTS credits:</b> 4
<b>Course status:</b> ELECTIVE	<b>Total course hours: 60</b> Lectures: 30 Laboratory: 30		
<b>Teaching participants:</b>	<b>Teachers and associates with expertise in the field to which the subject belongs</b>		
<b>Prerequisite for enrollment:</b>	-		
<b>Course aims:</b>	Training students for application of active learning in their instruction		
<b>Thematic course units:</b>	<ol style="list-style-type: none"><li>1. Constructivism</li><li>2. Bloom's taxonomy of the cognitive domain</li><li>3. Active teaching strategy</li><li>4. Active learning strategy</li><li>5. Peer learning in teams</li><li>6. Process Oriented Guided Inquiry Learning (POGIL)</li><li>7. Educational games</li><li>8. Flipped classroom</li><li>9. Strategies for developing motivation and interest in the classroom</li><li>10. Enhancing understanding using adequate examples</li><li>11. Expanding the teaching content</li></ol>		
<b>Learning outcomes:</b>	<p><b>Knowledge:</b></p> <ul style="list-style-type: none"><li>• Recognize the advantages of active learning strategies in the chemistry classroom</li></ul> <p><b>Skills:</b></p> <ul style="list-style-type: none"><li>• Design methods, tools and materials (including ICT) for active learning and teaching in chemistry teaching process</li><li>• Create a classroom atmosphere that enables collaborative and exploratory learning</li><li>• Design a dynamic learning environment that allows integration of previously acquired and new knowledge</li></ul> <p><b>Competences:</b></p> <ul style="list-style-type: none"><li>• Apply appropriate active learning techniques in the classroom</li></ul>		
<b>Teaching methodology:</b>	Oral presentation		

	Discussion Research Practical exercises
<b>Assessment methods and grading system<sup>1</sup>:</b>	<b>Grading criteria</b>
	Criteria                      Maximal score                      Required score
	1. Class attendance                      5                      3
	2. Class activities                      15                      8
	3. Midterm                      15                      8
	4. Seminar                      25                      14
	5. Final exam                      40                      22
	Total                      100                      55
	<b>Scores and grading</b>
	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	
<b>Literature<sup>2</sup>:</b>	Mandatory literature:
	<ol style="list-style-type: none"> <li>1. Kyriacou, C. (2001). <i>Temeljna nastavna umijeća</i>. Zagreb: Educa.</li> </ol>
<b>Literature<sup>2</sup>:</b>	Supplementary literature:
	<ol style="list-style-type: none"> <li>1. Anderson, L., Krathwohl, D., Airasian, P., Cruikshank, K., Mayer, R., Pintrich, P., Raths, J., Wittrock, M. (2001). <i>Taxonomy for Learning, Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives, Abridged Edition</i>. Boston: Pearson.</li> <li>2. Bonwell, C.C., Eison, J.A. (1991). <i>Active Learning: Creating Excitement in the Classroom</i>. Washington: George Washington University Press</li> <li>3. Marcy, P.D. (2005). <i>Psychology of Learning for Instruction</i>. Boston: Pearson.</li> <li>4. Slatina, M. (1998). <i>Nastavni metod</i>. Sarajevo:</li> </ol>

<sup>1</sup> 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

<sup>2</sup> 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

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