Course ID: HNM487	**Course name: METHODOLOGY OF CHEMISTRY EDUCATION II**		
Cycle: FIRST	**Year: FOURTH**	**Semester: VIII**	**ECTS credits: 7**
Course status: MANDATORY		**Total course hours: 105** Lectures: 45 Laboratory: 60	
Teaching participants:	**Teachers and associates with expertise in the field to which the subject belongs**		
Prerequisite for enrollment:	-		
Course aims:	Introduction to the characteristics of teaching chemistry in secondary and high schools. The formation of necessary teaching competencies and training students for creative chemistry instruction in secondary and high schools.		
Thematic course units:	1. Psychological foundations of teaching and learning. Contemporary learning theories 2. Inclusion in chemistry education. Adapting chemistry teaching to students with disabilities 3. Gifted students. Competitions in chemistry 4. Specific organizational forms in chemistry teaching 5. Didactic principles in chemistry teaching 6. Teaching aids, modern teaching technology 7. Theories and criteria for choosing teaching content 8. Computers in chemistry education. Virtual laboratory 9. Teacher preparation for the teaching process. Lifelong learning. 10. The role of the laboratory in chemistry teaching 11. Teaching chemistry in practice. Classroom management and discipline. Class leadership and cooperation with parents 12. Chemistry curriculum. Planning the teaching process. 13. Building chemistry knowledge 14. Monitoring and evaluation of student work results - specifics in chemistry teaching		
Learning outcomes:	Knowledge: • Integrate content knowledge from chemistry with knowledge from pedagogy, psychology, didactics, and methodology of teaching Skills:		

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- Propose appropriate teaching aids and aids for more successful implementation of teaching in school;

Competences:

- Discuss the advantages and obstacles of inclusion in chemistry teaching.

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<tr><td>Teaching methodology:</td><td>Oral presentation
Discussion
Research
Practical exercises</td></tr>
<tr><td>Assessment methods and grading system[1]:</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. 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>
</table>
</td></tr>
<tr><td>Literature[2]:</td><td>

Mandatory literature

1. Sikirica, M. (2003). *Metodika nastave kemije, Priručnik za nastavnike kemije*, Zagreb: Školska knjiga.
2. Zejnilagić-Hajrić, M., Ljubijankić, N. Čopra Janićijević, A., Vidic, D., Nuić, I. (2016). *Praktikum iz metodike nastave hemije*, Sarajevo: Univerzitet u Sarajevu.
3. Udžbenici iz hemije za osnovne škole odobreni od nadležnog Ministarstva za obrazovanje i nauku.

Supplementary literature:

1. Dragić, R. (1974). *Metodika nastave hemije*, Sarajevo: Svjetlost.

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</table>

[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

	2. Halaši, R., Kesler, M. (1976). *Metodika nastave hemije i demonstracioni ogledi*, Beograd: Naučna knjiga. 3. Mayer, V. (1991). *Eksperimentalna nastava kemije*, Zagreb: Školska knjiga. 4. Miner, D. L., Nieman, R., Swanson, A. B., & Woods, M. (2001). *Teaching chemistry to students with disabilities: A manual for high schools, colleges, and graduate programs*. Washington, DC: American Chemical Society, Office of Professional Training, 5. Matijević, M., Radovanović, D. (2011). *Nastava usmjerena na učenika*. Zagreb: Školske novine.