



<b>Course ID:</b> HNM302	<b>Course name: CHEMISTRY EDUCATION FOR SUSTAINABLE DEVELOPMENT</b>		
<b>Cycle: FIRST</b>	<b>Year: THIRD</b>	<b>Semester: VI</b>	<b>ECTS credits: 2</b>
<b>Course status: ELECTIVE</b>		<b>Total course hours: 30</b> Lectures: 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>	Introduction to selected topics in chemistry education for contributing to the care for healthier environment and to the increase of quality of life		
<b>Thematic course units:</b>	<ol style="list-style-type: none"><li>1. Basic concepts in education and sustainable development. A new vision of education</li><li>2. Perspectives of sustainable development</li><li>3. International agreements and their application in practice</li><li>4. Sustainable development and its conception</li><li>5. Sustainable development goals</li><li>6. Changing education at the global level. Responsibility for creating a sustainable future</li><li>7. Education for sustainable development and chemistry education</li><li>8. Upgrading the curriculum in terms of building concepts, skills and motivation for sustainable development</li><li>9. Application of sustainable development in the education system</li><li>10. Education for the protection and management of natural resources</li><li>11. Teacher education as a prerequisite for sustainability.</li></ol>		
<b>Learning outcomes:</b>	Knowledge: <ul style="list-style-type: none"><li>• Estimate the role of chemistry education for sustainable development</li><li>• Discuss the importance of education at all levels for creating a sustainable future;</li><li>• Recognize the individual responsibility of each person</li></ul>		

	<p>for sustainability at local and regional level</p> <p>Skills:</p> <ul style="list-style-type: none"> <li>Argue the importance of a holistic approach in sustainable development;</li> </ul> <p>Competences:</p> <ul style="list-style-type: none"> <li>Propose action(s) at the local level or wider community in the context of contributing to the realization of sustainable development goals.</li> </ul>																																																
<b>Teaching methodology:</b>	<p>Oral presentation Discussion Research</p>																																																
<b>Assessment methods and grading system<sup>1</sup>:</b>	<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>5</td> <td>3</td> </tr> <tr> <td>3. Midterm</td> <td>30</td> <td>17</td> </tr> <tr> <td>4. Seminar</td> <td>20</td> <td>10</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&amp;H)</th> <th>Grade (ECTS)</th> </tr> <tr> <td>&lt; 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	5	3	3. Midterm	30	17	4. Seminar	20	10	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
Grading criteria																																																	
Criteria	Maximal score	Required score																																															
1. Class attendance	5	3																																															
2. Class activities	5	3																																															
3. Midterm	30	17																																															
4. Seminar	20	10																																															
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																																															
<b>Literature<sup>2</sup>:</b>	<p>Mandatory literature</p> <ol style="list-style-type: none"> <li>Vijeće ministara BiH (2010). <i>Strategija razvoja Bosne i Hercegovine</i>.</li> <li><a href="http://mft.gov.ba/bos/images/stories/medjunarodna%20saradnja/BOS-A-Strategija%20razvoja%20BiH.pdf">http://mft.gov.ba/bos/images/stories/medjunarodna%20saradnja/BOS-A-Strategija%20razvoja%20BiH.pdf</a></li> <li><a href="http://www.bhas.ba/tematskibilteni/Okolis_2015_BiH.pdf">http://www.bhas.ba/tematskibilteni/Okolis_2015_BiH.pdf</a></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

Supplementary literature:

1. Education for Sustainable Development  
<http://www.unece.org/env/esd.html>
2. Sleurs, W. Ed. (2008). *Competens for Education for Sustainable Development*
3. The concept of competencies in the context of Education for Sustainable Development (ESD)  
Dostupno na: <http://esd-expert.net/assets/130314-Concept-Paper-ESD-Competencies.pdf>
4. UNESCO (2002). *Education for Sustainability - From Rio to Johannesburg: Lessons learnt from a decade of commitment*. Paris: UNESCO.
5. Wheeler, K. A., & Bijur, A. P. (Eds.). (2000). *Education for a sustainable future: A paradigm of hope for the 21st century*. New York: Kluwer Academic/Plenum Publishers.