



Course ID: HZOI14	Course name: DATABASES IN CHEMISTRY		
Cycle: SECOND	Year: FIRST	Semester: I	ECTS credits: 4
Course status: MANDATORY		Total course hours: 60 Lectures: 30 Laboratory: 30	
Teaching participants:	Teachers and associates with expertise in the field to which the subject belongs		
Prerequisite for enrollment:	-		
Course aims:	Introducing students to the way, importance and evaluation scientific publications, scientists and institutions. Search literature, database, use of specific software for chemistry.		
Thematic course units:	<ol style="list-style-type: none">1. Types of scientific publications (review, evaluation of different types of publications, identification of publications, ISBN, ISSN, DOI).2. Publishing houses, publishing costs, open access journals.3. Bibliographic and citation databases (ISI Web of Science, Science Direct, CAS, Scopus, Google Scholar, etc.)4. Statistical evaluation of bibliographic data (evaluation of journals, scientists and institutions)5. Publishing in scientific journals.6. Ethical guidelines for publishing.7. Publishing strategy.8. Searches of databases containing data on the spectral characteristics of chemical substances (NIST, SDBS Spectral Database, etc.)9. Searches of bases related to the characteristics of chemical substances, harmfulness of chemicals, toxicity, etc. (MSDS, Chemical Book, etc.)10. Databases offering access to the structure and nomenclature of chemical compounds (IUPAC Nomenclature, ChemIDplus Advances).11. Software for chemistry (Isis Draw, Chem Draw, ChemSketch)		
Learning outcomes:	Knowledge: Acquiring knowledge about the way of		

	<p>publishing scientific papers, evaluations of scientists, institutions, journals, as well as benefits use of specific programs in the field of chemistry. Skills: The student knows how to present results of scientific work, evaluation of these results as well as the purpose of obtaining useful information through database searches. Competences: The student is able to search independently and critically observe the relevant scientific literature, and present the results of their work as a scientific publication.</p>																																													
Teaching methodology:	Auditory lectures and laboratory exercises																																													
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>10</td> <td>5</td> </tr> <tr> <td>3. Midterms</td> <td>45</td> <td>25</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> </tbody> </table>	Grading criteria			Criteria	Maximal score	Required score	1. Class attendance	5	3	2. Class activities	10	5	3. Midterms	45	25	4. 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"> 1. Öchsner, A. (2013) Introduction to Scientific Publishing, Springer Heidelberg New York Dordrecht London 2. Vučina Ž., (2006) Pretraživanje i vrednovanje informacija na internetu, CARNet-hrvatska akademska i istraživačka mreža. 2. Vučina Ž., (2006) Pretraživanje i vrednovanje informacija na internetu, CARNet-hrvatska akademska i istraživačka mreža. <p>Supplementary literature:</p> <ol style="list-style-type: none"> 1. Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, Faculty of Science, University of Sarajevo, BiH 2. Databases, scientific publications. 																																													

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

