



Course ID: HFHII1	Course name: COLLOID CHEMISTRY		
Cycle: SECOND	Year: FIRST	Semester: I	ECTS credits: 6
Course status: ELECTIVE	Total course hours: Lectures: 60 Laboratory: 30		
Teaching participants:	Teachers and associates with expertise in the field to which the subject belongs		
Prerequisite for enrollment:	-		
Course aims:	Acquiring knowledge about the physico-chemical structure and properties of colloids, and methods of obtaining colloids.		
Thematic course units:	<ol style="list-style-type: none">1. Introduction to colloid chemistry.2. Basic definitions of colloids.3. Micellar colloids.4. Preparation and purification of colloids.5. The size and shape of colloidal particles.6. Physico-chemical structure of colloids.7. Surface phenomena: surface tension, adsorption.8. The viscosity of colloidal solutions.9. Kinetic phenomena in colloids: Brownian motion, diffusion, sedimentation and osmotic pressure.10. Optical phenomena in colloids: refraction, scattering and absorption of light.11. Electrical phenomena in colloids.12. Electrokinetic effects.13. Rheological properties of colloidal systems.14. Coagulation of colloids.15. Specific colloidal systems: emulsions, foams and gels.		
Learning outcomes:	Knowledge: Acquired basic knowledge of physico-chemical structure, properties and methods of obtaining colloids. Skills: The student will be able to analyze the physico-chemical structure of colloids and connect it with their properties, determine the differences between colloidal systems and real solutions, interpret experimental and computational data, give examples of colloidal systems in different fields of chemistry. Competences: Application of acquired knowledge and skills in various fields of chemistry and chemical engineering.		
Teaching methodology:	Lectures (oral presentation and interactive classes) Laboratory exercises		

Assessment methods and grading system¹:	Grading criteria		
	Criteria	Maximal score	Required score
	1. Class attendance	5	3
	2. Class activities	15	8
	3. Midterms	40	22
	4. Final exam	40	22
	Total	100	55
	Scores and grading		
	Score	Grade (BiH)	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	
Literature²:	<p>Mandatory literature: /</p> <p>Supplementary literature:</p> <ol style="list-style-type: none"> 1. Ljubomir Đaković, <i>Koloidna hemija</i>, Zavod za udžbenike i nastavna sredstva, Beograd, 2006. 2. Lubomir Đaković, Petar Dokić, <i>Praktikum koloidne hemije</i>, Zavod za udžbenike i nastavna sredstva, Beograd, Tehnološki fakultet, Novi Sad, 2003. 3. Dragica Ovcin i dr., <i>Fizička hemija - zbirka zadataka</i>, Tehnološko-metalurški fakultet, Univerzitet u Beogradu, Beograd, 2004. 		

¹The 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

²The 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