



Course ID: HFH403	Course name: CORROSION PROTECTION		
Cycle: FIRST	Year: FOURTH	Semester: VIII	ECTS credits: 4
Course status: ELECTIVE		Total course hours: 45 Lectures: 30 Laboratory: 15	
Teaching participants:	Teachers and associates with expertise in the field to which the subject belongs		
Prerequisite for enrollment:	-		
Course aims:	The objectives of the course are to acquire basic knowledge about the mechanism, methods and principles of corrosion protection		
Thematic course units:	<ol style="list-style-type: none"> 1. Material corrosion protection systems. 2. Electrochemical protection of materials - metals. 3. Cathodic protection. 4. Protection of metals by treatment of corrosive environment. 5. Protection of metals with coatings, paints and varnishes. 6. Galvanic coatings on a metal substrate. 7. Protection of metals from corrosion by refining in the construction phase of the device 8. Anodic protection. Principle of anodic protection based on pH potential diagram 9. Inhibition and inhibitors. Effect of inhibitors on corrosion processes. 10. Choice of corrosion inhibitor depending on material, environment and other conditions. 11. Protection of materials from chemical corrosion. 12. Testing the quality of performed protection and its maintenance. 13. Material selection and design. Selection of alloys. 14. Corrosion prevention plan. 15. Economics of corrosion prevention. Corrosion protection and ecology. 		
Learning outcomes:	<p>Knowledge: Acquired knowledge about corrosion, the laws of protection of materials from corrosion processes.</p> <p>Skills: Students will be able to use exact methods of protecting materials from corrosion processes.</p> <p>Competences: Application of knowledge from this subject to solve the protection of materials from corrosion processes in other branches of chemistry and industry, as well as environmental protection.</p>		
Teaching methodology:	Lectures (oral presentation and interactive classes) Laboratory exercises		
Assessment methods	Grading criteria		
	Criteria	Maximal score	Required score

and grading system¹:	1. Class attendance	5	3
	2. Class activities	15	8
	3. Midterms	2 × 20	2 × 11
	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> <ol style="list-style-type: none"> 1. Mladenović S., Korozija materijala, Tehnološkometalurški fakultet, Beograd, 1990 2. Sebenji E., Hakl L., Korozija metala, Tehnička knjiga, Beograd, 1980 3. Korać F., Gutić S., Herenda S., Ostojić J., Gojak-Salimović S.: Praktikum iz korozije i zaštite (2017) <p>Supplementary literature:</p> <ol style="list-style-type: none"> 1. D. A. Jones, Principles and prevention of corrosion, Prentice Hall, London, 1996 		

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