Course ID: HFH475	**Course name: CORROSION OF METALS**		
Cycle: FIRST	**Year: FOURTH**	**Semester: VII**	**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:	The objectives of the course are to acquire basic knowledge about the mechanism, kinetics and thermodynamics of corrosion processes		
Thematic course units:	1. Introduction. Definition and types of corrosion. 2. Chemical corrosion of metals. 3. Electrochemical corrosion of metals. 4. Special types of corrosion. 5. Thermodynamics of corrosion processes. Thermodynamics of chemical corrosion. 6. Thermodynamics of electrochemical corrosion. Potential-pH diagram. 7. Mechanism of corrosion processes. Mechanism of chemical corrosion. 8. Electrochemical corrosion mechanism. 9. Kinetics of corrosion processes. Kinetics of chemical corrosion. 10. Kinetics of electrochemical corrosion. 11. Corrosion in practice. Practical types of chemical corrosion. 12. Practical aspects of electrochemical corrosion. Even corrosion. 13. Electrochemical corrosion in aqueous solutions. Uneven corrosion. 14. Pitting and crack corrosion. 15. Corrosion testing and measurement.		
Learning outcomes:	Knowledge: Acquired knowledge about corrosion, the laws of corrosion processes. Skills: Students will be able to use exact methods as a basis for understanding corrosion processes. Competences: Application of knowledge from this subject to solve corrosion processes in other branches of chemistry and industry, as well as environmental protection.		
Teaching methodology:	Lectures (oral presentation and interactive classes) Laboratory exercises		

Assessment methods and grading system[1]:

Grading criteria			
	Criteria	Maximal score	Required score
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

Literature[2]:

Mandatory literature:

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)

Supplementary literature:

1. P. W. Atkins, Physical Chemistry, Oxford University Press

[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