

CORROSION CHEMISTRY AND ORGANIC CORROSION INHIBITORS

1	Course Title:	CORROSION CHEMISTRY AND ORGANIC CORROSION INHIBITORS
2	Course Code:	KIM4062
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	4
6	Semester:	8
7	ECTS Credits Allocated:	5.00
8	Theoretical (hour/week):	3.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Doç. Dr. SERKAN ÖZTÜRK
15	Course Lecturers:	Yok
16	Contact information of the Course Coordinator:	Doç. Dr. Serkan ÖZTÜRK serkanozturk@uludag.edu.tr (224)-2755093 Bursa Uludağ Üniversitesi Fen-Edebiyat Fakültesi Kimya Bölümü
17	Website:	
18	Objective of the Course:	To introduce the corrosion event, which is one of the important problems of the industry, and to emphasize the importance of using an organic corrosion inhibitor, which is one of the methods of corrosion protection.
19	Contribution of the Course to Professional Development:	<ul style="list-style-type: none"> - To recognize and learn the corrosion event - To understand the important elements of corrosion chemistry - To know the reason of the formation of corrosion and to have knowledge about the damages to the economy and the environment - To learn corrosion protection methods and to understand the importance of using inhibitor - To learn some organic structured substances used as corrosion inhibitors and their mechanism of action against corrosion
20	Learning Outcomes:	
	1	To recognize and learn the corrosion event
	2	To understand the important elements of corrosion chemistry
	3	To know the reason of the formation of corrosion and to have knowledge about the damages to the economy and the environment
	4	To learn about the types of corrosion
	5	To learn corrosion protection methods and to understand the importance of using inhibitor
	6	To learn some organic structured substances used as corrosion inhibitors and their mechanism of action against corrosion
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21	Course Content:			
	Course Content:			
Week	Theoretical	Practice		
1	What is the introduction of the course and corrosion?			
2	Corrosion chemistry and its importance			
3	Causes of corrosion, factors affecting the formation of corrosion and anti-corrosion methods			
4	Chemical and electrochemical corrosion events			
5	Types of corrosion and their importance			
6	Types of corrosion and their importance			
7	Midterm			
8	Corrosion rate, determination methods and factors affecting corrosion rate			
9	Corrosion occurring in acidic and neutral corrosive environments			
10	Inhibitor use, classification and importance to prevent corrosion			
11	Organic nonionic surfactants used as corrosion inhibitors, inhibition activities and corrosion inhibition mechanisms			
Activites		Number	Duration (hour)	Total Work Load (hour)
12	Theoretical Organic cationic surfactants used as corrosion inhibitors, inhibition activities and corrosion inhibition mechanisms	14	3.00	42.00
Practicals/Labs		0	0.00	0.00
13	Self study Examples preparation of polymers and other organic	14	2.00	28.00
Homeworks		1	24.00	24.00
Projects		0	0.00	0.00
Field Studies		0	0.00	0.00
Midterm Exams:		Introduction to Corrosion Science and Engineering, 4th		
Others		1	8.00	8.00
Final Exams		1	24.00	24.00
Total Work Load				150.00
Total work load/ 30 hr		2011.		5.00
ECTS Credit of the Course				5.00
TERM LEARNING ACTIVITIES		NUMBER	WEIGHT	
Midterm Exam		1	20.00	
Quiz		0	0.00	
Home work-project		1	20.00	
Final Exam		1	60.00	
Total		3	100.00	
Contribution of Term (Year) Learning Activities to Success Grade		40.00		
Contribution of Final Exam to Success Grade		60.00		
Total		100.00		

Measurement and Evaluation Techniques Used in the Course	There will be 1 midterm and 1 final exam including multiple choice or open ended questions. A homework grade will also be given.
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24	ECTS / WORK LOAD TABLE
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25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	4	3	2	3	3	3	3	3	3	4	4	4	4	0	0	0
ÖK2	4	3	3	4	4	4	4	3	3	4	4	4	4	0	0	0
ÖK3	5	4	3	3	4	3	4	3	3	4	4	4	4	0	0	0
ÖK4	4	4	3	3	3	3	4	3	3	4	4	4	4	0	0	0
ÖK5	4	4	3	4	4	3	4	3	3	4	4	4	4	0	0	0
ÖK6	3	4	3	4	4	3	3	3	3	4	4	4	4	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low		2 low		3 Medium		4 High		5 Very High							