

INDUSTRIAL ORGANIC MOLECULES

1	Course Title:	INDUSTRIAL ORGANIC MOLECULES	
2	Course Code:	KIM4056	
3	Type of Course:	Optional	
4	Level of Course:	First Cycle	
5	Year of Study:	4	
6	Semester:	8	
7	ECTS Credits Allocated:	6.00	
8	Theoretical (hour/week):	3.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	None. However, it is strongly recommended that students should have read Organic Chemistry I and Organic Chemistry II.	
12	Language:	English	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. MUSTAFA TAVASLI	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	mtavasli@uludag.edu.tr +90 224 29 41 732 Uludağ Üniversitesi, Fen-Edebiyat Fakültesi, Kimya Bölümü, 16059 Görükle / BURSA, TÜRKİYE	
17	Website:		
18	Objective of the Course:	The aim of the course is to understand the importance of organic molecules in industrial application.	
19	Contribution of the Course to Professional Development:	To broaden job possibilities by teaching industrial organic molecules and their application in industry.	
20	Learning Outcomes:		
		1	Identify organic molecules used in industrial applications.
		2	Grasp the importance of organic functional groups in industrial applications.
		3	Learn how the theory of organic chemistry is applied to practical applications.
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21	Course Content:		
		Course Content:	
Week	Theoretical	Practice	
1	Industrial Organic Molecules With Different Functional Groups (Isocyanates)		
2	Industrial Organic Molecules With Different Functional Groups (Esters)		
3	Industrial Organic Molecules With Different Functional Groups (Epoxides)		

4	Industrial Organic Molecules With Different Functional Groups (Alcohols)	
5	Industrial Organic Molecules With Different Functional Groups (Alkenes)	
6	Industrial Organic Molecules With Different Functional Groups (Amines)	
7	Radical Scavengers	
8	Problem solving	
9	Peroxide Decomposer	
10	Peroxide Activator	
11	UV absorbers	
12	Excited States Quenchers	
13	Epoxy curing agents	
14	Epoxy curing agents	

22	Textbooks, References and/or Other Materials:	<p>Industrial Organic Chemicals (Third Edition), Harold A. Wittcoff, Bryan G. Reuben, Jeffery S. Plotkin, Wiley, 2013</p> <p>Synthetics, Mineral Oils, and Bio-Based Lubricants: Chemistry and Technology (Second Edition), Leslie R. Rudnick, Leslie R. Rudnick, CRC Press, 2013</p>
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23	Assesment
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TERM LEARNING ACTIVITIES		NUMBE R	WEIGHT		
Activites			Number	Duration (hour)	Total Work Load (hour)
Theoretical			14		
Final Exam	1	60.00		3.00	42.00
Practicals/Labs			0	0.00	0.00
Self study and preparation			14		
Contribution of Term (Year) Learning Activities to		40.00		8.00	112.00
Homeworks			0	0.00	0.00
Projects			0	0.00	0.00
Contribution of Final Exam to Success Grade		60.00		0.00	0.00
Field Studies			0	0.00	0.00
Midterm exams			1	14.00	14.00
Measurement and Evaluation Techniques Used in the written, multiple choice and industry project					
Others			0	0.00	0.00
Final Exam	1	14.00		14.00	14.00
24 ECTS / WORK LOAD TABLE					
Total Work Load					182.00
Total work load/ 30 hr					6.07
ECTS Credit of the Course					6.00

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	5	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0
ÖK2	0	5	0	0	4	0	0	0	0	0	0	4	0	0	0	0
ÖK3	0	0	0	0	0	0	4	0	0	0	5	0	0	0	0	0

LO: Learning Objectives **PQ: Program Qualifications**

Contribution Level:	1 very low	2 low	3 Medium	4 High	5 Very High
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