Alanya Alaaddin Keykubat University | Rafet Kayış Faculty of Engineering Engineering Fundamental Sciences Department 2024-2025 Fall Semester

Syllabus	
Code/Name	GBM 211 / Organic Chemistry
Туре	Required
Credit/ECTS	5/5
Hour per Week	2 (2+0)
Level/Year	Undergraduate/2
Semester	Fall
Classroom	WWF D107
Content	This course focuses on fundamental concepts of organic chemistry with emphasis on aliphatic hydrocarbons, alkyl halides, alcohols and aromatic compounds. This course covers structure, nomenclature, physical and chemical properties, synthesis, reactivity and stereochemistry of functional groups, with discussion on basic reaction mechanisms.
Prerequisites	KIM 101E Chemistry
Textbooks	 Primary Class Notes Supplementary T. W. Graham Solomons, Craig B. Fryhle, Scott A. Snyder, Solomons' Organic Chemistry, John Wiley & Sons Inc, Global Ed., 2017.
	 E. L. Elliel and S. H. Wilen, Stereochemistry of Organic Compounds, John Wiley and Sons, New York. 1994. John McMurry, Fundamentals of Organic Chemistry, Brooks/Cole, International Edition, 2010.
Objectives	 To analyze the atomic structures, bonding, resonance, formulas and the acidity and basicity of organic compounds To demonstrate an understanding of the structure, properties, nomenclature, synthesis, and reactions of organic compounds To predict nucleophilic substitution, elimination, addition and free radical reactions.
Course Outcomes	In this course you will be able to:
	CO1 Recognize, name and represent organic compounds and functional groups CO2 Describe relationships between structure, chemical reactivity and physical properties CO3 Comprehend the three dimensional aspect of stereochemistry as it applies to conformational analysis, geometrical and optical isomers. CO4 Investigate chemical properties of organic molecules through reactions and synthesis CO5 Illustrate organic reactions through reaction mechanisms
Weekly Schedule of	Topics
W Topic	
1 Structure and I	
2 Acids and Base	S

3 Introduction to Organic Molecules and Functional Groups

4 Nomenclature of Alkanes and Cycloalkanes

5 Stereochemistry

6 Alkyl Halides and Nucleophilic Substitution

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7	Alkyl Halides and Elimination Reactions
8	Alkenes
9	Alkynes
10	Alcohols, Ethers and Epoxides
11	Radical Reactions
12	Aldehydes and Ketones
13	Carboxylic Acids and Esters
14	Aromatic Compounds
D C	

Professional	Ability to	develop	plans	for	retrosynthetic	analysis	to	solve	multistep	synthesis
Contribution	problems									

Contribution to Program Outcomes*

	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011
C01	5	5	4	3	4	4	2	0	4	4	5
CO2	5	5	4	3	4	4	2	0	4	4	5
CO3	5	5	4	3	4	4	2	0	4	4	5
CO4	5	5	4	3	4	4	2	0	4	4	5
C05	5	5	4	3	4	4	2	0	4	4	5

* Contribution Level | 0: None | 1: Very Low | 2: Low | 3: Medium | 4: High | 5: Very High

Special Conditions	-						
Requirements	Three dimensional models of organic molecules						
Course Policy	 Be in the class on time. English should always be used to communicate with one another. At least 70% attendance is required, otherwise a grade of DZ will be assigned. 						
Cheating & Plagiarism	 Copying or letting someone copy your work on exams, assignments, or reports is cheating. Cutting and pasting text, figures and tables from web sources or any other electronic source is plagiarism. The consequence of academic dishonesty is to receive a grade of FF for the course. 						
Evaluation	Midterm40%Final Exam60%Total100%						
Instructor							

Instructor

mstructor			
Name/Surname	Çiğdem Dülgerbaki	Email	cigdem.dulgerbaki@alanya.edu.tr
Room	417	Office Hours	W 15.30-16.30 T 10.30-12.30

Prepared by Çiğdem Dülgerbaki on October 21st, 2024.