

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
ORGANIC CHEMISTRY II	PHA2113086	Fall Semester	3+0	3	5
Prerequisites Courses					
Recommended Elective Courses					
Language of Instruction	English				
Course Level	First Cycle (Bachelor's Degree)				
Course Type	Required				
Course Coordinator	Prof.Dr. Mine YARIM YÜKSEL				
Name of Lecturer(s)	Lect.Dr. İsmail FİDAN				
Assistant(s)					
Aim	To explain the reaction types, synthesis and possible reactions of organic compounds				
Course Content	This course contains; 1. Alkane reactions and radicalic reactions,2. Alkene and alkyne reactions: elimination and addition reactions,3. Reactions of alkyl halides and alcohols; nucleophilic substitution reactions,4. Reactions of alkyl halides and alcohols; nucleophilic substitution reactions (continued),5. Reactions of aromatic compounds, aromatic electrophilic substitution reactions,6. Reactions of aromatic compounds, aromatic electrophilic substitution reactions (continued),7. The reactions through carbonyl groups,8. The reactions through carbonyl groups (continued),9. The reactions through alfa position of carbonyl groups,10. The reactions of the carboxylic acid and its derivatives,11. Reactions of amines,12. Nomenclature and general synthesis of heterocyclic compounds,13. Nomenclature and general synthesis of heterocyclic compounds (continued),14. Name reactions.				
Course Learning Outcomes			Teaching Methods	Assessment Methods	
3.1.explain addition reactions to aldehydes and ketones			16, 18, 19, 9	A	
1. Classify reaction types.			16, 18, 9	A	
1.1. Example radicalic reactions.			16, 18, 9	A	
1.2. Explain addition and elimination reactions			16, 18, 9	A	
1.3. Explain nucleophilic and electrophilic substitution reactions and rearrangement reactions.			16, 18, 9	A	
2. interpret synthesis reactions of organic compounds.			16, 18, 19, 9	A	
2.1. explain elimination and addition reactions of alkenes and alkynes.			16, 18, 19, 9	A	
2.2. Explain nucleophilic substitution reactions of alcohols and alkyl halides.			16, 18, 19, 9	A	
2.3. explain electrophilic substitution reactions of aromatic compounds			16, 18, 19, 9	A	
3. classify the reactions of carbonyl containing compounds			16, 18, 19, 9	A	
3.2. give reaction example on alpha carbons of carbonyl group.			16, 18, 19, 9	A	
3.3. explain reactions related to amino and carboxyl group.			16, 18, 19, 9	A	
4. Define chemistry of heterocyclic systems.			16, 18, 19, 9	A	
4.1. Narrate nomenclature of heterocyclic compounds.			16, 18, 19, 9	A	
4.2. Classify synthesis reactions of heterocyclic compounds.			16, 18, 19, 9	A	
4.3. Recognizes some name reactions.			16, 18, 19, 9	A	
Teaching Methods	16: Question - Answer Technique, 18: Micro Teaching Technique, 19: Brainstorming Technique, 9: Lecture Method				
Assessment Methods	A: Traditional Written Exam				
Lecture Schedule					
Sequenc e	Topics	Preliminary Preparation			
1	1. Alkane reactions and radicalic reactions	Reading the reference book			
2	2. Alkene and alkyne reactions: elimination and addition reactions	Reading the reference book			
3	3. Reactions of alkyl halides and alcohols; nucleophilic substitution reactions	Reading the reference book			
4	4. Reactions of alkyl halides and alcohols; nucleophilic substitution reactions (continued)	Reading the reference book			
5	5. Reactions of aromatic compounds, aromatic electrophilic substitution reactions	Reading the reference book			
6	6. Reactions of aromatic compounds, aromatic electrophilic substitution reactions (continued)	Reading the reference book			
7	7. The reactions through carbonyl groups	Reading the reference book			
8	8. The reactions through carbonyl groups (continued)	Reading the reference book			
9	9. The reactions through alfa position of carbonyl groups	Reading the reference book			
10	10. The reactions of the carboxylic acid and its derivatives	Reading the reference book			
11	11. Reactions of amines	Reading the reference book			
12	12. Nomenclature and general synthesis of heterocyclic compounds	Reading the reference book			
13	13. Nomenclature and general synthesis of heterocyclic compounds (continued)	Reading the reference book			
14	14. Name reactions	Reading the reference book			
Evaluation Methods		Weight(%)			
Midterm Exam		40			
General Exam		60			
Resources					
1. Solomons' Organic Chemistry					