

**School of Engineering and Natural Sciences / Biomedical Engineering (English)**

**2024 - 2025 Academic Year**

**GENERAL CHEMISTRY LAB**

**Syllabus**

<b>Course Description</b>					
<b>Name</b>	<b>Code</b>	<b>Semester</b>	<b>T+A Hour</b>	<b>Credit</b>	<b>ECTS</b>
GENERAL CHEMISTRY LAB	BME1210771	Spring Semester	0+2	1	2
<b>Prerequisites Courses</b>					
<b>Recommended Elective Courses</b>					
<b>Language of Instruction</b>	English				
<b>Course Level</b>	First Cycle (Bachelor's Degree)				
<b>Course Type</b>	Required				
<b>Course Coordinator</b>	Prof.Dr. Yasemin YÜKSEL DURMAZ				
<b>Name of Lecturer(s)</b>	Prof.Dr. Yasemin YÜKSEL DURMAZ, Res.Assist. Birgün ÖZÇOLAK ASLAN				
<b>Assistant(s)</b>					
<b>Aim</b>	This practical laboratory course contains six fundamental chemistry experiments to teach and enhance fundamental concepts of general chemistry. It also provides practical skills for common experimental techniques.				
<b>Course Content</b>	This course contains; Laboratory Regulations and Safety Training, Recycling Aluminum Cans, Report Preparation of 1st Experiment, Synthesis of Soap, Report Preparation of 2nd Experiment, Determination of Acetic Acid Content in Vinegar, Report Preparation of 3rd Experiment, Acetylation of Salicylic Acid (Aspirin®), Report Preparation of 4th Experiment, Chromatography, Report Preparation of 5th Experiment, Copper Electroplating, Report Preparation of 6th Experiment, Make up Experiments.				
<b>Course Learning Outcomes</b>			<b>Teaching Methods</b>	<b>Assessment Methods</b>	
Enhances the fundamental chemistry knowledge			14, 17, 5, 9	A, G	
Test the basic general chemistry concepts			14, 17, 5, 9	A, G	
Analyze the experimental results			14, 17, 5, 9	A, G	
Recognizes the acids and bases reactions			14, 17, 5, 9	A, G	
Learn the separation techniques			14, 17, 5, 9	A, G	
Reports the experimental results in their own words			14, 17, 5, 9	A, G	
<b>Teaching Methods</b>	14: Self Study Method, 17: Experimental Technique, 5: Cooperative Learning, 9: Lecture Method				
<b>Assessment Methods</b>	A: Traditional Written Exam, G: Quiz				
<b>Lecture Schedule</b>					
<b>Sequence</b>	<b>Topics</b>	<b>Preliminary Preparation</b>			
1	Laboratory Regulations and Safety Training	Going through course materials			
2	Recycling Aluminum Cans	Going through Lab manual			
3	Report Preparation of 1st Experiment				
4	Synthesis of Soap	Going through Lab manual			
5	Report Preparation of 2nd Experiment				
6	Determination of Acetic Acid Content in Vinegar	Going through Lab manual			
7	Report Preparation of 3rd Experiment				
8	Acetylation of Salicylic Acid (Aspirin®)	Going through Lab manual			
9	Report Preparation of 4th Experiment				
10	Chromatography	Going through Lab manual			
11	Report Preparation of 5th Experiment				
12	Copper Electroplating	Going through Lab manual			
13	Report Preparation of 6th Experiment				
14	Make up Experiments	Going through Lab manual			
<b>Evaluation Methods</b>		<b>Weight(%)</b>			
Midterm Exam		30			
General Exam		70			

<b>Resources</b>
General Chemistry Laboratory Booklet