<table>
<tr><th colspan="2">Course Description Form</th></tr>
<tr><td>Course Code and Name</td><td>CHEM151 - CHEMISTRY LABORATORY</td></tr>
<tr><td>Course Semester</td><td>1</td></tr>
<tr><td>Catalog Content</td><td>Understanding of basic chemistry knowledge. Learning basic laboratory rules and organization.</td></tr>
<tr><td>Textbook</td><td>-</td></tr>
<tr><td>Supplementary Textbooks</td><td>-</td></tr>
<tr><td>Credit</td><td>1</td></tr>
<tr><td>Prerequisites of the Course
(Attendance Requirements)</td><td>There is no prerequisite or co-requisite for this course.</td></tr>
<tr><td>Type of the Course</td><td>Compulsory</td></tr>
<tr><td>Instruction Language</td><td>English</td></tr>
<tr><td>Course Objectives</td><td>Understanding of basic chemistry knowledge. Learning basic laboratory rules and organization.</td></tr>
<tr><td>Course Learning Outcomes</td><td>Strengthening the knowledge of basic chemistry knowledge via participating to chemical experiments</td></tr>
<tr><td>Instruction Methods</td><td>Face to face</td></tr>
<tr><td>Weekly Schedule</td><td>1. Week Welcome & Introduction to chemical experiments.
2. Week Identifying the compounds by their physical and chemical properties.
3. Week Purification and crystallization techniques.
4. Week Diffusion.
5. Week Stoichiometry.
6. Week Calculation of Ideal Gas Constant.
7. Week Effect of temperature on reaction rate.
8. Week Indicators and pKa calculations.
9. Week Acid-Base titration.
10. Week Midterm
11. Week Chemical equilibrium.
12. Week Practice.
13. Week Practice.
14. Week Practice.</td></tr>
<tr><td>Teaching and Learning Methods

(These are examples. Please fill which activities you use in the course)</td><td>Weekly applied course hours 2
Literature review, library studies 10
Report preparing 10
Preparation of Midterm and Midterm Exam 5
Final Exam and Preparation for Final Exam 5</td></tr>
<tr><td>Assessment Criteria</td><td>
<table>
<tr><th></th><th>Numbers</th><th>Total Weighting (%)</th></tr>
<tr><td>Midterm Exams</td><td>1</td><td>30%</td></tr>
<tr><td>Assignment</td><td>0</td><td>0</td></tr>
<tr><td>Application</td><td>1</td><td>15%</td></tr>
<tr><td>Projects</td><td>0</td><td>0</td></tr>
<tr><td>Practice</td><td>0</td><td>0</td></tr>
<tr><td>Quiz</td><td>1</td><td>15%</td></tr>
<tr><td>Percent of In-term Studies (%)</td><td></td><td>60</td></tr>
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</td></tr>
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	Percentage of Final Exam to Total Score (%)		40	
	Attendance	-	-	

Workload

Activity	Total Number of Weeks	Duration (weekly hour)	Total Period Work Load
Weekly Theoretical Course Hours			0
Weekly Tutorial Hours	14	2	28
Reading Tasks			0
Studies	10	1	10
Material Design and Implementation			0
Report Preparing	10	1	10
Preparing a Presentation			0
Presentations			0
Midterm Exam and Preperation for Midterm Exam	1	5	5
Final Exam and Preperation for Final Exam	1	5	5
Other (should be emphasized)			0
Total Workload			58
Total Workload / 25			2.32
Course Credit (ECTS)			2

Contribution Level Between Course Learning Outcomes and Program Outcomes

No	Program Çıktıları	1	2	3	4	5
1	To acquire sufficient theoretical and applied knowledge on engineering, mathematics and science in order to identify, define and formulate engineering problems.				X	
2	To be able to choose and apply analysis, modeling and design methods suitable for solving engineering problems.	X				
3	To be able to design a system, process or product related to engineering problems in line with the requirements of a defined goal; To be able to use modern design tools for this purpose.	X				
4	To be able to evaluate engineering solutions with design quality, realistic constraints and conditions, including safety, durability, adaptability, economy, environmental issues, sustainability and manufacturability.	X				
5	Ability to simulate or experiment and design and interpret results for the analysis and solutions of engineering problems. Ability to analyze data for real life industry problems.	X				

	6	To be able to use modern techniques and calculation tools required for engineering applications; to be able to use information technologies effectively.	X				
	7	To be able to work effectively in a group or as an individual for a particular discipline or interdisciplinary studies. Ability to act independently, use initiative and creativity.	X				
	8	To be able to communicate effectively by expressing their ideas orally and in writing in a clear and concise way in English. To be able to communicate in using at least one foreign language effectively for the profession.	X				
	9	To be able to plan and manage projects; ability to comprehend the importance of approaches like entrepreneurship, innovativeness etc. in business life.	X				
	10	Understanding the necessity of lifelong learning and the ability to renew oneself with the awareness of being open to innovations.	X				
	11	Having professional and moral responsibility.	X				
	12	Development of personality traits such as self-confidence, endurance in hardships, determination and patience.	X				
	13	Have an awareness of the current social, economic, environmental, etc. problems and practice engineering profession with the responsibility brought by this awareness.	X				
The Course's Lecturer(s) and Contact Informations	All chemistry faculty members http://kimya.gazi.edu.tr/?language=en_US						