# INORGANIC CHESTRY LABORATORY I

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| 1 | Course Title: | INORGANIC CHESTRY LABORATORY I | |
| 2 | Course Code: | KIM2009 | |
| 3 | Type of Course: | Compulsory | |
| 4 | Level of Course: | First Cycle | |
| 5 | Year of Study: | 2 | |
| 6 | Semester: | 3 | |
| 7 | ECTS Credits Allocated: | 4.00 | |
| 8 | Theoretical (hour/week): | 0.00 | |
| 9 | Practice (hour/week): | 0.00 | |
| 10 | Laboratory (hour/week): | 4 | |
| 11 | Prerequisites: | There is no prerequisites of this course. | |
| 12 | Language: | Turkish | |
| 13 | Mode of Delivery: | Face to face | |
| 14 | Course Coordinator: | Prof. Dr. Veysel Turan Yılmaz | |
| 15 | Course Lecturers: | Prof. Dr. Veysel Turan YILMAZ<br>Doç. Dr. Rahmiye AYDIN<br>Doç. Dr. Hasene Mutlu GENÇKAL<br>Doç. Dr. Mehmet Suat AKSOY | |
| 16 | Contact information of the Course Coordinator: | Adres: Uludağ Üniversitesi Fen-Edebiyat Fakültesi Kimya Bölümü<br>Tel: 0 224 2941726<br>e-posta: girez@uludag.edu.tr | |
| 17 | Website: | | |
| 18 | Objective of the Course: | The aim of the laboratory is to give ability for setting up, working up and interpretation of basic inorganic experiments | |
| 19 | Contribution of the Course to Professional Development: | | |
| 20 | Learning Outcomes: | | |
| | | 1 | A basic set of experiments will be established in inorganic chemistry |
| | | 2 | Results will be evaluated. |
| | | 3 | Ability to interpret the results will be won |
| | | 4 | Ability to design and to make the experiment will be won. |
| | | 5 | Ability to do group work will be won. |
| | | 6 | The inorganic compounds will be synthesized. |
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| 21 | Course Content: | | |
| | **Course Content:** | | |
| Week | Theoretical | | Practice |

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| **1** | | Laboratory presentation, disclosure of applicable rules and the creation of groups |
| **2** | | Synthesis of Sodium Thiosulfate Pentahydrate and Investigation of Its Reactions |
| **3** | | Syntheses of Boric Acid, (H3BO3) and Sodium Peroxoborate Hexahydrate, (Na2[B2(O2)2(OH)4].6H2O) |
| **4** | | The Formation and Decomposition of a Hydrate, (BaCl2.XH2O, CuSO4.XH2O, Na2S2O3.XH2O) |
| **5** | | Syntheses of Lead(II) iodide, (PbI2) and Potassium Triiodoplumbate(II) dihydrate (KPbI3.2H2O), |
| **6** | | Hydrobromic Acid, HBr |
| **7** | | Preparation of  Copper (I) Iodide (CuI) |
| **8** | | Recognition of The First Row Transition Metal Ions |
| **9** | | Repetition of previous lessons and midterm |
| **10** | | Nitrogen Compounds and Recognition Reactions |
| **11** | | Potentiometric Titration of Phosphoric Acid  and Its Calculation of Acidity Constants |
| **12** | | Synthesis of Ammonium iron (II) sulfate hexahydrate (Mohr's salt), (NH4)2Fe(SO4)2.6H2O |
| **13** | | Syntheses of Group IIA Metal Oxalate Hydrates and Their Thermal Analyses |
| **14** | | Common Assessment |

| Activites | Number | Duration (hour) | Total Work Load (hour) |
|---|---|---|---|
| Theoretical | 0 | 0.00 | 0.00 |
| Practicals/Labs | 14 | 4.00 | 56.00 |
| Laboratory Preparation | 14 | 1.00 | 14.00 |
| Homeworks | 10 | 2.00 | 20.00 |
| Projects | 0 | 0.00 | 0.00 |
| Field Studies | 0 | 0.00 | 0.00 |
| Midterm exams | 1 | 9.00 | 9.00 |
| Others | 12 | 0.50 | 6.00 |
| Final Exams | 1 | 15.00 | 15.00 |
| Total Work Load | | | 120.00 |
| Total work load/ 30 hr | | | 4.00 |
| ECTS Credit of the Course | | | 4.00 |

Experimental Notes of Inorganic Chemistry Laboratory

| SEMESTER ACTIVITIES | NUMBER | WEIGHT |
|---|---|---|
| Midterm Exam | 1 | 25.00 |
| Quiz | 12 | 25.00 |
| Home work project | 0 | 0.00 |
| Final Exam | 1 | 50.00 |
| Total | 14 | 100.00 |
| Contribution of Term (Year) Learning Activities to | | 50.00 |
| Contribution of Final Exam to Success Grade | | 50.00 |
| Total | | 100.00 |

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| Measurement and Evaluation Techniques Used in the Course | |
| **24** | **ECTS / WORK LOAD TABLE** |

| **25** | **CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS** | | | | | | | | | | | | | | | |
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| | **PQ1** | **PQ2** | **PQ3** | **PQ4** | **PQ5** | **PQ6** | **PQ7** | **PQ8** | **PQ9** | **PQ10** | **PQ11** | **PQ12** | **PQ13** | **PQ14** | **PQ15** | **PQ16** |
| **ÖK1** | 1 | 5 | 5 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 0 | 0 | 0 |
| **ÖK2** | 1 | 5 | 5 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 0 | 0 | 0 |

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| **ÖK3** | 3 | 1 | 1 | 5 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| **ÖK4** | 1 | 1 | 1 | 1 | 4 | 5 | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 0 | 0 | 0 |
| **ÖK5** | 5 | 1 | 5 | 5 | 5 | 3 | 3 | 1 | 1 | 1 | 3 | 1 | 1 | 0 | 0 | 0 |
| **ÖK6** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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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