# AYDIN ADNAN MENDERES UNIVERSITY
# COURSE INFORMATION FORM

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Course Title | Introduction to Chemistry I | | | | | | | | |
| Course Code | KMY161 | | Couse Level | | Short Cycle (Associate's Degree) | | | | |
| ECTS Credit | 3 | Workload | 74 *(Hours)* | Theory | 2 | Practice | 0 | Laboratory | 0 |
| Objectives of the Course | improve students' ability to think about mater's properties and measurement, atoms and atomic theory, electronic structure of atoms, the periodic table and give theoretical knowledge in a systematic and comprehensive on some atomic properties and the basic concepts of chemistry | | | | | | | | |
| Course Content | Basic terms and unit systems in chemistry, classification and properties of matter, the periodic table and periodic properties, electronic structure of atoms, atomic mass and mole concept, chemical formulas, naming of compounds, reactions and stoichiometric calculations, chemical bonds, molecules and their properties, gases and solids, liquids and solutions, solution calculations, acids and bases | | | | | | | | |
| Work Placement | N/A | | | | | | | | |
| Planned Learning Activities and Teaching Methods | Explanation (Presentation), Discussion, Problem Solving | | | | | | | | |
| Name of Lecturer(s) | Lec. Ali ERKUL | | | | | | | | |

| Assessment Methods and Criteria | | |
|---|---|---|
| Method | Quantity | Percentage (%) |
| Midterm Examination | 1 | 40 |
| Final Examination | 1 | 70 |

| Recommended or Required Reading | |
|---|---|
| 1 | Genel Kimya. Sabri Alpaydın - Abdullah Şimşek Nobel Yayın Dağıtım, 2009 |
| 2 | Öğretim üyesi ders notları. |

| Week | Weekly Detailed Course Contents | |
|---|---|---|
| 1 | Theoretical | The basic unit and unit systems Chemistry |
| 2 | Theoretical | The classification and properties of the substance |
| 3 | Theoretical | Periodic table and periodic properties |
| 4 | Theoretical | electronic structure of atoms, atomic mass and mole concept |
| 5 | Theoretical | Chemical formulas |
| 6 | Theoretical | Nomenclature of Compound |
| 7 | Theoretical | Reactions and stoichiometric calculations |
| 8 | Theoretical | Chemical bonds |
| 9 | Theoretical | Molecules and their properties |
| 10 | Theoretical | Midterm |
| 11 | Theoretical | Gases and solids |
| 12 | Theoretical | Liquids and Solutions |
| 13 | Theoretical | Solution calculations |
| 14 | Theoretical | Acids and bases |
| 15 | Theoretical | Final exam |

| Workload Calculation | | | | |
|---|---|---|---|---|
| Activity | Quantity | Preparation | Duration | Total Workload |
| Lecture - Theory | 14 | 0 | 2 | 28 |
| Midterm Examination | 1 | 22 | 1 | 23 |

| | | | | |
|---|---|---|---|---|
| Final Examination | 1 | 22 | 1 | 23 |
| | | | Total Workload (Hours) | 74 |
| | | | [Total Workload (Hours) / 25*] = **ECTS** | 3 |
| **25 hour workload is accepted as 1 ECTS* | | | | |

| **Learning Outcomes** | |
|---|---|
| 1 | To understand the aim of chemistry, material properties and the classification |
| 2 | To understand the first discoveries in chemistry, atomic theory and the structure of atoms |
| 3 | To understand the periodic table, and the number of moles Avogadro |
| 4 | To distinguish the periodic properties of elements, understand the types of chemical compounds, to make chemical formulas |
| 5 | being able to make stoichiometric calculations using chemical reactions and chemical reactions to distinguish equality |
| 6 | be able to understand covalent bonding, molecular geometry and hybridization of atomic orbitals |

| **Programme Outcomes** *(Occupational Safety and Health)* | |
|---|---|
| 1 | . |
| 2 | . |
| 3 | . |
| 4 | . |
| 5 | . |
| 6 | . |
| 7 | . |
| 8 | . |
| 9 | . |
| 10 | . |

**Contribution of Learning Outcomes to Programme Outcomes** *1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High*

| | L1 | L2 | L3 | L4 | L5 | L6 |
|---|---|---|---|---|---|---|
| P1 | 3 | 3 | 3 | 3 | 3 | 3 |