



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

|  |   |          |              |        |                                  |          |   |            |   |
|--|---|----------|--------------|--------|----------------------------------|----------|---|------------|---|
| Course Title                                     | Introduction to Chemistry II  |          |              |        |                                  |          |   |            |   |
| Course Code                                      | KMY162  |          | Course Level |        | Short Cycle (Associate's Degree) |          |   |            |   |
| ECTS Credit                                      | 3   | Workload | 74 (Hours)   | Theory | 2                                | Practice | 0 | Laboratory | 0 |
| Objectives of the Course                         | to develop students' ability to think about, substance properties and measurement, atoms and atomic theory, the atomic electron structure of the periodic table and some atomic properties, compounds, stoichiometry and chemical reactions, gases, provide theoretical knowledge in a systematic and comprehensive information on chemical bonds and the basic concepts of chemistry             |          |              |        |                                  |          |   |            |   |
| Course Content                                   | Gases and solids, liquids, solutions and numerical properties of the solution, the solution calculations, acids and bases, thermochemistry, chemical kinetics, chemical equilibrium and balance of species, solubility equilibria, acid-base equilibria, buffer solutions, thermochemistry, electrochemistry, organic chemistry, organic compounds, Biochemistry, Carbohydrates, Proteins, Lipids |          |              |        |                                  |          |   |            |   |
| Work Placement                                   | N/A   |          |              |        |                                  |          |   |            |   |
| Planned Learning Activities and Teaching Methods | Explanation (Presentation), Discussion, Problem Solving   |          |              |        |                                  |          |   |            |   |
| Name of Lecturer(s)                              |   |          |              |        |                                  |          |   |            |   |

### 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                     | Solids, liquids and gases   |
| 2    | Theoretical                     | Solutions and numerical properties of the solution, the solution calculations |
| 3    | Theoretical                     | Acids and bases   |
| 4    | Theoretical                     | Thermochemistry   |
| 5    | Theoretical                     | chemical kinetics   |
| 6    | Theoretical                     | Chemical balance and types  |
| 7    | Theoretical                     | Solubility equilibria   |
| 8    | Theoretical                     | Acid-base balance   |
| 9    | Theoretical                     | Buffer solutions  |
| 10   | Theoretical                     | Midterm   |
| 11   | Theoretical                     | Electrochemistry, organic chemistry, organic compounds                        |
| 12   | Theoretical                     | carbohydrates   |
| 13   | Theoretical                     | proteins  |
| 14   | Theoretical                     | lipids  |
| 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 | Covalent bonding, molecular geometry and hybridization of atomic orbitals be able to understand                           |

**Programme Outcomes (Medical and Aromatic Plants)**

|    |   |
|----|---|
| 1  | Having the recognition, classification and the use areas knowledge of medical and aromatic plants   |
| 2  | Having practical and technical knowledge about cultivation and production of medical and aromatic plants  |
| 3  | Having knowledge of morphology, anatomy, cytology, physiology and biochemical structures of medical and aromatic plants   |
| 4  | Having knowledge of important of soil conditions to grow medical and aromatic plants  |
| 5  | Having information and the ability to use materials related with basic math and basic chemistry founded on qualifications gained in secondary education         |
| 6  | Having ability to use effective own language and having knowledge of foreign language in order to communicate own colleagues and own customers                  |
| 7  | Having ability to collect medical and aromatic plants, having knowledge of seed technology, drying and conservation of these plants                             |
| 8  | Having ability to identify and to fight diseases and pests of medical and aromatic plants   |
| 9  | Having knowledge of all Agricultural activities   |
| 10 | Having knowledge of Atatürk Principle and Revolutions and to assimilate Atatürk Principle and Revolutions   |
| 11 | Having consciousness of quality   |
| 12 | Having knowledge and accumulation of investigative and evaluation   |
| 13 | Ability to work as an individual capable of independent decision-making ideas verbally and in writing, stating the figure to communicate in a clear and concise |
| 14 | Ability to identify plants used for medical purposes and to obtain mixtures from drugs acquired these plants  |
| 15 | Having skill and knowledge of marketing techniques medical and aromatic plants  |

**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 |
|----|----|----|----|----|----|----|
| P3 | 5  | 5  | 5  | 5  | 5  | 5  |

