



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Basic Chemistry I							
Course Code		KMY165		Couse Level		First Cycle (Bachelor's Degree)			
ECTS Credit	3	Workload	75 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		To give information about the properties of matter and the concept of measurement, to explain atomic theories, to teach nomenclature of compound the concept of mole and concentration calculations, to give information about the basic properties of gases							
Course Content		Basic terms and unit systems in chemistry, classification and properties of matter, atomic structure, concept of molecules and ions, nomenclature of compound, reactions and stoichiometric calculations, aqueous solution reactions, basic gas laws							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Problem Solving					
Name of Lecturer(s)		Assoc. Prof. Gülşen GÜVEN, Assoc. Prof. Semiha KUNDAKCI, Lec. Rukiye YAVAŞER BONCOOĞLU, Prof. Ömer Barış ÜZÜM, Prof. Yüksel ŞAHİN							

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading

1	Genel Kimya-Temel Kavramlar. Raymond Chang, Kenneth A. Goldsby-Çeviri Editörleri: Recai İnam, Serpil Aksoy, Tahsin Uyar Palme Yayıncılık, 2016
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Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction, field of study of chemistry
2	Theoretical	Classification of substances, physical and chemical properties
3	Theoretical	Measurement, significant numbers and dimensional analysis
4	Theoretical	Atomic theories and structure of the atom
5	Theoretical	Molecules and ions, nomenclature of compounds
6	Theoretical	Stoichiometry, atomic and molecular mass
7	Theoretical	Limiting reagents, reaction yield
8	Theoretical	Solving sample problems-I (Midterm Exam)
9	Theoretical	Aqueous Solutions
10	Theoretical	Acid-base reactions redox reactions
11	Theoretical	Solution concentrations and stoichiometry
12	Theoretical	Gas laws, ideal gas equation
13	Theoretical	Kinetic molecular theory of gases
14	Theoretical	Solving sample problems-II

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	2	42
Midterm Examination	1	10	1	11
Final Examination	1	20	2	22
Total Workload (Hours)				75
[Total Workload (Hours) / 25*] = ECTS				3

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	Understands the properties and classification of matter
2	Explains the structure of the atom and compares atomic theories



3	Names chemical compounds
4	Knows the concept of mole
5	Performs stoichiometric calculations
6	Calculates the concentrations of solutions
7	Knows gas laws
8	Makes calculations about gases

Programme Outcomes (Agricultural Biotechnology)

1	Mathematics, science and Agricultural Engineering, adequate knowledge of the subjects specific to the discipline of Agricultural Biotechnology; ability to use theoretical and applied knowledge in these fields in complex engineering problems.
2	Agricultural Engineering ability to define, formulate and solve complex problems in the field of Agricultural Biotechnology, to choose and apply appropriate analysis and modeling methods for this purpose.
3	Agricultural Engineering ability to design a complex system, process, device or product related to the field of Agricultural Biotechnology, under realistic constraints and conditions, in other words, by considering the available possibilities and the current state of the field, and the ability to apply modern design methods for this purpose.
4	Agricultural Engineering ability to choose and use modern tools necessary for the analysis and solution of complex problems encountered in Agricultural Biotechnology applications, the ability to use information technologies effectively.
5	Agricultural Engineering ability to design, conduct experiments, collect data, analyze and interpret results for the examination of complex problems or discipline-specific research issues in the field of Agricultural Biotechnology.
6	Ability to work effectively in disciplinary and multi-disciplinary teams; individual study skills.
7	Ability to write effective reports in the field and to understand written reports, to prepare design and production reports, to make effective presentations, to take and give clear and understandable instructions.
8	Awareness of the necessity of lifelong learning; the ability to access information, follow developments in science and technology, and constantly renew oneself.
9	Knowledge of ethical principles, professional and ethical responsibility, and standards used in engineering practices.
10	Agricultural Engineering Information about applications in business life such as project management, risk management and change management in the field of Agricultural Biotechnology; awareness of entrepreneurship, innovation; information about sustainable development.
11	Agricultural Engineering Information about the effects of Agricultural Biotechnology applications on health, environment and safety in universal and social dimensions and the problems of the age reflected in the field of engineering; awareness of the legal consequences of engineering solutions.

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	L7	L8
P1	3	2	4	3	2	2	3	4
P2	3	2	3	3	2	1	2	2
P3	3	2	5	4	3	1	3	2
P4	3	2	3	3	3	3	2	2
P5	3	2	3	3	4	3	4	3
P6	3	4	5	4	4	5	3	3
P7	5	2	2	2	1	2	1	1
P8	3	4	4	5	3	4	2	4
P9	3	2	3	3	2	3	2	2
P10	3	2	4	2	1	2	2	3
P11	1	1	2	1	1	1	1	1

