AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title		Basic Analytical Chemistry							
Course Code		KMY171		Couse Level		First Cycle (Bachelor's Degree)			
ECTS Credit	6	Workload	144 *(Hours)*	Theory	4	Practice	0	Laboratory	0
Objectives of the Course		Learn the basic analytical chemistry concepts, chemical equilibria, analysis methods and their applications.							
Course Content		Tools of analytical chemistry, calculations, aqueous solutions, chemical equilibria, classical methods of analysis.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Individual Study, Problem Solving					
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading	
1	Analitik Kimya-Temel İlkeler, 8.Baskı; D. A. Skoog ; D. M. West; F.J. Holler; S.R. Crouch. Thomson Pub.(2004); (Çeviri Editörleri: E.Kılıç ve H. Yılmaz- Bilim Yayıncılık-Ankara)
2	Analitik kimya, D.C. Haris, W.H. Freeman and Company, US, (1982), (Çeviri Editörü; G. Somer- Gazi Büro Kitabevi-1994)

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction to analytical chemistry
2	Theoretical	Unit operations of analytical chemistry
3	Theoretical	Calculations used in analytical chemistry
4	Theoretical	Errors in chemical analyses
5	Theoretical	Aqueous solutions and chemical equilibria
6	Theoretical	Aqueous solutions and chemical equilibria
7	Theoretical	Effect of electrolytes on chemical equilibria
8	Theoretical	Gravimetric methods of analysis
9	Theoretical	Gravimetric methods of analysis
10	Theoretical	Titrations in analytical chemistry
11	Theoretical	Nötralleşme titrasyonları
12	Theoretical	Precipitation titrations
13	Theoretical	Complexation titrations
14	Theoretical	Redox titrations

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	4	70
Midterm Examination	1	30	2	32
Final Examination	1	40	2	42
			Total Workload (Hours)	144
			[Total Workload (Hours) / 25*] = **ECTS**	6

**25 hour workload is accepted as 1 ECTS*

Learning Outcomes	
1	Comprehend the field of analytical chemistry and its role in science
2	Distinguish the qualitative and quantitative methods of analysis
3	Solve problems of gravimetric analysis

4	Solve problems of volumetric analysis
5	Understand the importance of chemical equilibria in analytical chemistry

Programme Outcomes *(Dairy Technology)*	
1	Having sufficient infrastructure in basic sciences and engineering subjects and ability to use the theoretical and applied info instantly in this field.
2	Determining the modern techniques, tools and information technologies required for applications related with his field and ability to use them efficiently
3	Ability for planning, projecting, and designing, following up, analyzing and finding target-driven solutions related with his field
4	Ability to have professional ethic and awareness.
5	Ability to work, decide, express opinions orally and in written individually
6	Ability to participate team studies, taking responsibility, making leadership.
7	Ability to conceive Ataturk's principles and reforms, to communicate in Turkish and foreign language.
8	Ability to comprehend the necessity to learn for a life time, to monitor developments in science and technology and continuously renew himself.
9	Having sufficient level of information about production and quality control of milk and dairy products and also product development, increasing product quality and food security fields.
10	Ability to detect, define, solve problems related with his field and to select and apply suitable methods and modeling techniques for this purpose.
11	To be conscious about workplace applications, worker health, work security and environment subjects, to have knowledge about legal results of the engineering applications related with his subject.

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

	L1	L2	L3	L4	L5
P1	4	4	4	4	4