



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Instrumental Analysis of Cosmetic Products							
Course Code		KMT202		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	4	Workload	103 (<i>Hours</i>)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		For students studying in Chemistry department, showing experiments in order to obtain quantitative and qualitative information about the composition and structure of a Matter, For this purpose, learning how to analyse various samples and obtain teoretical information about instruments Learning how to solve the instrumental problems if it occurs using different instrumental approaches, In conclusion, preparing students for marketing conditions and requirements.							
Course Content		Enstrümental methods, Spectrometric methods, UV and visible absobtion spectroscopy, thermal analysis methods, chromatography and chromatographic methods, atomic absorbtion spekctroscopy, potentiometry, seperation methods							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration, Discussion, Individual Study					
Name of Lecturer(s)									

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading

1	F. Rouessa, A. Rousseac, Chemical analysis modern instrumentation methods and techniques, John Wiley & Sons, 4th edition, 1998
2	ALETLİ ANALİZ YÖNTEMLERİ Analiz Çeşitleri Ve Temel Kavramlar, Yrd. Doç. Dr. Gökçe MEREY Ders Notu
3	Enstrümental Analiz Ders Notları Prof.Dr. Mehmet Yaman

Week	Weekly Detailed Course Contents	
1	Theoretical	Clasiffication of Enstrümental Methods, Method Selection
2	Theoretical	Performans property of equipment
3	Practice	Signal and noise, Introduction Spectrometrical Methods
4	Practice	Atomic Absorbtion Spectrometry and ICP, Spectrophotometer Equipment and Use
5	Theoretical	Prepareate Calibration Curve
6	Practice	Analyses (Determination of Heavy Metals)
7	Practice	Introduction Seperation Methods, Chromatography concept and Chromatographic Methods
8	Intermediate Exam	midterm
9	Practice	Gas Chromatography
10	Theoretical	Prepareate calibration curve and method program
11	Theoretical	Analyses (Determination of alchol)
12	Practice	High Pressure Liquid Chromatography
13	Theoretical	Prepareate calibration curve and method program
14	Practice	Analyses (Sorbic,Benzoic Acid, 4-Hydroxy benzoic Acid,and salicilic acid)
15	Practice	Analyses (Paraben, 2-Phenoxyethanol)
16	Final Exam	final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Lecture - Practice	14	0	2	28
Individual Work	5	0	5	25
Midterm Examination	1	10	1	11



Final Examination	1	10	1	11
Total Workload (Hours)				103
[Total Workload (Hours) / 25*] = ECTS				4
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	Know the instrumental analysis techniques
2	Apply the spectroscopic, chromatographic and other instrumental techniques
3	Solve the instrumental problems during applications of techniques
4	Evaluate the results obtained by the instrumental techniques
5	To be able to use basic mathematical methods to find solutions

Programme Outcomes (Cosmetic Technology)

1	To know the classification of cosmetic raw materials, for what purpose, in which products and how much they should be used
2	Define and classify cosmetics,
3	To define, classify toxicity, Toxic substances and detoxification ways of these substances to know. To be able to analyze toxic substances.
4	To be aware of the precautions to be taken when working with hazardous chemicals in terms of laboratory safety and human health.
5	To have the ability to use basic mathematical methods to produce solutions.
6	To be able to define the carrier systems used in cosmetics, to be able to choose the carrier system to be used according to the cosmetic product.
7	To know and apply the necessary tests in cosmetic raw materials, intermediate products and finished products.
8	Depending on the Atatürk nationalism in accordance with Atatürk's principles and reforms, adopted the national, moral, spiritual and cultural values of the Turkish Nation, and has adopted that the Turkish language is a rich, rooted and productive language; have love and awareness of language; to have the ability to use the foreign language sufficiently to have the pleasure and habit of reading and need professionally.

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	3	3		4	3
P2	3	4	2	3	4
P3	4	4	4	3	4
P4	1	4	4	3	3
P5	5	3	3	3	5
P6	3	5	3	3	3
P7		4	4	4	3

