

	MARMARA UNIVERSITY Faculty of Arts and Sciences															
	Chemistry Department															
	SYLLABUS															
	2015-2016 Spring										Course level: Lisans (First Cycle)					
Course Code	Course Name					Course Type	Course Pool (if exists)	Weekly Course		Local Credit	ECTS Credit	Semester				
								T	A							
CHEM2160	Physical Chemistry Laboratory I					Zorunlu		0	2	3	3	4				
Prerequisite (Ders Kodu ve Adı, Min Harfli Başarı Notu)					Prerequisite to (Ders Kodu ve Adı, Min Harfli Başarı Notu)					Weekly Time & Classroom Schedule (Gün, Saat Aralığı, Derslik)						
<Bu dersi bağlayan önceki derslerin kodu, adı, min hb> {Her bir dersi birbirinden noktalı virgülle ayırınız.}					<Bu dersin bağladığı sonraki derslerin kodu, adı, min hb> {Her bir dersi birbirinden noktalı virgülle ayırınız.}											
Course Lecturer	Doç.Dr. Suzan Abdurrahmanoğlu					Teaching Assistants	<Unvan, Adı, Soyadı>									
Office/Room No	C-426					Office/Room No										
Phone+extension	02163451186-1492					Phone+extension										
E-mail	suzana@marmara.edu.tr					E-mail										
Web						Web										
Office hour schedule	Monday 10.00-12.00					Office hour schedule										
Course Objectives	Aim of this course is to introduce and experiment physical chemistry concepts and carry out calculations of experimental results.															
Textbooks and or References	Course Web page:															
	1.	Laboratory Lecture Notes														
Course Learning Outcomes	1.	Calculate the physical constants														
	2.	Learn physical properties of liquids, solids and gases														
	3.	Understand solution chemistry and solution equilibria														
	4.	Define Phase Rules and Phase Diagrams														
	5.	Predict kinetics of chemical reactions														
Program Outcomes x Course Learning Outcomes Matrix	Program Outcomes															1:Weak; 2:Medium; 3:Strong
	PK1	PK2	PK3	PK4	PK5	PK6	PK7	PK8	PK9	PK10	PK11	PK12	PK13	PK14	PK15	Course Learning Outcomes
	3	2	2	3	3	3								2		DK1. Calculate the physic...
	3	2	2	3	3	2								2		DK2. Learn physical prope...
	3	2	2	3	3									2		DK3. Understand solution ...
	3	3	2	3	3	2								2		DK4. Define Phase Rules a...
	3	2	2	3	3	2								2		DK5. Predict kinetics of ...
3	2	2	3	3	2	0	0	0	0	0	0	0	2	0	TOTAL EFFECT	
Language of Instruction	Learning Activities and Teaching Methods										Course Presentation Form					
İngilizce	Quiz, Experimentation										Experimentation					

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CHEM2160	Physical Chemistry Laboratory I	Zorunlu		0	2	3	3	4	
Week	Date	Weekly Course Content				Reference No - Section			
1. Week		Introduction							
2. Week		Determination of Critical Solution Temperature for Phenol-Water System							
3. Week		Rate Constant of a Pseudo-First Order Reaction							
4. Week		Phase Diagram for a Three Component System							
5. Week		Vapor Pressure and Heat of Vaporization of Liquids							
6. Week		Partial Molal Volume of a Liquid							
7. Week		Overview of the chapters before the Midterm exam							
8. Week		Midterm Exam							
9. Week		The Phase Diagram of the Benzene-Acetone System							
10. Week		Solubility of Solids in Liquids							
11. Week		Viscosity and Surface Tension							
12. Week		Adsorption from Solution							
13. Week		Colligative Properties							
14. Week		Experiment's Make-up week							
15. Week		Experiment's Make-up week							
16. Week		Study Week							
17. Week		Final Exam							
Evaluation Tool		YSSL (BDS)	BNAL (BDS)	BDKL (BDS)	Calculation of Grade				
Evaluation Tools and Weight %	Evaluation Tools		Quantity	Date	Weight in Total (%)		Weight in Semester Evaluation (%)		
	Final Exam				60.00		0.00		
	Final-Make up Exam (if exists)				60.00		0.00		
	Semester Evaluation Tools				40.00		100.00		
	Midterm Exam(s)				20.00		50.00		
	Quiz(es)								
	Project								
	Homework								
	Laboratory/Atelier				10.00		25.00		
	Presentation / Seminar / Demo								
	Research / Report / Other				10.00		25.00		
	Attendance								
Student Workload Calculation									
Tool	Weekly Avr. Hour	Semester Total Hour	Tool	Weekly Avr. Hour	Semester Total Hour	Tool	Weekly Avr.	Semester Total hour	
Theoretical Hours	0.00	0	Midterm Exam and Preparation	1.00	14	Atelier and Preparation			
Applied Hours	2.00	28	Quiz and Preparation			Presentation/Seminar/Demo and Preparation			
Pre-class Self Study	1.00	14	Project and Preparation			Research/ Report/ Other and Preparation	1.00	14	
Pre-application/Post-application Self Study			Homework and Preparation			Final Exam and Preparation	1.00	14	
Total Student Workload Hours:		84	1 ECTS Credit = 25 Student Workload Hours			Workload Calculation:		Hesap Doğru	