CHEM 344 Syllabus

Course Code	Course Name	Credits	Prerequisite(S)	Classification
CHEM 344	Chemical kinetic	3	CHEM 241	Department Requirement

Course Description	Kinetic molecular theory of gases; Kinetics and mechanism of Chemical reactions, rate equations, reactions in solution, photochemistry and electrode reactions, heterogeneous reactions
Class Scheduling	Classes are held 2 times/week each for 80 minutes.
Textbook	1- Chemical kinetic and reaction mechanisms, James H.Espenson ,McGraw Hill Inc, 2nd edition 2. Physical Chemistry, Peter Atkins & Julio De Paula, 2010, Oxford, 9th edition 3. Physical Chemistry, Robert A. Alberty& Robert J. Silbey 1996, John Willy& Son. 2nd edition
Course Coordinator	Dr. Laila Alharbi

Relationship to SOs

1	2	3	4	5	6
X		X	X		

CLOs

By the end of this course student will be able to:

CLO1. Identify the gas assumptions, KMTG law, distribution of velocity, and deviation from ideal behavior. (SO1)

CLO2. State the basic equation for Reaction Rate, order of reaction, and reaction of solution. (SO1)

CLO3. Classify the main difference between photophysical change and photochemical change and the types of the photochemical reaction. (SO3)

CLO4. Clarify the butler Volmer equation, stern Gary equation, and Tafel polarization equation. (SO3)

CLO5. Explain of the graphical representation of each order and transition state theory. (SO3)

CLO6. Participate in class discussion and interact positively. (SO4)

Contents

List of Topics	No. of Weeks
Kinetic molecular theory of gases	5
Chemical Kinetics	4
Photochemistry	3
Dynamic Electrochemistry	3