Course Specifications

General Information

Course name	Practical Physical Chemistry(2)
Course number	CHEM3115
Faculty	
Department	
Course type	College Needs
Course level	3
Credit hours (theoretical)	1
Credit hours (practical)	0
Course Prerequisites	

Course Objectives

1 - The objective of the physical chemistry laboratory (II) course is:

2 - to carry out experiments safely and carefully in the laboratory.

3 - to obtain data accurately and to manipulate the data correctly.

4 - Be proficient in techniques used by practicing chemist

5 - This course also complements and consolidates the theoretical knowledge acquired in the physical chemistry laboratory (II) lecture course.

Intended Learning Outcomes

Intellectual Skills	* Gain general basics and principles of physical chemistry. 2
Professional Skills	* Ability to interpret experimental results, perform calculations on these results, writing reports and draw reasonable conclusions
General Skill	* a. Ability to recognize and solve problems related to chemistry b. Ability to communicate with scientists and nonscientists. c. Demonstrate team-working ability through group projects. d. Demonstrate time-management skills. e. Ability to make effective use of the library and other information resources in chemistry, including the primary literature, tabulated data, and secondary sources such as the internet

Course Contents

1 - Preperaion of Galvanic cell
2 - Measuring of half cell
3 - Calculate the E.M.F of standard electrode.
4 - measuring the conductive solution of weak and strong electrolytes
5 - Electolytic conductance
6 - Refractive index
7 - Potentiometric titration
8 - polarometeric measuring of sucurose
9 - Kinetic studies
10 - Conductometric Titrations

Teaching and Learning Methods

1 - The lab work is organized as follows: 1- Preparing for the experiment. The students should read and understand the laboratory protocol and read suggested reference materials prior to the lab session. In addition, some lab session time will usually be devoted to a discussion of the theory concern the experiment. 2- Running the experiment. Each team is responsible for conducting each experiment under supervision of lecturer. 3- End of the experiment. Preliminary discussion of the experimental outcomes with lecturer. 4- Report.

Students Assessment

Assessment Method	TIME	MARKS
Mid Exam		20%
Attendance and discussion		10%
Homework and project reports		20%
Notebook		10%
Final Exam		40%

Books and References

Course note	Lab manual prepared by Dr Nasser Abu Ghalwa 2003