Course Specifications

General Information

Course name	Computational Chemistry
Course number	CHEM3210
Faculty	
Department	
Course type	Major Needs
Course level	3
Credit hours (theoretical)	2
Credit hours (practical)	0
Course Prerequisites	

Course Objectives

1 - The key objective of this course is to impress upon all the course students, especially experimental and theoretical chemists alike, that being able to code, even a little bit, is very useful, it is important to know at a basic level what the Excel and origin packages actually do. This would help them understand what to make of the output data from the packages. Knowing to code would help them extract and process or organize data from instruments or other code efficiently, thereby becoming a useful tool in their everyday research. Know how to use chemdraw and chem3d software to draw and analyze the chemical compounds

2 - The course participants may use any useful website and books

Intended Learning Outcomes

Knowledge and Understanding	* The key objective of this course is to impress upon all the course students, especially experimental and theoretical chemists alike, that being able to code, even a little bit, is very useful, it is important to know at a basic level what the Excel and origin packages actually do. This would help them understand what to make of the output data from the packages. Knowing to code would help them extract and process or organize data from instruments or other code efficiently, thereby becoming a useful tool in their everyday research. Know how to use chemdraw and chem3d software to draw and analyze the chemical compounds

Course Contents

1 - The course consists of using excel and statistics and different drawing software and calculation software to apply them in chemistry Introduction to Excel, using of excel to represent the chemical results, using of linear regressions to estimate the linear equations Second part consists of using different tools os statistics to estimate the descriptive statistics and to estimate the errors of calculation Third part consists of using chemdraw and chem3d program to draw and calculate different properties of chemical compounds

Teaching and Learning Methods

1 - n lab, lectures and training using computers

Students Assessment

Assessment Method	TIME	MARKS
quizzes	2	10
homework	2	20
med term	1	30
final	1	40

Books and References

Course note	out hands