Ministry of Higher Education and Scientific Research
Scientific Supervision and Scientific Evaluation Apparatus
Directorate of Quality Assurance and Academic Accreditation
Accreditation Department

Academic Program and Course Description Guide

2024

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Course Description Form

1. Course Name:
Inorganic chemistry
2. Course Code:
205CHIN2C
3. Semester / Year:
Second Year
4. Description Preparation Date:
2023 /9/1
5. Available Attendance Forms:
mandatory
6. Number of Credit Hours (Total) / Number of Units (Total)
150 hours , 8 Units
7. Course administrator's name (mention all, if more than one name)
Name: Lecturer.Dr.Khansa Yousif Ahmed Email: khansa@uodiyala.edu.iq
8. Course Objectives

Course Objectives	Teaching the students all the necessary information about the Inorganic chemistry subject which make them able to work in the field of Inorganic Chemistry
	Give idea about the periodic properties of the elements, study the molecular symmetry, study the standard electrode potential, study and classification of Acids and Bases, Explanation of Main elements in the periodic table from group 3 to 7. Study the basis of Solid State Chemistry including crystal system of Cube. Study the Magnetochemistry

9. Teaching and Learning Strategies

Strategy	Explanation and clarification Lecture method and questioning method Model display method

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	5	Explanation about properties of periodic table	The arrangement of elem inside the periodic table studying the periodic prope such as ionic and atomic s Ionization ene electronegativity and ele affinity	Board and data show	Daily exams Homework Monthly exam
2	5	Physical properties of s elements and taking it as a to get the chemical beha depending on the location these elements in the peri table	Some periodic properties s as metallic and nonmeta properties, oxidation st oxides (acidic, basic amphoteric) Oxides (Io covalent and middle)	=	=
3	5	Explain how the colors elements and complexes fo because of the absorption specific wave of visible ligh		=	=
4	5	Explain the standard electr potential and the relation with pH of the solution	Standard electrode poten the relationship betw standard electrode poten and the relationship with pH the solution	=	=
5	5	Explain the Electromotive fo and the meaning disproportionation	Types of Electromotive fo and Disproportionation	=	=
6	5	Giving Exercise to find how the student understand lectures	Molecular Symmetry, importance of symme Operations and elements symmetry. Point groups	=	=
7	5	Explain the properties molecules	Molecular Symmetry, importance of symme Operations and elements symmetry. Point groups	=	=
8	5	Giving Exercise to find how the student understand lectures	Acids and Bases	=	=
9	5	Assessment for the student how far he understand and scientific knowledge	Solid and Soft Acids and B	=	=
10	5	Explain the Acids and Bases		=	=
11	5	Explain the basics of l complexes forms between ligands and ions		=	=
12	5	Explain the basics of l complexes forms between ligands and ions		=	=
13	5	Explain the magnetic proper of substances	Magnetochemistry: Ferromagnetic and A ferromagnetic, Magn momentum and EPR spin	=	=
14	5	Explain the magnetic proper of substances	Orbital and spin role magnetic momentum, ESR	=	=
15	5	Explain the basics solid state chemis crystal system	basics of solid s chemistry Pacl methods, C crystal system		

16	5	Crystal structure , determina of crystal formula determination of shape crystal	Ionic compounds and X-Ra	=	=
17	5	Explain the basics of solid s chemistry, crystal system	Basics of solid stst	=	=
18	5	Crystal structure , determina of crystal formula determination of shape crystal	Ionic compoun and structure	=	=
19	5	Giving Exercise to find how the student understand lectures	Examples a solutions	=	=
20	5	Explain Boron gr properties, reactions compounds	Introduction to bo group	=	=
21	5	Explain Carbon gr properties, reactions compounds	Introduction to carbon group	=	=
22	5	Explain Nitrogen and compounds	Introduction to Fifth group (phosphorous, Arsenic, Bismuth and Antimon properties and compounds	=	=
23	5	Explain phosphorous, Arse Bismuth and Antimon	Introduction to Fifth group (phosphorous, Arsenic, Bismuth and Antimon properties and compounds	=	=
24	5	Assessment for the student how far he understand and scientific knowledge	Exam	=	=
25	5	Explain Oxygen compounds	Introduction to Oxygen, Coordination numbers of Oxygen, Ozone, Oxide ion, Peroxides, Superoxide, ozonide	=	=
26	5	Explain about groups elements properties, existe in nature, structure reactions	Chemistry of sulfur	=	=
27	5	Explain about Sulfur and o group elelments	Sulfur compounds and othe group elements (oxides, oxoacides fluorides sulfides hydrides	=	=
28	5	Explain about Halog compounds, properties,, Ox and oxidation states	Introduction to Halogens, properties Oxides, oxidatio states and pseud-halides	=	=
29	5	Estimation the chem behavior of halogens in t ionic and molecular struct oxoacides, types of halides	Activity series of halogens, Reactions, oxoacides hydro halides ,, ionic and covalen halides	=	=
30	5	Second Exam			

11.

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	الكيمياء اللاعضوية تاليف الدكتور نعمان النعيمي 1980

Main references (sources)	1- Inorganic chemistry, principles of structure and reactivity,2nd ed., James E. Huheey, 1983 2-Inorganic chemistry, 3rd ed., Housecroft C.E. and
Recommended books and references (scientific journals, reports…)	www.chemicalprocessing.com
Electronic References, Websites	www.bytoco.com