نموذج وصف الكيمياء اللاعضوية

Module Information معلومات المادة الدراسية					
Module Title	Inorganic chemistry			**Module Delivery**	
Module Type	Support			☒ Theory ☒ Lecture ☒ Lab ☒ Tutorial ☐ Practical ☒ Seminar	
Module Code	ZU-SC-FS-1202				
ECTS Credits	5				
SWL (hr/sem)	125				
Module Level	1		**Semester of Delivery**	1	
Administering Department	Forensic science		**College**	Type College Code	
Module Leader	Hussen Ali Abd alwahwd		**e-mail**	Hussen.ali@alzahu.edu.iq	
Module Leader's Acad. Title	مدرس مساعد		**Module Leader's Qualification**	msc	
Module Tutor	Name (if available)		**e-mail**		
Peer Reviewer Name			**e-mail**	E-mail	
Scientific Committee Approval Date	08/03/2026		**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الارشادية

Module Aims **أهداف المادة الدراسية**	1- Atomic Theory, picturing atoms and elements, inside the atom, atomic number 2- General view to periodic table and atomic structure 3- energy revisited, concept of minimum energy 4- Groups 1 & 2, the Alkali Metals and the Alkaline Earth metals 5- Atoms, Molecules, Ions and ionic compounds 6- Chemical bonding ,how can atoms achieves lower-energy states
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	1. Teach students the principle of chemistry 2. Explain the atomic structures and its compounds 3. Explain some of chemical phenomena 4. Study the properties of some chemical elements 5. Practical and laboratory skills 6. Improvement skills, to improve student's mind and to let students think more about chemistry 7. Productive skills
Indicative Contents **المحتويات الإرشادية**	Indicative content includes the following. 1. Areas of inorganic chemistry 2. The current role of inorganic chemistry 3. Improve the student's mind by how he or she can deal with chemicals and its uses 4. Teach students about hazardous chemicals in the lab and how can avoid any risk in the lab

Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	• In class interactive lectures involving educational videos • Practical in lab lectures • Adapting interactivity with student's interaction by raising a question and asking the group to find the relevant answers to them as a main way of teaching. • Power point presentation, examples from books and internet

Student Workload (SWL) **الحمل الدراسي للطالب محسوب لـ 15 اسبوعا**			
Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	102	**Structured SWL (h/w)** **الحمل الدراسي المنتظم للطالب أسبوعيا**	4.2

Unstructured SWL (h/sem) **الحمل الدراسي الغير المنتظم للطالب خلال الفصل**	98	**Unstructured SWL (h/w)** **الحمل الدراسي الغير المنتظم للطالب أسبوعيا**	4
Total SWL (h/sem) **الحمل الدراسي للطالب خلال الفصل**	200		

Module Evaluation
تقييم المادة الدراسية

		Time/ Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2,12	LO #3, 4, 6 and 7
	Projects				
	Report				
Summative assessment	**Midterm Exam**	2 hr	30% (10)	7	LO # 1-7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري

	Material Covered
Week 1-2	Elements and their invisible structures ,Atomic Theory Isotopes, mass number, charged atoms, Relative atomic mass, average atomic weight
Week 3-5	Periodic table ,periodic groups, elemental makeup Electronic structure of atom, energy revisited, concept of Minimum energy in the atom ,electron –configuration notation
Week 6-8	Quantum numbers ,evidence and uses of the electron energy levels Periodic table ,lewis electron dot structures ,periodic trends

Learning and Teaching Resources **مصادر التعلم والتدريس**	
13-15	Formula of comp The natu bonds ,e ,law of
Required Texts	tory week before the final Exam Inorganic chemistry, Sharpe, A. G. (Alan George), Harlow: Longman Scientific and Technical, 3rd Edition 1992
Recommended Texts	Basic Inorganic Chemistry F. Albert Cotton, Geoffrey Wilkinson, Paul L. Gaus, , 3rd Edition, 1995
Websites	https://courses.lumenlearning.com/boundless-chemistry/chapter/the-structure-of-the-atom/ https://www.acs.org/content/acs/en/careers/chemical-sciences/areas/inorganic-chemistry.html https://courses.lumenlearning.com/boundless-chemistry/chapter/periodic-trends/

Text	**Available in the Library?**
Inorganic chemistry, Sharpe, A. G. (Alan George), Harlow: Longman Scientific and Technical, 3rd Edition 1992	Yes
Basic Inorganic Chemistry F. Albert Cotton, Geoffrey Wilkinson, Paul L. Gaus, , 3rd Edition, 1995	Yes

AL-ZAHRAWI UNIVERSITY
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