MODULE DESCRIPTION FORM

Module Information		
Module Title	Inorganic Chemistry	
Module Type	Suplement	☒ Theory ☐ Lecture ☒ Lab ☒ Tutorial
Module Code	CRINOCHE	
ECTS Credits	5	

SWL (hr/sem)	125	☒ Practical ☒ Seminar	
Module Level	2	Semester of Delivery	1
Administering Department	MPHY	College	the sciences
Module Leader	Zahraa saleem Al-Shook	e-mail	Zahraasalim0960@gmail.com
Module Leader's Acad. Title	Assistant teacher	Module Leader's Qualification	Chemical
Module Tutor		e-mail	
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date		Version Number	1.0

Module Aims, Learning Outcomes and Indicative Contents

Relation with other Modules			
Prerequisite module	No one	Semester	No one
Co-requisites module	No one	Semester	No one

Module Objectives	1. General view to periodic table and atomic structure. 2. Energy levels, orbitals. 3. Groups 1 & 2, the Alkali Metals and the Alkaline Earth metals. 4. Atoms, Molecules, Ions and ionic compounds. 5. Ionization energy, Atomic Radii, Electron Affinity, electronegativity. 6. Shielding effect, Dipole moment, Polarity, Hydrogen bonding, Melting point, Boiling point Solubility Orbital hybridization.

Module Learning Outcomes	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	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	
Strategies	Strategies The learning strategy depends on the following: 1. In class interactive lectures involving educational videos. 2. Practical in lab lectures. 3. 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. 4. Power point presentation, examples from books and internet.

Student Workload (SWL)			
Structured SWL (h/sem)	94	Structured SWL (h/w)	6.3
Unstructured SWL (h/sem)	31	Unstructured SWL (h/w)	2.1
Total SWL (h/sem)	125		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	1	10%	Continuous	All
	Assignments	1	5%	Continuous	All
	Projects / Lab.	1	15%	Continuous	All
	Tutorial	1	10%	Continuous	All

Summative assessment	Midterm Exam	2 hr	10%	14	LO#1-13
	Final Exam	4hr	%50	15	All
Total assessment			100%		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Atomic Structure.
Week 2	Atomic Structure.
Week 3	Energy levels, orbitals, Groups 1 & 2, the Alkali Metals and the Alkaline Earth metals.
Week 4	Energy levels, orbitals, Groups 1 & 2, the Alkali Metals and the Alkaline Earth metals.
Week 5	Energy levels, orbitals, Groups 1 & 2, the Alkali Metals and the Alkaline Earth metals.
Week 6	Atoms, Molecules, Ions and ionic compounds.
Week 7	Atoms, Molecules, Ions and ionic compounds.
Week 8	Atoms, Molecules, Ions and ionic compounds.
Week 9	Ionization energy, Atomic Radii, Electron Affinity, electronegativity.
Week 10	Ionization energy, Atomic Radii, Electron Affinity, electronegativity.
Week 11	Shielding effect, Dipole moment, Polarity, Hydrogen bonding, Melting point, Boiling point Solubility Orbital hybridization.
Week 12	Shielding effect, Dipole moment, Polarity, Hydrogen bonding, Melting point, Boiling point Solubility Orbital hybridization.
Week 13	Shielding effect, Dipole moment, Polarity, Hydrogen bonding, Melting point, Boiling point Solubility Orbital hybridization.
Week 14	Mid Exam
Week 15	Final Exam

Delivery Plan (Weekly Lab. SyUabus)	
	Material Covered
Week 1	Lab 1: Laboratory Report.
Week 2	Lab 2: Laboratory safety practices.
Week 3	Lab 3: Glasses and laboratory equipement.
Week 4	Lab 4: Preparation of sodium hydroxide
Week 5	Lab 5: Purification of table salt.
Week 6	Lab 6: Preparation and reaction of barium peroxide.
Week 7	Lab 7: Calculate the percentage of water in hydrated salt.
Week 8	Lab 8: Paper chromatography.
Week 9	Lab 9: Synthesis of alum from aluminum.
Week 10	Lab 10: Halogens (Group VII B).
Week 11	Lab 11: Preparation of Calcium Peroxide CaO2.
Week 12	Lab 12: Preparation of Copper Iodate and Determination of Its Solubility Product in Water.
Week 13	Lab 13: Identification of Oxalate in their Complex as Below.
Week 14	Mid Exam
Week 15	Final Exam

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

Grading Scheme

Group	Grade	Marks %	Definition
Success Group (50 - 100)	A - Excellent	90 - 100	Outstanding Performance
	B - Very Good	80 - 89	Above average with some errors
	C - Good	70 - 79	Sound work with notable errors
	D - Satisfactory	60 - 69	Fair but with major shortcomings
	E - Sufficient	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	(45-49)	More work required but credit awarded
	F – Fail	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.			

Name of the Instructor:

Zahraa Saleem Al-Shook