

Course Syllabus

1	Course title	Special topics of inorganic chemistry	
2	Course number	0303334	
3	Credit hours	3	
	Contact hours (theory, practical)	9-12 M,W,T	
4	Prerequisites/corequisites	Inorganic chemistry II	
5	Program title	Bachelor/Undergraduate	
6	Program code	3	
7	Awarding institution	University of Jordan	
8	School	Science	
9	Department	Chemistry	
10	Course level	3rd Year Students-	
11	Year of study and semester(s)	2023/2024, 1st Semester	
12	Other department(s) involved in teaching the course		
13	Main teaching language	English	
14	Delivery method	<input type="checkbox"/> Face to face learning <input checked="" type="checkbox"/> Blended <input type="checkbox"/> Fully online	
15	Online platforms(s)	<input type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input type="checkbox"/> Others.....	
16	Issuing/Revision Date	10.01.2024	



17 Course Coordinator:

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19 Course Description:

This subject has been designed to make the chemistry students understand different categories of inorganic applications in biology where drugs or compounds which are used as medicinal agents.



20 Course aims and outcomes:

A- Aims:

- This subject has been designed to make the students understand different categories of inorganic drugs or compounds used as medicinal agents.
- Explanation of the sources of impurities and methods to determine the impurities in inorganic pharmaceuticals.
- Explanation of the preparation method, assay, properties, and medicinal uses of acids, bases, buffers, and extra and intracellular electrolytes.
- Explanation of the preparation method, assay, properties, and medicinal uses of dental products.
- Explanation of the preparation method, assay, properties, and medicinal uses of acidifiers, antacids, and cathartics.
- Explanation of the method of preparation, assay, properties, and medicinal uses of antimicrobials
- Explanation of the method of preparation, assay, properties, medicinal uses of expectorants, emetics, and hematinic
- Explanation of the preparation method, assay, properties, and medicinal uses of astringent, poison, and antidote.
- Description of the properties, storage condition, and application of radiopharmaceuticals
- Description of the traces of metal in biology

B- Students Learning Outcomes (SLOs):

1. Knowledge the sources of impurities and methods to determine the impurities in inorganic drugs and pharmaceuticals.
2. understand the medicinal and pharmaceutical importance of inorganic compounds.
3. Understanding the traces of metals in the Human body and their toxicological effect

Upon successful completion of this course, students will be able to:

030334 Special Topics of Inorganic Chemistry		Student Outcomes (SO)						
		SO-1	SO-2	SO-3	SO-4	SO-5	SO-6	SO-7
Course Learning Outcomes (CLO)	CLO-1	✓	✓					
	CLO-2	✓	✓	✓				
	CLO-3	✓		✓				

21. Topic Outline and Schedule:

Week	Lecture	Topic	Intended Learning Outcome	Learning Methods (Face to Face/Blended/ Fully Online)	Platform	Synchronous / Asynchronous Lecturing	Evaluation Methods	Resources
1	1-3	sources of impurities and methods to determine the impurities in inorganic pharmaceuticals	1	blended	Lecture hall+MS	MS	Assignment, midterm exam	1
2	4-6	Major extra and intracellular electrolytes	1	blended	Lecture hall+MS	MS	Assignment, midterm exam	1
3	7-9	Inorganic Dental products	1	blended	Lecture hall+MS	MS	Assignment, midterm exam	1
3	10-12	Gastrointestinal agents	1,2	blended	Lecture hall+MS	MS	Assignment, midterm exam	
4	13-16	Antimicrobials	1,2	blended	Lecture hall+MS	MS	Assignment, midterm exam	
5	17-19	Miscellaneous compounds	2	blended	Lecture hall+MS	MS	Assignment, midterm exam	
6	20-23	Radiopharmaceuticals:	2	blended	Lecture hall+MS	MS	Assignment,	

							3midterm exam	
7	24-27	The traces of metals of life	3	blended	Lecture hall+MS	MS	Assignment, midterm exam	
8	28-30	Amino acids, peptides and proteins	2,3	blended	Lecture hall+MS	MS	Assignment, midterm exam	
9-10	31-34	Enzymes	2,3	blended	Lecture hall+MS	MS	Assignment, midterm exam	
12-13	35-39	Heterogeneous catalysis	2,3	blended	Lecture hall+MS	MS	Assignment, midterm exam	

22 Evaluation Methods:

Opportunities to demonstrate achievement of the SLOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark	Topic(s)	SLOs	Period (Week)	Platform
Mid	30		2	6	Lecture hall
Final	50		2	25	Lecture hall
Article based PowerPoint presentation(teamwork)	10		4	20	MS
quiz	5		3	15	Lecture hall
assignment	5		4	every week	MS



23 Course Requirements

students should have a computer, internet connection.

24 Course Policies:

A- Attendance policies: All students are expected to follow the attendance policies of the University of Jordan; absences exceeding 15% of a total number of class meetings (6-hour classes) will result in an F grade or course drop.

B- Absences from exams and submitting assignments on time: University rules and regulations regarding make-up exams.

C- Health and safety procedures: N/A

D- Honesty policy regarding cheating, plagiarism, and misbehavior: University rules and regulations.

E- Grading policy: University rules and regulations.

F- Available university services that support achievement in the course: Microsoft Teams, Scifinder

25 References:

A- Required book(s), assigned reading and audio-visuals:

1. Anand & Chatwal, Inorganic Pharmaceutical Chemistry
2. Bentley and Driver's Textbook of Pharmaceutical Chemistry

B- Recommended books, materials, and media:

1. L. Schroff, Inorganic Pharmaceutical Chemistry
2. Gundu Rao, Inorganic Pharmaceutical Chemistry, 3rd Edition
3. I. Vogel, Text Book of Quantitative Inorganic analysis

26 Additional information:

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Name of Course Coordinator: ---Afnan Al-hunaiti-----Signature: ----- Date: --19.1. 2024- ----
Head of Curriculum Committee/Department: ----- Signature: ----- ---
Head of Department: ----- Signature: ----- -
Head of Curriculum Committee/Faculty: ----- Signature: ----- -
Dean: ----- Signature: -----