

معلومات المقرر

Course Information

اسم المقرر:	كيمياء غير عضوية حيوية
رقم المقرر:	CHM446
اسم ورقم المتطلب السابق:	لا يوجد
اسم ورقم المتطلب المرافق:	لا يوجد
مستوى المقرر:	المستوى السابع
الساعات المعتمدة:	2
<b>Module Title:</b>	Inorganic Biochemistry
<b>Module ID:</b>	CHM446
<b>Prerequisite (Co-requisite) :</b>	No requests
<b>Co-requisite :</b>	No requests
<b>Course Level:</b>	Level 7
<b>Credit Hours:</b>	2

وصف المقرر :

Module Description

The overall objective of CHEM446 is to provide a general knowledge upon the general bases of inorganic biochemistry is an emerging subject and interdisciplinary field between inorganic chemistry and biochemistry. The task of inorganic biochemistry is to research the interaction between the metal complex (or metal ion) with biological ligand at the molecular level.

أهداف المقرر :

Module Aims

1	Studying chemical background in the role of the elements and their complexes in living organisms.
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### Learning Outcomes:

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

1	Describe the main roles of metal ions in biological processes and identify the chemical properties that are required to each particular function.	
2	List some medical applications of inorganic compounds.	
3	Apply the basic principles in inorganic and biochemistry to interdisciplinary topics in the field of bioinorganic chemistry	
4	Explain the role of metal ions in biological systems	
5	Work independently and as part of a team.	
6	Demonstrate the ability to use library resources and scientific databases to obtain information about a topic, chemical, chemical technique, or an issue relating to chemistry.	

محتوى المقرر: Course Contents:

ساعات التدريس (Hours)	عدد الأسابيع (Weeks)	قائمة الموضوعات (Subjects)
2	1	An introduction to bioinorganic chemistry and its relation with other branches of chemistry as well as of other sciences
2	1	Biological function of inorganic elements
2	1	Oxygen carriers and oxygen transporter proteins.
4	2	Important metallic enzymes.
4	2	Heem protein and copper protein in oxidation and reduction processes
4	2	Electron Transmission and Metabolism
2	1	Stabilization of plant air nitrogen and nitrogenase (iron-sulfur proteins)
4	2	Absorption and transport of the essential inorganic elements
2	1	Inhibition and poisoning
4	2	Medicinal uses of inorganic compounds
30	15	





Textbook and References: الكتاب المقرر والمراجع المساتدة:

ISBN	سنة النشر Publishing Year	اسم الناشر Publisher	اسم المؤلف (رئيسي) Author's Name	اسم الكتاب المقرر Textbook title
ISBN01301214	Third Edition 2010	St. Olaf College Northfield, Minnesota	GARY L. MIESSLER DONALD A. TARR	Inorganic Chemistry
	سنة النشر Publishing Year	اسم الناشر Publisher	اسم المؤلف (رئيسي) Author's Name	اسم المرجع Reference
ISBN0-471- 18895-6	1994	John Wiley	W. Kaim and B. Schwederski,	Bioinorganic Chemistry Inorganic Elements in the Chemistry of Life: an introduction,.

\* يتم تعبئة معلومات المقرر فقط باللغتين العربية والانجليزية وباقي المعلومات بلغة التدريس المعتمدة ويكرر لكل مقرر في الخطة الدراسية

\* Course Information should be filled in Arabic and English. Other information should be filled using the approved teaching language at the college.



