

معلومات المقرر \* (Course Information):

اسم المقرر:	كيمياء مجموعات رئيسية
رقم المقرر:	CHM241
اسم ورقم المتطلب السابق:	CHM102 , كيمياء عامة - 2
اسم ورقم المتطلب المرافق:	لا يوجد
مستوى المقرر:	المستوى الثالث
الساعات المعتمدة:	2
Module Title:	Main group chemistry
Module ID:	CHM241
Prerequisite (Co-requisite) :	CHM102 , General Chemistry -2
Co-requisite:	None
Course Level:	Third Level
Credit Hours:	2

وصف المقرر :

The course of Main group elements is presented in the Third level with 2 credit hours. This course provides inorganic chemistry of the elements. The topics to be covered include but are not limited to the following: selected descriptive chemistry of the main group elements s- and p block), the Synthesis, structure and reactivity of the Main group elements.

أهداف المقرر :

1	This course aims to give a fundamental theoretical understanding of Main group elements and provide concepts and knowledge of s and p block elements. It covers all the main group elements and their Synthesis, structure and reactivity.
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Learning Outcomes:





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1	Establish a solid understanding on the principles of main-group (s and p block) element chemistry.	
2	know the importance of some elements in group (reactions – compounds – their technological applications and uses).	
3	Expecting the physical and chemical properties of the elements.	
4	Knowing the industrial and technological application of some elements based on their chemical and physical properties and their presence in certain groups.	
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	Main introduction to this course. Summary on the course contents - Importance of the course – Objective of the course- The arrangement of elements in the periodic table; groups and periods
8	4	Main Group Metals: a. Hydrogen b. The Group 1 Elements: The Alkali Metals c. The Group 2 Elements: The Alkaline Earth Metals.
4	2	d. The Group 13 Elements The elements and compounds; Synthesis, structure and reactivity of diborane and higher boranes, (styx notation) carboranes, boron halides, boron-oxygen compounds, boron nitrogen compounds
8	4	Main Group Non-Metals: a. The Group 14 Elements



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		b. The Group 15 Elements: The Pnictogens The elements and compounds.
		c. The Group 16 Elements: The Chalcogens The elements and compounds; Oxygen and oxides; Halides, oxides, and oxoacids of Sulphur, Sulphur-nitrogen compounds.
4	2	d. The Group 17 Elements: The Halogens
4	2	e. The Group 18 Elements: The Noble Gases The elements and compounds.
30	15	

Textbook and References:

الكتاب المقرر والمراجع المساندة:

ISBN	سنة النشر Publishing Year	اسم الناشر Publisher	اسم المؤلف (رئيسي) Author's Name	اسم الكتاب المقرر Textbook title
ISBN-10: 0471199575 ISBN-13: 978- 0471199571	1999	wiley	carlos Murillo	Advanced Inorganic Chemistry
	سنة النشر Publishing Year	اسم الناشر Publisher	اسم المؤلف (رئيسي) Author's Name	اسم المرجع Reference
ISBN-10: 0078021510 ISBN-13: 978- 0078021510	2015	McGraw-Hill Education	Raymond Chang And Golds Kenneth	Chemistry 12 Edition

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.



