

Module name:	<i>General Chemistry</i>			
Module level, if applicable	<i>1st</i>			
Code, if applicable	<i>CHEM111</i>			
Subtitle, if applicable	<i>NA</i>			
Courses, if applicable	<i>NA</i>			
Semester(s) in which the module is taught	<i>1st & 2nd semester</i>			
Person responsible for the module	<i>Ahlam mobty Almoteiry</i>			
Lecturer	<i>Ahlam mobty Almoteiry</i>			
Language	<i>Arabic</i>			
Relation to curriculum	<i>Compulsory course for biology program</i>			
Type of teaching, contact hours	<i>Total Contact hours:44</i> <ul style="list-style-type: none"> • <i>Lecture:14</i> • <i>Laboratory :30</i> <i>Class size:50 students (2 –Groups)</i>			
Workload	<i>Total-contact hours</i>	<i>Self-study</i>	<i>Discussion</i>	<i>Total workload</i>
	<i>44</i>	<i>25</i>	<i>13</i>	<i>82</i>
Credit points	<i>2.2 ECTS-2KSA</i>			
Requirements according to the examination regulations	<i>To attend more than 75% of lecture and practical study</i>			
Recommended prerequisites	<i>none</i>			
Module objectives/intended learning outcomes	<ol style="list-style-type: none"> <i>1. Understand and be able to explain the general principles, laws, and theories of chemistry that are discussed and presented throughout the semester</i> <i>2. Use critical thinking and logic in the solution of problems</i> <i>3. Apply learned chemistry skills to new situations</i> <i>4. Demonstrate an understanding of chemistry through technological advancement</i> <i>5. Apply chemical principles in the laboratory setting</i> 			

Content	List of Topics	No. of Weeks	Cont act Hours	%
	<p>1. Status of the study :</p> <ul style="list-style-type: none"> • Introduction on the status of art. • Study some of the terms such as pinnacles - weight molecular weight - the mall • The most important units used <p>A. gaseous state :</p> <ul style="list-style-type: none"> • General properties of gases • Boyle's law (pressure - Code Size) • Charles's Law (Law Size - temperature) • expressed mathematically law • Law Ofujadro- letter of the law • expressed mathematically law expression of Boyle's law mathematically • disclosure of negative ions in the group hydrochloric acid salts 	3	9	20
	<p>General equation of gases and precursors</p> <p>Hard year for gases R and its units</p> <p>Applications on the general equation</p>	2	6	13.3
	Mid-term Exam 1	1	1	6.6
	<p>Diffraction gases Alhakiqih-</p> <p>Diffraction caused by the negligence of the size of the particles</p> <p>Diffraction caused by the attractive forces between molecules neglect</p> <p>Vanderfal equation and the real explanation for the diffraction of gases from ideal gas laws</p> <p>B - liquid state, The liquefaction of gases</p> <p>About the liquid state and the difference between them and the gaseous state</p> <p>And the forces of attraction between the types of molecules</p> <p>Evaporation and types of heat evaporation</p> <p>The vapor pressure of the liquid, Surface tension</p> <p>The effect of temperature on the vapor pressure</p> <p>Detection of negative ions in the sulfuric acid salts group</p>	3	9	20
	<p>Atom components</p> <ul style="list-style-type: none"> • to study the important terms such as Atom • atomic number - number mass - isotopes and examples • electromagnetic radiation • recipes rays , a wave - length of frequency - Speed • Material and energy, • emission spectrum <p>Detection of negative ions in the Group salts</p>	2	6	13.3
	<p>Study the structure of the atom</p> <ul style="list-style-type: none"> • scientific basis Atomic Theory 	2	6	13.3
	<p>Thomson's theory of the atom</p> <ul style="list-style-type: none"> • Rzrford theory of the atom • Bohr theory of the hydrogen atom <p>Review (negative ion detection anonymous)</p> <p>Quantum preparation</p> <p>Forms orbits</p> <p>The distribution of the electrons and the possibility of its presence in orbit</p> <p>Work in practical exam</p>	1	3	6.6
	Mid-term Exam 2	1	1	6.6
	<p>C - solid state</p> <ul style="list-style-type: none"> • About the solid state and the difference between them and the gaseous state and liquid • characteristics of solid material such as freezing Anshar- etc. • vapor pressure of solid material • types of crystalline solids, Pauli exclusion principle to Hond base and applications by Electronic arrangement of the elements, Basal cracks detected in 	1	3	6.6

Study and examination requirements and forms of examination	<p><i>20 degrees for two Midterm exams</i></p> <p><i>10 degrees for assignments, Class work and reseach</i></p> <p><i>50 degrees for final theoretical Exam</i></p> <p><i>20 degrees for final practical Exam</i></p>
Media employed	<p><i>classroom provided with smartboard , computer , internet connection and enough seats</i></p> <p><i>Lab provided with the required devices , light microscopes and models for application of the practical part of the course</i></p>
Reading list	<p><i>1-General Chemistry d . Ahmed Abdul Aziz Ays- Dr. Sulaiman Al Alkhuytr- Dr. Abdul -Aziz Wasil Khraiji House for Publishing and Distribution</i></p> <p><i>2- The basis of physical chemistry Prof. Mohamed Magdy dawn and continued for publication</i></p> <ul style="list-style-type: none"> <i>• basis in physical chemistry Prof. Dr. Suleiman Abdul Alim Fatima Hafiz full</i> <p><i>3- Electronic blackboard and what required such as projector and etc</i></p> <ul style="list-style-type: none"> <i>• - laboratory equipment such as laboratory equipment from water baths No.ah-delicate balance Kahrbaiah- distillation device Alme- Glassware etc.</i>

Module name:	<i>General Physics I</i>			
Module level, if applicable	<i>1st</i>			
Code, if applicable	<i>PHYS 111</i>			
Subtitle, if applicable	<i>non</i>			
Courses, if applicable	<i>non</i>			
Semester(s) in which the module is taught	<i>1st & 2nd semester</i>			
Person responsible for the module	<i>Dr. Maisun Asad Makl</i>			
Lecturer	<i>Dr. Maisun Asad Makl</i>			
Language	<i>Arabic</i>			
Relation to curriculum	<i>Compulsory course for biology program</i>			
Type of teaching, contact hours	<i>Total Contact hours:44</i> <ul style="list-style-type: none"> • <i>Lecture:14</i> • <i>laboratory:30</i> <i>Class size:50 students (2-Groups)</i>			
Workload	<i>Total-contact hours</i>	<i>Self-study</i>	<i>Discussion</i>	<i>Total workload</i>
	<i>44</i>	<i>20</i>	<i>14</i>	<i>83</i>
Credit points	<i>2.8 ECTS-2 KSA</i>			
Requirements according to the examination regulations	<i>To attend more than 75% of lecture and practical study</i>			
Recommended prerequisites	<i>non</i>			

Module objectives/intended learning outcomes	<p><i>Define the most basic concepts in classical physics</i></p> <p><i>Give a correct scientific description of object motion and wave motion</i></p> <p><i>Differentiate between terms in classical physics</i></p> <p><i>Verify the validity of the theories related to the subject matter by a correct logical mathematical induction</i></p> <p><i>to take the responsibility of her self-study and to communicate effectively among a group.</i></p> <p><i>Master the use of internet in collecting helpful information to explain natural phenomena</i></p> <p><i>Name the laboratorial tools and devices correctly and use them gently and carefully to keep them in a good condition.</i></p> <p><i>Draw the curve that represents the experimental results accurately and use it to compare the practical results to the theories correctly.</i></p>
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Content	<i>List of Topics</i>	<i>No. of Weeks</i>	<i>Contact Hours</i>	<i>%</i>
	1. Rectilinear Motion Dynamics (Newton's Laws of Motion)	2	7	13.33
	2. General Guidelines for Laboratory Conduct			
	3. Charts and Calculator Usage			
	4. Work and Energy	3	9	20
	5. Calipers Experiment			
	6. Micrometer Experiment			
	7. Spherometer Experiment			
	Midterm Exam1+Feedback	1	2	6.6
	9- Elasticity and Simple Harmonic Motion	3	9	20
	10. Simple Pendulum Applications			
	11. Simple Pendulum Experiment			
	12. Hooke's Law and Spring Constant Calculation			
	Midterm Exam2+Feedback	1	2	6.6
	14- Wave Motion	4	12	26.6
	15. Wave Motion Applications			
	16. Spring Constant Calculation from the Wave Motion of the Mass			
	17- Sound Waves	1	3	6.6
	18. Speed of Sound Measurement			
	19. Revision			
	20. Practical Examination			
Study and examination requirements and forms of examination	<i>20 degrees for two Midterm exams</i> <i>10 degrees for assignments, Class work and research</i> <i>50 degrees for final theoretical Exam</i> <i>20 degrees for final practical Exam</i>			

Media employed	<p><i>classroom provided with smartboard , computer , internet connection and enough seats</i></p> <p><i>Lab provided with the required devices ,</i></p>
Reading list	<ul style="list-style-type: none"> • <i>1- Theoretical part :-Dr. KHader Moamed Abdulrahman Ahshybany- dr .Osama Ahmed Alaky –General Physivcs for universities ((Mechanics - mechanical properties of the material - heat) Khuraiji House for Publishing and Distribution, Riyadh, 1424</i> • <i>2- Practical part: d. Marwan Ahmad Fahad, Abdul Aziz Ali Masoud, Fundamental experimental physics: Obeikan Library, Riyadh</i>