



Sub.	Course Syllabus (منهج المادة (البرنامج الدراسي)		 كلية المعرفة ALMAAREFA COLLEGE
Year	2015/2016		

College	Al-Maarefa College
Department	Preparatory Department


Course Code	102 Phys.
Course Name	General Physics(2)
Credit Hours	3 (2 + 1 + 0)
Instructor	Lutfur Rahman
Office & Office Hours	10-12 noon Sun. Mon. Thu.
Email	lrahman@mcst.edu.sa

Course Description	Basic Principles of Mechanics and vectors, Properties of fluids, Electricity and magnetism, Optics, Atomic and Nuclear Physics are the main topics to be covered.	
Prerequisite(s)	101 phys.	
Textbook(s) & Supplementary Materials	College Physics by Serway & Vuille 9 th Edition 2. List Essential References Materials (Journals, Reports, etc.) Physics by D.C. Giancoli	
Student Outcomes (SO) Addressed by the Course	At the end of the course, the students should be able to define, analyse and describe the concepts of the all the topics taught.	
Major Topics Covered	Pl. Refer to course description.	
Assessment & Evaluation Plan for the Course	<i>Homework Assignments</i>	5
	<i>Quizzes</i>	3
	<i>Lab / Tutorial</i>	20
	<i>Project/Presentations</i>	2
	<i>Two Midterm Exams</i>	40
	<i>Final</i>	30
Policies		


Sub.	Course Syllabus (منهج المادة (البرنامج الدراسي)	 كلية المعرفة ALMAAREFA COLLEGE
Year	2015/2016	

CALENDAR & OUTLINE OF TOPICS


WEEK	DATE (Starting)	TOPICS	DUTIES/TASKS DUE DATES
1	23/8/2015	Chapter:13 Vibrations & Waves---- Sections:1,7,8,9,10.	
2	30/8/2015	Chapter:13 Vibrations & Waves---continued Chapter:14 Sound----- Sections : 1,2,3,4,8,10.	Home work(Questions.).
3	06/9/2015	Chapter:14 Sound----- continued...	Home work(Questions.).
4	13/9/2015	Chapter:15 Electric forces & Electric Fields----- Sections:1,3,4,5,9. Home work practice exercises: --	Quiz:1
5	18/09/2015 to 03/10/2015	Eid-al-Adha vacation	
6	04/10/2015	Chapter:15 Electric forces & Electric Fields----- continued	Home work(Questions.).
7	11/10/2015	Chapter:16 Electrical Energy & Capacitance ----- Sections:1,2,3,6,7,8.	Home work(Questions.).

Sub.	Course Syllabus (البرنامج الدراسي)	 كلية المعرفة ALMAAREFA COLLEGE
Year	2015/2016	

8	18/10/2015	Chapter:16 Electrical Energy & Capacitance ...continued	1 st .Mid term exam.
	25/10/2015	Chapter:19 Magnetism--- --- Sections:1,3,4.	Quiz:2 Home work(Questions.).
	01/11/2015	Chapter:22 Reflection & Refraction of Light----- Sections :1,2,3,7.	
	08/11/2015	(Chapter:22 Reflection & Refraction of Light----- continued	Home work(Questions.).
	15/11/2015	(Chapter:23 Mirrors & Lenses ----- Sections:1,2,3	2 nd Mid term exam.
	22/11/2015	Chapter:23 Mirrors & Lenses ----- continued	Home work(Questions.).
	29/11/2015	Chapter:27 Quantum Physics ----- Sections: 2	Home work(Questions.).
	6/12/2015	(Chapter:28 Atomic physics ----- Sections: 3 Solution of problems.	Home work(Questions.).

Sub.	Course Syllabus (منهج المادة (البرنامج الدراسي)	 كلية المعرفة ALMAAREFA COLLEGE
Year	2015/2016	

	13/12/2015	Chapter:29 Nuclear Physics ----- Sections:1,2	Solution of problems & Rivision
	20/12/2015	FINAL EXAM	Course instructor: LutfurRahman

Sub.	Course Syllabus (البرنامج الدراسي)		 كلية المعرفة ALMAAREFA COLLEGE
Year	2015/2016		

Course Code & No	102PHYS.	فيز 102	رقم المقرر ورمزه
Course Name	General Physics102	الفيزياء العامة 102	اسم المقرر
Credit Hours	1 (0 + 1 + 0)	(0 + 1 + 0) 1	عدد الساعات المعتمدة
Pre-requisite	101 PHYS.	فيز 101	المتطلب السابق

Practical	التجارب
<p>Introduction</p> <p>Experiment 1 : Hooke's law part 2</p> <p>Experiment 2 : Speed of sound in air</p> <p>Experiment 3 : Sonometer</p> <p>Experiment 4 : Focal length of spherical mirrors</p> <p>Experiment 5 : Determination of refractive index of Perspex</p> <p>Experiment 6 : Total internal reflection And critical angle</p> <p>Experiment 7 : Charging of a capacitor determination of ϵ</p> <p>Experiment 8 : Spring constant of sprit Spring using the idea of S.H.M and time period</p> <p>Experiment 9 : Absorption coefficient Of lead for γ-Rays</p> <p>Experiment 10: Photoelectric effect and determination of Planck's constant</p> <p>Experiment 11 : Young's Modulus</p>	<p>مقدمة</p> <p>تجربة 1: قانون هوك الجزء الثانى</p> <p>تجربة 2 : سرعة الصوت فى الهواء</p> <p>تجربة 3 : سونوميتر</p> <p>تجربة 4 : البعد البؤرى للمرايا الكرية</p> <p>تجربة 5 : حساب معامل انكسار المنشور</p> <p>تجربة 6 : الانعكاس الكلى الداخلى والزاوية الحرجة</p> <p>تجربة 7 : شحن وتفريغ المكثف وحساب ϵ تاو</p> <p>تجربة 8 : حساب ثابت الزنبرك باستخدام فكرة الحركة التوافقية البسيطة والزمن الدورى</p> <p>تجربة 9: معامل امتصاص الرصاص لأشعة جاما</p> <p>تجربة 10 : الظاهرة الكهروضوئية وحساب ثابت بلانك</p> <p>تجربة 11 : معامل يونج</p>

References
<ol style="list-style-type: none"> 1. Text book: Textbooks College Physics by Serway & Vuille 9th Edition 2. List Essential References Materials (Journals, Reports, etc.) Physics by D.C. Giancoli 3. List Recommended Textbooks and Reference Material (Journals, Reports, etc) 4. List Electronic Materials (eg. Web Sites, Social Media, Blackboard, etc.) 5. Notes taken in the class room. Web sites of different universities taking the same course. 6. Other learning material such as computer-based programs/CD, professional standards or regulations and software
<p style="text-align: right;">مواقع الانترنت: Web Sites</p> <ol style="list-style-type: none"> 1- ملئقى الفيزيائيين العرب www.phys4arab.net/vb/ 2- منتدى التجارب الفيزيائية www.phys4arab.net/vb/forumdisplay.php... 3- الموقع التعليمي للفيزياء www.hazemsakeek.com 4- المجلة البريطانية للفيزياء www.physicsworld.com