

مختصر توصيف المقرر

(Course Information)

معلومات المقرر*

	تدريب عملي	اسم المقرر:
	فيز 1912	رقم المقرر:
	--	اسم ورقم المتطلب السابق:
	فيزياء عامة 1 فيز 101	اسم ورقم المتطلب المرافق:
	الثاني	مستوى المقرر:
	2 (0+4+0)	الساعات المعتمدة:
Module Title:	Practical Training	
Module ID:	PHYS 1912	
Prerequisite:	--	
Co-requisite:	General Physics I PHYS 101	
Course Level:	Second	
Credit Hours:	2 (0+4+0)	



Module

وصف المقرر :

Description

This introductory course aims to acquire the student of the knowledge and skills needed in the practical and project courses. This course will teach the student: 1) the theory of the fundamental statistical parameters (e.g. mean, median, percentage of errors, standard deviation, uncertainty etc.); 2) some important software that help in writing lab. reports (e.g. Office word, latex); software that are important in drawing and analyzing results in addition to writing equations (e.g. Excel, Origin); software that help the student present his work (e.g. PowerPoint); 3) how to use the internet to search for the information necessary of writing lab reports and projects.

Module Aims

أهداف المقرر :

1	Understanding the knowledge base of measurements error and the difference between random error and systematic error.	1
2	The development of students thinking on how to apply the software and scientific programs to read and describe physical problems, to use mathematics in solving physical problems efficiently	2
3	Know and use different searching engines to gather all necessary scientific information.	3

Learning Outcomes:

مخرجات التعليم:

1	<p>Knowledge</p> <ul style="list-style-type: none"> To digest the main statistical parameters using in measurements. To understand measurement errors To distinguish between random and systematic error. To compute the magnitude of the measurement error 	1
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2	Cognitive Skills <ul style="list-style-type: none"> • Apply the physical concept of errors and how to analyze measurements • Use mathematical equations to calculate the errors • Learn how to translate realistic physical problems into the equations which describe them; solve these equations for the variables describing the problem; and interpret the results to describe the resulting behavior of the realistic physical system. • Describe simple physical systems by graphing system variables, and interpret graphs of system variables. 	2
3	Interpersonal Skills and Responsibility <ul style="list-style-type: none"> • The ability to interact professionally with others, to engage effectively in teamwork, and to function productively on multidisciplinary group projects. • To qualify each student for the good writing skills so that they are able to communicate effectively and clearly • To develop in each student good oral communication skills so that they are able to communicate effectively with others • The report is required to demonstrate organizational skills and writing skills. 	3
4	Communication, Information Technology and Numerical Skills <ul style="list-style-type: none"> • To develop the ability to argue scientifically with the instructor. • To know how to use the computer program to analyze data, and make some simulation • To know how to search the web for any updated information concerning the assigned experiment. • To analyze the data with good mathematics and theory. 	4
5	Psychomotor Not applicable.	5

Course Contents:

محتوى المقرر:

ساعات التدريس (Hours)	عدد الأسابيع (Weeks)	قائمة الموضوعات (Subjects)
8	2	Errors' measurements, Uncertainty, and Main statistical parameters
8	2	Office Word program
8	2	Excel program (drawing)
4	1	Excel program (writing equations)
4	1	Power Point
12	3	Scientific program software (Origin)
8	2	Search engines (Google scholar, Saudi Digital Library)

Textbook and References:

الكتاب المقرر والمراجع المساندة:

سنة النشر Publishing Year	اسم الناشر Publisher	اسم المؤلف (رئيسي) Author's Name	اسم الكتاب المقرر Textbook title
			N A
سنة النشر Publishing Year	اسم الناشر Publisher	اسم المؤلف (رئيسي) Author's Name	اسم المرجع Reference
			N A

