مختصر توصيف المقرر

معلومات المقرر * :(Course Information)

اسم المقرر:	الكترونيات 2	
رقم المقرر:	فيز 4242	
اسم ورقم المتطلب السابق:	فيز 4232	
اسم ورقم المتطلب المرافق:	--	
مستوى المقرر:	الثامن	
الساعات المعتمدة:	3 (2+2+0)	

Module Title:	Electronics II
Module ID:	PHYS 4242
Prerequisite :	PHYS 4232
Co-requisite :	--
Course Level:	Eighth
Credit Hours:	3 (2+2+0)

Module Description **وصف المقرر :**

Theoretical part:
Digital Electronics: Introduction to digital concepts, Binary and Hexadecimal Systems, Logic Gates, Karnaugh Maps Flip Flops, Shift Registers, Counters, Memories.

Practical part:
Logic Gates, investigation truth tables, building Half and Full Adder circuits, (7483), Flip Flop circuits (7474-7476), Shift Register circuits (7495-74194), Counters (7493-74193).

Module Aims **أهداف المقرر :**

1	Understand the basic principles and abstractions that are used to analyze and design electronic circuits and systems.	1
2	Understand the language of electrical and electronic and how to formulate and solve basic electrical and electronic problems.	2
3	Understand how electronic circuits and systems fit into the larger context of science careers, ethics, societal needs, and environmental concerns	3

Learning Outcomes: **مخرجات التعليم:**

1	Knowledge in basic sciences, mathematics, and electronic principles.	1
2	Knowledge in the fundamentals of digital electronic principles and practices, including analysis, design, evaluation, and management	2
3	Collect data and information and perform analysis, interpretation and draw inferences or conclusions	3

4	Students should be responsible for their own learning that requires using means to find new information data, or techniques of analysis.	4

Course Contents: **محتوى المقرر:**

ساعات التدريس (Hours)	عدد الأسابيع (Weeks)	قائمة الموضوعات (Subjects)
6	2	Introduction to Digital Systems
3	1	Number Systems, Operations, and Codes
6	2	Logic Gates and Gate Combinations
6	2	Combinational Logic
6	2	Functions of Combinational Logic
6	2	Latches, Flip-Flops, and Timers
6	2	Shift Registers
6	2	Counters, Memory and Storage.

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
2014	Pearson Education Limited	Thomas L. Floyd	Digital Fundamentals: A Systems Approach 1st Edition
سنة النشر Publishing Year	**اسم الناشر Publisher**	**اسم المؤلف (رئيسي) Author's Name**	**اسم المرجع Reference**