

## Flow up the implementation of course syllabus

Course Instructor	Haraa Raheem Hatem			
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Title	control			
Course Coordinator	3hours weekly			
Course Objective	The main goal of the course is to provide the students with basic tools in modeling, analysis and design for linear feedback control systems. Students will learn how to model mechanical and electrical as differential equations and transfer functions. The analysis in this course includes stability of open-loop and closed-loop systems, time responses and frequency responses of low order systems			
Course Description	The subject divided in to several chapters, as follow: Chapter One: Introduction to Control Systems Chapter Two: Transfer function Chapter Three: Block diagram Chapter Four: Block diagram algebra Chapter Five: Time response Chapter Six: Transient response of second order systems Chapter seven: Frequency response Chapter Eight: Compensation Chapter Nine: State space analysis			
Textbook	1. arid Golnaraghi & Benjamin C. Kuo, 2010, Automatic Control Systems, Tenth Edition, Wiley. 2. Katsuhiko Ogata, , Modern Control Engineering, fifth Edition, Prentice Hall.			
Course Assessment	First Term	2 <sup>nd</sup> Term	Project	Final Exam
	25 %	25 %	----	50 %
General Notes	3. Norman S. Nise, 2010, Control Systems Engineering, sixth Edition, Wiley			

Republic of Iraq

The Ministry of Higher Education

& Scientific Research



University: Diyala

College: Engineering

Department: Communications

Stage: third

Lecturer name: Haraa Raheem  
Hatem

Academic Status: Assistant lecturer

Qualification: master

Place of work: Communications

## Course Weekly Outline

week	Date	Topics Covered	Lab. Experiment Assignments	Notes
1	23/9	Basic definition		
2	30/9	Transfer function		
3	7/10	Transfer function		
4	14/10	Block diagram algebra		
5	21/10	Block diagram algebra		
6	28/10	Block diagram algebra		
7	4/11	Time domain response		
8	11/11	Time domain response		
9	18/11	Time domain response		
10	25/11	Transient response of second order systems		
11	2/12	Transient response of second order systems		
12	9/12	Transient response of second order systems		
13	16/12	Frequency response		
14	23/12	Frequency response		
15	30/12	Frequency response		
<b>Half-Year Break</b>				
16	2/3	Frequency response		
17	10/3	Frequency response		
18	17/3	Frequency response		
19	24/3	Compensation		
20	31/3	Compensation		
21	7/4	Compensation		
22	14/4	Compensation		
23	21/4	Compensation		
24	28/4	Tree-term controller(PID)		
25	5/5	Tree-term controller(PID)		
26	12/5	Tree-term controller(PID)		
27	19/5	State space analysis		
28	26/5	State space analysis		
29	3/6	State space analysis		

Instructor Signature:

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