

Course Description Form

1. Course Name:					
Control Theory 2					
2. Course Code:					
COTH223					
3. Semester / Year:					
2 st Semester / 2024-2025					
4. Description Preparation Date:					
7/11/2024					
5. Available Attendance Forms:					
Personal					
6. Number of Credit Hours (Total) / Number of Units (Total) 3/6					
30/2					
7. Course administrator's name (mention all, if more than one name)					
Name: Prof. Dr. Abbas H. Issa Email: abbas.h.issa@uotechnology.edu.iq					
8. Course Objectives					
Course Objectives			<ul style="list-style-type: none"> • Introducing the student to the basics of control theory. • • Enable the student to find solutions to problems related to control theory. • • Enable the student to design control systems based on time response 		
9. Teaching and Learning Strategies					
Strategy		1- Presentation of control theory and their problems. 2- Providing solutions to problems in control theory systems. 3- Discussing solutions and resulting problems 4- The above points are accomplished through a presentation, homework, and documented reports			
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1-2	4		Steady State Analysis & Accuracy:	Live presentation and homework	Written exam

3-4	4		Stability of Control System, Routh & Hurwitz Criterion	Live presentation and reports	Discussing and evaluating reports
5-6	4		Root Locus Method & Analysis	Live presentation and homework	Written exam
7-8	4		Compensation Using Root Locus, Lag, Lead and Lag-Lead	Live presentation and reports	Discussing and evaluating reports
9-12	8		Compensation Using Root Locus, Lag, Lead and Lag-Lead	Live presentation and homework	Written exam
13-15	6		State Space Representation	Live presentation and reports	Discussing and evaluating reports

11. Course Evaluation

20% documented exam
5% Quizzes
5% reports and homework

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	Katsuhiko Ogata, Modern Control Engineering , 4th Edition, 2010.
Recommended books and references (scientific journals, reports...)	Norman S. Nise, Control Systems Engineering , 6th Edition, John Wiley (2010).
Electronic References, Websites	