Course Description Form

1. Course Name:
Control Theory 1

2. Course Code:
COTH214

3. Semester / Year:
1st 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	• 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		**Introduction to Control System**	Live presentation and homework	Written exam

3-4	4		Mathematical Model of Physical System	Live presentation and reports	Discussing and evaluating reports
5-6	4		Transfer Function	Live presentation and homework	Written exam
7-8	4		Block Diagram Representation, Reduction of Block Diagrams	Live presentation and reports	Discussing and evaluating reports
9-12	8		Transient Response Analysis	Live presentation and homework	Written exam
13-15	6		Transient Response Analysis	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**, Fifth Edit 2010.
Recommended books and references (scientific journals, reports…)	Norman S. Nise, **Control Systems Engineering,** 6th Edit John Wiley (2010).
Electronic References, Websites	