

XMUT315 Control Systems Engineering - Course Schedule (2025)

Week	Date	Lecture	Tutorial	Laboratory	Assessment
9	Monday, 14-4-2025	Lecture 1: Intro to control system and engineering.		Demo 1a	
		Lecture 2: Laplace transform.	Tutorial 1		
10	Monday, 21-4-2025	Lecture 3: Physical systems modelling.		Lab 1	
		Lecture 4: Block diagram modelling	Tutorial 2	Demo 1b	Assignment 1
11	Monday, 28-4-2025	Lecture 5a: Feedback system. Lecture 5b: Feedback and control system.		Demo 2	
		Lecture 6a: Stability analysis. Lecture 6b: Stability with Routh-Hurwitz criterion. Lecture 6c: Other stability analysis.	Tutorial 3	Lab 2	
12	Monday, 5-5-2025	Lecture 7: Time-response analysis.		Demo 3	Assignment 2
		Lecture 8: Steady-state analysis.	Tutorial 4	Demo 4	Lab Report 2
13	Monday, 12-5-2025	Lecture 9a: Controllers and Compensators (Introduction). Lecture 9b: Controllers and Compensators (Applications).		Lab 3	
		Lecture 10a: Introduction to Bode Plots.	Tutorial 5		Midterm Test
14	Monday, 19-5-2025	Lecture 10b: Analysis with Bode Plots.		Demo 5	Assignment 3
		Lecture 11a: Introduction to Root Locus.	Tutorial 6	Demo 6	
15	Monday, 26-5-2025	Lecture 11b: Analysis with Root Locus.		Lab 4	
		Lecture 12a: Introduction to Nyquist Diagram. Lecture 12b: Analysis and Design with Nyquist Diagram and Nichols Chart.	Tutorial 7	Demo 7	Assignment 4
16	Monday, 2-6-2025	Lecture 13a: Design of Bode Plots. Lecture 13b: Design of Root Locus.		Demo 8	Lab Report 4
		Lecture 13c: Examples of Design of Control System.	Tutorial 8		
17-18					Final Exam