

Pre-requisite Courses of Department of Chemical Engineering

(Batch:2025)

	<u>First Year</u>	Second Year	Third Year	<u>Final Year</u>
	ES-108: Ideology and constitution of Pakistan	PF-201: Civics & Community Engagement	CH-315: Fuel & Energy	CH-421: Process Modeling, Simulation & Optimization
Fall Semester	ES-206/ ES-209: Islamic Studies/ Ethical Behaviour (for Non-Muslims)	CH-109: Chemical Engineering Drawing	CH-313: Fluid Mechanics-II	CH-422: Chemical Plant Design
	MT-116: Calculus and Analytical Geometry	CH-107: Chemical Engineering Thermodynamics-I	CH-222: Programming & Data Science for Chemical Engineers	CH-420: Separation Processes
	CH-110: Chemical Engineering Principles	CH-216: Physical & Analytical Chemistry	CH-312: Mass Transfer	CH-###: Depth Elective-I
	CY-110: Applied Chemistry for Engineers	EE-124: Basic Electricity and Electronics	MT-331: Probability & Statistics	CH-499: Chemical Engineering Design Project
	PP-103: Workshop Practice	CH-218: Chemical Process Industries	EA-304: Business Communication and Ethics	PF-401: Entrepreneurship
	CY-100: Essentials of Chemistry (For computer science students)	XX-##: Social Science Elective		EA/ES-###: Foreign Language-II
ster	MM-102: Introduction to Engineering Materials	CH-209: Fluid Mechanics	CH-309: Chemical Reaction Engineering	CH-424: Chemical Process Safety & OSHA
	ES-105/ ES-127: Pakistan Studies / Pakistan Studies (for Foreigners)	CH-220: Chemical Engineering Thermodynamics-II	CH-316: Instrumentation & Process Control	CH-423: Chemical Process Utility & Maintenance Engineering
Spring Semester	PF-101: IT Fundamentals and Applications	CH-219: Heat Transfer	CH-318: Integrated Management Systems	CH-###: Depth Elective-II
Spring	EA-128: Functional English	CH-221: Particulate Technology	CH-314: Numerical Methods with Software Applications for Chemical	CH-###: Depth Elective-
	PH-129: Applied Physics	MT-224: Complex Variables & Fourier Series	CH-320: Environmental Engineering	CH-415: Transport Phenomenon
	MT-221: Linear Algebra & Ordinary Differential Equations	PF-301: Professional Ethics	EA/ ES-###: Foreign Language-I	CH-425: Project Management
		PF-205: Community Service		CH-499: Chemical Engineering Design Project