# Pre-requisite Courses of Department of Chemical Engineering
## (Batch:2022 & 2023)

**First year**

**Fall**

| | |
|---|---|
| CH-104 | Chemical Engineering Principles |
| ME-101 | Engineering Mechanics |
| ME-104 | Workshop Practice |
| HS-104 | Functional English |
| PH-122 | Applied Physics |

**Spring**

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|---|---|
| CH-106 | Applied Chemistry |
| CH-107 | Chemical Engineering Thermodynamics-I |
| ME-111 | Engineering Drawing |
| EE-118 | Basic Electricity & Electronics |
| MT-114 | Calculus |
| HS-105 | Pak. Studies |
| HS-127 | Pak. Studies (for Foreigners) |

**Second Year**

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|---|---|
| CH-208 | Analytical Chemistry |
| CH-210 | Chemical Engineering Thermodynamics-II |
| CH-209 | Fluid Mechanics-I |
| MM-205 | Mechanics of Materials |
| IM-207 | Computer Programming & Drafting |
| CH-213 | Chemical Process Industries |
| ME-209 | Materials & Metallurgy |
| CH-211 | Fluid Mechanics-II |
| MT-223 | Differential Equation & Fourier Series |
| HS-205 | Islamic Studies OR |
| HS-209 | Ethical Behavior(for Non-Muslim) |
| CH-212 | Particulate Tech. |

**Third Year**

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|---|---|
| CH-310 | Fuel & Energy |
| CH-307 | Heat Transfer |
| CH-309 | Chemical Reaction Engineering |
| CH-311 | Mass Transfer |
| MT-332 | Advanced Calculus & Linear Algebra |
| CH-302 | Separation Processes |
| CH-306 | Chemical Process Control |
| HS-304 | Business Communication & Ethics |
| MT-331 | Probability & Statistics |
| PF-303 | App. Economics for Engineers |

**Final Year**

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|---|---|
| CH-401 | Process Mod. & Sim |
| CH-414 | Chemical Plant Design |
| CE-427 | Introduction to Entrepreneurship & Opportunity Assessment |
| CH-416 | Pet. Ref & Petrochemical |
| MT-441 | Advanced Math. Techniques |
| CH-417 | Industrial Safety & Maintenance Management |
| CH-418 | Industrial Organization & Management |
| CH-404 | Chemical Process Optimization |
| CH-415 | Transport Phenomena |
| CH-499 | Chemical Engineering Project |