

| First Year | | | |
|----------------|---------------------------------|----------------|---------------------------------------|
| Fall Semester | | | Spring Semester |
| Course code | Course title | Course code | Course title |
| CH-104 | Chemical Engineering Principles | СН-106 | Applied Chemistry |
| ME-101 | Engineering Mechanics | CH-107 | Chemical Engineering Thermodynamics I |
| ME-104 | Workshop Practice | ME-111 | Engineering Drawing |
| HS-104 | Functional English | EE-118 | Basic Electricity & Electronics |
| PH-122 | Applied Physics | MT-114 | Calculus |
| - | - | HS-105 | Pakistan Studies OR |
| - | - | HS-127 | Pakistan Studies (for Foreigners) |

| Second Year | | | |
|----------------|--|----------------|---|
| Fall Semester | | | Spring Semester |
| Course code | Course title | Course code | Course title |
| CH-208 | Analytical Chemistry | СН-213 | Chemical Process Industries |
| CH-210 | Chemical Engineering Thermodynamics II | ME-209 | Materials & Metallurgy |
| СН-209 | Fluid Mechanics-I | СН-211 | Fluid Mechanics-II |
| MM-205 | Mechanics of Materials | MT-223 | Differential Equations & Fourier Series |
| IM-207 | Computer Programming & Drafting | HS-205 | Islamic Studies |
| - | - | HS-209 | Ethical Behavior (for Non-Muslims) |
| - | - | СН-212 | Particulate Tech. |
| | | HS-200 | Community Services |

| Third Year | | | |
|----------------|---------------------------------------|----------------|---------------------------------|
| | Fall Semester | | Spring Semester |
| Course code | Course title | Course code | Course title |
| СН-310 | Fuel & Energy | СН-302 | Separation Processes |
| СН-307 | Heat Transfer | СН-306 | Chemical Process Control |
| СН-309 | Chemical Reaction Engineering | EA-304 | Business Communication & Ethics |
| СН-311 | Mass Transfer | MT-331 | Probability & Statistics |
| MT-332 | Advanced Calculus & Linear Algebra | PF-303 | Applied Economics for Engineers |
| - | - | EA/ES | Foreign Language-I |

| Final Year | | | |
|----------------|---|----------------|---|
| Fall Semester | | | Spring Semester |
| Course code | Course title | Course code | Course title |
| CH-401 | Process Modeling & Simulation | CH-417 | Industrial Safety & Maintenance Management |
| СН-414 | Chemical Plant Design | СН-418 | Industrial Organization & Management |
| CE-427 | Introduction to Entrepreneurship & Opportunity Assessment | СН-### | Electives |
| СН-416 | Petroleum Refinery & Petrochemical | СН-404 | Chemical Process Optimization |
| MT-441 | Advanced Mathematical Techniques | СН-415 | Transport Phenomena |
| СН-499 | Chemical Engineering Project | СН-499 | Chemical Engineering Project |
| EA/ES | Foreign Language-II | | |

| Elective Course | |
|-----------------|---------------------------------|
| CH-408 | Polymer Technology |
| СН-410 | Water Purification |
| СН-411 | Environmental Pollution Control |
| СН-412 | Biochemical Engg. |
| СН-413 | Gas Engineering |