

Revised Scheme of Studies (semester wise) for BSc Environmental Engineering (Session 2025 & onwards)

| Code | Subject | Credit Hours | Contact Hour | Pre- Requisite (if any) |
|------------------------|--|--------------|--------------|-------------------------|
| FIRST SEMESTER | | | | |
| HU-111 | Communication Skills | 3 | 3 | Nil |
| IS-104 | Islamic Studies/Ethics (for Non-Muslims) | 2 | 2 | Nil |
| CE-101 | Elementary Surveying | 3 | 3 | Nil |
| CE-101L | Elementary Surveying | 1 | 3 | Nil |
| EnE-101 | Introduction to Environmental Engineering | 2 | 2 | Nil |
| PHY-112 | Applied Physics | 2 | 2 | Nil |
| PHY-112L | Applied Physics | 1 | 3 | Nil |
| MA-115 | Engineering Mathematics | 3 | 3 | Nil |
| IS-109L/IS-212L | Fehm-ul-Quran/ Social Ethics-I | 1 | 3 | |
| Total | | 18 | 24 | |
| SECOND SEMESTER | | | | |
| CSC-100 | Application of Information and Communication Technologies | 2 | 2 | Nil |
| CSC-100L | Application of Information and Communication Technologies | 1 | 3 | Nil |
| EnE-103 | Environmental Laws and Policies | 2 | 2 | Nil |
| EnE-104 | Environmental Chemistry | 2 | 2 | Nil |
| EnE-104L | Environmental Chemistry | 1 | 3 | Nil |
| EnE-105 | Ecological Management | 2 | 2 | Nil |
| ME-100L | Workshop Practice | 1 | 3 | Nil |
| MA-116 | Linear Algebra and Differential Equations | 3 | 3 | Nil |
| IS-111 | Pakistan Studies | 2 | 2 | Nil |
| <i>HU-212</i> | <i>Civics and Community Engagement</i> | 2 | 2 | <i>Nil</i> |
| Total | | 18 | 24 | |
| Total 1st Year | | 36 | 48 | |
| THIRD SEMESTER | | | | |
| EnE-201 | Environmental Microbiology | 2 | 2 | Nil |
| EnE-201L | Environmental Microbiology | 1 | 3 | Nil |
| CE-232 | Fluid Mechanics | 3 | 3 | Nil |
| CE-232L | Fluid Mechanics | 1 | 3 | Nil |
| CE-235 | Soil Mechanics | 3 | 3 | Nil |
| CE-235L | Soil Mechanics | 1 | 3 | Nil |
| MA-242 | Engineering Statistics | 3 | 3 | Nil |

| | | | | |
|------------------------|---|-----------|-----------|----------------|
| IS-209L/IS-213L | Fehm-ul-Quran/Social Ethics-II | 1 | 3 | Nil |
| HU-200 | Technical Report Writing | 3 | 3 | Nil |
| Total | | 18 | 26 | |
| FOURTH SEMESTER | | | | |
| EnE-225L | Occupational health and Safety | 1 | 3 | Nil |
| IS-203 | Ideology and Constitution of Pakistan | 2 | 2 | Nil |
| <i>CRP-220</i> | <i>GIS and Remote Sensing</i> | <i>2</i> | <i>2</i> | <i>CE-101</i> |
| <i>CRP-220L</i> | <i>GIS and Remote Sensing</i> | <i>1</i> | <i>3</i> | <i>CE-101L</i> |
| ME-238 | Thermodynamics | 2 | 2 | Nil |
| ME-238L | Thermodynamics | 1 | 3 | Nil |
| CE-240 | Engineering drawings and CAD | 1 | 1 | Nil |
| CE-240L | Engineering drawings and CAD | 2 | 6 | Nil |
| CE-210 | Structural Systems | 3 | 3 | Nil |
| <i>CS-103</i> | Introduction of Computer Programming for Data Science | <i>2</i> | <i>2</i> | Nil |
| <i>CS-103L</i> | Introduction of Computer Programming for Data Science | <i>1</i> | <i>3</i> | Nil |
| Total | | 18 | 30 | |
| Total 2nd Year | | 36 | 56 | |
| FIFTH SEMESTER | | | | |
| CRP-301 | Sustainable Urban Planning | 2 | 2 | Nil |
| EnE-331 | Water Supply and Wastewater Engineering | 3 | 3 | Nil |
| EnE-331L | Water Supply and Wastewater Engineering | 1 | 3 | Nil |
| MGT-105 | Introduction to Economics | 2 | 2 | Nil |
| EnE-323 | Solid Waste Management | 3 | 3 | Nil |
| EnE-323L | Solid Waste Management | 1 | 3 | Nil |
| EnE-325 | Environmental Engineering Lab Techniques | 1 | 1 | EnE-104 |
| EnE-325L | Environmental Engineering Lab Techniques | 1 | 3 | EnE-104L |
| CE-333 | Engineering Hydrology | 2 | 2 | Nil |
| CE-333L | Engineering Hydrology | 1 | 3 | Nil |
| Total | | 17 | 25 | |
| SIXTH SEMESTER | | | | |
| EnE-326 | Environmental Impact Assessment and Management | 3 | 3 | Nil |
| EnE-337 | Principles and Design of Water Treatment | 3 | 3 | Nil |
| EnE-337L | Principles and Design of Water Treatment | 1 | 3 | Nil |
| ChE-320 | Cleaner Production Techniques | 2 | 2 | Nil |
| CE-345 | Water Resources & Irrigation Engineering | 3 | 3 | Nil |
| CE-346 | Project Management and Construction Supervision | 3 | 3 | Nil |
| MA-346 | Numerical Methods | 3 | 3 | Nil |
| Total | | 18 | 20 | |

| | | | | |
|-------------------------|---|------------|------------|--------------------------------------|
| Total 3rd Year | | 35 | 45 | |
| SEVENTH SEMESTER | | | | |
| EnE-435 | Air and Noise Pollution Control | 3 | 3 | Nil |
| EnE-435L | Air and Noise Pollution Control | 1 | 3 | Nil |
| EnE-436 | Principles and Design of Wastewater Treatment | 3 | 3 | Nil |
| EnE-436L | Principles and Design of Wastewater Treatment | 1 | 3 | Nil |
| EnE-432 | Environmental Modeling | 2 | 2 | Nil |
| EnE-432L | Environmental Modeling | 1 | 3 | Nil |
| EnE-499A | Final Year Design Project-I | 3 | 9 | Nil |
| <i>HU-003</i> | <i>International language</i> | <i>0</i> | <i>3</i> | <i>Nil</i> |
| Total | | 14 | 29 | |
| EIGHTH SEMESTER | | | | |
| <i>ME-481</i> | <i>Energy Resources & Management</i> | <i>2</i> | <i>2</i> | <i>Nil</i> |
| <i>EnE-404</i> | <i>Ethics and Interpersonal Skills</i> | <i>1</i> | <i>1</i> | <i>Nil</i> |
| <i>EnE-404L</i> | <i>Ethics and Interpersonal Skills</i> | <i>1</i> | <i>3</i> | <i>Nil</i> |
| EnE-426 | Wastewater Disposal and Reuse | 2 | 2 | Nil |
| EnE-433 | Industrial and Hazardous Waste Management | 3 | 3 | Nil |
| MGT-349 | Entrepreneurship | 2 | 2 | Nil |
| <i>EnE-427</i> | <i>Climate Change: Adaptation, Mitigation and Sustainable Development</i> | <i>2</i> | <i>2</i> | <i>Nil</i> |
| EnE-499B | Final Year Design Project-II | 3 | 9 | EnE-499A Final Year Design Project-I |
| <i>EnE-428</i> | <i>Review of Environmental Engineering (Optional Course)</i> | <i>0</i> | <i>2</i> | <i>Nil</i> |
| Total | | 16 | 26 | |
| Total 4th Year | | 30 | 55 | |
| Total Program | | 137 | 204 | |