

**Courses Under Semester System
BSc Mechanical Engineering**

Semester - I

Course Code	Course Title	Credit Hours	
		Theory	Lab.
HU-101	Functional English	2	0
MS-101	Health, Safety and Environment	1	0
NS-101	Calculus and Analytical Geometry	3	0
NS-102	Applied Chemistry	2	0
CS-101	Computer Systems and Programming	2	1
ME-111	Engineering Drawing and Graphics	2	1
ME-131	Workshop Practice	1	1
	Total	13	3
	Semester Total	16	

Semester - II

Course Code	Course Title	Credit Hours	
		Theory	Lab.
EE-102	Electrical Engineering	2	1
NS-103	Applied Physics	2	1
NS-104	Linear Algebra and Ordinary Differential Equations	3	0
ME-112	Engineering Mechanics-I: Statics	3	0
ME-113	Engineering Materials	2	1
ME-114	Computer Aided Drawing	0	1
ME-121	Fluid Mechanics-I	3	0
	Total	15	4
	Semester Total	19	
	Total for First Year	35	

Semester - III

Course Code	Course Title	Credit Hours	
		Theory	Lab.
NS-205	Complex Variables and Transforms	3	0
ME-211	Engineering Mechanics-II: Dynamics	2	0
ME-212	Engineering Mechanics Lab	0	1
ME-213	Mechanics of Materials-I	3	0
ME-221	Fluid Mechanics-II	3	0
ME-222	Fluid Mechanics Lab	0	1
ME-223	Thermodynamics-I	3	0
ME-231	Manufacturing Processes-I	2	0
	Total	16	2
	Semester Total	18	

Semester - IV

Course Code	Course Title	Credit Hours	
		Theory	Lab.
HU-202	Islamic Studies	2	0
NS-206	Numerical Analysis	3	0
ME-214	Mechanics of Materials-II	3	0
ME-215	Mechanics of Materials Lab	0	1
ME-216	Machine Design -I	2	0
ME-224	Thermodynamics-II	2	0
ME-225	Thermodynamics Lab	0	1
ME-232	Manufacturing Processes-II	2	0
ME-233	Manufacturing Processes Lab	0	1
Total		14	3
Semester Total		17	
Total for Second Year		35	

Semester - V

Course Code	Course Title	Credit Hours	
		Theory	Lab.
EE-303	Electronics Engineering	2	1
HU-303	Communication Skills	1	1
NS-307	Applied Statistics	2	0
ME-311	Machine Design-II	3	0
ME-312	Computer Aided Engineering	0	1
ME-321	Heat and Mass Transfer	3	0
ME-331	Measurement & Instrumentation	2	0
Total		13	3
Semester Total		16	

Semester - VI

Course Code	Course Title	Credit Hours	
		Theory	Lab.
MS-302	Engineering Economics	2	0
HU-304	Technical Report Writing & Presentation Skills	2	0
ME-313	Mechanics of Machines	3	0
ME-322	Refrigeration and Air Conditioning	3	0
ME-323	Heat Transfer and R & A/C Lab	0	1
ME-324	Power Plants	2	0
ME-332	Control Engineering	3	0
ME-333	M&I and Control Lab	0	1
Total		15	2
Semester Total		17	
Total for Third Year		33	

Semester - VII

Course Code	Course Title	Credit Hours	
		Theory	Lab.
MS-4XY	Management Elective	2	0
HU-405	Pakistan Studies	2	0
ME-411	Mechanical Vibrations	3	0
ME-412	Mechanisms and Mechanical Vibrations Lab	0	1
ME-421	Internal Combustion Engines	3	0
ME-422	Power Plants and IC Engines Lab	0	1
ME-4XY	Technical Elective-I	2	1
ME-499	Design Project-I	0	3
	Total	12	6
	Semester Total	18	

Semester - VIII

Course Code	Course Title	Credit Hours	
		Theory	Lab.
MS-404	Entrepreneurship	1	0
HU-406	Social Sciences	2	0
ME-413	Finite Element Methods	2	1
ME-4XY	Technical Elective-II	3	0
ME-4XY	Technical Elective-III	2	1
ME-499	Design Project-II	0	3
	Total:	10	5
	Semester Total	15	
	Total for Final Year	33	
	Grand Total for Four Years	136	