

BSME Scheme of Studies
Revision II prepared For Fall 2012-13

1st Year
Semester-1

Subjects			Credit Hours		
Sr.#	Course Code	Course Title	Theory	Lab	Total
1	GS-101	Applied Physics	2	0	2
2	GS-102	Applied Math-I	3	0	3
3	EN-100	English-I	3	0	3
4	GS-103	Computer System & Programming	2	1	3
5	ME-111	Engineering Drawing & Graphics	1	1	2
6	GR-103	Arabic for understanding Quran -I	2	0	2
7	GS-105	Applied Chemistry	2	0	2
		Total	15	2	17

Semester-2

Subjects			Credit Hours		
Sr.#	Course Code	Course Title	Theory	Lab	Total
1	GS-104	Applied Math-II	3	0	3
2	SS-101	Social Sciences	2	0	2
3	ME-131	Thermodynamics-I	3	1	4
4	ME-112	Engineering Mechanics-I	3	1	4
5	ME-121	Workshop Technology	1	2	3
6	GR-104	Arabic for understanding Quran-II	2	0	2
		Total	14	4	18

2nd Year
Semester-3

Subjects			Credit Hours		
Sr.#	Course Code	Course Title	Theory	Lab	Total
1	GS-201	Applied Math-III	3	0	3
2	GR-211	Pakistan Studies	2	0	2
3	ME-231	Fluid Mechanics-I	3	1	4
4	ME-211	Engineering Mechanics – II	3	1	4
5	GR-209	Islamic Studies	2	0	2
6	ME-233	Thermodynamics-II	3	1	4
		Total	16	3	19

Semester-4

Subjects			Credit Hours		
Sr.#	Course Code	Course Title	Theory	Lab	Total
1	GS-202	Applied Math-IV	3	0	3
2	EE-201	Electrical Engineering	2	1	3
3	ME-212	Mechanics of Materials-I	3	1	4
4	ME-232	Fluid Mechanics-II	3	1	4

5	EN-209	English-II	3	0	3
		Total	14	3	17

3rd Year Semester-5

Subjects			Credit Hours		
Sr.#	Course Code	Course Title	Theory	Lab	Total
1	GS-301	Statistics & Probability	2	0	2
2	EE-301	Basic Electronics	2	1	3
3	ME-322	Engineering Materials	3	0	3
4	SS-301	Social Sciences-II	2	0	2
5	ME-312	Mechanics of Machines	3	1	4
6	ME-313	Mechanics of Materials-II	3	1	4
		Total	15	3	18

Semester-6

Subjects			Credit Hrs		
Sr.#	Course Code	Course Title	Theory	Lab	Total
1	ME-323	Engineering Management & Economics	2	0	2
2	ME-311	Machine Design	3	0	3
3	ME-321	Manufacturing Processes	3	1	4
4	ME-331	Heat & Mass Transfer	3	1	4
5	ME-324	CAD / CAM	2	1	3
		Total	13	3	16

4th Year Semester-7

Subjects			Credit Hrs		
Sr.#	Course Code	Course Title	Theory	Lab	Title
1	ME-414	Measurement & Instrumentation	2	1	3
2	ME-422	Production Engineering	3	1	4
3	ME-499	Design Project	0	3	3
4	ME-413	Introduction to Mechatronics	3	1	4
5	ME-415	Technical Elective I	2	1	3
		Total	10	7	17

Semester-8

Subjects			Credit Hrs		
Sr.#	Course Code	Course Title	Theory	Lab	Total
1	ME-412	Mechanical Vibrations	3	1	4
2	ME-416	Technical Elective II	2	1	3
3	ME-417	Management Elective	3	0	3
4	ME-499	Design Project	0	3	3
		Total	8	5	13
		Grand Total	104	30	134

List of Elective Courses in BS Mechanical Engineering

Technical Electives		Course Title	Credit Hrs
Sr. No	Course Code		
01	ME4151	Renewable Energy Technology	(2,1)
02	ME4152	Heating Ventilation and Air-conditioning System (HVAC)	(2,1)
03	ME4153	Gas Dynamics	(2,1)
04	ME4154	Aerodynamics	(2,1)
05	ME4155	Computational Fluid Dynamics	(2,1)
06	ME4156	Finite Element Method	(2,1)
07	ME4157	Maintenance Engineering	(2,1)
08	ME4158	Stress Analysis	(2,1)
09	ME4159	Mechanical Engineering Design Analysis	(2,1)
10	ME4161	Control Engineering	(2,1)
11	ME4162	Automation and Robotics	(2,1)
12	ME4163	Tribology	(2,1)
13	ME4164	Nuclear Engineering	(2,1)
14	ME4165	Power Plants	(2,1)
15	ME4166	I. C. Engines	(2,1)
16	ME4167	Fracture Mechanics	(2,1)
17	ME4168	Design against Fatigue	(2,1)

(Recommended by the Board of Studies DME)

Management Electives		Course Title	Credit Hrs
Sr No	Course Code		
01	ME4171	Operations management	(2,1)
02	ME4172	Production Management	(2,1)
03	ME4173	Total Quality Management	(2,1)
04	ME4174	Project Management	(2,1)
05	ME4175	Operations Research	