

Materials Engineering Course Distribution (<u>For Approval</u>)				
Effective From Batch 2016-17 and Onwards				
SEMESTER-WISE COURSES DISTRIBUTION OF MATERIALS ENGINEERING COURSES				
FE - Spring Semester				
Course Code	Course Title	Credit Hours		
		Theory	Pract	Total
MM-102	Introduction to Engineering Materials	2	0	2
ME-101	Engineering Mechanics	3	1	4
PH-122	<i>Applied Physics</i>	3	1	4
ME-104	Workshop Practice	0	2	2
HS-104	<i>Functional English</i>	3	0	3
Total		11	4	15
FE- Fall Semester				
Course Code	Course Title	Credit Hours		
		Theory	Pract	Total
EE-118	Basic Electricity & Electronics	3	1	4
AU-102	Engineering Drawing and Computer Graphics	2	1	3
CY-105	<i>Applied Chemistry</i>	3	1	4
MT-111	<i>Calculus</i>	3	0	3
HS-105 /HS-127	<i>Pakistan Studies OR Pakistan Studies (for Foreigners)</i>	2	0	2
Total		13	3	16
SE- Spring Semester				
Course Code	Course Title	Credit Hours		
		Theory	Pract	Total
MM-201	Physical Metallurgy	3	1	4
MM-204	Engineering Ceramics and Refractory Materials	3	0	3
MM-205	Mechanics of Materials	3	1	4
MT-215	<i>Differential Equations and Complex Variables</i>	3	0	3
MY-201	Metallurgical Thermodynamics & Kinetics	3	0	3
Total		15	2	17
SE- Fall Semester				
Course Code	Course Title	Credit Hours		
		Theory	Pract	Total
MM-202	Production and Refining of Materials	3	0	3
MM-208	Fundamentals of Modern Manufacturing and Foundry	3	1	4
MM-307	Joining of Materials	3	1	4
IM-207	Computer Programming and Drafting	2	1	3
HS-205/HS-	<i>Islamic Studies OR Ethical Behavior</i>	2	0	2
Total		13	3	16

TE- Spring Semester				
Course Code	Course Title	Credit Hours		
		Theory	Pract	Total
MM-301	Corrosion: Protection and Prevention	3	1	4
MM-303	Inspection and Testing of Materials	3	1	4
MM-304	Heat Treatment of Materials	3	1	4
<i>HS-304</i>	<i>Business Communication and Ethics</i>	3	0	3
<i>MT-315</i>	<i>Mathematical Methods</i>	3	0	3
Total		15	3	18
TE- Fall Semester				
Course Code	Course Title	Credit Hours		
		Theory	Pract	Total
MM-305	Polymer and Composite Materials	3	1	4
MM-308	Materials Characterisation and Analytical Techniques	3	1	4
MM-309	Construction Materials	2	0	2
<i>PF-303</i>	<i>Applied Economics for Engineers</i>	3	0	3
<i>HS-403</i>	<i>Entrepreneurship</i>	3	0	3
<i>MT-441</i>	<i>Advance Mathematical Techniques</i>	3	0	3
Total		17	2	19
BE-Spring Semester				
Course Code	Course Title	Credit Hours		
		Theory	Pract	Total
MM-404	Phase Transformations in Materials	3	1	4
MM-411	Nanomaterials and Nanotechnology	3	0	3
MM-412	Surface Engineering	2	1	3
MM-413	Nuclear Materials	2	0	2
MM-414	Total Quality Management	3	0	3
MM-410	Materials Engineering Project	--	--	--
Total		13	2	15
BE-Fall Semester				
Course Code	Course Title	Credit Hours		
		Theory	Pract	Total
MM-402	Design and Selection of Materials	2	1	3
MY-402	Advanced Materials	3	0	3
MM-415	Material Deformations and Failures: Mechanisms and Analysis	3	0	3
MM-416	Biomedical and Functional Materials	2	0	2
<i>IM-417</i>	<i>Health, Safety and Environment</i>	2	1	3
MM-410	Materials Engineering Project	0	6	6
Total		12	8	20