Industrial and Manufacturing Engineering

FIRST YEAR

Fall Semester						Spring Semester						
Course Code	Course Title	Credit Hours Th Pr Total		Course Code	Course Title	Credit Hours Th Pr Tota						
MT-114	Calculus	3	0	3	PH-122	Applied Physics		1	4			
ME-101	Engineering Mechanics	3	1	4	HS-111	Functional English	2	0	2			
EE-122	Basic Electricity and Electronics	3	0	3	ME-111	11 Engineering Drawing 2		1	3			
ME-104	Workshop Practice	0	2	2	IM-101	01 Computer Applications in Engineering 2		1	3			
HS-105	Pakistan Studies OR	2	0	2	IM-105	M-105 Thermofluids		1	4			
HS-127	Pakistan Studies for Foreigners											
		SE	ECC	DND	YEAR							
	Fall Semester		Spring Semester									

Fall Semester						Spring Semester					
Course	Course Title	Credit Hours Th Pr Total			Course	Course Title		Credit Hou			
Code		ın	Pr	Total	Code		ın	Pr	Total		
IM-208	Materials Engineering	3	1	4	MT-225	Linear Algebra & Ordinary Differential	3	0	3		
IM-209	Mechanics of Materials	3	1	4		Equations					
IM-203	Manufacturing Processes	3	1	4	MF-303	Applied Economics for Engineers	3	0	3		
MT-252	Introduction to Probability and Statistics	3	1	4	IM-211	Machine Design	3	1	4		
HS-205	Islamic Studies OR	2	0	2	IM-212	Computer Aided Engineering Design	2	1	3		
HS-209	Ethical Behaviour				IM-213	Metrology and Quality Control	3	1	4		
					HS-200	Community Service	-	-	NC		

THIRD YEAR

Fall Semester	Spring Semester							
Course Title	Credit Hours		Course	Course Title		Credit Hours Th Pr Total		
Dusiness Communication 9 Ethics			2		Operations Descerab	2	1	
Business Communication & Ethics	3	U	3	1101-308	•	3	т	4
Production Management	3	1	4	IM-307	Advanced Manufacturing Processes	3	1	4
Advanced Calculus & Fourier Analysis	3	0	3	IM-408	Automation & Robotics	3	1	4
Applied Thermo Fluids	3	1	4	IM-411	Methods Engineering	2	1	3
Tool Design	3	1	4	IM-320	Modeling and Simulation	2	1	3
-				HS-XXX	Foreign Language Course-I	-	-	NC
	Business Communication & Ethics Production Management Advanced Calculus & Fourier Analysis Applied Thermo Fluids	Course Title Business Communication & Ethics Production Management Advanced Calculus & Fourier Analysis Applied Thermo Fluids Crr Th Salar 3 Advanced Calculus & Fourier Analysis 3 Applied Thermo Fluids	Course TitleCredit ThPrBusiness Communication & Ethics30Production Management31Advanced Calculus & Fourier Analysis30Applied Thermo Fluids31	Course TitleCredit Hours ThPrTotalBusiness Communication & Ethics303Production Management314Advanced Calculus & Fourier Analysis303Applied Thermo Fluids314	Course TitleCruster Its	Course TitleCredit Hours ThCourse TotalCourse CodeBusiness Communication & Ethics303IM-308Operations ResearchProduction Management314IM-307Advanced Manufacturing ProcessesAdvanced Calculus & Fourier Analysis303IM-408Automation & RoboticsApplied Thermo Fluids314IM-411Methods EngineeringTool Design314IM-320Modeling and Simulation	Course TitleCredit Hours ThPrTotalCourse CodeCourse TitleCreating CodeBusiness Communication & Ethics303IM-308Operations Research3Production Management314IM-307Advanced Manufacturing Processes3Advanced Calculus & Fourier Analysis303IM-408Automation & Robotics3Applied Thermo Fluids314IM-411Methods Engineering2Tool Design314IM-320Modeling and Simulation2	Course TitleCredit Hours ThCourse PrCodeCourse TitleCredit ThBusiness Communication & Ethics303IM-308Operations Research31Production Management314IM-307Advanced Manufacturing Processes31Advanced Calculus & Fourier Analysis303IM-408Automation & Robotics31Applied Thermo Fluids314IM-411Methods Engineering21Tool Design314IM-320Modeling and Simulation21

FINAL YEAR

	Faii Semester	Spring Semester							
Course Title		Credit Hours			Course	Course Title	Credit Ho		
Code	604136 11116	Th	Pr	Total	Code	course ritie	Th	Pr	Total
IM-405	Finite Element Analysis	3	1	<mark>4</mark>	MG-481	Entrepreneurship	3	0	3
IM-402	Computer Aided Manufacturing	3	1	4	IM-417	Health, Safety & Environment	2	1	3
MG-450	Principles of Supply Chain Management	3	0	3	MT-441	Advanced Mathematical Techniques	3	0	3
IM-##	Elective Course	3	1	4	IM-413	Plant Engineering	3	1	4
IM-409	*Manufacturing Engineering Project	0	3	3	IM-409	Manufacturing Engineering Project	0	3	3
HS-XXX	Foreign Language Course-II	-	-	NC					

Elective Courses (to be chosen from the following)

IM-416	Management Information System	IM-420	Basics of Additive Manufacturing
IM-418	Condition Monitoring	IM-421	Smart Manufacturing Systems
IM-419	Project Management	IM-422	Ergonomics in Workplace Design

^{*} Duration one academic year: Requires literature survey and preliminary work during this Semester