

NED UNIVERSITY OF ENGINEERING AND TECHNOLOGY

Department of Metallurgical Engineering

Scheme of Studies With Pre-Requisite Courses

Semester No.	Sr. No.	Course Code	Course Title	Credit Hours	Knowledge Area	Pre-requisite Courses(if any)
First Year/Spring Semester # 1						
1	1	MY-101	Introduction to Metallurgical Engineering	(2-1-3)	Engg. Foundation	NIL
	2	HS-111	Functional English	(3-0-3)	Humanities	NIL
	3	PH-122	Applied Physics	(3-1-4)	Natural Science	NIL
	4	ME-111	Engineering Drawing	(2-1-3)	Engg. Foundation	NIL
	5	MT-114	Calculus	(3-0-3)	Natural Science	NIL
			Total Cr. Hrs.	(13-3-16)		
First Year/Fall Semester # 2						
2	1	EE-116	Principles of Electrical Engg.	(3-1-4)	Engg. Foundation	NIL
	2	HS-105/ HS-127	Pakistan Studies/Pakistan Studies (for Foreigner)	(2-0-2)	Humanities	NIL
	3	ME-101	Engineering Mechanics	(3-1-4)	Engg. Foundation	NIL
	4	ME-104	Workshop Practice	(0-2-2)	Engg. Foundation	NIL
	5	CY-109	Applied Chemistry	(3-1-4)	Natural Science	NIL
			Total Cr. Hrs.	(11-5-16)		
Second Year/Spring Semester # 3						
3	1	MT-215	Differential Equation and Complex Variables	(3-0-3)	Natural Science	NIL
	2	MY-206	Furnaces and Refractories	(3-1-4)	. Breadth	MY-101
	3	MY-208	Mineral Processing	(2-1-3)	Breadth	MY-101, CY-109

NED UNIVERSITY OF ENGINEERING AND TECHNOLOGY

Department of Metallurgical Engineering

	4	MM-201	Physical Metallurgy	(3-1-4)	Breadth	MY-101
	5	HS-205/206	Islamic Studies / Ethical Behavior	(2-0-2)	Humanities	NIL
			Total Cr. Hrs.	(13-3-16)		
	Second Year/Fall Semester # 4					
4	1	MY-210	Iron Making Processes	(2-0-2)	Breadth	MY-101, CY-109, MM-201
	2	EE-221	Instrumentation	(3-1-4)	Engg. Foundation	NIL
	3	IM-207	Computer Programming and Drafting	(2-1-3)	Computing	NIL
	4	MY-207	Mechanical Behavior of Materials	(2-1-3)	Engg. Foundation	ME-101
	5	MY-209	Metal Forming and Shaping Processes	(2-1-3)	Breadth	MY-207, MM-201
		MY-211	Metallurgical Thermodynamics & kinetics	(3-0-3)	Breadth	MM-201, CY-109
			Total Cr. Hrs.	(14-4-18)		
	Third Year/Spring Semester # 5					
5	1	MM-303	Inspection and Testing of Materials	(3-1-4)	Engg. Foundation	MM-201, MY-207
	2	MY-308	Polymers and Composite	(2-1-3)	Depth	MM-201
	3	MT-315	Mathematical Methods	(3-0-3)	Natural Science	NIL
	4	MY-309	Steel Making Processes	(2-0-2)	Depth	MM-201, CY-109
	5	MY-303	Foundry: Principles, Methods and Practice	(3-1-4)	Depth	(CY-109)
			Total Cr. Hrs.	(13-3-16)		
	Third Year/Fall Semester # 6					
	1	MY-304	Metallurgy of Welding	(2-1-3)	Depth	MM-201, MM-304
	2	MY-310	Non-Ferrous Extractive Metallurgy	(3-0-3)	Breadth	MY-208, MY-205, MY-211
	3	HS-304	Business Communication and Ethics	(3-0-3)	Humanities	HS-111
	4	MM-304	Heat Treatment of Materials	(3-1-4)	Breadth	MM-201
	5	PF-303	Applied Economics for Engineers	(3-0-3)	Humanities	NIL

NED UNIVERSITY OF ENGINEERING AND TECHNOLOGY

Department of Metallurgical Engineering

			Total Cr. Hrs.	(14-2-16)		
	Fourth Year/Spring Semester # 7					
7	1	MY-413	Corrosion Engineering	(2-1-3)	Depth	MM-201
	2	MY-411	Vacuum Metallurgy	(2-0-2)	Breadth	PH-122, MY-206
	3	MY-412	Metallurgy of Advanced	(2-0-2)	Depth	MY-309, MM-201
	4	MY-410	Fracture Mechanics and Failure analysis	(2-1-3)	Depth	MY-207
	5	IM-417	Health, Safety and	(2-1-3)	Management	NIL
	6	HS-403	Entrepreneurship	(3-0-3)	Management	NIL
	7	MY-408	Metallurgical Engg Project	(0-0-0)	FYP	ALL
			Total Cr. Hrs.	(13-3-16)		
	Fourth Year/Fall Semester # 8					
8	1	MY-409	Metallurgical Plants and Quality Control	(3-0-3)	Management	IM-417
	2	MY-406	Powder Metallurgy	(2-1-3)	Depth	MY-208
	3	CH-407	Ind. Org & Management	(2-1-3)	Management	NIL
	4	MY-407	Design, Selection and Materials Characterization	(3-1-4)	Depth	MY-207
	5	MY-402	Advanced Materials	(3-0-3)	Depth	MY-101
	6	MY-408	Metallurgical Engg Project	(0-6-6)	FYP	NIL
			Total Cr. Hrs.	(13-9-22)		