

Main Courses				
Course Name	Credits		Prerequisite	Parallel
	T	P		
Mechanical properties of materials (Lab)		१	Mechanical Properties of Materials(I)	
Fundamentals of Electrical Engineering (Lab)		१		Fundamentals of Electrical Engineering
Metallugraphy (Lab)		१	Physical Properties of Materials(I)	
Statics	२		Physics(I)	
Transport Phenomena	३		Differential Equations	
Project		३		
Materials Thermodynamic(I)	३		Physical Chemistry of Materials	
Physical Properties of Materials(I)	३		Crystallography	
Physical Properties of Materials(II)	२		Mechanical Properties of Materials(I)	
Mechanical Properties of Materials(I)	३		Physical Properties of Materials(I)& Strength of Materials	
Physical Chemistry of Materials	३		General Chemistry(I) & Mathematics(II)	
General Workshop		१		
Crystallography	३		General Chemistry(I)	
Fundamentals of Electrical Engineering	३		Physics(II)	
Strength of Materials	३		Statics	
Engineering Graphics	१			

Main Courses				
Course Name	Credits		Prerequisite	Parallel
	T	P		
Extraction Metallurgy(I) Lab		१	Principal of Extraction Metallurgy(I)	
Extraction Metallurgy(II) Lab		१	Principal of Extraction Metallurgy(II)	
Casting Lab(I)		१		Casting
Heat treatment (Lab)		१		Heat treatment
Principal of Extraction Metallurgy(I)	२		Thermodynamic(I)	
Principal of Extraction Metallurgy(II)	२		Principal of Extraction Metallurgy(I)	
Technical Writing	१			
Solidification of Metals	२		Physical Properties of Materials(II) & Transport Phenomena	
Ore Dressing	२		General Chemistry	
Corrosion and Oxidation	३		Thermodynamic (I)	
Casting(I)	३		Physical Properties of Materials(I)	
English Language for Materials Engineering	३		General Language	
Kinetic	३		Thermodynamic(I) & Engineering Mathematics	
Metals Forming(I)	३		Mechanical Properties of Materials(I)	
Analytical Chemistry and Lab	१	१	General Chemistry	
Heat treatment	२		Physical Properties of Materials(II)	
Novitiate		२		
Refractories	२		Physical Properties of Materials(II)	

Optional courses				
Course Name	Credits		Prerequisite	Parallel
	T	P		
Welding Lab		1		Welding Metallurgy
Economics and Industrial Management	2			
Materials selection	2			
Iron Production	2		Principal of Extraction Metallurgy(I)	
Production of Non-ferrous Metals(I)	3		Principal of Extraction Metallurgy(II)	
Modern Technics in Materials Analysis	2		Physical Properties of Materials(II)	
Design and Principal of Industrial Furnaces	2		Transport Phenomena & Thermodynamic	
Steel Making	2		Iron Production	
Mineralogy	2		Crystallography	
Powder Metallurgy	2		Mechanical Properties of Materials(I) & Physical Properties of Materials(II)	
Welding Metallurgy	3		Solidification of Metals	
Surfaces and Coatings Metallurgy	3		Corrosion and Oxidation	
Advanced Materials	2			

Fundamental Courses				
Course Name	Credits		Prerequisite	Parallel
	T	P		
General Chemistry (I) Lab		۱		General Chemistry (I)
Physics (I) Lab		۱		Physics (I)
Physics (II) Lab		۱		Physics (II)
Mathematics(I)	۳			
Mathematics(II)	۳		Mathematics(I)	
Engineering Mathematics	۳		Differential Equations	
General Chemistry	۳			
Physics (I)	۳			
Physics (II)	۳		Physics (I)	
Fundamentals of Computer Programing	۳		Differential Equations	
Numerical Computations	۲		Differential Equations	
Differential Equations	۳		Mathematics(II)	

General Courses				
Course Name	Credits		Prerequisite	Parallel
	T	P		
General English	۳			
General Persian Literature	۳			
Islamic Studies (I)	۲			
Islamic Studies (II)	۲		Islamic Studies (I)	
Life Style	۲			
Islamic revolution of Iran	۲			
Islamic History	۲			
Quran - Nahjolbalaghah	۲			
Physical Education (I)		۱		
Physical Education (II)		۱	Physical Education (I)	
History of Islamic and Iranian Culture and Civilization	۲			
Knowledge of Family and Population	۲			
Introduction to Fundamentals of the Sacred Defense	۲			
Imam Khomeini's Statement of Will	۱			
Oral Presentation of Quran	۱			

