

CERAMIC ENGINEERING				
Main Courses				
Course Name	Credits		Prerequisite	Parallel
	T	P		
Mechanical properties of materials (Lab)		१	Mechanical Properties of Materials(I)	
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)
Novitiate		२		
General Workshop		१		
Crystallography	३			General Chemistry(I)
Fundamentals of Electrical Engineering	३			Physics(II)
Strength of Materials	३			Statics
Engineering Graphics	१			

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Main Courses				
Course Name	Credits		Prerequisite	Parallel
	T	P		
Porcelains Lab		१		Porcelains
Analysis Procedure Lab		१		Analysis of Ceramics
Glass (Lab)		१		Glass Theory
Production Procedure(I) Lab	२			Production Procedure(I)
Production Procedure(II) Lab	३			Production Procedure(II)
Production Procedure(III) Lab		३		Production Procedure(III)
Refractories Lab	३			Refractories
Technical Writing	३			
Porcelains	२		Production Process of Ceramic (III)	
Glass Theory	३		Ceramic Structure & Physical Properties of Materials(I)	
Optical and Electric Properties of Ceramics	३		Physics(II) & Transport Phenomena	
Thermal Properties of Ceramics		२	Physics(II) & Transport Phenomena & Ceramic Structure	
Analysis of Ceramics		१	Physical Properties of Materials(II)	
Ceramic Structure	३			
Materials Kinetic	३		Thermodynamic(I) & Engineering Mathematics	
Production Process of Ceramics(I)	२			
Production Process of Ceramics(II)	२		Production Process of Ceramics(I)	
Production Process of Ceramics(III)	२		Production Process of Ceramics(II) & Physical Properties of Materials(II) & Transport Phenomena	
Refractories	२		Production Process of Ceramics(III) & Physical Properties of Materials(II)	

CERAMIC ENGINEERING

Optional Courses

Course Name	Credits		Prerequisite	Parallel
	T	P		
Principal and Design of Industrial Furnaces	۲		Thermodynamics & Transport Phenomena	
Economics and Industrial Management	۲			
Electroceramics	۳		Optical and Electric Properties of Ceramics	
Glaze Theory	۲		Glass Theory	
Mechanical Properties of Ceramics	۲		Production Process of Ceramics(II) & Ceramic Structure & Mechanical Properties of Materials(I)	
English Language for Materials Engineering	۲		General English	
Building Ceramics	۲		Production Process of Ceramics(II) & Glaze Theory	
Engineering Ceramics	۳		Mechanical Properties of Materials(I)	
Colloidal Chemistry	۲		Production Process of Ceramics(I)	
Physical Chemistry of Cement	۲		Production Process of Ceramics(III)	
Advanced Materials	۲			
Mechanical Properties (II)	۲		Mechanical Properties of Materials(I)	

CERAMIC ENGINEERING 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)	

CERAMIC ENGINEERING				
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			

