

# CERAMIC ENGINEERING

## Main Courses

Course Name	Credits		Prerequisite	Parallel
	T	P		
Physiology	۳			
Physiology ( lab )		۱		Physiology
Anatomy	۲			
Medical Physics	۳		Physiology, Anatomy, Physics ۲	
Introduction to Biomedical Engineering	۳		Physiology, Anatomy, Medical Physics	
Medical Informatics ۱	۳		Introduction to Biomedical Engineering, Calculation algorithm	
Methodology and medical information systems	۲		Fundamentals of computing and networking	
Computer programming (web)	۲		Calculation algorithm	
Protection and safety and general standards of Hospital	۲		Introduction to Biomedical Engineering	
Engineering Mathematics	۳		Math ۲, Differential Equations	
Basic equipment Hospital and Medical Clinics	۲		Introduction to Biomedical Engineering	
Workshop Equipment General Hospital and Medical Clinics		۱		Basic equipment Hospital and Medical Clinics
public health	۱			
Rehabilitation of equipment and devices	۳		Introduction to Biomedical Engineering	
General principles and management of health services - medical	۲			
Principles of radiology and medical imaging	۳		Medical Physics	
Foreign Language Biomedical Engineering	۲		General English	Introduction to Biomedical Engineering

CERAMIC ENGINEERING	
Main Courses	

Course Name	Credits	Prerequisite	Parallel
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**CERAMIC ENGINEERING**  
**Courses required**

Course Name	Credits		Prerequisite	Parallel
	T	P		
General Chemistry	۳			
Static and Strength of Materials	۳		Math ۱, Physics ۱	
Organic Chemistry	۳		General Chemistry	
Thermodynamics	۳		Math ۱, Physics ۱	
Physical and mechanical properties of materials	۳		Physics ۱, General Chemistry	
General Chemistry ( lab )		۱		General Chemistry
Biochemistry	۳		Organic Chemistry	
Organic Chemistry ( lab )		۱	Organic Chemistry	
Fluid Mechanics	۲		Engineering Mathematics	
The phenomenon of heat and mass transfer	۳		Fluid Mechanics	
Foundations biocompatibility	۳		Biochemistry	
Forming process, synthesis and manufacture of biomaterials	۳		The phenomenon of heat and mass transfer, Introduction to the use of medical substances	
Principles of Tissue Engineering	۳		Foundations biocompatibility	
Biological testing and sterilization methods	۲		Foundations biocompatibility	



<p align="center"><b>CERAMIC ENGINEERING</b>  <b>Fundamental Courses</b></p>	
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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			