

RAJASTHAN TECHNICAL UNIVERSITY, KOTA
B. Tech. Scheme

Course	CERAMIC ENGG.	Code	CR
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SEMESTER III Subject Code	Title	Hrs. / Week			IA	Exam	Total
		L	T	P			
3CR1A	Ceramic Raw Materials and Characterization	3		Theory Subjects	20	80	100
3CR2A	Ceramic Processing	3			20	80	100
3CR3A	Materials Science	3	1		20	80	100
3CR4A	Electronic Measurement & Instrumentation	3			20	80	100
3CR5A	Theory of Solid Mechanics	3	1		20	80	100
3CR6A	Advanced Engg. Mathematics-1	3			20	80	100
3CR7A	Ceramic Raw Material & Characterization Lab	Practical laboratory courses		3	60	40	100
3CR8A	Mineralogy and Microscopy Lab		3		60	40	100
3CR9A	Electronics Measurement & Instrumentation Lab		3		45	30	75
3CR10A	Solid Mechanics & Machine Lab		3		45	30	75
3CRDC	Discipline & Extra Curricular Activity				0	0	50
Total		18	2	12			1000

SEMESTER IV Subject Code	Title	Hrs. / Week			IA	Exam	Total
		L	T	P			
4CR1A	Ceramic Analysis and Instrumentation	3		Theory Subjects	20	80	100
4CR2A	Heat and Mass Transfer	3	1		20	80	100
4CR3A	Particle and Fluid Mechanics	3			20	80	100
4CR4A	Electric Properties of Materials	3			20	80	100
4CR5A	Advanced Engg. Mathematics-2	3	1		20	80	100
4CR6A	Data Base Management System	3			20	80	100
4CR7A	Ceramic Analysis & Instrumentation Lab	Practical laboratory courses		3	60	40	100
4CR8A	Heat and Mass Transfer Lab		3		60	40	100
4CR9A	Particle and Fluid Mechanics Lab		3		45	30	75
4CR10A	Computer Programming Lab		3		45	30	75
4CRDC	Discipline & Extra Curricular Activity				0	0	50
Total		18	2	12			1000

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SEMESTER V Subject Code	Title	Hrs. / Week			IA	Exam	Total	
		L	T	P				
5CR1A	Red Clay (Terracotta) Technology	3		Theory Subjects	20	80	100	
5CR2A	Pottery & Heavy Clayware Ceramics	3			20	80	100	
5CR3A	Refractory	3			20	80	100	
5CR4A	Electro- Ceramics -1	3	1		20	80	100	
5CR5A	Glass and Glass Ceramics	3	1		20	80	100	
5CR6.1A	Fuels, Furnaces and Pyrometers	3			20	80	100	
5CR6.2A	Introduction to Nano-Technology							
5CR6.3A	Newer Machining Methods							
5CR7A	Red Clay Lab	Practical laboratory courses			3	45	30	75
5CR8A	Pottery & Heavy Clayware Lab				3	45	30	75
5CR9A	Refractory Lab			3	60	40	100	
5CR10A	Glass & Electro-Ceramic Lab			3	60	40	100	
					0	0		
5CRDC	Discipline & Extra Curricular Activity						50	
Total		18	2	12			1000	

SEMESTER VI Subject Code	Title	Hrs. / Week			IA	Exam	Total	
		L	T	P				
6CR1A	Thermodynamics and Phase Equilibria	3		Theory Subjects	20	80	100	
6CR2A	Thermal and Mechanical Properties of Ceramic Materials	3	1		20	80	100	
6CR3A	Electrical, Magnetic and Optical Properties of Ceramic Materials	3	1		20	80	100	
6CR4A	Cement Technology	3			20	80	100	
6CR5A	Ceramic Coating—Enamel & Glazes	3			20	80	100	
6CR6.1A	Industrial Economics & Factory Management	3			20	80	100	
6CR6.2A	History of Ceramic Science & Technology							
6CR6.3A	Thin Film & Coatings							
6CR7A	Ceramic Properties Lab	Practical laboratory courses			3	60	40	100
6CR8A	Ceramic Coatings Lab				3	60	40	100
6CR9A	Cement Lab			3	45	30	75	
6CR10A	Professional Ethics and Disaster Management			3	45	30	75	
					0	0		
6CRDC	Discipline & Extra Curricular Activity						50	
Total		18	2	12			1000	

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SEMESTER VII Subject Code	Title	Hrs. / Week			IA	Exam	Total
		L	T	P			
7CR1A	Traditional Ceramics & Processing Techniques	3		Theory Subjects	20	80	100
7CR2A	Advanced Ceramics & Processing Techniques	3			20	80	100
7CR3A	Electro Ceramics-2	3			20	80	100
7CR4A	Bio-Ceramics	3			20	80	100
7CR5A	Material Science & Engineering	3	1		20	80	100
7CR6.1A	Energy & Energy Management	3			20	80	100
7CR6.2A	Computer Programming & Application in						
7CR6.3A	Plant, Equipment and Furnace Design	Practical laboratory courses		3	45	30	75
7CR7A	Traditional Ceramic Processing Lab			3	45	30	75
7CR8A	Advanced Ceramic Processing Lab			3	30	20	50
7CR9A	Ceramic Equipment Design Lab-I				0	0	
7CRTR	Practical Training & Industrial visit			2		100	100
7CRPR	Project-I			2		50	50
7CRDC	Discipline & Extra Curricular Activity						
Total		18	1	13			1000

SEMESTER VIII Subject Code	Title	Hrs. / Week			IA	Exam	Total	
		L	T	P				
8CR1A	Science & Technology of Special Glasses	3		Theory Subjects	20	80	100	
8CR2A	Engineering Ceramic and Processing Techniques	3			20	80	100	
8CR3A	Engineering Ceramic Products and Abrasive	3			20	80	100	
8CR4.1A	Pollution Controls in Ceramic Industries	3			20	80	100	
8CR4.2A	Applications of Phase Diagram in Ceramic							
8CR4.3A	Fuel Cell & Batteries	Practical laboratory courses		3	30	20	50	
8CR5A	Special Glass Lab			3	30	20	50	
8CR6A	Engineering Ceramic Lab			3				100
8CR7A	Ceramic Equipment Design Lab-II			3	30	20	50	
8CR8A	Engineering Ceramic Processing Lab			2		120	80	200
8CRPR	Project-II			2		60	40	100
8CRSM	Seminar							
8CRDC	Discipline & Extra Curricular Activity						50	
Total		12	0	16			1000	