Name of Faculty : M.M EQBAL

Discipline : CERAMIC FABRICATION

Semester :2nd Sem.

Subject : CERAMIC FABRICATION

Lesson Plan Duration : 16 WEEKS

Work Load (Lecture / Practical) per week in hours : Lecture 4 hours Practical 4 hours

Week	Theory		Practical	
	Lecture Day	Topic (Including assignment/test)	Practic al Day	Торіс
1 st	1	Unit-1 Introduction to ceramic fabrication		Practical-1 Identification of ceramic raw material and additives
	2	1.1 Definition of fabrication		
	3	1.2 Classification of ceramic Fabrication process with example		Practical-1 Identification of ceramic raw material and additives
	4	2 Basic Raw Material & additives		
2nd	5	2.1 Clay- its role & Classification		Practical-2 Demonstration of Machinery used in the shaping & identification of tools according to use
	6	2.2 Properties and uses of clay		
	7	2.3 Quartz - its role , properties		Practical-2 Demonstration of Machinery used in the shaping & identification of tools according to use

	8	2.3 Quartz – its uses	
3rd	9	Feldspar - its role , properties	Practical-3 Prepares terracotta wall plates
	10	Feldspar - its uses	
	11	Additives its types	Practical-3 Prepares terracotta wall plates
	12	Additives its role	
4th	13	Water , Plasticizer	Practical-4 Prepare terracotta jewelry articles
	14	Binder	
	15	Deflocculants	Practical-4 Prepare terracotta jewelry articles
	16	Deflocculants	
5th	17	Lubricants	Practical-5 clay models having attachments/ projections
	18	Unit-2 3.1 Batch Preparation 3.1 Definition of batch preparation	
	19	Typical White ware body composition	Practical-5 clay models having attachments/ projections
	20	Dry mix , plastic	
6th	21	slip mix (flow diagram of body preparation)	Practical-6 Preparing a Bowl

	22	Demonstrate methods of body preparation by dry	
	23	Demonstrate methods of body preparation by wet method	Practical-6 Preparing a Bowl
	24	Enumerate the advantages and disadvantages of dry method	
7th	25	Enumerate the advantages and disadvantages of wet method	Practical-7 Shaping flower vase
	26	Explain Weathering	
	27	Explain Ageing	Practical-7 Shaping flower vase
	28	Blunger	
8th	29	Pugging / Explanation of pug mill (ordinary)	Practical-8 Fabricating pot
	30	Pugging / Explanation of pug mill (de - airing)	
	31	Unit-4 Shaping Illustrate the shaping process with sketches & constructional features of machinery for following processes : 4.1 Plastic Shaping - Hand moulding with potter's wheel	Practical-8 Fabricating pot
	32	Plastic Shaping - Jiggering & Jolleying	
9th	33	Plastic Shaping - Jolleying	Practical-9 Prepare a Triaxial batch composition for plastic pressing and fabricate an article.
	34	Semi - plastic Shaping - pressing	
	35	Extrusion	Practical-9 Prepare a Triaxial batch composition for plastic pressing and fabricate an article.
	36	turning	

10th	37	Dry Pressing study the Particle packing characteristics	Practical-10 Prepare a Triaxial batch composition for semi - plastic pressing and fabricate an article.
	38	Outline the important parameters of pressing (powder , die)	
	39	Outline the important parameters of pressing (pressure characteristics)	Practical-10 Prepare a Triaxial batch composition for semi -plastic pressing and fabricate an article.
	40	Stages of pressing	
11th	41	Types of presses : Toggle press , Fly press / screw press	Practical-11 Prepare single piece POP mould
	42	Friction press, Hydraulic press	
	43	Pneumatic Press	Practical-11 Prepare single piece POP mould
	44	Casting Slip	
12th	45	Slip casting (solid , hollow)	Practical-12 Prepare double triple piece POP mould

	46	Explain Surface finishing methods - Trimming , Smoothening	
	47	Unit-5 Drying & Firing 5.1 Definition and importance of drying in ceramics	Practical-12 Prepare double triple piece POP mould
	48	Definition and importance of drying in mechanism	
13th	49	Classification of driers - batch & continuous , for materials and products withexamples	Practical-13 Prepare slip and leave for ageing

	50	General sketch of drier and its working	
	51	Common drying defects with remedies . (warping ,)	Practical-13 Prepare slip and leave for ageing
	52	Common drying defects with remedies . (cracking , lamination)	
14th	53	Definition of firing , types of firing (biscuit)	Practical-14 Preparation of article by slip casting
	54	Definition of firing , types of firing (glost)	
	55	Types of furnaces	Practical-14 Preparation of article by slip casting
	56	Stages in firing	
15th	57	General sketch of furnace with working	Practical-15 Preparation of glaze
	58	UNIT- 6 . Process FLOW CHARTS Illustrate and explain general manufacturing process (dry & wet) of ceramic products with flow chart. Describe the following processes with flow diagram	
	59	Bone china plates by jiggering & Jolleying	Practical-16 Application of glaze
	60	Bone china cup by jiggering & jolleying	
16th	61	Ceramic cups by jolleying	Practical-17 Drying of slip casted wares
	62	Refractories	
	63	Refractories by semi - dry pressing,	Practical-18 Firing of wares
	64	Floor tiles by dry pressing	

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