

GUJARAT TECHNOLOGICAL UNIVERSITY

COURSE NAME : CERAMIC ART

1. RATIONALE

Ceramic art is essential to know the ideas of different types of sculpture and design made from the clays. This will provide the detail ideas for producing different types of models of ceramic products as well as a variety of decorative articles. This Curriculum aims to develop artistic ability in the students.

2. TRS & EO'S

TRS 1.1 Study the properties and uses of plaster of paris.

EOs : 1.1.1 Appreciate properties of Plaster of paris.

1.1.2 Enumerate uses of Plaster of paris.

1.1.3 Test workability of Plaster of paris.

1.1.4 Select Water : Plaster of paris ratio for given job.

TRS 1.2 Prepare Plaster of paris / metal models, master moulds and working moulds.

EOs : 1.2.1 Prepare working drawing to make given models.

1.2.2 Select suitable technique for making models, case moulds and working moulds.

1.2.3 Prepare models, case moulds and working moulds as per requirement (or for given Ceramic item product).

TRS 1.3 Prepare and interpret drawing of given Ceramic product.

EOs 1.3.1 Study size and utility of given Ceramic product.

1.3.2 Prepare detailed working drawing of given Ceramic product.

1.3.3 Show all measurements in the drawing.

TRS 1.4 Prepare painting to decorate the ceramic articles using proper method.

EOs 1.4.1 Select suitable design / picture for painting given ceramic product.

1.4.2 Select and use suitable method of application.

1.4.3 Prepare screen and ceramic colours for screen painting.

1.4.4 Paint the given ceramic product.

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3. TOPICS AND SUB-TOPICS

1 GYPSUM AND PLASTER OF PARIS

- 1.1 Types of gypsum
- 1.2 Characteristics of gypsum
- 1.3 Properties of gypsum
- 1.4 Method of preparation of plaster of Paris

2 PROPERTIES OF PLASTER OF PARIS

- 2.1 Types of Plaster of Paris
- 2.2 Determination of setting time, moisture content, grain size, Temperature raise, compressive strength accelerators and retarders, Factors influencing porosity.

3 MODELING

- 3.1 Introduction
- 3.2 Methods of making regular and irregular ceramic models by clay modeling and plaster of Paris modeling
- 3.3 Use of various types of modeling tools, rotating wheels and cutting tools.

4 METHODS OF PREPARING PLASTER OF PARIS MOULDS

- 4.1 Introduction
- 4.2 Methods of preparing plaster of Paris mixture
- 4.3 Machine used for blending plaster of Paris
- 4.4 Precautions required during preparing moulds.
- 4.5 Consideration of shrinkages during preparing plaster molds.

5 DECORATION AND DRAWING OF CERAMIC PRODUCTS

- 5.1 Introduction
- 5.2 Types of decoration
- 5.3 Methods of decorating
- 5.4 Ceramic articles
- 5.5 Methods of screen making and screen printing
- 5.6 Methods of preparing ceramic colour for screen printing
- 5.7 Drawing of Ceramic products
- 5.8 Precautions needed during decoration

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4. LABORATORY EXPERIENCES	hrs.
1. Preparation of one piece plaster of Paris moulds.	6
2. Preparation of two pieces plaster of pans moulds.	6
3. Preparation of Three pieces plaster of Paris moulds.	6
4. Study of manufacturing process of plaster of Paris from gypsum with flow chart	6
5. Preparation of case moulds of plaster of Paris	4
6. Industrial visit of plaster of Paris manufacturing unit.	4
7. Draw of plan and elevation of various ceramic wares	12
8. Draw free hand design of ceramic articles	6
9. Draws suitable design for glaze wall tiles and crockeries wares	6

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5. REFERENCES

1. A hand book of modern pottery manufacture by H.N.Bose
2. Potters on wheel