

IC (209)316 Ceramic Testing and Data Analysis

3(2/2-1/3)

Abbreviation CERAMIC TEST DATA ANAL

Prerequisite IC 211

This course is opened for MAJOR ELECTIVE COURSE

Course Description

Sampling, measurement of physical properties of ceramics, particle size analysis, chemical analysis, mineralogical analysis, thermal analysis, mechanical testing, tests on Plaster of Paris, and statistical analysis of data.

Objectives

1. Students will be able to understand principles of ceramic testing instruments and data analysis.
2. Students will be able to apply principle of ceramic testing for ceramic industry.

Course Content**Lecture Hours**

1. Sampling	2
2. Measurement of physical properties of ceramics	5
2.1 Moisture content	
2.2 Viscosity	
2.3 Shrinkage	
2.4 Density	
2.5 Color	
3. Particle size analysis	3
4. Chemical analysis	3
5. Mineralogical analysis	2
6. Thermal analysis	3
7. Mechanical testing	3
8. Tests on Plaster of Paris	3
9. Statistical analysis of data	6

Total 30

Laboratory Topics	Laboratory Hours
1. Sampling	3
2. Measurement of physical properties of ceramics	9
2.1 Moisture content	
2.2 Viscosity	
2.3 Shrinkage	
2.4 Density	
2.5 Color	
3. Particle size analysis	6
4. Chemical analysis	6
5. Mineralogical analysis	6
6. Thermal analysis	3
7. Mechanical strength	6
8. Tests on Plaster of Paris	6
Total	<hr/> 45 <hr/>