

IC (209)311 Silicate Science I

3(2/2-1/3)

Abbreviation -

Prerequisite IC 211

This course is opened for MAJOR ELECTIVE COURSE (PLAN I), MAJOR COMPULSORY COURSE (PLAN II)

**Course Description**

Atomic structure, bonding and crystal structure, silicate structure and non-silicate structure, glass structure, clay colloid, interaction of clay and water, behavior of clay in water and plastic behavior.

**Objectives**

1. Students will be able to understand basic science of silicate clay and behavior.
2. Students will be experienced with basic experiment involving science and behavior of silicate clay.

**Course Content****Lecture Hours**

1. Atomic structure, bonding and crystal structure
2. Silicate structure and non-silicate structure
3. Glass structure
4. Clay colloid
5. Interaction of clay and water
6. Behavior of clay in water
7. Plastic behavior

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 Total 30
 

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**Laboratory Topics****Laboratory hours**

1. Modeling of basic crystal structure
2. Modeling of silicate structure
3. Modeling of glass structure
4. Experiment of clay colloid
5. Experiment of clay in water
6. Experiment of plastic behavior

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 Total 45
 

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