

IC (209)413	Refractory	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

Introduction to refractory, silica, alumino-silicate, high-alumina, chrome-magnesia, zircon and zirconia, silicon carbide and silicon nitride, carbon and graphite, and monolithic refractories.

Objectives

1. Students will be able to understand characteristics, properties, and fabrication of refractory materials.
2. Students will be experienced with laboratory and development involving refractory products by using domestic raw materials.

Course Content

	Lecture Hours
1. Introduction to refractory	6
2. Silica refractory	3
3. Alumino-silicate refractory	3
4. High-alumina refractory	3
5. Chrome-magnesia refractory	3
6. Zircon and zirconia refractories	3
7. Silicon carbide and silicon nitride refractories	3
8. Carbon and graphite refractories	3
9. Monolithic refractories	3
Total	30

Laboratory Topics

	Laboratory hours
1. Classification and characteristics of refractory	3
2. Silica refractory	6
3. Alumino-silicate refractory	6
4. High-alumina refractory	6
5. Chrome-magnesia refractory	6
6. Zircon and zirconia refractories	6
7. Silicon carbide and silicon nitride refractories	3
8. Carbon and graphite refractories	3
9. Monolithic refractories	6
Total	45