



## Drying and Firing of Refractories: Course Outline

### ***Learn the fundamental and practical aspects of drying and firing of refractories***

*This course is an introduction to the field of drying and firing of refractories. It first addresses the basic concepts of drying and firing, including techniques to determine heat treatment schedules. Next, the firing behavior of the major refractory compositions are discussed, from raw material selection to microstructure development to final properties.*

<b><u>Lecture Number</u></b>	<b><u>Topics / Activities During Class</u></b>
Lecture 1	Drying / Binder Removal
Lecture 2	Solid State Sintering
Lecture 3	Solid State Sintering
Lecture 4	Liquid Phase Sintering
Lecture 5	Liquid Phase Sintering
Lecture 6	Sintering Variables
Lecture 7	Grain Growth
Lecture 8	Phase Transformations
Lecture 9	Alumina-Silica
Lecture 10	Basic
Lecture 11	Zircon And Zirconia
Lecture 12	Fused Cast
Lecture 13	Non-Oxide
Lecture 14	Composite
Lecture 15	Monolithic