

## Refractory Fundamentals Course Outline

- Definitions and Classifications
- Atomic Bonding
- Crystal Structures
- Polymorphic Forms
- Glasses
- Phase Diagrams
- Refractory Raw Materials
  - Silica
  - Alumina-Silica
  - Basic
  - Zirconia
  - Fused Cast
  - Non-Oxide
  - Composites
  - Insulation
  - Monolithics
- Refractory Applications
  - Iron and Steel
  - Nonferrous
  - Glass
  - Minerals
  - Ceramics
  - Petrochemical