



Course code	Course title
METRO 007	Metallurgy of Welding Processes

Prerequisites

Basic physics and chemistry, Metals and alloys.

Training Objectives

- Understanding the basics of welding processes
- Understanding the metallurgy of weld beads
- Understanding basics of welding modelling
- Develop a case history on welding on stainless steels

Summary

1. Metallurgy of welded joints
 - key-concepts of welding
 - molten zone,
 - heat affected zone,
 - parent metal
2. Review of Welding Processes
 - arc welding,
 - plasma welding,
 - laser and electron beam welding
3. Modelling of welding processes
 - analytical modelling
 - numerical modelling
4. Case history: Welding of Stainless Steels