



Welding Metallurgy of Aluminum Alloys

Fundamentals

2 day course – lectures and some laboratory examination

Alloy and temper designation systems, wrought products, cast alloys, powder metallurgy alloys, heat-treating, extrusion, metallographic methods, corrosion aspects, weldable and non-weldable grades

Welding Processes and Metallurgy

Commonly used welding processes such as GMAW, RW, SMAW, GTAW, EBW, PAW, FRW along with cleaning methods, weld and heat-affected zone microstructures, hardness values, shear strengths, porosity and cracking issues, fatigue properties, corrosion and stress-corrosion behavior

Newer Welding Processes For Improved Structural Integrity

Focused Current Resistance Welding (FCRW), significantly higher HAZ hardness values and structural strengths, dissimilar material welding

