THE OHIO STATE UNIVERSITY COLLEGE OF ENGINEERING

Resistance Welding Processes

WELDENG 7012

Credit Hours:

3.00 - 3.00

Course Levels:

Graduate (5000-8000 level)

Course Components:

Lecture Lab Independent Study

Course Description:

Addresses the fundamentals, theory, and application of Resistance Welding processes, with emphasis on processes, equipment, materials, and quality control.

Prerequisites and Co-requisites:

Prereq: 7002 or 4002, and Grad standing; or permission of instructor.

Course Goals / Objectives:

- Develop an understanding of the theories and fundamentals of Resistance Welding processes
- Understanding of Resistance Welding equipment details including power supplies and tooling
- Understanding of methods for quality control and mechanical testing of Resistance Welds
- Understanding of the Resistance Welding of important structural materials including carbon and low alloy steels, stainless steels, aluminum, and titanium
- Understanding of the Resistance Welding of coated steels including galvanized, aluminized, tin coated, and terne coated steels

Course Topics:

- Resistance Welding fundamentals.
- Resistance Welding equipment, tooling and power supplies.
- Resistance Welding of materials.
- Resistance Welding of coated steels.
- Resistance Welding quality, quality control, and testing.

Designation:

Elective