THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

Resistance Welding Processes

WELDENG 4012

Credit Hours:
3.00

Course Levels:
Undergraduate (1000-5000 level)

Course Components:
Lecture
Lab

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: 4002, and enrollment as WeldEng-BS major; 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