

Process Engineering for Machining Operations

ISE 3500

Credit Hours:

3.00 - 3.00

Course Levels:

Undergraduate (1000-5000 level)

Course Components:

Lecture

Lab

Course Description:

Introduction to the machines, tooling, set-ups, processing sequences, processing times, metrology, and safety issues for traditional and selected non-traditional metal cutting operations.

Prerequisites and Co-requisites:

Prereq: 2500, and enrollment in ISE major.

Course Goals / Objectives:

• The general goal of ISE 3500 is to introduce engineering students to the fundamentals of metal cutting processes.

Course Topics:

- Traditional and non-traditional machine tools and operations
- Work holding methods and cutting operation sequencing
- Cutting tool materials; speeds, feeds, depth of cut; machinability
- Dimensions, gauging, surface finish and integrity, cutting fluids
- CNC machining; active machine devices, G-coding

Designation:

Elective