



THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

Facility Layout and Integration

ENGRTEC 4300

Credit Hours:

3.00 - 3.00

Course Levels:

Undergraduate (1000-5000 level)

Course Components:

Lecture
Lab

Course Description:

Facility Layout and integration is a 3-hr course designed to give student skills needed to create effective layouts considering people, technology, process, throughput, and support systems. The class will build upon skills gained in previous classes in AutoCAD and Manufacturing Processes as well as use skills in analysis and design skills.

Prerequisites and Co-requisites:

Prereq: 3800.

Course Goals / Objectives:

- Students will understand throughput concepts as they relate to a production facility.
 - Students will understand core principals of facility layout from micro (workstation) and macro (material flow) perspective.
 - Students will understand various approaches to assembly processes and discern pros and cons.
 - Students will understand foundational concepts around material handling.
 - Students will work effectively in Teams
 - Students can create and present an effective facility layout balancing multiple considerations
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Course Topics:

- Layout Types, Reasons, Tours assessing facility requirements
 - Layout Analysis – Line Balancing, Spaghetti Diagram, VSM
 - Components – Workstations, Material Handling, Ancillary
 - Presentations
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Designation:

Required