

Bemidji State University

TADT 2877: Engineering Problem Solving

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: *.*

Lab Hours/Week: *.*

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

Investigates the terminology, concepts, and analytical techniques essential to solving complex problems which occur in manufacturing.

B. COURSE EFFECTIVE DATES: 08/22/2016 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Assembly Automation Guidelines
2. Designing for Assembly
3. Duality Documentation
4. Engineering Documentation
5. Manufacturing Economics
6. Manufacturing Processes
7. Plant Layout and Design
8. Product Design Cycle
9. Project Development/Management
10. Re-engineering, Implementing Change
11. Safety in Manufacturing

D. LEARNING OUTCOMES (General)

1. understand the nature of 'real world' manufacturing problems.
2. appreciate the importance of group/team problem solving in today's workplace.
3. recognize the significance and contribution of engineering resources to receive engineering problems, quality assurance, economics, human factors, and safety.
4. understand the design and communication requirements of modern manufacturing: engineering, tolerancing, and manufacturability.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted