Bemidji State University

IT 1220: Materials And Processes - Separating

A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: *.*

Lab Hours/Week: *.*

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

A comprehensive study of the separating processes which occur in manufacturing production. Traditional and non-traditional processes are introduced, along with the primary materials which are utilized in the separation processes.

B. COURSE EFFECTIVE DATES: 08/26/1997 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

- Processes as turning, drilling, milling, planing, surfacing, grinding, eroding, sawing, and non-traditional processes
- 2. Selected primary materials, along with testing and finishing techniques

D. LEARNING OUTCOMES (General)

- 1. gain an understanding of the major separating processes used in the manufacturing environment
- 2. experience several of the processes through actual use of equipment
- 3. understand the importance of safety in relation to separating processes
- 4. demonstrate oral and written communication skills that are adequate for successful performance in the program; s environment
- 5. describe and recommend appropriate materials
- 6. understand and apply a fundamental operational knowledge of processes used to produce components and finished products
- 7. understand and apply a fundamental understanding of safety
- 8. understand and apply a fundamental understanding of Maintenance
- 9. understand and apply the basic concepts of quality and quality assurance
- 10. demonstrate their ability to use a systematic method of problem solving and decision making
- 11. demonstrate the ability to function as a team to solve related problems
- 12. understand and apply construction, manufacturing, modeling, mechanical, electrical, electronic, and fluid energy concepts and calculations
- 13. understand and apply basic problem solving and design fundamentals as they relate to industrial problems including environmental and global concerns
- 14. demonstrate their ability to recognize ethical situations and make ethical decisions including environmental and global perspectives

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

None

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F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted

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