A. Course Description

Credits: 3  
Lecture Hours/Week: 2  
Lab Hours/Week: 2  
OJT Hours/Week: *.*  
Prerequisites: None  
Corequisites: None  
MnTC Goals: None  

An introduction to basic tools, common materials and processes will be covered. The various types of mechanical drives and their features will be discussed along with building and preventive maintenance programs. (Prerequisites: none) (3 credits: 1 lecture/2 lab)

B. Course Effective Dates: 02/01/2019 - Present

C. Outline of Major Content Areas

D. Learning Outcomes (General)

1. Describe maintenance tools  
2. Explain correct tool usage  
3. Explain rigging methods  
4. Inspect lifting apparatus  
5. Select appropriate lifting apparatus  
6. Calculate lifting weight  
7. Differentiate ladder and scaffold usage  
8. Describe scaffolding assembly  
9. Perform an elevated work task  
10. Analyze a lifting scenario  
11. Explain lubrication purposes  
12. Explain lubrication techniques  
13. Describe components and applications for oil lubricants  
14. Describe components and applications for grease lubricants  
15. Select lubricant  
16. Lubricate mounted and un-mounted bearings  
17. Calculate correct interval and quantity for re-lubrication  
18. List types and purposes of anti-friction bearings  
19. Differentiate ball and roller bearings  
20. Differentiate housed and naked bearings  
21. Select correct housing and shaft fit  
22. Read electrical wiring diagrams and symbols  
23. Select correct type belt drive  
24. Differentiate various types of drive belts
E. Minnesota Transfer Curriculum Goal Area(s) and Competencies
   None

F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted