Bemidji State University

TADT 3462: Computer Controlled Machining

A. COURSE DESCRIPTION
   Credits: 3
   Lecture Hours/Week: 0
   Lab Hours/Week: 0
   OJT Hours/Week: *.*
   Prerequisites: None
   Corequisites: None
   MnTC Goals: None
   Introduction to computer-controlled machining operations including manual programming and
   programming using CAM application for CNC (computer controlled machining). Emphasis on tools and
   materials are applied in a wide variety of manufacturing and modeling operations. Prerequisite: TADT
   2461.

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

C. OUTLINE OF MAJOR CONTENT AREAS
   1. Operation of HAAS & Milltronic CNC mills, Mastercam programming software - writing &
      operation, reading/writing g-code
   2. basics of fixture set-up/usage
   3. sequential steps of machining
   4. tool identification and set-up
   5. troubleshooting and maintenance

D. LEARNING OUTCOMES (General)
   1. utilize oral, written and communication skills in the course environment.
   2. apply functional computer skills; including software utilization and applications to solve technical
      problems.
   3. use and interpret thoughts and ideas in a graphic form.
   4. plan and apply construction, manufacturing, modeling, mechanical, concepts and calculations to
      construct drawings.
   5. apply a fundamental operational knowledge of drawing processes used to produce components and
      machined parts.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies
   None

F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted