Bemidji State University

TADT 4385: Sustainability and Emerging Technologies

A. COURSE DESCRIPTION

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

   A study of sustainability and the emerging technologies that support its major concepts in a laboratory-based course. Students will experience a variety of emerging technologies and understand how such content may be applied in design, engineering, manufacturing and/or the construction industries. Prerequisites: Junior status or consent of instructor.

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

C. OUTLINE OF MAJOR CONTENT AREAS

D. LEARNING OUTCOMES (General)

   1. analyze the components of emerging technologies in terms of sustainability.
   2. compare applications of emerging technologies used in engineering, manufacturing or construction applications.
   3. describe the principles of sustainability from a materials and processes perspective in engineering/manufacturing/construction applications.
   4. explain the economic and environmental benefits of adopting sustainability practices in a variety of engineering/manufacturing/construction applications.
   5. practice principles of sustainability to solve technological problems.
   6. synthesize potential applications for specific emerging technologies.

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

   None

F. LEARNER OUTCOMES ASSESSMENT

   As noted on course syllabus

G. SPECIAL INFORMATION

   None noted