MECHANICAL AND ELECTRICAL SYSTEMS — ARCT 2000

A. **Course Description**
   - **Credits:** 3.00
   - **Lecture Hours/Week:** 3.00
   - **Lab Hours/Week:** 0.00
   - **OJT Hours/Week:** 0
   - **Prerequisites:** None
   - **Corequisites:** None
   - **MnTC Goals:** None

   This course will introduce the student to electrical/lighting, plumbing, HVAC, and fire protection. The course will examine the integration of various building systems into building design and look at energy efficiency and other means of contributing to a building's sustainability.

B. **Course Effective Dates:** 8/27/12 – Present

C. **Outline of Major Content Areas**
   - As noted on course syllabus

D. **Learning Outcomes**
   1. Define junction box
   2. Define soil stack
   3. Describe electrical systems
   4. Describe energy efficient equipment
   5. Describe fire protection systems
   6. Describe types of light fixtures
   7. Determine duct system layout
   8. Determine lighting layout
   9. Determine registers and grills layout
   10. Draw electrical plan
   11. Examine HVAC systems
   12. Examine standard HVAC symbols
   13. Examine standard electrical symbols
   14. Study energy terms and definitions
   15. Study plumbing chase
16. Study plumbing system

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

F. Learner Outcomes Assessment
   As noted on course syllabus

G. Special Information
   None noted