METHODS AND MATERIALS II — ARCT 1540

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 examine the characteristics and properties of common, as well as new and sustainable, commercial building materials such as: concrete materials, formwork, reinforcement, steel frame construction, lightweight steel framing, metals, curtainwalls, etc. These methods and materials, including sustainable principles, will be applied to Studio II projects. Corequisite: ARCT1500.

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

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

D. Learning Outcomes
   1. Compare and contrast the various types of interior wall systems
   2. Define cavity wall
   3. Define coping
   4. Define rain screen
   5. Define weep
   6. Describe curtainwall
   7. Describe metal stud wall assembly ratings and sound control
   8. Describe stair construction
   9. Describe storefront
   10. Describe the factors that determine the strength of concrete
   11. Describe the types of aggregate available and their use in concrete
   12. Describe the various methods of fireproofing steel columns, beams and girders
   13. Describe the various types of welded wire fabric
   14. Explain interior partition framing systems: light gauge steel studs
15. Explain pre-stressed concrete, pre-tensioned concrete, and post-tension concrete
16. Explain the various methods of finishing concrete
17. Interpret manufacture's product specifications
18. Locate movement joints in masonry wall construction

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

F. Learner Outcomes Assessment

   As noted on course syllabus

G. Special Information

   None noted