

# Bemidji State University

## TADT 2252: Construction Materials and Methods

### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: \*.\*

Lab Hours/Week: \*.\*

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course is a broad study of materials and methods used in the building and the construction industry. Emphasizing common construction systems such as light wood frame, masonry bearing wall, steel frame, and reinforced concrete construction, including information on building materials properties; "pre-engineered" building components; sustainability issues; and the latest building codes and standards. Prerequisite: TADT 1460, TADT 2250 or consent of the instructor.

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

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Brick Masonry, and Stone and Concrete Masonry
2. Cladding with Metal and Glass
3. Concrete Forms, Footings and Flatwork
4. Designing Exterior Wall Systems
5. Exterior Finishes and Interior Finishes for Wood Light Frame Construction
6. Final Project/Final Due
7. Finish Ceilings and Floors
8. Interior Walls and Partitions
9. Introduction and Making Buildings
10. Masonry Wall Construction
11. Roofing, Glass and Glazing, Windows and Doors
12. Selecting Interior Finishes
13. Site Preparation and Documentation
14. Site-cast and Pre-cast Concrete Framing Systems
15. Steel Frame Construction, and Light Gauge Steel Frame Construction
16. Wood and Timber Framed Construction

#### **D. LEARNING OUTCOMES (General)**

1. . explore the relationship of different sustainable/green building rating systems, standards and codes.
2. . critique sustainable or green building materials, methods, tools, equipment, and structural systems as evident through discussions, projects and/or exams.
3. . design a project for the use of materials and methods judging the appropriate installation in a LEED project based on the completion of LEED documentation and LEED rating system.
4. . interpret print reading symbols and abbreviations for the successful completion of assignments.
5. . apply the appropriate construction materials and methods as evident in assignments, projects and/or exams.
6. . analyze case studies for their appropriateness of materials, methods, codes and standards as evident through discussions, projects and/or exams.

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

None

#### **F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

#### **G. SPECIAL INFORMATION**

None noted