



South Central College

ARCH 1203 Materials & Methods 2

Common Course Outline

Course Information

Description	An continued exploration of building assemblies used in construction. Common building methods such as concrete, structural steel, light-gauge steel framing, and membrane roofing are examined. Commercial applications of fabricated stair/railings and elevator systems are analyzed. A strong emphasis on architectural detail drafting and full unitization of software detail component libraries. Coordination and drafting of civil engineering information for commercial architecture is also included.
Total Credits	2
Total Hours	48

Types of Instruction

Instruction Type	Credits/Hours
Lecture	1/16
Lab	1/32

Pre/Corequisites

ARCH 1103 Materials & Methods 1
ARCH 1201 Studio 2

Institutional Core Competencies

Critical and Creative Thinking - Students will be able to demonstrate purposeful thinking with the goal of using a creative process for developing and building upon ideas and/or the goal of using a critical process for the analyzing and evaluating of ideas.

Course Outcomes

1. Explore the fundamentals of foundations (poured concrete)

Learning Objectives

Identify the basic components of a poured foundation system
Review reinforcing, insulating, waterproofing, and finishing for a building foundation
Draw/Draft poured foundation detail using CAD/BIM

2. Explore the fundamentals of structural steel construction

Learning Objectives

Identify the basic components of a steel structure
Discuss insulating, waterproofing, fireproofing, and finishing for structural steel
Draw/Draft structural steel detail using CAD/BIM

3. Explore the fundamentals of light-gauge steel framing

Learning Objectives

Identify the basic components in a light-gauge steel wall framing (interior and exterior)
Discuss insulating, waterproofing, fireproofing, and finishing for light-gauge steel
Draw/Draft light-gauge steel wall detail using CAD/BIM

4. Explore the fundamentals of a membrane roof system

Learning Objectives

Identify the basic components in a membrane roof assembly
Discuss insulating, waterproofing, and finishing for a membrane roof system
Draw/Draft a parapet roof detail using CAD/BIM

5. Explore the fundamentals of fabricated steel stair & railing construction

Learning Objectives

Identify the basic components steel stair & railing construction
Discuss design, layout, manufacture and finishing for a fabricated steel stair & railing
Draw/Draft a fabricated steel stair & railing detail using CAD/BIM

6. Explore the fundamentals of a commercial elevator system

Learning Objectives

Identify the basic components in elevator construction
Discuss design, layout, manufacture and finishing for a building elevator system
Draw/Draft a building elevator detail using CAD/BIM

7. Prepare a commercial building site plan for Architecture

Learning Objectives

Analyze civil engineering information for a commercial property
Analyze building design and layout it pertains to civil engineering and zoning laws
Draft an architectural site plan for a commercial building project

SCC Accessibility Statement

Disability Services provides accommodations and other supports to students with permanent and temporary disabilities that affect their SCC experience. Disabilities may include mental health (anxiety, depression, PTSD), ADHD, learning disabilities, chronic health conditions (migraine, fibromyalgia), sensory disabilities, and temporary disabilities (broken arm, surgery). Common accommodations are extended test time, private room for testing, audiobooks, and sign language interpreter.

Contact us: Faribault A116 (507) 332-5847. North Mankato E112 (507) 389-7222. ds@southcentral.edu
www.southcentral.edu/disability

Grading Scale

Each project, quiz, activity, and assignment will have an assigned possible number of points. Points will be awarded based on correctness of work. The total of all points earned will be divided by the maximum possible to determine a percentage. Late assignments will be accepted anytime until the semesters end **Any work handed in late (regardless of duration) will incur a 10% deduct from the grade for that instance.**

Grades will be based on the following percentage of points earned

A 92-100

A-	90-91.9
B+	87-89.9
B	83-86.9
B-	80-82.9
C+	77-79.9
C	73-76.9
C-	70-72.9

Note: Grades below 70% will not count towards degree completion, course must be repeated

D+	67-69.9
D	63-66.9
D-	60-62.9
F	Below 60

Attendance Expectation

Class attendance / participation contributes significantly to academic success. Students who attend classes regularly tend to earn higher grades and have higher passing rates in courses. Excessive absences may jeopardize your grades or even your ability to continue in this course. **Class participation will be part of your grade! The following will apply in all ARCH program courses:**

- An absence is excused ONLY if the student contacts the instructor BEFORE class.
- If you are absent from class for any reason, you are responsible for all missed work and for contacting the instructor promptly.
- Unexcused absences for 3 consecutive class sessions will reduce your final grade by 10% after the first occurrence and automatic course failure after the second occurrence. Overall attendance falling below 50% will result in automatic course failure.
- Online attendance is available at the instructor's discretion. It is reserved for extenuating circumstances and is NOT a replacement for attendance.