

# Construction Management (CM)

## Community and Technical College

Construction Management Program (<https://www.ctc.uaf.edu/programs/construction-management/>)  
907-455-2846

### CM F102 Methods of Building Construction

3 Credits

Offered As Demand Warrants

Introduces basic knowledge of building materials, technical specifications, techniques, and systems. Outlines structural systems, construction processes, and assemblies. Includes a field project student team research of current Alaskan building type.

**Lecture + Lab + Other:** 3 + 0 + 0

**Grading System:** Letter Grades with option of Plus/Minus

### CM F123 Codes and Standards

3 Credits

Offered As Demand Warrants

Provides an introduction and overview of the fundamental provisions of the building codes used for plan review, life-safety evaluation of buildings, and community development.

**Prerequisites:** CM F102; DRT F170.

**Lecture + Lab + Other:** 3 + 0 + 0

**Grading System:** Letter Grades with option of Plus/Minus

### CM F142 Mechanical and Electrical Technology

3 Credits

Offered As Demand Warrants

Introduces the basic mechanical and electrical systems required in all buildings for the safety, health, comfort, and convenience of the occupants. Emphasizes design criteria, code requirements and interpretation of construction drawings.

**Lecture + Lab + Other:** 3 + 0 + 0

**Grading System:** Letter Grades with option of Plus/Minus

### CM F163 Building Construction Cost Estimating

3 Credits

Offered As Demand Warrants

Presents methods and techniques for preparing accurate cost estimates for building construction projects. Emphasizes quantity surveys, productivity, bidding and negotiation procedures, and cost control systems.

**Prerequisites:** CM F102; DRT F170; MATH F151X.

**Lecture + Lab + Other:** 2 + 2 + 0

**Grading System:** Letter Grades with option of Plus/Minus

### CM F201 Construction Project Management

3 Credits

Offered As Demand Warrants

Examines construction project management methods and processes. Includes project delivery systems, contract agreements, contract general and supplementary conditions and contract administration procedures.

**Prerequisites:** CM F102; DRT F170.

**Lecture + Lab + Other:** 3 + 0 + 0

**Grading System:** Letter Grades with option of Plus/Minus

### CM F202 Project Planning and Scheduling

3 Credits

Offered As Demand Warrants

Examines concepts and methods for planning and scheduling of construction projects. Includes identifying work elements, analyzing resources, determining activity durations, preparing CPM schedules using computer scheduling software, preparing schedule updates and analyzing planning versus actual progress for cost control.

**Prerequisites:** CM F201; MATH F152X.

**Lecture + Lab + Other:** 2 + 2 + 0

**Grading System:** Letter Grades with option of Plus/Minus

### CM F205 Construction Safety

3 Credits

Offered As Demand Warrants

Examines safety and health practices for the construction industry. Includes developing and implementing construction project site-specific safety plans, analyzing the laws and regulations that govern safety, evaluating construction site hazards and environmental conditions and incident investigation and reporting.

**Prerequisites:** CM F201.

**Lecture + Lab + Other:** 3 + 0 + 0

**Grading System:** Letter Grades with option of Plus/Minus

### CM F213 Civil Technology

3 Credits

Offered As Demand Warrants

Outlines elements of civil design, including soils and soil mechanics, foundations, roads, and utilities using local, state and federal regulations. Students will also be introduced to elements of construction surveying.

**Prerequisites:** CM F102.

**Lecture + Lab + Other:** 3 + 0 + 0

**Grading System:** Letter Grades with option of Plus/Minus

### CM F231 Structural Technology

3 Credits

Offered As Demand Warrants

Examines structural theory and the physical principles that underlie structural behavior. Includes the use of materials in a manner to maintain structural stability against such natural forces as gravity, wind, snow and earthquakes. Covers connection detailing and code requirements for wood, steel and reinforced concrete.

**Prerequisites:** CM F102.

**Lecture + Lab + Other:** 3 + 0 + 0

**Grading System:** Letter Grades with option of Plus/Minus

### CM F263 Civil Construction Cost Estimating

3 Credits

Offered As Demand Warrants

Presents methods and techniques for preparing accurate cost estimates for earthwork, roads, highways, underground utilities and site work. Emphasizes quantity surveys, unit costs, production factors, bidding and construction equipment management.

**Prerequisites:** CM F213; MATH F152X.

**Lecture + Lab + Other:** 2 + 2 + 0

**Grading System:** Letter Grades with option of Plus/Minus

**CM F299 Construction Management Internship**

3 Credits

Offered As Demand Warrants

Places students in building construction offices related to student's educational program and occupational objectives. Direct supervision by contractor professional, program faculty and Career Services coordinator.

**Prerequisites:** Department approval.

**Lecture + Lab + Other:** 0 + 0 + 225

**Grading System:** Pass/Fail Grades