CONSTRUCTION MANAGEMENT (CM)

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

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

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

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

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

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

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

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

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

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

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