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