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*