

CM 3190: Sustainable Construction

3 Credit Hours

Prerequisite: CM 3180

This course will emphasize the techniques and methods of sustainable construction. Importance of a collaborative team effort from owners, architects, engineers, constructors, and consultants will be integrated into the course. Influences on the cost and schedule due to a sustainable construction project will be analyzed. Topics will include performance certification techniques for sustainable sites, water efficiency, energy & atmosphere, materials & resources, indoor environmental quality, innovation and design. MEP systems such as ventilation, air conditioning, heating, electrical lighting and building control systems will be covered from a sustainable perspective.

CM 3210: Applied Structures

4 Credit Hours

Prerequisite: CET 2200

A study of structural design analysis and design concepts used in steel and concrete construction. Topics include selection of structural systems and the design of columns, beams, and other structural components.

CM 3230: Heavy Materials & Temporary Structures

4 Credit Hours

Prerequisite: CET 2200

Materials commonly used and the various methods employed with an emphasis on heavy, civil and highway construction. An introduction to the materials, methods, and techniques associated with the design of temporary structures used to support construction operations such as shoring systems, cofferdams, underpinning, slurry walls, and construction dewatering systems. Lab exercises of heavy construction operations with emphasis on productivity enhancement focusing on an integrated approach to planning, modeling, analysis, and design of construction operations, and the use of simulation models and other analytical tools.

CM 3260: Temporary Structures

3 Credit Hours

Prerequisite: CM 2210

A study of structural design and analysis concepts of temporary structures used in the construction process. Topics include formwork design, scaffolding, and material handling equipment and staging.