TCM Construction Management

TCM 5330G Green Building and Sustainable Construction
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
This course is a study of advanced topics in green construction beginning with the philosophy behind sustainability related technology and its implementation. The course provides a thorough expansion on LEED (Leadership in Energy and Environmental Design) core concepts including construction and design for sustainable sites, water efficiency, energy & atmosphere, materials & resources, indoor environmental quality and innovation and design. The course also examines sustainable construction methodologies and their associated environmental impacts. Graduate students will be required to complete individual advanced level research in an area beyond the scope of the undergraduate requirements that demonstrates a higher level of mastery in the subject matter with additional required deliverables representative of graduate level work, as determined by the instructor.

Prerequisite(s): A minimum grade of "C" in TCM 1131 and TCM 2234 or permission of instructor.

Cross Listing(s): TCM 5330.

TCM 5431G Construction Cost Estimating
3 Credit Hours. 3 Lecture Hours. 1 Lab Hour.
This course includes methods and procedures for estimating costs of construction projects. Topics include types and purposes of estimates, direct and indirect costs, labor and equipment cost analysis, the CSI Masterformat, approximate estimates, and computerized estimating methods. Graduate students will be required to complete individual advanced level research in an area beyond the scope of the undergraduate requirements that demonstrates a higher level of mastery in the subject matter with additional required deliverables representative of graduate level work, as determined by the instructor.

Prerequisite(s): A minimum grade of "C" in TCM 3330 and TCM 3331 or permission of instructor.

Cross Listing(s): TCM 5431.

TCM 5433G Project Planning and Scheduling
3 Credit Hours. 2 Lecture Hours. 2 Lab Hours.
This course covers the fundamentals and techniques of planning and scheduling for construction projects. Topics include bar charts, Critical Path Method using both arrow and node networks, precedence networks, cost-time trade-offs, PERT, resource leveling, updating schedules during construction, project control, earned value method, lean construction principles and practices, and computerized scheduling techniques. Graduate students will be required to complete individual advanced level research in an area beyond the scope of the undergraduate requirements that demonstrates a higher level of mastery in the subject matter with additional required deliverables representative of graduate level work, as determined by the instructor.

Prerequisite(s): A minimum grade of "C" in STAT 2231 and TCM 1231 or permission of instructor.

Cross Listing(s): TCM 5433.