

CONSTRUCTION MANAGEMENT (ETCM)

ETCM 1363. Wood Frame Construction. 3 Hours.

This course is a study of materials and methods of wood frame construction found in residential and commercial construction focusing on aspects of load-bearing structural design elements. Instruction is given in the correct use of hand tools and machine tools, job safety, job-site controls, material handling, equipment, and application. Laboratory experiences include design and construction of a wood frame structure with elements typically found in residential construction. (2-2).

ETCM 2363. Architectural Design. 3 Hours.

This course consists of the development of a set of plans and specifications for a small residence.

Prerequisite: ETDD 1390 or ETDD 1361 or FACS 1360 or FACS 2364.

ETCM 2396. Special Topic. 3 Hours.

Individual study in specialized areas of Industrial Technology. To be directed and approved by the Construction Management advisor. This course is designed to be a multitopic course. The student can take the course under various special topics being offered.

ETCM 3368. Concrete/Masonry Construction. 3 Hours.

This course is a study of materials and methods of construction found in concrete and masonry structures. Concrete chemistry, mixing and placement equipment, testing, finishing techniques, reinforcing, formwork, specification, and job-site safety implementing these materials are studied. Laboratory experiences include batch sampling and testing and small group projects implementing concrete and masonry methods and materials. Sophomore standing.

Prerequisite: ETCM 1363.

ETCM 3370. Construction Technology II. 3 Hours.

This course focuses on non-structural construction typically found in cabinetry, trim, and furniture construction. Included is the study of woods, synthetic materials, hardware, and wood joinery. Instruction is given in the correct use of hand and machine tools, job safety, job-site controls, and material specification. Lab experiences include designing, planning, construction, and finishing of a piece of cabinetwork or furniture. Sophomore standing.

Prerequisite: ETCM 1363.

ETCM 3371. Civil Drafting. 3 Hours.

This course will consist of drafting techniques and requirements necessary for civil engineering offices. Topics include survey drafting, map drafting, topos, site plans, subdivision plats, profile drawings and other related topics. Sophomore standing.

Prerequisite: ETDD 1361 or ETDD 1390.

ETCM 3372. Construction Drafting. 3 Hours.

This course is a study of drafting techniques and requirements for the commercial and heavy construction industries and will add to the skill set of construction management students. Topics will include foundation design, commercial building design, structural detail, and premanufactured metal constructed building design. Demonstrations, student inquiry, in-class problem solving, and three dimensional (3D) modeling will be utilized. Sophomore standing.

Prerequisite: ETDD 1361 and ETEC 1371.

ETCM 4096. Directed Study. 1-6 Hours.

Arranged professional and developmental learning experiences incorporating a practical application of construction management skills and practices. To include internships, individual research and industry studies. Variable Credit (1-6).

Prerequisite: Sophomore standing.

ETCM 4330. Construction Mgt & Procedures. 3 Hours.

This course is designed to provide a general knowledge of construction applications and procedures. Emphasis is on site preparation, foundations, and concrete. Emphasis will be placed on the responsibility of general or prime contractors and specialty contractors. Students will be taught cost estimation and procedures for bidding. Junior standing.

Prerequisite: ETCM 1363 and ETDD 1361.

ETCM 4368. Building Materials. 3 Hours.

This course is devoted to the study of qualities, types, and sizes of materials such as lumber and other wood products, masonry, paint, hardware, ceramic and metal products. In addition cost estimates for materials and labor is studied by figuring the cost estimate of a small residence. Extensive use is made of actual samples and other visual aids. Prerequisite: ITEC 1361, ITEC 1340, and ITEC 1363. Junior standing.

ETCM 4369. Special Topic. 3 Hours.

Individual study in specialized areas of Construction Management. To be directed and approved by the Industrial Technology advisor. This course is designed to be a multitopic course. The student can take the course under various special topics being offered.

ETCM 4370. Construction Plans & Documents. 3 Hours.

This course is designed to give a clear insight into the particular problems of construction and proper construction procedures. The site selection, availability of services, grading, subsurface explorations to determine foundation needs, construction organization, and other activities of construction are presented in logical units.

Prerequisite: ETEE 1340, ETDD 1361, and ETCM 1363 or consent of instructor.

ETCM 4371. Building Information Modeling. 3 Hours.

This course focuses on current issues in the construction industry from a Building Information Modeling standpoint. This approach incorporates the integrated project delivery method, productivity measurement, digital modeling, and construction process modeling for construction scheduling.

Prerequisite: ETCM 2363 and ETCM 3372.