CONSTRUCTION MANAGEMENT TECHNOLOGY (CMT)

CMT 1213 Introduction to Construction
Description: Overview of the entire construction industry with emphasis on construction materials, methods and systems. Both building and heavy highway construction drawings and their interpretation. Same course as CMT 1214.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Engineering Technology

CMT 2203 Construction Drawings (for non-majors)
Description: Principles of graphic communication are applied to reading and drawing construction plans, with emphasis to fire protection systems. Does not meet CMT degree requirements. (Online course for non-CMT majors).
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Engineering Technology

CMT 2253 Printreading & BIM
Prerequisites: Grade of "C" or better in MATH 1513 or ALEKS score greater or equal to 60 or permission of instructor.
Description: Principles of 2D and 3D graphic communication are applied to reading and drawing construction plans. Techniques for measuring items of construction work from plans and specifications are also covered.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Engineering Technology

CMT 2263 Estimating I
Prerequisites: Grade of "C" or better in CMT 1213 and CMT 2253 and (MATH 1613 or MATH 1715 or ALEKS score greater or equal to 65) or permission of instructor.
Description: Quantity take-off with emphasis on excavation, formwork and concrete, masonry, rough carpentry and miscellaneous specialty items.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Engineering Technology

CMT 2351 Concrete Technology Lab
Prerequisites: Grade of "C" or better in CMT 1213 and CMT 2253, and CMT 2352 or concurrent enrollment in CMT 2352, or permission of department.
Description: Practical applications of material selection, proportioning, batching, mixing, conveying, placing, finishing, curing, and testing concrete. Previously offered as CMT 2343.
Credit hours: 1
Contact hours: Lab: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lab
Department/School: Engineering Technology

CMT 2352 Concrete Technology
Prerequisites: Grade of "C" or better in CMT 1213 and CMT 2253, and CMT 2351 or concurrent enrollment in CMT 2351 or permission of department.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Engineering Technology

CMT 3273 Scheduling Construction Projects
Prerequisites: Acceptance to the CMT Upper-Division or permission of department; grade of "C" or better in CMT 2263.
Description: Scheduling basics, including bar charts and critical-path methods; manual and computer techniques using current software; emphasis on using schedules for construction project management.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Engineering Technology

CMT 3322 Construction Practicum I
Prerequisites: Grade of "C" or better in CMT 1213 and CMT 2253, or permission of department.
Description: Supervised field experience in construction; 400 hours minimum documented time required. Previously offered as CMT 3331.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Undergraduate
Schedule types: Lecture
Department/School: Engineering Technology

CMT 3323 Theory of Built Structures
Prerequisites: A grade of "C" or better in (MATH 2123 or MATH 2144) and (GENT 2323 or ENSC 2113) and acceptance to the CMT Upper Division or permission of the department.
Description: The study of equilibrium of structural systems and stresses and strains that occur in structural members of the built environment.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Engineering Technology
CMT 3332 Construction Practicum II  
**Prerequisites:** Grade of "C" or better in CMT 2263, CMT 3322 and CIVE 3614 or permission of department.  
**Description:** Supervised temporary, full-time employment in construction, emphasizing field and office engineering and a variety of project management functions; 400 hours minimum documented time required. Previously offered as CMT 3333.  
**Credit hours:** 2  
**Contact hours:** Lecture: 2 Contact: 2  
**Levels:** Undergraduate  
**Schedule types:** Lecture  
**Department/School:** Engineering Technology  

CMT 3364 Structures I  
**Prerequisites:** Grade of "C" or better in (CMT 2343 or CMT 2351) and (CMT 3323 or GENT 3323 or ENSC 2143) and (MATH 2133 or MATH 2153) and (PHYS 1214 or PHYS 2114) and CMT 3322 and acceptance to the upper division.  
**Description:** Methods of structural analysis applicable to construction; design of timber structures and forms for concrete structures. Previously offered as CMT 3363.  
**Credit hours:** 4  
**Contact hours:** Lecture: 3 Lab: 2 Contact: 5  
**Levels:** Undergraduate  
**Schedule types:** Lab, Lecture, Combined lecture and lab  
**Department/School:** Engineering Technology  

CMT 3433 Principles of Site Development  
**Prerequisites:** Grade of "C" or better in CMT 2343, CIVE 3614 and CMT 3323 or GENT 3323 or ENSC 2143 and acceptance to Upper Division.  
**Description:** Site layout, vertical and horizontal control, surveying instrument adjustments, site investigations, excavations, site drainage and geotechnical considerations. Course previously offered as CMT 2333.  
**Credit hours:** 3  
**Contact hours:** Lecture: 2 Lab: 2 Contact: 4  
**Levels:** Undergraduate  
**Schedule types:** Lab, Lecture, Combined lecture and lab  
**Department/School:** Engineering Technology  

CMT 3463 Environmental Building Systems  
**Prerequisites:** Grade of "C" or better in (PHYS 1214 or PHYS 2114) and acceptance to the CMT Upper Division or permission of department.  
**Description:** Plumbing, heating, air-conditioning, electrical and lighting systems as applied to residences and commercial buildings.  
**Credit hours:** 3  
**Contact hours:** Lecture: 2 Lab: 2 Contact: 4  
**Levels:** Undergraduate  
**Schedule types:** Lab, Lecture, Combined lecture and lab  
**Department/School:** Engineering Technology  

CMT 3554 Structures II  
**Prerequisites:** Grade of "C" or better in 3364 and acceptance to the CMT Upper Division.  
**Description:** Analysis and design of elements in steel and reinforced concrete structures; review of shop drawings for both types of construction. Course previously offered as CMT 3553.  
**Credit hours:** 4  
**Contact hours:** Lecture: 3 Lab: 2 Contact: 5  
**Levels:** Undergraduate  
**Schedule types:** Lab, Lecture, Combined lecture and lab  
**Department/School:** Engineering Technology  

CMT 4050 Advanced Construction Management Problems  
**Description:** Special problems in construction management. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.  
**Credit hours:** 1-6  
**Contact hours:** Contact: 1-6 Other: 1-6  
**Levels:** Undergraduate  
**Schedule types:** Independent Study  
**Department/School:** Engineering Technology  

CMT 4263 Estimating II  
**Prerequisites:** Grade of "C" or better in EET 1003, CMT 2263 and GENT 2323 or ENSC 2113; acceptance to the CMT Upper Division or permission of department.  
**Description:** Extensive use of actual contract documents for quantity take-off, pricing and assembling the bid for several projects. Use of computers in estimating.  
**Credit hours:** 3  
**Contact hours:** Lecture: 3 Contact: 3  
**Levels:** Undergraduate  
**Schedule types:** Lecture  
**Department/School:** Engineering Technology  

CMT 4273 Technology in Construction  
**Prerequisites:** Acceptance to the CMT Upper Division; grade of "C" or better in ACCT 2103, CMT 3273 and CMT 4563; or permission of department.  
**Description:** Applications of various technologies including software for construction.  
**Credit hours:** 3  
**Contact hours:** Lecture: 3 Contact: 3  
**Levels:** Undergraduate  
**Schedule types:** Lecture  
**Department/School:** Engineering Technology  

CMT 4283 Business Practices for Construction  
**Prerequisites:** Acceptance to the CMT Upper Division; grade of "C" or better in ACCT 2103, CMT 3273 and CMT 4563; or permission of department.  
**Description:** Principles of management applied to construction contracting; organizing office and field staff; bonding, liens, financial management practices; introduction to the construction manager concept; schedule of values; construction billings.  
**Credit hours:** 3  
**Contact hours:** Lecture: 3 Contact: 3  
**Levels:** Undergraduate  
**Schedule types:** Lecture  
**Department/School:** Engineering Technology  

CMT 4293 Construction Manager Concepts  
**Prerequisites:** Grade of "C" or better in CMT 3332 and CMT 4283 and CMT 3364 and ENGL 3323 and acceptance to the CMT Upper Division or permission of department.  
**Description:** Capstone course utilizing skills and knowledge of estimating, scheduling, bidding, construction management, CAD, TQM, partnering and safety; includes topics in leadership, motivation and the use of current project management software.  
**Credit hours:** 3  
**Contact hours:** Lecture: 3 Contact: 3  
**Levels:** Undergraduate  
**Schedule types:** Lecture  
**Department/School:** Engineering Technology
CMT 4333 Equipment Management for Constructors
Prerequisites: Grade of "C" or higher in CMT 2263, CMT 2343 and ACCT 2103 and acceptance to the CMT Upper Division or permission of department.
Description: Selection and use of equipment, estimating equipment costs, estimating equipment production rates for all types of equipment used in building construction and heavy/highway construction.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Engineering Technology

CMT 4443 Construction Safety and Loss Control
Prerequisites: Must be accepted to the CMT Upper Division or obtain department permission.
Description: A detailed study of OSHA Part 1926 - Construction Safety and Health Compliance and related safety topics including topics related to the OSHA 30-hour training program; concepts and methods of loss control.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Engineering Technology

CMT 4533 Heavy Civil Construction and Estimating
Prerequisites: Grade of "C" or better in CMT 4263 and (CMT 2343 or CMT 2351) and acceptance to the CMT Upper Division or permission of department.
Description: Theory and application of contractor estimating and bidding procedures used in heavy and highway construction projects.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Engineering Technology

CMT 4563 Construction Law and Insurance
Prerequisites: A grade of "C" or better in CMT 3322 and SPCH 2713 and acceptance to the CMT Upper Division or permission of the department.
Description: Legal and insurance problems as they pertain to the construction industry.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Undergraduate
Schedule types: Lecture
Department/School: Engineering Technology