

# CONSTRUCTION (CONS)

## CONS 131 Introduction Const Development (3 Credits)

Construction Methods and Materials I (2) Introduction to the overall construction industry with emphasis on practices, methods, and materials used in various building disciplines. Construction processes also discussed. Two hours of lecture per week. Corequisite: CONS 131L.

**College/School:** Col of Science, Engr & Tech

**Department:** Dept of Industrial Tech

## CONS 141 Construction Materials & Application (3 Credits)

Sources, properties, acceptable and recommended applications of industrial materials in the construction industry. Two hours of lecture per week. Prerequisite: CONS 131. Corequisite: CONS 141L.

**Prerequisite(s):** (CONS 131)

**College/School:** Col of Science, Engr & Tech

**Department:** Dept of Industrial Tech

## CONS 141L Const Meth & Materials II Lab (0 Credits)

Construction Methods and Materials II Laboratory (1) Laboratory exercises in masonry and concrete construction. Two hours of laboratory per week. Prerequisite: CONS 131L. Corequisite: CONS 141.

**Prerequisite(s):** CONS 131L

**College/School:** Col of Science, Engr & Tech

**Department:** Dept of Industrial Tech

## CONS 242 Framing Principles (1 Credits)

Framing Principles (1) Foundation and wall framing techniques essential to residential and light commercial construction and construction details involving form building, bracing, steps, and geometry of roofing systems. One hour of lecture per week. Prerequisite: CONS 131. Corequisite: CONS 242L.

**Prerequisite(s):** CONS 141

**College/School:** Col of Science, Engr & Tech

**Department:** Dept of Industrial Tech

## CONS 242L Framing Principles Lab (2 Credits)

Framing Principles Laboratory (2) Laboratory exercises in foundation and wall framing techniques and construction details for residential and light commercial construction. Four hours of laboratory per week. Prerequisite: CONS 131L. Corequisite: CONS 242.

**College/School:** Col of Science, Engr & Tech

**Department:** Dept of Industrial Tech

## CONS 243 Energy Effcn in Const (3 Credits)

Energy Efficiency and Construction (1) Sizing, designing, and laying out of electrical and mechanical systems for maximum efficiency in residential and light commercial buildings. Solar and earth energy emphasized. One hour of lecture per week. Prerequisite: CONS 242. Corequisite: CONS 243L.

**Prerequisite(s):** CONS 242

**College/School:** Col of Science, Engr & Tech

**Department:** Dept of Industrial Tech

## CONS 243L Energy Effcn Const Lab (2 Credits)

Energy Efficiency and Construction Laboratory (2) Practices in sizing, designing, and laying out of electrical and mechanical systems for maximum efficiency in residential and light commercial buildings. Four hours of laboratory per week. Prerequisite: CONS 242L. Corequisite: CONS 243.

**Prerequisite(s):** CONS 242L

**College/School:** Col of Science, Engr & Tech

**Department:** Dept of Industrial Tech

## CONS 244 Construction Safety (3 Credits)

Construction Safety (3) Examination of specialized procedures in health, safety, and environmental protection and lost prevention for the construction industry. Requirements of OSHA and other federal and state standards and regulations emphasized. Three hours of lecture per week.

**College/School:** Col of Science, Engr & Tech

**Department:** Dept of Industrial Tech

## CONS 331 Models & Presentations (3 Credits)

Models and Presentations (3) Three-dimensional requirements for models using computer-aided drafting techniques and cardboard, plastic, and wood media. Plan reading, scaling, and sketching emphasized. One hour of lecture and four hours of laboratory per week. Prerequisites: DRFT 336, CONS 242, and CONS 242L.

**Prerequisite(s):** (DRFT 133 and DRFT 232 and CONS 242)

**College/School:** Col of Science, Engr & Tech

**Department:** Dept of Industrial Tech

## CONS 333 Quantity Surveying (3 Credits)

Quantity Surveying (3) Quantity surveying for construction and engineering along with bid preparation and analysis where computer applications are emphasized. Two hours of lecture and two hours of laboratory per week. Prerequisite: Consent of the instructor.

**Prerequisite(s):** (CONS 242 and DRFT 133)

**College/School:** Col of Science, Engr & Tech

**Department:** Dept of Industrial Tech

## CONS 334 Concrete Technology (3 Credits)

Concrete Technology (3) Methods for forming concrete, concrete elements and handling, and reinforced concrete. One hour of lecture and four hours of laboratory per week. Prerequisites: CONS 242, CONS 242L, and DRFT 336.

**Prerequisite(s):** (CONS 242 and DRFT 133)

**College/School:** Col of Science, Engr & Tech

**Department:** Dept of Industrial Tech

## CONS 341 MEPFI Systems (3 Credits)

Essentials of Plumbing (3) Study of tools, equipment, and plumbing systems for various job types. Fixture selection and installation emphasized. One hour of lecture and four hours of laboratory per week. Prerequisite: Consent of the instructor.

**Prerequisite(s):** (CONS 242 and DRFT 232)

**College/School:** Col of Science, Engr & Tech

**Department:** Dept of Industrial Tech

## CONS 344 Const Mgmt I (3 Credits)

Construction Management I (3) Study of the principles of construction systems management with emphasis on stages of construction, management information systems, and operations management. One hour of lecture and four hours of laboratory per week. Prerequisites: CONS 331 and CONS 334.

**Prerequisite(s):** CONS 334

**College/School:** Col of Science, Engr & Tech

**Department:** Dept of Industrial Tech

## CONS 433 Estimating (3 Credits)

Estimating (3) Instruction in making materials and labor estimates for residential and light commercial buildings primarily from the use of working drawings. One hour of lecture and four hours of laboratory per week. Prerequisites: CONS 242, CONS 242L, and DRFT 232 or the equivalents.

**Prerequisite(s):** (CONS 242 and DRFT 232 and CONS 333)

**College/School:** Col of Science, Engr & Tech

**Department:** Dept of Industrial Tech

**CONS 435 Contracts & Specs (3 Credits)**

Contracts and Specifications (3) Legal aspects of contracts, specifications, and legal documents along with bidding procedures. Students required to develop contract documents and specifications. Two hours of lecture and two hours of laboratory per week. Prerequisites: Senior standing and consent of the Faculty Chair or instructor.

**College/School:** Col of Science, Engr & Tech

**Department:** Dept of Industrial Tech

**CONS 436 Const Mgmt II (3 Credits)**

Construction Management II (3) Management functions by which construction projects are authorized, financed, supervised, and closed out. Emphasis on the development of effective supervisory and managerial techniques using computer databases. Two hours of lecture and two hours of laboratory per week. Prerequisite: Senior standing or consent of the instructor.

**College/School:** Col of Science, Engr & Tech

**Department:** Dept of Industrial Tech

**CONS 437 Const Problems (3 Credits)**

Construction Problems (3) Independent, in-depth study and analysis of special problems related to construction where students must use critical and creative thinking skills for formulating solutions. Three hours of lecture per week. Prerequisites: Senior standing and consent of the instructor.

**College/School:** Col of Science, Engr & Tech

**Department:** Dept of Industrial Tech

**CONS 451 Mechanical Systems (3 Credits)**

Mechanical Systems (3) Principles of air conditioning and heating systems used in commercial and residential buildings with emphasis on planning and designing systems. One hour of lecture and four hours of laboratory per week. Prerequisite: Consent of the instructor.

**College/School:** Col of Science, Engr & Tech

**Department:** Dept of Industrial Tech

**CONS 475 Facilities management (3 Credits)**

Facilities Operations (3) Techniques in the overall operation and maintenance of facilities such as schools, housing projects, and municipal buildings. Structural, supervision, and life cycle costing using computer applications emphasized. Two hours of lecture and two hours of laboratory per week. Prerequisite: Consent of the instructor.

**College/School:** Col of Science, Engr & Tech

**Department:** Dept of Industrial Tech