

# CONSTRUCTION TECHNOLOGY (CNBT)

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## **CNBT 1210 Basic Construction Safety 2 Credits (2 Lec, 0 Lab)**

This course provides an introduction to basic job site construction safety in residential, commercial, and industrial construction. This course is equivalent to courses by the Occupational Safety and Health Administration of thirty (30) hours of training.

Course Type: Technical

## **CNBT 1311 Construction Methods & Materials I 3 Credits (3 Lec, 0 Lab)**

This course provides an introduction to construction materials and methods and their applications.

Course Type: Technical

## **CNBT 1315 Field Engineering I 3 Credits (2 Lec, 2 Lab)**

This course will focus on surveying equipment, sketches, proper field note taking, methods of staking, layout of building sites, and horizontal and vertical controls at a construction site.

Course Type: Technical

## **CNBT 1342 Building Codes and Inspections 3 Credits (3 Lec, 0 Lab)**

This course is a study of building codes, standards applicable to building construction, and inspection processes.

Course Type: Technical

## **CNBT 1346 Construction Estimating I 3 Credits (2 Lec, 2 Lab)**

This course is a study of fundamentals of estimating materials, equipment, and labor costs in construction.

Prerequisite(s): CNBT 1311, CNBT 2310, CNBT 2342

Course Type: Technical

## **CNBT 1372 Industrial Field Engineering 3 Credits (3 Lec, 0 Lab)**

This course covers the role and duties of the field engineer as a common early assignment for recent construction management graduates. It covers the role and responsibilities of the field engineer. The control of engineering documentation, quality assurance, quality control (field testing) and an introduction to in plant surveying and dimensional control.

Course Type: Technical

## **CNBT 1442 Building Codes and Inspections 4 Credits (4 Lec, 0 Lab)**

This course is a study of building codes, standards applicable to building construction, and inspection processes.

Course Type: Technical

## **CNBT 1446 Construction Estimating I 4 Credits (3 Lec, 3 Lab)**

This course is a study of the fundamentals of estimating materials, equipment, and labor costs in construction.

Course Type: Technical

## **CNBT 2266 Practicum-Construction Technology 2 Credits (0 Lec, 20 Lab)**

This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Direct supervision is provided by a faculty member or worker supervisor. A practicum may be a paid or unpaid learning experience. The job description for the worksite must relate to the general curriculum of the Construction Management program.

Prerequisite(s): CNBT 1210, CNBT 2310, CNBT 2342

Course Type: Technical

## **CNBT 2310 Commercial/Industrial Blueprint Reading 3 Credits (2 Lec, 2 Lab)**

This course provides an introduction to blueprint reading for commercial/industrial construction. Topics of study will include architectural and engineering scales, blueprint symbols and abbreviations, interpreting a set of commercial/industrial construction contract documents, and correlation of elevations, selections, details, plan views, schedules, and general notes.

Course Type: Technical

## **CNBT 2315 Construction Specifications and Contracts 3 Credits (3 Lec, 0 Lab)**

This course is an overview of the legal aspects of written construction documents.

Course Type: Technical

## **CNBT 2335 Computer-Aided Construction Scheduling 3 Credits (2 Lec, 2 Lab)**

This course provides a study of advanced construction scheduling utilizing computer scheduling software to perform various scheduling procedures.

Course Type: Technical

## **CNBT 2340 Mechanical, Plumbing and Electrical Systems in Construction II 3 Credits (2 Lec, 2 Lab)**

This course is a study of the processes and methods used in design, selection of equipment, and installation of mechanical, plumbing, and electrical systems in commercial buildings. Topics of study will include heating and cooling systems, duct work, mechanical and electrical control systems, lighting requirements, and design of water supply and sanitary sewer systems.

Course Type: Technical

## **CNBT 2342 Construction Management I 3 Credits (3 Lec, 0 Lab)**

This course is an overview of the construction industry and management skills on the job site. Topics of study will include written and oral communications, leadership and motivation, problem solving, and decision making.

Course Type: Technical

## **CNBT 2344 Construction Management II 3 Credits (3 Lec, 0 Lab)**

This course is a management course in contract documents, safety, planning, scheduling, production control, and law and labor issues. Topics of study include contracts, planning, cost and production peripheral documents, and costs and work analysis.

Prerequisite(s): CNBT 1346, CNBT 1210, CNBT 2310, CNBT 2335, CNBT 2342

Course Type: Technical

**CNBT 2366 Practicum-Construction Technology 3 Credits (0 Lec, 21 Lab)**

This course is a practical, general workplace training supported by an individual learning plan developed by the employer, college, and student. Direct supervision is provided by a faculty member or worker supervisor. A practicum may be a paid or unpaid learning experience. The job description for the worksite must relate to the general curriculum of the Construction Management program.

Prerequisite(s): CNBT 2310 or department chair approval

Course Type: Technical

**CNBT 2371 Equipment, Piping, and Materials 3 Credits (2 Lec, 3 Lab)**

This course covers all of the elements found on the Piping and Instrumentation Diagram (P&ID). It is an introduction to the various types of equipment, the piping systems, and the other materials used in industrial processes.

Course Type: Technical

**CNBT 2372 Industrial Project Execution 3 Credits (2 Lec, 3 Lab)**

This course provides the tools to be useful in the planning for an industrial project. It introduces the basic project control tools: Work Breakdown (WBS), organization chart, cost, schedule, and productivity. It focuses on the big picture of the project, but focuses on the construction phase and includes facilities, staff, materials, craft manpower, subcontractors, fabricators, and construction equipment.

Course Type: Technical

**CNBT 2410 Commercial/Industrial Blueprint Reading 4 Credits (3 Lec, 3 Lab)**

This course focuses on blueprint reading for commercial/industrial construction.

Course Type: Technical

**CNBT 2435 Computer-Aided Construction Scheduling 4 Credits (3 Lec, 3 Lab)**

This course provides a study of advanced construction scheduling utilizing computer scheduling software to perform various scheduling procedures.

Course Type: Technical

**CNBT 2440 Mechanical, Plumbing and Electrical Systems in Construction II 4 Credits (3 Lec, 2 Lab)**

This course is a study of the processes and methods used in design, selection of equipment, and installation of mechanical, plumbing, and electrical systems in commercial buildings. Topics of study will include heating and cooling systems, duct work, mechanical and electrical control systems, lighting requirements, and design of water supply and sanitary sewer systems including methods and materials used in buildings to conserve water, electricity, and natural gas.

Course Type: Technical

**CNBT 2471 Equipment, Piping and Materials 4 Credits (3 Lec, 2 Lab)**

This course covers all of the elements found on the Piping and Instrumentation Diagram (P&ID). It is an introduction to the various types of equipment, the piping systems, and the other materials used in industrial processes.

Course Type: Technical

**CNBT 2472 Industrial Project Execution 4 Credits (3 Lec, 2 Lab)**

This course provides the tools to be useful in the planning for an industrial project. It introduces the basic project control tools: Work Breakdown Structure (WBS), organization chart, cost, schedule, and productivity. It focuses on the big picture of the project, but focuses on the construction phase and includes facilities, staff, materials, craft manpower, subcontractors, fabricators, and construction equipment.

Course Type: Technical