CNST A170: INTRODUCTION TO CONSTRUCTION

Item	Value
Curriculum Committee Approval Date	12/02/2020
Top Code	095200 - Construction Crafts Technology
Units	3 Total Units
Hours	54 Total Hours (Lecture Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S), • Pass/No Pass (B)

Course Description

Fundamentals of the construction industry; terminology and procedures; an overview of trades, skills, and processes. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Describe the construction process including the construction industry management organization and the subcontracting elements.
2. Describe the bidding process, contract award process and construction labor management relations.
3. Identify the different types of construction.

Course Objectives

- 1. Understand to the construction process
- 2. Describe the bidding and contract award process.
- 3. Describe the construction labor management relations.
- 4. Recognize types of construction surveys and maps.
- 5. Describe the design and engineering steps in building construction
- 6. Differentiate different construction materials used in various types of buildings.
- 7. Review construction drawings and specifications.
- 8. Understand construction scheduling and purchasing.
- 9. Recognize the different types of construction equipment and their application.
- 10. Recognize different foundation types and their construction steps.
- 11. Recognize the different building construction types.

Lecture Content

Introduction Objectives City and regional planning Factors Planning community services Housing people Planning business facilities Planning schools and recreational facilities The economics of community development Managing community development Construction Management Management activities Beginning the project Construction contracting Selecting a builder Contracting Working as a contractor Transferring the project Servicing property Financing and contracting Labor management relations Collective bargaining Hiring construction personnel Training and educating for construction Working conditions Advancing in construction Handling grievances Mediating and arbitrating Striking Surveying and mapping Types of surveys Locating the structure Designing and engineering Soil testing Designing and engineering construction projects Identifying the design problem Developing preliminary ideas Refining ideas Analyzing the design Selecting the design The designing and engineering cycle Construction materials Setting reinforcement Mixing concrete Roofing Enclosing exterior walls Insulating Applying wall materials Applying ceiling materials Laying floors Construction drawings and specifications Working drawings Writing specifications Estimating and bidding Scheduling and purchasing Construction equipment Construction production technology Getting ready to build Clearing the site Earthmoving Stabilizing earth and structures Foundations Setting foundations Building forms Placing and finishing concrete Completing foundations Structures Building superstructures Building mass and masonry superstructures Erecting steel frames Erecting concrete frames Building wood frames Utilities Installing utilities Installing heating, cooling, and ventilating systems Installing plumbing systems Installing piping systems Installing electrical power systems Installing electrical communication systems

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)

Instructional Techniques

Instruction methodologies will include, but not necessarily be restricted to, the following: 1. Detailed multimedia/lectures of each topic covered. 2. Student feedback during each lecture. 3. Detailed illustrative discussion of lecture handout and textbook information. 4. Guest speakers from the construction industry.

Reading Assignments

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Writing Assignments

Essay assignments, report preparation, and projects

Out-of-class Assignments

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Demonstration of Critical Thinking

Quizzes, exams, short answers, and reports

Required Writing, Problem Solving, Skills Demonstration

Essay assignments, report preparation, and projects

Textbooks Resources

1. Required Lux; Ray, W. E. and D. G. . . Introduction to Construction, ed. Washington: National Association of Women in Construction (NAWC), 2002 Rationale: -