

CONT 101

Construction Blueprint Reading

3 Credits

Community College of Baltimore County Common Course Outline

Description

CONT 101 – Construction Blueprint Reading: introduces orthographic projection, terminology, dimensioning, symbols, working to scales, schedules, material lists and details, pictorial representation, and basic parallel projection drafting techniques. The diverse areas requiring the reading and/or interpretation of blueprints related to the construction industry are reviewed. An introduction of how to interpret electrical and electronic schematics is provided.

Overall Course Objectives

Upon completion of this course, students will be able to:

1. explain the critical nature of the use of blueprints in commercial and residential construction;
2. recognize the separate disciplines that are integrated to produce a set of buildable plans;
3. measure dimensions with regard to plumbing, HVAC, structural and electrical building systems;
4. interpret basic architectural symbols with regard to plumbing, HVAC, structural and electrical building systems;
5. apply basic units of measurement of materials and dimensions needed for construction;
6. perform basic math functions needed for construction;
7. identify the materials needed to construct a building from a set of plans;
8. demonstrate knowledge of the basic architectural views (plan, elevation, and section);
9. contrast the differences between rendering and orthographic drawings;
10. explain the various components and interconnections of electronic and electrical systems when given a schematic; and
11. interpret a variety of construction prints and schematics related to building foundations, framing, plumbing, mechanical, electrical, electronics, masonry, and HVAC.

Major Topics

- I. Construction drawings
- II. Reading measuring tools
- III. Mathematics review
- IV. Lines and symbols
- V. Freehand technical sketching
- VI. Pictorial drawings
- VII. Orthographic drawings
- VIII. Dimensions

The Common Course Outline (CCO) determines the essential nature of each course.
For more information, see your professor's syllabus.

- IX. Construction materials
- X. Specifications
- XI. Plot plans
- XII. Foundation prints
- XIII. Commercial framing prints
- XIV. Residential framing prints
- XV. Plumbing prints
- XVI. HVAC prints
- XVII. Masonry prints
- XVIII. Electronic and electrical schematics

Course Requirements

Grading will be determined by the individual faculty member, but shall include the following, at minimum:

- Five homework assignments
- One mid-term Exam
- One final Exam
- Five quizzes

Revision date: 01/21/2020