



ARCHITECTURE, CONSTRUCTION & MANUFACTURING TECHNOLOGIES DIVISION

CONSTRUCTION TECHNOLOGY DEPARTMENT
COURSE SYLLABUS

COURSE NUMBER: **CNBT 1301**

COURSE TITLE: **INTRODUCTION TO THE CONSTRUCTION INDUSTRY**

CREDITS: 2 (1 lecture, 2 lab)

PREREQUISITE / COREQUISITE:

Instructor: Don Wood; Ph. 281-931-0562; Email: donald.wood1@hccs.edu

COURSE DESCRIPTION

Overview of the construction industry. Explain electrical hazards and how to avoid them in the workplace; discuss safety issues concerning lockout/tagout procedures; and demonstrate safe work habits using common hand and power tools for electricians.

END-OF-COURSE-OUTCOMES

Identify types of construction and organizational structures; identify and explain purposes for various construction documents; describe construction office and field responsibilities and operations; define and identify safety and regulatory agencies; and identify the various construction crafts and trades.

COURSE OBJECTIVES

Upon completion of this course, the student will:

- Exhibit knowledge of safety rules and regulations, and demonstrate awareness of hazards in the workplace.
- Explain the causes and results of accidents.
- Describe job site hazards.
- Explain the use of personal protective equipment.
- Describe proper lifting procedures.
- Explain causes of fires.
- Describe proper selection and use of fire extinguishers.
- Use geometry to compute perimeters, areas, and volumes.
- Illustrate the proper selection and use of hand tools.
- Describe the proper selection and use of power tools.

COURSE REGULATIONS

REQUIRED TEXTBOOK(S) & ADDITIONAL RESOURCES:

TITLE EDITION AUTHOR PUBLISHER ISBN REMARKS

REQUIRED STUDENT SUPPLIES

REQUIRED TOOLS

GRADING SCALE:

90 -100 = A (Excellent)

80 - 89 = B (Good)

70 -79 = C (Fair)

60 – 69 = D (Passing) Less than 60 = F *(Failed)

***F will be awarded to students that stop attending or do not withdraw from the class by the withdrawal deadline**

COURSE GRADING CRITERIA*
ITEM QUANTITY PERCENT OF GRADE REMARKS
TESTS
QUIZZES
MIDTERM
ASSIGNMENTS
PROJECTS
FINAL PROJECT
FINAL EXAM

***Refer to instructor's specific course grading criteria for details**

PLEASE READ IMPORTANT INFORMATION ON PAGE 3

COURSE POLICIES

Attendance

Students are expected to attend classes regularly, and to be on time for every class period. Students can be dropped from a class due to excessive absences. Excessive tardiness may be considered absences. Students are responsible for subjects, assignments, and projects covered during their absences. Consult the **Student Handbook** for more details or visit <http://www.hccs.edu/hccs/current-students/student-handbook>

Academic Honesty

Scholastic dishonesty is treated with the utmost seriousness by the instructor and the College. Academic dishonesty includes, but it is not limited to the willful attempt to misrepresent one's work, cheat, plagiarize, or impede other students' scholastic progress. Consult the **Student Handbook** for more details.

Students with Disabilities

Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must contact the **Disability Support Services Office** at his / her respective college at the beginning of each semester. Faculties are authorized to provide only the accommodations requested by the **Disability Support Services Office**. For Central College, call 713-718-6164.

Cell Phones

All cell phones must be muted, set to vibrate, or turned off during class. Cell phone activity during class is deemed disruptive to the academic process and will not be tolerated. If you need to make or receive an emergency call, please leave the classroom.

Calculators

If the course allows the use of a calculator during class, lab projects, and exams, the student is responsible to bring his/her calculator. Cell phones are not calculators, and are not allowed to be used for that purpose during class, tests, or exams.

Student ID

Students are required to obtain a Student ID. For additional information, consult the **Student Handbook**.

Parking Rules and Regulations

Students are required to follow HCC's regulations regarding parking and permits. For additional information, visit <http://www.hccs.edu/hccs/about-hcc/police/parking/parking-rules-and-regulations>

Books, Tools and Supplies

Students are required to purchase and bring to class the required textbooks, tools, notebooks, supplies, and writing instruments as required by the instructor.

Dress Code

Dress code must be appropriate for the class. Students must dress in a way that clothing and accessories do not compromise their safety, and the safety of others. Proper foot wear is required in all laboratories. Absolutely no sandals or other footwear that exposes the feet will be allowed.

Classroom & Laboratory Conduct

Proper behavior is expected in all classes and laboratories. Foul language and horseplay are not allowed. Making or receiving cell phone calls during class are not allowed. Sleeping in class is not allowed.

Course Withdrawal

It is the responsibility of the student to officially withdraw from a course before the official withdrawal deadline. A student who does not withdraw from a course by the deadline will receive an "F" as the final grade. Also note that under Section 51.907 of the Texas Education Code, an institution of higher education may not allow a student to drop more than six courses.

HCC is committed to provide a learning and working environment that is free from discrimination on the basis of sex which includes all forms of sexual misconduct. Title IX of the Education Amendments of 1972 requires that when a complaint is filed, a prompt and thorough investigation is initiated. Complaints may be filed with the HCC Title IX Coordinator available at 713 718-8271 or email at oi@hccs.edu.

COURSE TIMELINE, CONTENTS & ACTIVITIES

WEEK # 1: COURSE RULES AND ORIENTATION

- Introduction
- Purpose of the course
- Overview of course syllabus
- Course policies
- Required materials, textbook(s), supplies, and resources (if applicable)
- Disability Support Services
- Registration, schedules, receipts, and student ID
- Importance of updating and maintaining student data (Name, Address, ID #, phone numbers, emails)
- Parking rules and regulations
- Classroom and laboratory safety
- Course withdrawal, ***Official Day of Record, and last day for withdrawal***
- Course tests, quizzes, exams, and assignments
- Course grading policies
- Instructor information
- Campus orientation

WEEK # 2:

- Basic Safety
- Accidents: causes and results
- Construction site job hazards
- Working safely with job hazards
- Personal protective equipment

WEEK # 3:

- Proper lifting
- Aerial work
- Hazard communication standard
- Fire safety
- Electrical safety
- Summary

WEEK # 4:

- Construction math
- Whole numbers
- Working with measurements
- Using the calculator

WEEK # 5:

- Fractions
 - Decimals
 - Conversion process
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WEEK # 6:

- Metric system
- Converting measurements
- Construction geometry
- Summary

WEEK # 7:

- Exercises and review

WEEK # 8: MIDTERM EXAM

- Midterm exam
- Midterm project

WEEK # 9:

- Hand tools
- Hammers, screwdrivers, and sledge hammers.
- Ripping bars, nail pullers, and wrenches.
- Pliers, wire cutters, levels, and squares.
- Rulers, measuring tools, bench vises, clamps, and saws.
- Files, rasps, chisels, punches, and plumb bob.
- Sockets, ratchets, torque wrenches, and wedges.
- Chalk lines, utility knives, and chain falls.
- Come – Along, wire brushes, and shovels.
- Summary

WEEK # 10:

- Power tools
- Power drills
- Saws
- Grinders and sanders
- Miscellaneous power tools
- Summary

WEEK # 11:

- Blueprints
- Components of the Blueprint.
- Scale
- Lines of construction

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WEEK # 12:

- Abbreviations, symbols, and locations.
- Using gridlines to identify Plan Locations.
- Dimensions
- Summary

WEEK # 13:

- Basic rigging
- Slings
- Hitches
- Rigging Hardware
- Sling Stress
- Hoists
- Rigging operations and practices
- Summary

WEEK # 14:

- Office job site

WEEK # 15:

- Make up projects
- Extra points
- Review

WEEK # 16: FINAL EXAM

- Final Exam