2023/2024

Plumbing and Pipefitting Syllabus

Woodside Lane



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Course Description:

A. Aim: This program consists of clearly defined expectations in theory and performance in entry level standards of plumbing and pipefitting to prepare students for the NCCER Exam and obtain an entry level position in the industry. Students are expected to sit for the NCCER exam at the completion of the program. Students will receive An NCCER Card with an identifying number specific to the student. This allows potential employers to see the level of training competencies that have been achieved.

B. Topics to be covered:

- a. Introduction to Plumbing
- b. Introduction to the Plumbing Profession
- c. Plumbing Safety
- d. Tools of the Plumbing Trade
- e. Introduction to Plumbing Math
- f. Drawings
- g. Introduction to Plumbing Fixtures
- h. Pipe and Fittings
- i. Introduction to Pipefitting
- j. Introduction to Water Distribution Systems
- k. Introduction to Drain, Waste, and Vent (DWV) Systems
- C. Program of Study: Successful Completion of Plumbing and Pipefitting will result when all levels of training have been completed and competencies have been successfully demonstrated by students.
- D. Length: Plumbing and Pipefitting is a one year program. Students are required to attend and complete virtual, hybrid and conventional instruction as governed by NHREC and it's current policy in this fluid time. Students are also required to adhere to the New Horizons attendance policy as stated in the Student Handbook to maintain good standing in the class.

E. Prerequisites:

- a. Must be a minimum of a Junior in High School.
- b. Basic math skills that include addition, subtraction, and simple fractions.
- c. Ability to follow instructions, both oral and written, is a must.
- d. Manual dexterity.
- e. Hand/eye coordination.
- f. The ability and stamina to spend long hours standing, crawling, and kneeling.
- g. Ability to function in small spaces.
- h. Skills in human relations.
- i. A student email address.

F. Class Fees:

Activity Fee: \$17 <u>Uniform Shirt:</u> \$55 Total Cost. \$72

Instructional Philosophy: I believe in a learning-centered classroom and lab.

- A. In this course we will be utilizing the following forms of instruction:
 - a. Classroom Lecture and discussions
 - b. Lab with hands on activities
 - c. Quizzes and tests
 - d. Videos and powerpoint presentations
 - e. Internet research
 - f. Guest Speakers from the Industry
- B. In the plumbing and pipefitting programs, Related Instruction will account for 33% of the total grade. Employability Skills will account for 34%. The remaining 33% will be determined by the student's Workplace (Competencies) skills grade.
 - A: 90 100
 - B: 80 89
 - C: 70 79
 - D: 60 69
 - F: 0 59

70 and above is required to pass the NCCER Exam.

- C. Classroom Rules and Regulations:
 - a. Follow the Students code of conduct (Students Rights and Responsibilities Handbook).
 - b. Be on time. Drivers leave 5 minutes early they should be in class 5 minutes early.
 - c. ABSOLUTELY NO CELL PHONES IN CLASS OR LAB. Phones should be kept in students bags or lockers.
 - d. NO HORSE PLAY!
 - e. Clean up ten minutes prior to the end of each class period.
 - f. Laptops should be charged and ready every day. The responsibility of the laptop belongs to the student.
 - g. Do not touch machines or tools until you have passed the safety test and the instruction has granted permission to use.
 - h. Personal protection equipment (PPE) should be worn upon entering the Lab. No shorts, pajamas, flip flops, crocs, house slippers shall be allowed in the Lab or Classroom. You may wear jeans or khaki pants, closed toe shoes, steel toe or composite toe boots are recommended.
 - i. Proper safety gear must be worn in the shop area.

j. Remember to treat others the way you want to be treated! RESPECT EVERYONE!!!

Discipline:

If a student has a problem in class, the student will receive a verbal warning. If the problem continues, the parents will be notified. If that does not solve the problem, the student will report to the principal. If the offense is severe they may be sent to the principal the first time.

Career Opportunities*:

- Plumber; Commercial, Residential and Industrial
- Plumbing Inspector
- Plumbing Designer/Engineer
- Plumbing Maintenance and Repair Technician
- Pipefitter; Marine and Industrial

^{*}The above is just a short list of examples of the advanced career fields that you can pursue with further education and training.