

Plumbing Systems

Aug. 2019 – May 2020

Course Outcome:

Course Description:

This course will introduce students to basic skills and knowledge related to residential and light commercial plumbing. Topics covered include water distribution processes, installation of hot and cold water systems, and an introduction to drain, waste, and vent systems in residential and commercial structures, cutting and fitting pipe, making joints, securing pipe, and roughing in. This course gives students an introduction to the skill and knowledge base typically required for apprentice plumbers.

Instruction:

Skills Covered:

At the end of this semester the student will be able to:

Demonstrate leadership, citizenship, and teamwork skills required for success in the school, community, and work place.

Students will assume responsibility for the safety of themselves, their coworkers, and bystanders.

Interpret, layout, and fabricate in conformance to construction drawings and written specifications.

Comprehend the process required to produce, treat, and distribute water.

Demonstrate proper soldering, brazing, and piping assembling practices associated with the plumbing industry.

Size and install cold water systems in residential and light commercial structures.

Install and explain the operation of hot water systems in residential and light commercial structures.

Explain drain, waste and vent systems.

Students will cut and fit plastic, copper, cast iron, and carbon steel pipe as specified in construction drawings, standards, manufacturer's instructions, and code requirements.

Students will make joints and install fittings in plastic, copper, cast iron, and carbon steel pipe as specified in construction drawings, standards, manufacturer's instructions, and code requirements.

Install hangers and supports to plastic, copper, cast iron, and carbon steel pipe as specified in construction drawings, standards, manufacturer's instructions and code requirements.

Plan and lay out the rough in for commercial and residential plumbing systems.

General Pacing:

Do to the nature of this course and the time spent in the shop; the pacing will be governed by the student's ability.

Required Fees:

There is a required \$15.00 fee for this class. This fee covers a small part of the materials used by your student. Please make check payable to Karns High School.

Required Materials:

Pencils

Pens

Folder for handouts, worksheets, notes taken during class lectures, tests and quizzes returned. Your syllabus will also be put in the front of this.

Paper for note taking and written assignments.

Resources:**Texts:**

Plumbing – Level One (Digital)

Video:

Plumbing: The Arteries of Civilization

Modern Marvels: Sewers

The Last Brick Maker in America

Construction Safety Video

If you do not approve of a specific resource listed in this syllabus, please make your request to me in writing and an alternative assignment and/or materials will be provided. The request should include your name, the child's name, the specific activity/materials in which you do not want your child to participate or to which you do not want them exposed, and the nature of your objection.

Safety Procedures:

All safety rules will be STRICKLY ENFORCED!

Absolutely **NO HORSEPLAY!**

Obtain instructor's permission before using equipment or machines.

All students must wear clothing suitable for shop work. **There are no sagging or untucked shirts allowed in the shop.**

Safety glasses and hardhats will be worn whenever working or in the area where work is being performed.

Students must wear appropriate foot wear. No open toe or open heeled shoes. (flip flops, crocs, sandals, or house shoes are not acceptable)

Students are not to leave the classroom or shop without permission.

Students must not use power tools without instructor's permission and without passing the safety test on that particular tool with 100 %.

Students must pass a general shop safety test before performing any work with a 100% test score.

Music of any kind is not allowed in the shop.

No food or drink is allowed in shop.

Report all unsafe acts to me.

Work areas must be kept clean.

Use tools for their intended purpose only.

Assessment:

Grading:

There will be quizzes throughout the semester to check for understanding of the information we are studying prior to the module test that will be taken at the completion of the module (chapter). Most modules will have a Performance Evaluation where the student demonstrates their ability to safely perform hands-on activities. There will be in-class assignments to be completed along with shop projects.

The school wide grading scale is:

A = 93 – 100

B = 85 – 92

C = 75 – 84

D = 70 – 74

F = 0 – 69

*****If you pass all of the chapter exams you will be exempt from having to take the EOC.**

In my class:

Grades will be based on the percentage of points earned out of possible points per assignment given.

Shop work cannot be made up. If you are absent on a shop day, you will receive 0% of the possible points earned in the shop that day. Students must be present to receive full shop credit for the day.

Students will have a chance each grading period to make up missed or poorly done tests, quizzes, or in class assignments. If they have nothing to do that day, they will be given extra credit work. **Not doing something that day to improve their grade is not an option.**

Students may at any time, check out a text book and do their make-up work at home or in a study hall.

I will accept make up work up until the last day of the grading period.

Students with no more than two (2) absences in this class will be allowed to drop their lowest grade (excluding the EOC).

To Re-submit an Assignment for Grade Improvement

On **original graded paper**, write the new answer beside the wrong answer, then write the section number where you found your new answer.

****Missing or incorrect section numbers will result in the new answer not being graded.**

The purpose of this procedure is to prevent students from just copying correct answers, to re-submit, from another student after papers have been graded and returned.

Portal Post Policy:

One way in which I am able to communicate with the student and parent is through Parent Portal. In order to give timely feedback, I will update grades at least twice a week.

General Expectations:

Attendance Policy:

Please note that this class will have a lot of hands on assignments that will be more difficult to make up if the class is missed. All missed assignments **MUST** be made up, whether the absence is excused or not. Check with me prior to the start of class to get missed assignments. Ask another student for missed notes. This too must be done before class starts. This policy will be strictly enforced.

Rules:

There are rules for the classroom and rules for the shop. The classroom rules are:

1. BE ON TIME & BE PREPARED –

2. FOOD & DRINK –

No food is allowed in the shop.

ONLY DRINKS WITH LIDS will be allowed in class.

3. CELL PHONES –

NO CELL PHONES DURING CLASS TIME! Cell phones will not interrupt nor compromise classroom instruction.

Procedures:

This is the way we will do things in this class:

Sharpen your pencil before class, not during instruction.

Do not ask to go to the restroom during the first 15 minutes of class, you will not be allowed. Take advantage of class change time for personal needs.

Drinks w/ lids are permissible as long as there is not a problem with disposal of empty containers.

Discipline will be handled on an individual basis, but consequences for disrupting class or disrespecting me or another student include, but not limited to: verbal reprimands, writing a paragraph about why you chose your action and what might have been a better choice, writing a one page paper on a topic of my choice, calling or writing home, referrals to the principal or ISS. Make sure you are prepared for the consequences should you choose inappropriate behavior.

Cheating is not allowed. Your paper and the person's paper who is allowing you to cheat will be taken up and both will receive a failing grade for that paper. You will **not** be able to make that paper up or drop that grade.

Cell phones: You may carry your cell phone but I do not want to see or hear it during class.

You **may not** text, play games, or use your phone during class. If you cannot abide by these rules, you will be written up for insubordination.

Dress code: You must follow the rules for professional dress as outlined in your student handbook. If I have an issue with what you are wearing, you will be notified and the Principal will be notified.

Seating: Students will sit in their assigned seats.

Dismissal: When the bell rings, students will leave the classroom in an orderly fashion (no running or shoving). Student's area must be clean. All trash must be put in the trash can as you leave, not around it or left at desk. If this cannot be achieved in an adult manner then those not obeying will remain in their seats after the bell rings to practice the correct dismissal procedure.

Students who do not follow the shop rules will be removed from the shop and given a 0 for the assignment.

PLAGIARISM

According to Harbrace Handbook, 15th edition:

Plagiarism is defined as "presenting someone else's ideas, research, or opinion as your own without proper documentation, even if it has been rephrased."

It includes, but is not limited to the following:

- 1. Copying verbatim all or part of another's written work;**
- 2. Using phrases, figures, or illustrations without citing the source;**
- 3. Paraphrasing ideas, conclusions, or research without citing the source;**
- 4. Using all or part of a literary plot, poem, or film without attributing the work to its creator.**

CONSEQUENCES OF PLAGIARISM

Plagiarism is a form of stealing and academic fraud. Students who are found guilty of plagiarism will have the option of either redoing the assignment within a specified time period and accepting a grade letter drop or taking a zero on the assignment. Parents should be involved in making the decision.

Communication Strategy:

Office Hours: Mon. – Fri. 7:30 – 8:00 a.m.

If you need to reach me at any time, please feel free to email me at cynthia.hutchens@knoxschools.org.

Tutoring or extra help:

I will be able for tutoring or giving extra help on Mondays through Friday from 7:30 – 8:00 a.m.