

# **Basic Piping**

## **PFPB 1308**

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### **Instructor:**

**Monty R. Payne**

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### **Course Evaluation:**

<b>Module Tests</b>	<b>20%</b>
<b>Performance Labs</b>	<b>20%</b>
<b>Math/Triangles</b>	<b>20%</b>
<b>Drawings</b>	<b>20%</b>
<b>Final Exam</b>	<b>20%</b>

### **Grading Scale:**

<b>A = 100-90</b>
<b>B = 89-80</b>
<b>C = 79-70</b>
<b>D = 69-60</b>
<b>F = Below 60</b>

### **Course Schedule:**

**Thursday from 6:30pm – 10:00 pm in room L-206**

**There will be homework, a test and a performance lab for each module.**

### **Course Description:**

**Mathematical operations necessary to calculate laying lengths of threaded pipe fabrication. Identification and use of hand tools and power tools. Identification of pipe, pipe fittings, flanges and fasteners used in the trade.**

### **Course Learning Outcomes:**

**Apply mathematical calculations applicable to pipefitting installations; demonstrate safe use of hand tools and power tools; and identify materials used in pipefitting.**

### **Text and References:**

**Contren Learning series, by National Center for Construction Education and Research, published by Pearson Education, Inc., Upper Saddle River, NJ, ISBN**

**The Pipefitters' Blue Book, W.V. Graves, Published by Graves Publishing Co. Webster, Texas ISBN 0-9708321-2-5**

**(A student in this institution is not under any obligation to purchase a textbook from the college bookstore. The same textbook is/may also be available from an independent retailer, including an online retailer.)**

### **Course Goals:**

The following list of course goals will be addressed in the course. The goals are directly related to the Performance Objectives.

1. Add proper/improper fractions
2. List accident causes
3. Identify schedule of pipe
4. Compute lengths of pipe
5. Identify seven types of valves
6. Assembly oxygen acetylene rig
7. Subtract proper/improper fractions
8. List three hazards of power tools
9. Identify pipe types
10. Cut pipe lengths to specifications
11. Identify different components of valves
12. Cut carbon steel using oxygen acetylene burning rig
13. Multiply proper/improper fractions
14. Identify common hand tools
15. Identify different types of pipefittings
16. Read sixteenth of an inch on a ruler
17. Fabricate cut lengths of pipe
18. Divide proper/improper fractions
19. Classify hazardous substances
20. Demonstrate proper lifting techniques
21. Use pipe threading machine
22. Simplify improper fractions
23. Calculate circumference of pipe
24. Calculate wrench size for bolts
25. Calculate right hand triangle

## **Performance Objectives:**

1. The student will demonstrate knowledge of pipefitter hand tools by the successful completion of a written exam.
2. The student will demonstrate knowledge of power tools used in pipefitting by the successful completion of a written exam.
3. The student will demonstrate knowledge of the safe use of ladders and scaffolds by the successful completion of a written exam.
4. The student will prepare a material take-off and pipe cut lengths for a threaded pipeline.
5. The student will demonstrate the knowledge of calculating a 45-degree offset within 1/16" accuracy by successful completion of a written exam.

## **Attendance and Withdrawal Policy:**

Being present at each scheduled class/lab time is essential to your success in this course. Multiple unexcused (More than 2) absences will result in the Instructor dropping you from the class.

**During each class period we will be learning skills/knowledge to successfully complete this course. If you miss a class, it is your responsibility to schedule any make-up test, homework, or in class assignment with the instructor.**

**If you fall behind in this class it is your responsibility to withdraw from the class. Just because you stop attending class, does not mean that you have officially withdrawn from class. To officially withdraw and receive a "W" in this class, you need to complete a withdrawal form before the official deadline which is Thursday, November 03, 2016.**

**During class, cell phones and pagers are to be turned off or set on "silent" mode for the ENTIRE class period. Texting is not allowed in class or Lab. If you are expecting a call or text of an emergent nature, please inform me before class to make arrangements in handling the call.**

### **Assignments, Make-up policy and NCCER Credit:**

**Brazosport College is recognized as an accredited training unit by the National Center for Construction Education and Research (NCCER) and Merit Shop Training, Inc., the education arm of Associated Builders and Contractors, Texas Gulf Coast Chapter.**

**Since this course incorporates the NCCER curriculum, you may ask to have the skills attained in this class reported to NCCER's Automated National Registry as evidence to potential employers. Before any student's work is reported to the Automated National Registry, the student must sign a Registration and Release form to be which is kept on file at the college. Without this form the college is prohibited from reporting a student's records to third parties.**

**Students are responsible for completing all reading and homework assignments prior to class. There will be a test and a performance lab on each module. In order to receive NCCER credit for the module, you must pass the written test with a minimum score of 70 and successfully demonstrate the task in the performance lab for the instructor. You have 3 attempts to achieve a score of 70 on the written exam; however you must wait a minimum of 48 hours before the second attempt. If you do not make a score of at least 70 on the second attempt, you must then wait a minimum of 90 DAYS before the third attempt. I score you make on the FIRST attempt will be the score recorded in the grade books and used in your average. Second and third attempt is a PASS or FAIL only status.**

**All homework assignments are due the next class period at the beginning of class. Homework will receive a ten (10) point deduction for being late one (1) class period, twenty (20) points for being late two (2) class periods and will NOT be accepted after the beginning of the second class period. Extenuating circumstances and emergencies do arise; these will be handled on a case by case basis which requires you to notify the instructor PRIOR to the start of class via a message at 979-230-3514.**

### **Other Student Information**

Information about the Brazosport College Library is available at [www.brazosport.edu/sites/CurrentStudents/Libray/default.aspx](http://www.brazosport.edu/sites/CurrentStudents/Libray/default.aspx) or by calling - 979-230-3310.

Information about study skills and tutoring for math, reading, writing, biology, Chemistry, and other subjects is available in Learning Services. See [www.brazopsrt.edu/sites/CurrentStudents/LAC/default.aspx](http://www.brazopsrt.edu/sites/CurrentStudents/LAC/default.aspx) or by calling 979-230-3253

Student Services provide assistance in the following:

Counseling and advising	979-230-3040
Financial Aid	979-230-3294
Student Activities	979-230-3355

To reach the Information Technology Department for the following: computer, email, or other technical assistance call the help desk 979-230-3266

### **Student Contributions:**

Each student will spend at least 2 hours per week preparing for class. Attendance is CRITICAL in this class and is part of the student's final grade. PUNCTUALITY and CONSISTENCY of work attendance is also part of the student's grade. The student will have an opportunity to evaluate the instructor.

### **Students with Disabilities:**

Brazosport College is committed to providing equal education opportunities to every student. Brazosport College offers services for individuals with special needs and capabilities including counseling, tutoring, equipment, and software to assist students with special needs. Please contact Special Populations Counselor, 979-230-3236, for further information.

### **Academic Honesty:**

Brazosport College assumes that students eligible to perform on the college level are familiar with the ordinary rules governing proper conduct including academic honesty. The principle of academic honesty is that all work presented by you is your alone. Academic dishonesty including but not limited to, cheating, plagiarism, and collusion shall be treated appropriately. Please refer to the Brazosport College Student Guide for more information. This is available online at <http://www.brazosport.edu>. Click on the catalogs and schedules link under students.

Academic dishonesty violates both the policies of this course and the Student Code of Conduct. In this class, any occurrence of academic dishonesty will be referred to the Dean of Student Services for prompt adjudication, and will, at a minimum, result in a ZERO for the test and or assignment, in the course. Sanctions may be imposed beyond your grade in this course by the Dean of Student Services.