Advanced Pipe Practices
(PFPB 2343: Fall 2025)

CREDIT
3 Semester Credit Hours (2 hours lecture, 4 hours lab)

MODE OF INSTRUCTION
Face to Face

PREREQUISITE/CO-REQUISITE:
None

COURSE DESCRIPTION
Identification, installation, and testing of steam traps and steam trap station components valve identification, application, and maintenance identification, storage, and handling of in-line specialties hydrostatic testing of process piping. (From WECM)

COURSE OBJECTIVES
Upon completion of this course, the student will be able to:

- Perform pre-test and post-tests on various types of piping and plumbing apparatus
- Install and troubleshoot steam traps
- Install and troubleshoot in-line specialties
- Student will understand and learn the appropriate installation of a tankless water heater
- Student will understand and learn the appropriate installation of and use of Veiga Tools and Fittings

INSTRUCTOR CONTACT INFORMATION

Instructor:	Henry LaRocca
Email:	hlarocca@lit.edu
Office Phone:	(409) Cell: (409) 998-0528
Office Location:	Advanced Technology Building
Office Hours:	Monday and Wednesday: 8:30 a.m. – 9:00 a.m. and 4:00 p.m. – 4:30 p.m. Friday: 8:00 a.m. – 10:00 a.m.

REQUIRED TEXTBOOK AND MATERIALS
PFPB 2343: Advanced Pipe Practices
Textbook: Plumbing Level 2 (Fifth Edition)
Author: NCCER, Publisher: Pearson, ISBN 978013744698

Approved: Initials/date

Materials/Tools

Item	Quantity
3”-3 ring notebook and notebook paper	1
25 ft. min. steel tape/6 ft. plumbers folder ruler	1 each
Safety glasses	1
Leather gloves	1 pair
Safety Shoes	1 pair
Calculated Industries Calculator	1
Required PFPB Shirt	2 minimum
Screwdriver, flat tip, 6 inch	1
Screwdriver 10 inch	1
Screwdriver Phillips #2 tip, 6 inch	1
Adjustable Wrenches – 6 inch and 12 inch	1 each
Pipe wrench – 14 inch	1
Pliers – Needlenose pliers, 7 inch	1
Pliers – Adjustable or ARC joint	1
Hammer – ball peen, 16 ounce	1
Hacksaw, adjustable angle	1
Hacksaw 18 TPI B=blades	3-5

ATTENDANCE POLICY

I. Students are allowed to miss two days without penalty; each additional day will result in the student’s grade being dropped by a letter grade.

Example:
2 days absent = If student has an A average no penalty
3 days absent = A drops to a B
4 days absent = B drops to a C
5 days absent = C drops to a D (student must retake class)
6 days absent = D drops to a F (student must retake class)

II. Absences are counted for unexcused, excused and coming to class late.

III. 3 tardies = 1 absences

A. Tardy- arriving within 15 minutes after class begins or leaving before the end of class.
B. More than 15 minutes late you will be counted absent.
C. If you sleep in class, you will be counted absent.

IV. Excused absences. Only given to allow students to make up missed work.

A. Will be given for documented Injury or Illness. The doctor’s excuse required showing proof. Will count toward total days missed.
B. Will be given for documented Death in immediate family. Will count toward total days missed.

C. Approved LIT school functions; E.g., SkillsUSA, SGA etc. Will not count toward total days missed

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process. If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

COURSE CALENDAR

DATE	TOPIC	READINGS (Due on this Date)	ASSIGNMENTS (Due on this Date)
Weeks 1 & 2	Module 02203 Structural Penetrations, Insulation, and Firestopping	Read Syllabus Read All Sections of Module 02203 • 1.0.0-Adjusting Structural Members • 2.0.0-Pipe Insulation • 3.0.0-Firestopping	M3 Concept Checks M3 Review Questions (End of Week 1) M3 Test on Structural Penetrations, Insulation, and Firestopping (End of Week 2) Lab 1 : Cut holes and notches in proper locations in structural members based on applicable codes. (End of Week 1) Lab 2: Install common types of firestopping materials in penetrations through walls, floors, and ceilings. (End of Week 2)
Week 3	Module 02204 Installing and Testing DWV Piping	Read Sections of Module 02204 • 1.0.0-Preparing To Install A DWV System • 2.0.0-Calculating Grades with a Level	Lab 3: Plan the preliminary installation steps for a DWV
Week 4	Module 02204 Installing and Testing DWV Piping	Read Sections of Module 02204 3.0.0 Locating the Building Sewer and Drain and Installing DWV Piping	Lab 4: Demonstrate the ability to correctly size and install a building sewer and a building drain, and final connection.

		• 3.1.0-Verifying the Layout • 3.2.0-Calculating Inverts for Below Grade Piping • 3.3.0-Identifying Correct Grade of Underground Piping	
Week 5	Module 02204 Installing and Testing DWV Piping	Read Sections of Module 02204 under 3.0.0 Locating the Building Sewer and Drain and Installing DWV Piping • 3.4.0-Installing Underground DWV Piping • 3.5.0-Locating the Stack within the Structure	Lab 5: Correctly size and install a building sewer and a building drain, and final connection. Locate the stack within the structure.
Week 6	Module 02204 Installing and Testing DWV Piping	Read Sections of Module 02204 • 4.0.0-Locating Fixtures and Aboveground Plumbing	Lab 6: Use plans and fixture rough-in sheets or rough-in book to determine the location of fixtures and route of the aboveground and underground plumbing, as required by the instructor.
Week 7	Module 02204 Installing and Testing DWV Piping	Read Sections of Module 02204 • 5.0.0-Locating Fixtures Using Submittals and Rough-In Data	M4 Concept Checks M4 Review Questions (End of Week 7) Lab 7: Demonstrate an ability install a DWV system using appropriate hangers and correct grade.

Week 8	Module 02204 Installing and Testing DWV Piping	Read Sections of Module 02204 • 6.0.0-Testing the System	Module 02204 M4 Test Installing and Testing DWV Piping (End of Week 8) Lab 8: Test a DWV system according to code.
Week 9 & 10	Module 02205 Installing Roof, Floor and Area Drains	Read of Sections of Module 02205 • 1.0.0-Floor Drains, Area Drains, and Floor Sinks • 2.0.0-Roof Drains • 3.0.0-Waterproof Membranes and Shower Pans	M5 Concept Checks M5 Review Questions (First day of week 10) M5 Test on Installing Roof, Floor and Area Drains (Last Day of Week 10) Lab 9: Set the elevation for a floor drain, area drain, and floor sink using a builder's or laser level. Install floor drains, area drains, and floor sinks. Install a trap primer. Lab 10: Install primary and secondary roof drains. Install a waterproof membrane for a shower pan.
Weeks 11 & 12	Module 02206 Installing and Testing Water Supply Piping	Read Sections of Module 02206 • 1.0.0-Domestic Water Distribution System • 2.0.0-Installing a Water Service and Distribution System	M6 Concept Checks M6 Review Questions (First Day of week 12) M6 Test on Installing and Testing Water Supply Piping (Last Day of week 12) Lab 11: Determine the location of fixtures and the route of the water supply piping using instructor-

		• 3.0.0-Testing a Water Supply System	provided plans and fixture rough-in sheets. Develop a water supply piping material takeoff from a given set of plans. Lab 12: Correctly size and install a water service line. Test a water supply system.
Week 13 & 14	Module 02211 Fuel Gas and Fuel Oil Systems	Read Sections of Module 02211 • 1.0.0-Fuel Gas and Fuel Oil Safety • 2.0.0-Components of Fuel Gas and Fuel Oil System • 3.0.0-Fuel System Installation	M11 Concept Checks M11 Review Questions (Fist day of week 14) M11 Test on Fuel Gas and Fuel Oil Systems (Last day of week 14) Lab 13: Properly connect appliances to the fuel gas system. Perform an air test or visual inspection of a connected fuel gas system. Lab 14: Size and purge a fuel gas system. Verify pressure of a fuel gas system using a manometer.
Week 15	Course Review		
Final Week	Finals	Final Exam	Over all Modules Covered.

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

Homework	15%
• Review Questions and	
• Concept Checks	
Test	25%
Lab/Projects	40%
Final	20%

GRADE SCALE

- 90-100 A
- 80-89 B
- 70-79 C
- 60-69 D
- 0-59 F

TECHNICAL REQUIREMENTS

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at https://lit.edu/online-learning/online-learning-minimum-computer-requirements. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

DISABILITIES STATEMENT

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email specialpopulations@lit.edu. You may also visit the online resource at Special Populations - Lamar Institute of Technology (lit.edu).

STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at www.lit.edu. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.\

ARTIFICIAL INTELLIGENCE STATEMENT

Lamar Institute of Technology (LIT) recognizes the recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare students for their selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI/ChatGPT in their courses

STARFISH

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.