

Commercial Construction and Fixture Setting (PFPB 2336: Spring 2026)

CREDIT

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

MODE OF INSTRUCTION

Face to Face

PREREQUISITE/CO-REQUISITE:

None

COURSE DESCRIPTION

Practices and procedures employed by a plumber in the common construction in a commercial building including drain, waste, and vent systems, and fixture installations. (From WECM)

COURSE OBJECTIVES

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

- Install the drain, waste, vent, potable water, and gas systems for a building.
- Install various types of plumbing fixtures.

INSTRUCTOR CONTACT INFORMATION

Instructor: Henry LaRocca

Email: hlarocca@lit.edu

Office Phone: (409) 245-8758 Cell: (409) 998-0528

Office Location: Advanced Learning Technology Center

Office Hours: 8 a.m. -9 a.m. (Monday, Tuesday, Wednesday, Thursday, and Friday)
3:30 p.m. – 5 p.m. (Monday, Tuesday, Wednesday, and Thursday)

REQUIRED TEXTBOOK AND MATERIALS – This is an Online Book

PFPB 2343: Advanced Pipe Practices

Textbook: Plumbing Level 2 (Fifth Edition)

Author: NCCER, Publisher: Pearson, ISBN 978013744698

Materials/Tools

| <u>Item</u> | <u>Quantity</u> |
|--|-----------------|
| 3"-3 ring notebook and notebook paper | 1 |
| 25 ft. min. steel tape/6 ft. plumbers folder ruler | 1 each |
| Safety glasses | 1 |

Approved: Initials/date



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|--|-----------|
| 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 02201 Plumbing Math Two | Read Syllabus Read All Sections of Module 02201 Plumbing Math Two <ul style="list-style-type: none">• Square Corners• Offsets | M1 Concept Checks M1 Review Questions Test Plumbing Math Lab 01-1: Checking the Squareness of a Corner Lab 01-2: Laying out Square Corners Lab 01-3: Finding the Square Root and Plumbing Formulas Lab 01-4: Offsets |
| Weeks 3 & 4 | Module 02202 Reading Commercial Drawings | Read All Sections of Module 02202 Reading Commercial Drawings <ul style="list-style-type: none">• Identifying and Reading Commercial Drawings• System Layout and Fixture Rough-Ins• Material Takeoffs | M2 Concept Checks M2 Review Questions Test Reading Commercial Drawings Lab 02-1: Interpret information on a site plan as required by instructor and locate plumbing entry points on a site plan Lab 02-2: Write an RFI based on a scenario provided by your instructor Lab 02-3: Lay out fixture rough-ins using approved submittals and floor plans. |

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|-----------------------|---|--|--|
| | | | Lab 2-4: Prepare a material takeoff and Draw an isometric sketch. |
| Weeks 5 & 6 | Module 02207 Types of Valves | <p>Read All Sections of Module 02207 Types of Valves</p> <ul style="list-style-type: none"> • Types of Valves • Valve Applications • Servicing Valves | <p>M7 Concept Checks M7 Review Questions</p> <p>Test Types of Valves</p> <p>Lab 07-1: Identify the basic types of valves and their parts.; Identify the functions of valves and their applications.</p> <p>Lab 07-2: Service various valves; miniature rough in</p> <p>Lab 07-3: Single Story Commercial Plumbing Layout Miniatures</p> <p>Lab 07-4: Two Story Commercial Plumbing Layout Miniatures</p> |
| Weeks 7, 8, & 9, & 10 | Module 02208 Installing Fixtures and Valves | <p>Read All Sections of Module 02208 Installing Fixtures and Valves</p> <ul style="list-style-type: none"> • Pre-Installation Techniques • Fixture Installation at Rough-In • Fixture Installation at Trim-Out • Connecting Appliances | <p>M8 Concept Checks M8 Review Questions</p> <p>Test Installing Fixtures and Valves</p> <p>Labs 08-01, 08-2, 08-3, 08-4: Test and protect a bathtub, a lavatory, and a water closet.</p> <p>Labs 08-05, 08-6, 08-7, 08-8: Trim-out a bathtub, a lavatory, and a water closet.</p> |
| Weeks 11 & 12 | Module 02210 | Read All Sections of Module 02210 Basic Electricity | <p>M10 Concept Checks M10 Review Questions</p> |

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|---------------|---------------------------------------|--|--|
| | Basic Electricity | <ul style="list-style-type: none"> • Electrical Safety • Voltage, Current, Resistance, and Power • Electricity in Plumbing | Test Basic Electricity Lab 10.1: Test an electric water heater for proper amp draw, voltage, and continuity. |
| Weeks 13 & 14 | Module 02209 Installing Water Heaters | Read All Sections of Module 02209 Installing Water Heaters <ul style="list-style-type: none"> • Water Heater Operation and Components • Water Heater Safety • Water Heater Installation | M9 Concept Checks M9 Review Questions August 12 Test Installing Water Heaters Labs 09-1 and 09-2: Install a T/P relief valve. Labs 09-3 and 09-4 Install a water heater. |
| Week 15 | Course Review | | |
| | Final | | |

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

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|--|-----|
| Homework | 15% |
| <ul style="list-style-type: none"> • 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.