

**SALT LAKE COMMUNITY COLLEGE**

NAME OF DEPARTMENT - APPRENTICESHIP

PREFIX AND NUMBER OF COURSE – TEPL 1420

NAME OF COURSE – PLUMBING IVB

SEMESTER AND TERM –

INSTRUCTOR'S NAME –

PHONE

E-MAIL ADDRESS

MAILBOX LOCATION –

CONSULTATION HOURS – BY APPOINTMENT

**TEXTBOOKS**

2021 IPC – ICC

2021 IMC – ICC

2021 IFGC – ICC

2021 IPC Study Companion

2021 IMC Study Companion

Boiler Operator's Guide, 4<sup>th</sup> Edition, Anthony Kohan

NFPA 13D Standard for the Installation of Sprinkler Systems in One- and Two-Family  
Dwellings and Manufactured Homes

Mathematics for Plumbers/Pipefitters - Sixth Edition - Smith, Guest, Darcangelo - Delmar

Utah Statewide Amendments to the IPC

Utah Statewide Amendments to the IMC

Utah Statewide Amendments to the IFGC

Utah Rule R-317-4 Onsite Wastewater Systems

Utah Construction Licensing Act, 55-55

Construction Licensing Act Plumber Licensing Rules

PSI Plumber License Candidate Information Bulletin

**MATERIALS REQUIRED EACH CLASS PERIOD:**

IPC Code book and amendments (Commentary is not permitted for use on any test or exam)

IMC Code book and amendments (Commentary is not permitted for use on any test or exam)

IFGC Code book and amendments (Commentary is not permitted for use on any test or  
exam)

Utah Rule R-317-4 Onsite Wastewater Systems

Mathematics for Plumbers/Pipefitters - Sixth Edition - Smith, Guest, Darcangelo - Delmar

Calculator (Recommended: TI-30 or equivalent. Graphing or programmable calculators are  
not permitted. Construction Master or other similar calculators are not permitted.

Calculators on cell Phones will also not be allowed to be used in the classroom.)

Pencil/Pen  
Highlighter  
Notebook

**MATERIALS REQUIRED FOR EACH LAB CLASS PERIOD:**

Students are expected to bring their own tools and safety equipment to lab classes. The following is a list of minimum tools and protective equipment that students must bring to the lab:

Safety Glasses  
Leather Gloves  
rags  
Tape measure  
Framing square  
Copper reamer  
PVC reamer  
Torch and appropriate gas for soldering and brazing copper pipe  
Pipe cutter capable of cutting up to 1 ½" copper pipe  
Cutter capable of cutting up to 1 ½" PVC  
Channel Locks (at least 1 pair, 2 pair preferred)  
Calculator

Students who do not bring all of the required tools and safety equipment will not be allowed to attend the lab and will receive a 0 (zero) for the assignment and be marked as absent for the night.

**Students are also required to dress appropriately on lab nights. This means long pants, shirts with sleeves and closed-toed shoes.**

**ELECTRONIC DEVICES:**

Electronic devices are not permitted to be used in the classroom. Please turn off all electronic devices. Cell phones are permitted to be in the vibrate mode. If it is necessary to answer a call, please step out of the classroom and make it as brief as possible. Extended phone calls may result in reduction of clock hours.

**COURSE DESCRIPTION**

The Plumbing IVB course assists the apprentices in passing the state test and provides a foundation for success as a journeyman plumber. A variety of modules are available for the student to work from, with a focus on what each individual student needs in order to prepare for the test.

**PREREQUISITE – PLI 2410 WITH A GRADE OF C OR HIGHER**

## COURSE GOALS &/OR LEARNING OBJECTIVES

At the conclusion of this course, the student will demonstrate:

- Review International Plumbing Code (IPC) chapters
- Apply mathematics for plumbers and pipefitters
- Use International Fuel Gas Code for gas pipe installation and sizing
- Define traps and commercial applications
- Explain storm drainage and commercial/industrial applications
- Identify boilers, water heaters, and pressure vessels
- Perform applied trade formulas using different equations
- Calculate heat loss vs. radiator size
- Determine radiation sizing for total heat loss of a room
- Use Journeyman skills such as takeoff lists, leadership skills, communication, and basic business skills
- Fabricate several piping projects in a lab situation

## COURSE REQUIREMENTS

- **CLASSROOM EXAMS** – Unit tests and exams will be given periodically throughout the semester to assess the student’s learning and retention of the course material.
- **Preparation** – Students should expect to spend 5 hours each week in class and approximately an additional 5 hours of study/homework time each week to be successful in this course.
- **Lab requirement** – Students will be expected to attend a minimum of two labs during the semester. These labs will be scheduled by the instructor.
- **On the Job Training** – It is expected that students are employed in the plumbing industry and are working full-time while attending school. It is mandatory that students hold a current valid Utah Apprentice Plumber license while enrolled in school. Students without a valid license may be administratively withdrawn from class.
- **ATTENDANCE** - As per the requirements set forth in 29 CFR 29.5 Standards of Apprenticeship paragraph (b)(4), each apprentice must successfully complete a minimum of 144 hours of related and supplemental instruction each year of Apprenticeship (72 hours each semester). In our efforts to accommodate the demanding schedules of the majority of the Apprentices registered and enrolled at Salt Lake Community College, we are offering each of our courses for a period of 75 hours each semester (2.5 hours for each of 30 evenings). This allows the Apprentice the flexibility of missing up to and including 3 class nights. The enforcement of this policy is the responsibility of each instructor. Instructors are required to take attendance each evening. Individual Students will be held responsible for ensuring they have sufficient clock hours to successfully complete the course. Salt Lake Community College will offer up to an additional 6 clock hours at the end of the semester (usually on a Saturday) for those students who need to “make-up” time. There will be an additional cost of \$35 for each block of 3 clock hours, payable on the day of the class. Salt Lake Community College will only offer these additional hours if there is sufficient students to offset the costs associated with providing the training (a minimum of 10 students). Students requiring make up hours must contact the Apprenticeship Office as soon as possible. **Students are not allowed to “make-up” clock hours or labs by attending classes for which they are not registered.** Students with insufficient clock hours will receive a failing grade and be required to re-take the semester course prior to moving forward in their apprenticeship.

- **GRADING SCALE AND POLICY** – Grades will be awarded based on the following percentages:  
Homework: 25%  
Quizzes: 25%  
Midterms: 25%  
Final Exam: 25%

The final grade will be issued according to the following table:

A	94 – 100%
A-	90 – 93%
B+	87 – 89%
B	84 – 86%
B-	80 – 83%
C+	77 – 79%
C	74 – 76%
E	0 – 73%

**Students receiving an E grade will be issued 0 clock hours for the course.**