

# Plumbing IIA

TEPL - 1210 403

## Class Location and Time

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**Campus:**

**Building:**

**Room:**

**Days:**

**Time:**

## Course Prerequisites

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TEPL 1120 with a grade of C or higher

## Course Student Learning Outcomes

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- Describe water supply and distribution, sanitary drainage, indirect/special waste, vents, traps, interceptors and separators, along with other basic fundamental plumbing components.
- Identify the many different fixtures designed for residential and small commercial buildings.
- Apply correct principles for designing Drainage, Waste, and Vent (DWV) and water supply systems that will provide long and satisfactory service.

- Describe how to determine the size of water supply piping.
- Define how to support and test both DWV and water supply systems.
- Explain R317-4 onsite wastewater systems.
- Fabricate several piping projects in a lab situation.

## Engagement Plan

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Example language:

- I will respond to email within [24 hours]. I will offer feedback on major assignments within [24 hours]. The best way to contact me is via the Canvas Inbox, as I will prioritize this email over other modes of communication.
- In this course I will be posting interactive announcements which will offer specific opportunities for class questions and extra credit every other week.
- Additionally, I will be participating in the discussion forums with you to share my perspective within the discipline and to offer some nuances of interpretation that may not be present in your textbook.
- Lastly, we'll be holding small group Q & A sessions, where we can learn from our peers (and faculty) on some of the more difficult units within the course.

## Required Text or Materials

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**Title:** 2021 International Plumbing Code

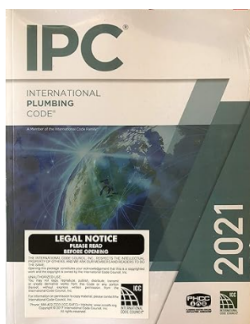
**ISBN:** 9781609839628

**Authors:** International Code Council

**Publication Date:** 2020-03-06

**Title:** 2021 International Plumbing Code

**ISBN:** 9781609839628



**Authors:** International Code Council

**Publication Date:** 2020-03-06

**Title:** PLI 2310/2410 Code R317 Environmental and Water Quality (PKT)

**Authors:** PLI Department

**Publisher:** Salt Lake Community College-Copy Center

**Publication Date:** 2011

**Title:** PLI 2310/2410 Code R317 ENVIRONMENTAL&WATER QUALITY(PKT)

**Authors:** PLI Dept.

**Publisher:** Salt Lake Community College-Copy Center

**Publication Date:** 2011

**Title:** Utah Amendments to International Plumbing Code

**Subtitle:** Can get printed at the print shop for a fee

**OID:** [https://le.utah.gov/xcode/Title15A/Chapter3/15A-3-P3.html?v=C15A-3-P3\\_1800010118000101](https://le.utah.gov/xcode/Title15A/Chapter3/15A-3-P3.html?v=C15A-3-P3_1800010118000101)

For more information on textbook accessibility, contact Accessibility & Disability Services at [ads@slcc.edu](mailto:ads@slcc.edu).

## Course Goals &/or Learning Objectives

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

1. satisfactory understanding of general industry knowledge of tools and safety requirements
2. familiarity of the history and various career areas of the Plumbing trade

3. understanding of hydraulic and pneumatic theory and ability to perform calculations of head pressure and friction loss
4. familiarity of applicable building and plumbing codes
5. an understanding of Chapters 1-3 of the IPC
6. ability to solve basic mathematical formulas and equations

This knowledge will be demonstrated by a final end of semester competency exam on which the student will be required to **score a minimum of 70%**. The students will also be required to be certified in First Aid and CPR.

## Brief Description of Assignments/Exams

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- **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. There will be a final competency exam on which the student is required to score a minimum of 70%.
- **Preparation** – Students should expect to spend 5 hours each week in class and approximately an additional 6 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). The enforcement of the attendance 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 not be permitted to sit for the final Competency Exam at the end of the semester. They will receive a failing grade and be required to re-take the semester course prior to moving forward in their apprenticeship.

- **Competency Exam** – The Utah State Licensing Board has mandated a final end of semester competency exam which will be administered on the second to last day of class. This competency exam may include any information covered in the approved curriculum outline for the individual program. This will be a 60 question, Multiple-Choice and True/False, exam which must be completed in 2 hours. This exam will account for a major portion (30%) of the final grade awarded in the class. Students are required to bring a picture ID and a #2 pencil to this exam. Students without these items may be asked to leave and receive a failing grade. Additionally, the following materials will be allowed to be used on the competency exam: a 2021 International Plumbing Code (Commentarys are not allowed); a calculator (Recommended: TI-30 or equivalent. Graphing or programmable calculators are not permitted. Construction Master, Electrical Pro, Project Master, or other similar calculators are not permitted. Calculators on cell Phones will also not be allowed to be used in the classroom.)

\*\*This exam will account for 30% of the final grade awarded for the class. If the student scores less than 70% on the exam, the score will be recorded as a 0 (zero). If the student scores a 70% or higher, the earned score will be calculated as 30% of the final grade

## Grading Scale

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Grades will be awarded based on the following percentages:

- Homework: 20%
- Quizzes: 25%
- Midterms: 25%
- Comp Exam: 30%

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.

## Assignment Schedule

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Due Date	Assignment Name	Assignment Type	Points
	<a href="#">Bring safety glasses tonight!</a>	Discussion	0
	<a href="#">Combustion Air</a>	Discussion	0
	<a href="#">Custom House A - DFU and Sizing Activity</a>	Discussion	0
	<a href="#">Discussion - Class 15</a>	Discussion	0

Due Date	Assignment Name	Assignment Type	Points
	<a href="#">Discussion - class 16</a>	Discussion	0
	<a href="#">Discussion - Class 18</a>	Discussion	0
	<a href="#">DO NOT PUBLISH: Class 10 Instructor Notes</a>	Discussion	0
	<a href="#">DO NOT PUBLISH: Class 11 Instructor Notes</a>	Discussion	0
	<a href="#">DO NOT PUBLISH: Class 12 Instructor Notes</a>	Discussion	0
	<a href="#">DO NOT PUBLISH: Class 13 Instructor Notes</a>	Discussion	0
	<a href="#">DO NOT PUBLISH: Class 14 Instructor Notes</a>	Discussion	0
	<a href="#">DO NOT PUBLISH: Class 16 Instructor Notes</a>	Discussion	0
	<a href="#">DO NOT PUBLISH: Class 17 Instructor Notes</a>	Discussion	0
	<a href="#">DO NOT PUBLISH: Class 18 Instructor Notes</a>	Discussion	0
	<a href="#">DO NOT PUBLISH: Class 19 Instructor Notes</a>	Discussion	0

Due Date	Assignment Name	Assignment Type	Points
	<a href="#">DO NOT PUBLISH: Class 20 Instructor Notes</a>	Discussion	0
	<a href="#">DO NOT PUBLISH: Class 21 Instructor Notes</a>	Discussion	0
	<a href="#">DO NOT PUBLISH: Class 22 Instructor Notes</a>	Discussion	0
	<a href="#">DO NOT PUBLISH: Class 23 Instructor Notes</a>	Discussion	0
	<a href="#">DO NOT PUBLISH: Class 24 Instructor Notes</a>	Discussion	0
	<a href="#">DO NOT PUBLISH: Class 27 Instructor Notes</a>	Discussion	0
	<a href="#">DO NOT PUBLISH: Class 28 Instructor Notes</a>	Discussion	0
	<a href="#">DO NOT PUBLISH: Instructor Notes Class 15</a>	Discussion	0
	<a href="#">Drainage Piping_ Discussion</a>	Discussion	0
	<a href="#">Drainage Piping_ Discussion Class 19</a>	Discussion	0
	<a href="#">Field Trip Assignment</a>	Assignment	10



Due Date	Assignment Name	Assignment Type	Points
	<a href="#">International Plumbing Code Chapter 6 Study Companion Section 601 to 605 Discussion</a>	Discussion	0
	<a href="#">International Plumbing Code Chapter 6 Study Companion Section 606 to 613 Discussion</a>	Discussion	0
	<a href="#">International Plumbing Code Chapter 7 Study Companion Section 701 to 707 Discussion</a>	Discussion	0
	<a href="#">International Plumbing Code Chapter 7 Study Companion Section 708 to 718 Discussion</a>	Discussion	0
	<a href="#">International Plumbing Code Chapter 9 Study Companion Section 901 to 909 Discussion</a>	Discussion	0
	<a href="#">International Plumbing Code Chapter 9 Study Companion Section 910 to 920 Discussion</a>	Discussion	0

Due Date	Assignment Name	Assignment Type	Points
	<a href="#">International Plumbing Code Study Companion : Chapter 7 Section 701 or 707</a>	Assignment	
	<a href="#">International Plumbing Code Study Companion Chapter 6 Section 601 to 605</a>	Assignment	
	<a href="#">International Plumbing Code Study Companion Chapter 6 Section 606 to 613</a>	Assignment	
	<a href="#">International Plumbing Code Study Companion Chapter 7 Section 708 or 718</a>	Assignment	
	<a href="#">International Plumbing Code Study Companion Chapter 9 Section 901 or 909</a>	Assignment	
	<a href="#">International Plumbing Code Study Companion Chapter 9 Section 910 or 920</a>	Assignment	
	<a href="#">Introduce Yourself</a>	Discussion	0
	<a href="#">Introduce Yourself</a>	Discussion	0
	<a href="#">IPC 608 Back Flow Preventer Worksheet</a>	Assignment	
	<a href="#">Journeyman Application Information</a>	Discussion	0

Due Date	Assignment Name	Assignment Type	Points
	<a href="#">Lab Assignment 2</a>	Assignment	33
	<a href="#">Modern Plumbing 15 - Related Videos</a>	Discussion	0
	<a href="#">Modern Plumbing 16 - Related Videos</a>	Discussion	0
	<a href="#">Modern Plumbing 17 - Related Videos</a>	Discussion	0
	<a href="#">Modern Plumbing 19 - Related Videos</a>	Discussion	0
	<a href="#">Modern Plumbing 22 - Related Videos</a>	Discussion	0
	<a href="#">Modern Plumbing Chapter 18 Related Videos</a>	Discussion	0
	<a href="#">Modern Plumbing Job Practice Manual: Chapter 15</a>	Assignment	
	<a href="#">Practical Lab - Video</a>	Discussion	0
	<a href="#">Requirements for the Plumber Journeyman Test</a>	Discussion	0
	<a href="#">Roll Call Attendance</a>	Assignment	100
10/1/25	<a href="#">Lab Assignment</a>	Assignment	33
10/15/25	<a href="#">Modern Plumbing Chapter 15 - Exam</a>	Quiz	30
10/15/25	<a href="#">Modern Plumbing Chapter 15 - Pre Test</a>	Quiz	10

Due Date	Assignment Name	Assignment Type	Points
10/15/25	<a href="#">Modern Plumbing_ Chapter 16 - Exam</a>	Quiz	25
10/15/25	<a href="#">Modern Plumbing_ Chapter 16 - Pre Test</a>	Quiz	10
10/15/25	<a href="#">Modern Plumbing_ Chapter 17 - Exam</a>	Quiz	20
10/15/25	<a href="#">Modern Plumbing_ Chapter 17 - Pre Test</a>	Quiz	10
10/15/25	<a href="#">Modern Plumbing_ Chapter 18 - Exam</a>	Quiz	30
10/15/25	<a href="#">Modern Plumbing_ Chapter 18 - Pre Test</a>	Quiz	10
10/15/25	<a href="#">Modern Plumbing_ Chapter 19 - Exam</a>	Quiz	45
10/15/25	<a href="#">Modern Plumbing_ Chapter 19 - Pre Test</a>	Quiz	10
10/15/25	<a href="#">Modern Plumbing_ Chapter 20 - Exam</a>	Quiz	15
10/15/25	<a href="#">Modern Plumbing_ Chapter 20 - Pre Test</a>	Quiz	10
10/15/25	<a href="#">Modern Plumbing_ Chapter 21 - Exam</a>	Quiz	40
10/15/25	<a href="#">Modern Plumbing_ Chapter 21 - Pre Test</a>	Quiz	10
10/15/25	<a href="#">Modern Plumbing_ Chapter 22 - Exam</a>	Quiz	45
10/15/25	<a href="#">Modern Plumbing_ Chapter 22 - Pre Test</a>	Quiz	10

Due Date	Assignment Name	Assignment Type	Points
10/15/25	<a href="#">Modern Plumbing Chapter 23 - Exam</a>	Quiz	20
10/15/25	<a href="#">Modern Plumbing Chapter 23 - Pre Test</a>	Quiz	10
10/15/25	<a href="#">Modern Plumbing Chapter 24 - Exam</a>	Quiz	40
10/15/25	<a href="#">Modern Plumbing Chapter 24 - Pre Test</a>	Quiz	10
10/15/25	<a href="#">Modern Plumbing Chapter 24 - Review Quiz</a>	Quiz	10
10/20/25	<a href="#">Midterm</a>	Quiz	80
10/20/25	<a href="#">Modern Plumbing 2A Review Quiz</a>	Quiz	35
11/10/25	<a href="#">Lab Practice Quiz</a>	Quiz	60
12/6/25	<a href="#">International Plumbing Code - Chapter 6 Review Quiz</a>	Quiz	15
12/6/25	<a href="#">International Plumbing Code Chapter 601 to 605 Quiz</a>	Quiz	25
12/6/25	<a href="#">International Plumbing Code Chapter 606 to 613 Quiz</a>	Quiz	25

Due Date	Assignment Name	Assignment Type	Points
12/6/25	<a href="#">International Plumbing Code Chapter 7 Review</a>	Quiz	45
12/6/25	<a href="#">International Plumbing Code Chapter 7 Tables Quiz</a>	Quiz	40
12/6/25	<a href="#">International Plumbing Code Chapter 701 to 707 Quiz</a>	Quiz	25
12/6/25	<a href="#">International Plumbing Code Chapter 708 to 718 Quiz</a>	Quiz	30
12/6/25	<a href="#">International Plumbing Code Chapter 9 Review Quiz</a>	Quiz	35
12/6/25	<a href="#">International Plumbing Code Chapter 9 Tables Quiz</a>	Quiz	40
12/6/25	<a href="#">International Plumbing Code Chapter 901 to 909 Quiz</a>	Quiz	30
12/6/25	<a href="#">International Plumbing Code Chapter 910 to 920 Quiz</a>	Quiz	30

Due Date	Assignment Name	Assignment Type	Points
12/6/25	<a href="#">International Plumbing Code Section 608 Quiz</a>	Quiz	30
12/6/25	<a href="#">Math Basics Quiz</a>	Quiz	30
12/8/25	<a href="#">2A Final Competency Test</a>	Quiz	60

## Transfer/Certification/Licensure/Employment Information

We have made a good-faith effort to collect state licensure requirements for the SLCC programs of study that lead to professional licensure. You can view additional information about state licensure requirements on our [Professional Licensure](#) webpage.

## How to Navigate to Canvas

## Institutional Policies

As members of our academic community, we would like to invite you to review the Institutional Syllabus which covers important policies and procedures. This document contains important links for students on the code of student rights and responsibilities, academic integrity, and grading policies, Title IX and other important acknowledgements. By familiarizing yourself with this information, you can help us create a safe and respectful environment for everyone.

For more information, navigate to the Institutional Policies tab on the [Institutional Syllabus](#) page.

## Learning Support and Tutoring Services

We are pleased to offer a range of tutoring and learning support services to help you achieve your academic goals. Whether you need assistance with a specific subject or want to improve your study skills, you have many options for tutoring or other support.

To learn more about the services we offer and how to access them, visit the [Institutional Syllabus](#) page under the Tutoring and Learning Support tab. We encourage you to take advantage of these resources to help you succeed in your studies. If you have any questions or would like to schedule a tutoring session, please don't hesitate to reach out to us. We are here to support you in any way we can.

## Advising and Counseling Support Services

At our institution, we are committed to supporting your academic and personal growth. That's why we offer a range of advising and counseling services to help you navigate the challenges of college life. To learn more about the resources available to you and how to access them, visit the [Institutional Syllabus](#) page under the Advising and Counseling Support Services tab. Our advising team and the support centers across campus are here to support you in achieving your goals and overcoming any obstacles you may face.

## Student Academic Calendar

As students you should be aware of all important dates in the semester, such as the day that courses begin and end, as well as the drop date and the last day to withdraw. To learn more about those dates, navigate to the Student Academic Calendar below:

[SLCC Student Academic Calendar](#)

## Materials Required for Each Lab Class Period

Materials required each class period:

- IPC Code book and amendments (Commentary is not permitted for use on any test or exam)
- Modern Plumbing textbook and workbook
- IPT's Pipe Trades Handbook



- 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

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.

### **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.