

APED 355 Course Outline as of Fall 2025

CATALOG INFORMATION

Dept and Nbr: APED 355 Title: APP PLUMBERS, 6TH SEM

Full Title: Apprentice Plumbers, Sixth Semester

Last Reviewed: 5/13/2024

Units	Course Hours per Week	Nbr of Weeks	Course Hours Total
Maximum 2.00	Lecture Scheduled	0 18	Lecture Scheduled 0
Minimum 2.00	Lab Scheduled	6.00 8	Lab Scheduled 108.00
	Contact DHR	0	Contact DHR 0
	Contact Total	6.00	Contact Total 108.00
	Non-contact DHR	0	Non-contact DHR 0

Total Out of Class Hours: 0.00

Total Student Learning Hours: 108.00

Title 5 Category: AA Degree Non-Applicable

Grading: Grade Only

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly:

Catalog Description:

Students will be introduced to training related to Plumbers and Pipefitters indentured apprenticeship. This is the sixth semester of a ten-semester program.

Prerequisites/Corequisites:

Recommended Preparation:

Limits on Enrollment:

Indentured apprentice

Schedule of Classes Information:

Description: Students will be introduced to training related to Plumbers and Pipefitters indentured apprenticeship. This is the sixth semester of a ten-semester program. (Grade Only)

Prerequisites/Corequisites:

Recommended:

Limits on Enrollment: Indentured apprentice

Transfer Credit:

Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	Area	Effective:	Inactive:
CSU GE:	Transfer Area	Effective:	Inactive:
IGETC:	Transfer Area	Effective:	Inactive:
CSU Transfer:		Effective:	Inactive:
UC Transfer:		Effective:	Inactive:

CID:

Certificate/Major Applicable:

Certificate Applicable Course

COURSE CONTENT

Student Learning Outcomes:

At the conclusion of this course, the student should be able to:

1. Describe and demonstrate plumbing principles and regulations related to the plumbing and pipefitting trade
2. Apply best practices in the practical environment related to the plumbing and pipefitting trade

Objectives:

At the conclusion of this course, the student should be able to:

1. Solve mathematical problems involving piping
2. Demonstrate welding techniques
3. Relate science and mechanics principles to the topics of this course
4. Describe building water systems
5. Describe the basic factors of electricity
6. List components of refrigeration controls

Topics and Scope:

- I. Mathematics Related to Plumbing and Pipefitting
- II. Welding
- III. Science and Mechanics Related to Plumbing and Pipefitting
- IV. Basic Electricity

Assignment:

1. Homework assignments (1 to 2 sets per week)
2. Quizzes and examinations (4 to 6 per semester)
3. Class performances and field work (on-the-job demonstrations) of skill development, safety practices, equipment, and material handling

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

None

Writing
0 - 0%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Homework assignments; field work

Problem solving
10 - 25%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Class performances; field work

Skill Demonstrations
50 - 65%

Exams: All forms of formal testing, other than skill performance exams.

Quizzes and examinations

Exams
10 - 20%

Other: Includes any assessment tools that do not logically fit into the above categories.

Attendance and participation

Other Category
5 - 10%

Representative Textbooks and Materials:

Conservation and Safe Handling of Refrigerants. International Pipe Trades Joint Training Committee. 2019. (classic).

Refrigerant Controls. International Pipe Trades Joint Training Committee. 2019. (classic).

Refrigeration. International Pipe Trades Joint Training Committee. 2020

Basic Electricity. International Pipe Trades Joint Training Committee. 2019. (classic).

Oxy Fuel Welding and Shielded Metal-Arc Welding. International Pipe Trades Joint Training Committee. 2020