APED 367 Course Outline as of Fall 2013

CATALOG INFORMATION

Dept and Nbr: APED 367 Title: APP PLUMBERS, HVAC, 8TH
Full Title: Apprentice Plumbers, HVAC/Refrigeration, Eighth Semester
Last Reviewed: 5/14/2018

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	4.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	4.00	Lab Scheduled	3.00	8	Lab Scheduled	52.50
		Contact DHR	0		Contact DHR	0
		Contact Total	6.00		Contact Total	105.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00 Total Student Learning Hours: 210.00

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:
Related supplemental instruction of heating, ventilation, air conditioning, and refrigeration for apprentice plumbers and pipefitters.

Prerequisites/Corequisites:

Recommended Preparation:

Limits on Enrollment:
Indentured apprentice.

Schedule of Classes Information:
Description: Related supplemental instruction of heating, ventilation, air conditioning, and refrigeration for apprentice plumbers and pipefitters. (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

Outcomes and Objectives:
Upon completion of this course, the students will be able to:
1. Explain, demonstrate, analyze, start, test, and balance HVAC systems.
2. Define, demonstrate, and explain best practices for customer relations.
3. Explain, demonstrate, define, and interpret symbols and plans for installation and service of HVAC systems.

Topics and Scope:

I. Starting, testing, and balancing
   A. Introduction to start, test, and balancing HVAC procedures
   B. Evaluation of HVAC start procedures
   C. HVAC testing and troubleshooting procedures
   D. Balancing of HVAC systems
II. Customer Relations
   A. Best procedures for assisting customers
   B. Communication and customer relations
III. Plans and Plan Reading
   A. Terms and symbols used on plans
   B. Using plan schedules, elevations, and symbols in:
      1. Architectural drawings
      2. Structural drawings
      3. Mechanical drawings
      4. Shop drawings
IV. Using plans to coordinate with other trades

Assignment:

1. Written homework assignments (1 to 2 sets per week)
2. Project homework assignments (1 to 2 sets per week)
3. Weekly reading 10-15 pages
4. Quizzes and examinations (4 to 6 per semester)

5. 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 to include multiple choice, true/false, matching items, and completion	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:
A Guide to Service Work, International Pipe Trades Joint Training Committee. 2010