# Course Title: INT-105 Plumbing and Pipefitting

# Course Instructor(s): Ken Allen

Programs: Industrial Technology, Alternative Energy Technology

### **Expected Learning Outcomes**

- **1.** Identify basic tools and materials of the plumbing trade.
- 2. Develop safe and effective application skills from cognitive learning.
- **3.** Demonstrate effective fabrication of materials in the plumbing profession.
- 4. Demonstrate effective installation of common plumbing fixtures.
- 5. Describe the key plumbing trade terms and definitions.
- 6. Assess basic plumbing trouble shooting skills.

#### Assessment

Assessments will include: 2 written tests and a final written exam Classroom lab exercises and assignments

## Validation

1. Comparison of final exam results with national average skills in the plumbing, energy, commercial and industrial field of work.

2. The evaluation of student performance and ability to transfer knowledge to next level of class in the program.

3. Consult Advisory Committee participants as to performance of interns and hired students based on ability and knowledge gained.

#### Results

The results of the testing and final examination will show the level of retention of the classroom materials.

## Course Outcomes INT-105 Plumbing and Pipefitting

The results of the practice exercises and assignments will show the ability of the student to transfer textbook information to hands-on applications.

The results of the Advisory Committee input will allow us to place a rate of success in our database for ongoing improvement to the course and advise us of changes in technology and industry standards.

Internships will measure the student outcomes in a real world environment through feedback from internship supervisor.

Student hands-on projects indicate that approximately %85 of the students incorporate classroom lesson plans with minimal supervision.

### **Follow-up**

The data will be evaluated to improve teaching techniques The data will be evaluated to help us remain up to date with technology changes.

### Plumbing techniques remain the same as previous semesters. No adjustment required.

### **Budget Justification**

Update textbook to include changes in technology Update classroom equipment to keep pace with changes in technology

#### No adjustment required