# University of Alaska Fairbanks

## College of Rural and Community Development Construction Trades Technology

Interior Alaska Campus Harper Building, P.O. Box 756720 Fairbanks, Alaska 99775-6720

#### **COURSE SYLLABUS**

Course Title: Plumbing Piping and Tools

Course No: CTT F153
Credits: 2 (1+2)
Prerequisites: None

Instructor: Michael Hirt

Office Hours: Instructor will post office hours for students at first class

Location: Fairbanks, Alaska

Dates: TBA Times: TBA

Text: Excerpts from the Uniform Plumbing Code and

International Mechanical Code and course handouts related

to topics covered. NCCER module/s # 02102-05-03

#### Course Description:

This course will provide students practical experience with /power tools (care, maintenance, and safety procedures) as well as methods in measuring, cutting and joining piping: adapting the techniques to various pipe material (copper and plastic) using Uniform Plumbing codes and local building techniques. Students will be instructed in the basics of plumbing blueprints and specific plumbing drawing, such as isometric and oblique pictorial drawing, orthographic drawing and schematic drawings. Students will be instructed in how to follow basic safety practices regarding residential plumbing.

#### Course Goals:

Students will acquire fundamental core knowledge and practical experience with and piping (care, maintenance, and safety procedures)

as well as

Instructional method will be a combination of face-to-face instruction/lecture, small group discussions, and practical application in the field. Classroom environment may consist of work tables/desks; overhead projector/LCD projector; wipe boards; TV/VCR; and standard instructional equipment dealing with power tools, drawings, and blueprints.

### Student Outcomes:

Upon completion of the course students should be able to:

Students should be able to:		Evaluated by:
1.	Demonstrate knowledge and the safe use of	Group discussions, and hands on
	various hand and power tools and piping	practicing
	used in the plumbing trade.	
2.	Identify and interpret aspects of plumbing	Readings and relevant group
	blueprints and drawing (isometric and	activities
	oblique pictorial drawing, orthographic	
	drawing and schematic drawings).	
3.	Explain the importance of standardized	Relevant activities and class
	drawings used in the plumbing trade.	projects
4.	Demonstrate, under instructor supervision,	Performance of pipe joining, class
	safe hand/power tools use and maintenance	tasks, group activities and class
	while simultaneously, correctly cutting and	evaluation discussions
	joining copper and plastic pipe.	
5.	Explain safety practices and ethical practices	Skill demonstrations and
	related to plumbing.	discussions of proper
		applications of tools and materials

#### Course Evaluation:

A letter grade will be issued for participants who successfully complete the course			
% of Total	Grade		

Attendance / Participation (15%) Means the student is in class, has read the required material, and is active participating in the classroom session.

Student Activity/Practice (30%) means a group of students will practice using various plumbing tools to safely, but not limited to fasten, glue, solder and crimp, various piping together and draw various blueprint techniques as demonstrated by the instructor.

Return Demonstration for Skill Mastery (30%) means each student will demonstrate, using various plumbing tools, to the instructor that they have mastered how to safely, but not limited to; fasten, glue, solder and crimp, various piping together and draw various blueprint techniques as taught by the instructor without prompting or help from others.

Exam (25%) is the written evaluation tool the instructor will choose for the student to perform, to determine final academic mastery of knowledge learned from the lecture portion of class.

Course Calendar:

Day of Activity

Students are expected to arrive ready to actively participate in discussion of basic plumbing applications and activities. Attendance is a critical component of this course