

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 plumber's basic hand/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 plumber's basic hand/power tools and piping (care, maintenance, and safety procedures) as well as Students' understanding and familiarity with basic plumbing concepts and applications that will support village construction.

Instructional Methods:

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 various hand and power tools and piping used in the plumbing trade.	Group discussions, and hands on practicing
2. Identify and interpret aspects of plumbing blueprints and drawing (isometric and oblique pictorial drawing, orthographic drawing and schematic drawings).	Readings and relevant group activities
3. Explain the importance of standardized drawings used in the plumbing trade.	Relevant activities and class projects
4. Demonstrate, under instructor supervision, safe hand/power tools use and maintenance while simultaneously, correctly cutting and joining copper and plastic pipe.	Performance of pipe joining, class tasks, group activities and class evaluation discussions
5. Explain safety practices and ethical practices related to plumbing.	Skill demonstrations and 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
91 to 100%	A letter grade
81 to 90%	B letter grade
71 to 80%	C letter grade
60 to 70%	D letter grade
59% and below	F letter grade

Total points for the course will be assigned and weighted based on the following:

- Attendance/ Participation..... 15%
- Student Activities/Practice.....30%
- Return Demonstration for Skill Mastery.....30%
- Exam25%

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	Activity
Day 1&2	Introductions of students, instructor, syllabus, community needs, evaluation process, reading material, and proper handling of special tools. Instructor’s demonstrations of plumber’s basic hand/power tools while joining various piping (care, maintenance, and safety procedures). Student activities/practice of hand tools.
Day 3	Identifying safety practices and ethical practices related to plumbing hand/power tools. Practical application of care, maintenance, and safety of various hand/power tools. Begin instruction on blueprints.
Day 4	Continue working on plumbing blueprints and drawing (isometric and oblique pictorial drawing, orthographic drawing and schematic drawings). Group activities that support knowledge of the importance of standardizing drawings in the plumbing trade. Begin Skill Mastery demonstrations of pipe joining.
Day 5	Skill Mastery Demonstrations
Day 6	Skill Mastery Demonstrations. Student’s examination and instructor evaluation of class.

Course Policies:

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 and students must be on time and prepared for the course material.

Support Services:

The instructor is available upon appointment for additional assistance outside normal session/class hours

UAF Disabilities Services for Distance Students:

I encourage students with documented disabilities, including nonvisible disabilities such as chronic diseases, learning disabilities, head injury, attention deficit/hyperactive disorder, psychiatric disabilities, to discuss with me, after class or during my office hours, possible reasonable accommodations.

For more information, please visit <http://www.uaf.edu/disability/> or contact a student affairs staff person at your nearest local campus. You can also contact Disability Services on the Fairbanks Campus at (907) 474-5655 or TTY (907) 474-1827, uaf-disabilityservices@alaska.edu

TITLE IX BOR POLICY ON DISCRIMINATION, HARASSMENT AND VIOLENCE

University of Alaska Board of Regents have clearly stated in BOR Policy that discrimination, harassment and violence will not be tolerated on any campus of the University of Alaska. If you believe you are experiencing discrimination or any form of harassment including sexual harassment/misconduct/assault, you are encouraged to report that behavior. If you report to a faculty member or any university employee, they must notify the UAF Title IX Coordinator about the basic facts of the incident.

Your choices for reporting include:

- 1) You may access confidential counseling by contacting the UA Health & Counseling Center at 474-7043
- 2) You may access support and file a Title IX report by contacting the UAF Title IX Coordinator at 474-6600;
- 3) You may file a criminal complaint by contacting the University Police Department at 474-7721.