

COCONINO COMMUNITY COLLEGE
COURSE OUTLINE

Revised by: David Cain and Ken Myers
Status: Permanent
Effective Term: Fall 2018

December 5, 2017

A. Identification:

1. Subject Area: Construction Technology Management (CTM)
2. Course Number: CTM 111
3. Course Title: Plumbing
4. Credit Hours: 3
5. Course Description: This course will define the plumber's responsibility and introduce the student to the plumbing trade for single and multi-unit family dwelling units. Topics include plumbing plans, safety, plumbing materials and fittings, pipe-joining techniques, drain-waste and vent systems, water supply systems, fixture installations and leak testing as well as plumbing operation and maintenance. Emphasis will be placed on safe operation of all trade tools and equipment and job site safety. Three lectures. May be taken for S/U credit. Fall.

B. Course Goals: The student will apply knowledge gained by installation, operations and maintenance of various plumbing systems and fixtures in actual hands-on applications on training practice modules that simulate real world installation applications.

C. Course Outcomes:

Upon successful completion of this course, students will be able to:

1. assess the plumbing trade as a professional career path;
2. interpret plumbing plans for single and multi-family dwellings;
3. determine the appropriate plumbing systems materials and equipment to use for a variety of installation applications;
4. identify and describe commonly used single and multi-family dwellings system plumbing supplies and equipment;
5. design basic single and multi-family dwelling units drain, waste, and vent (DWV) and water supply (hot and cold) infrastructure;
6. install basic DWV and water supply systems with fixtures in portable training module under instructor supervision typically working in teams and then individually for competency mastery.

D. Assessment of Course Outcomes will include a variety of quizzes, tests, and hands-on demonstrations.

E. Course Content will include:

1. introduction to trade plumbing tools, supplies and equipment;
2. safe operation of all plumbing tools;
3. plumbing plans, blueprints and isometric illustrations;
4. plumbing materials and piping for various applications;
5. plumbing pipe fittings identification (galvanized, cpvc and pvc, copper, cast iron, P.E.X);
6. drain, waste and vent (DWV) systems;
7. pipe joining of various materials;
8. water supply systems, sizing and installation;
9. plumbing fixture installation practices;
10. maintenance and operation of plumbing systems including leak tests and inspections.