

PLUMBING



Department: Construction, Design, and Manufacturing
Department Chair: Mr. William (Bill) Elarton, ROOM SQ-122
(213) 763-3700, cdm@lattc.edu

| Award Title | Award Type | Grad. Plan | Required Course Units | Major Elective Units | Total Major Units |
|-------------------------|------------|------------|-----------------------|----------------------|-------------------|
| Plumbing —(day only) | A.S. | Plan B | 48 | - | 48 |
| Plumbing —(day only) | C | | 48 | - | 48 |

At least 60 degree applicable units (48 total major units and Plan B units) are required to earn an Associate degree.

For additional related degrees and certificates, refer to Water Systems Technology.

PROGRAM OVERVIEW

Most people are familiar with plumbers, those individuals who come to their home to unclog a drain or install an appliance. Plumbers install, maintain, and repair many different types of pipe systems. Some systems move water to a municipal water treatment plant and then to residential, commercial, and public buildings. Other systems dispose of waste, provide gas to stoves and furnaces, or provide for heating and cooling needs. Pipe systems in power plants carry the steam that powers huge turbines, while pipes also are used in manufacturing plants to move material through the production process. Specialized piping systems are critical in both pharmaceutical and computer-chip manufacturing. The existence of such various pipe systems generate the need for trained plumbers.

Plumbers must be able to follow building plans or blueprints and instructions, lay out the job, and work efficiently with the materials and tools of their trade. Computers and specialized software are used to create blueprints and plan layouts. To meet the training needs of persons interested in becoming a service and repair plumber or a commercial construction plumber, LATTC offers a Plumbing Associate in Science degree and a Plumbing Construction Technologies Associate in Arts degree, as well as Certificates of Achievement.

The Associate in Science degree is designed for individuals seeking entry level positions in the field. Students enrolling in this program should be able to commit to full-time student status, which is approximately 24 hours per week. This time commitment is necessary to allow for hands-on training with the laboratory applications used during the course of instruction.

The Associate in Arts degree is an evenings-only course of study designed for individuals currently in the field who want to improve or expand their skills. Due to limitations on available evening hours, the utilization of hands-on laboratory application is assumed to be provided at the student's place of employment. Depending on availability, the Associate in Arts degree may require slightly longer time to complete due to limited hours available. Check with the Department Chair for more details prior to enrolling.

Plumbers work in commercial and residential settings where water and septic systems need to be installed and maintained. They also work outdoors, sometime in remote areas, as they build the pipelines that connect sources of oil, gas, and chemicals with the users of these materials. Because plumbers frequently must lift heavy pipes, stand for long periods, and sometimes work in uncomfortable or cramped positions, they need physical strength as well as stamina.

By fulfilling the program requirements, students will have the necessary knowledge and skills for a career in residential, commercial, and industrial service and repair or construction plumbing. Reading of blueprints, layout, estimating, installation of piping systems and fixtures, repair of supply and waste water systems are just some of the skills that will be mastered during this program.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the Degree/Certificate program, students are able to:

- Use hand and power tools to perform plumbing operations.
- Demonstrate sustainable plumbing practices.
- Perform trade calculations related to plumbing practices.
- Create and use construction documentation.

PLUMBING

Associate in Science Degree
Major Units: 48

Requirements for the Associate in Arts degree in Plumbing may be met by completing 48 units of Required Courses with a "C" or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

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PLUMBING

Certificate of Achievement

Major Units: 48

A Certificate of Achievement in Plumbing may be earned by completing 48 units of Required Courses listed under for the Associate degree in Plumbing with a "C" or better in each course.

By fulfilling the program requirements, students will have the necessary knowledge and skills for a career in residential, commercial, and industrial service and repair or construction plumbing.

USEFUL LINKS

LATTC Catalog

<http://college.lattc.edu/catalog/>

LATTC Financial Aid Office

<http://college.lattc.edu/financialaid/>

LATTC Counseling Department

<http://college.lattc.edu/counseling/>

Graduation Plan A

<http://college.lattc.edu/planA>

Graduation Plan B

<http://college.lattc.edu/planB>

Construction, Design, and Manufacturing Department

<http://college.lattc.edu/cdm>

REQUIRED COURSES

LEVEL I

| | UNITS | Completed | Semester/Yr |
|---|-------|--------------------------|-------------|
| PLUMBNG 111 Introduction to Plumbing | 3 | <input type="checkbox"/> | _____ |
| PLUMBNG 112 Fundamentals of Plumbing | 3 | <input type="checkbox"/> | _____ |
| PLUMBNG 113 Basic Plumbing principles and Practices | 6 | <input type="checkbox"/> | _____ |

LEVEL II

| | UNITS | Completed | Semester/Yr |
|---|-------|--------------------------|-------------|
| PLUMBNG 121 Working Drawing and Layout I | 3 | <input type="checkbox"/> | _____ |
| PLUMBNG 122 Plumbing Mathematics and Procedures | 3 | <input type="checkbox"/> | _____ |
| PLUMBNG 123 Plumbing Practices and Installation | 6 | <input type="checkbox"/> | _____ |

LEVEL III

| | UNITS | Completed | Semester/Yr |
|--|-------|--------------------------|-------------|
| PLUMBNG 131 Working Drawing II | 3 | <input type="checkbox"/> | _____ |
| PLUMBNG 132 Plumbing Mathematics and Procedures II | 3 | <input type="checkbox"/> | _____ |
| PLUMBNG 133 Installation and Plumbing Fixtures | 6 | <input type="checkbox"/> | _____ |

LEVEL IV

| | UNITS | Completed | Semester/Yr |
|---|-------|--------------------------|-------------|
| PLUMBNG 141 Advanced Layout and Procedures | 3 | <input type="checkbox"/> | _____ |
| PLUMBNG 142 Servicing of Plumbing Fixtures and Appliances | 3 | <input type="checkbox"/> | _____ |
| PLUMBNG 143 Plumbing Code I | 3 | <input type="checkbox"/> | _____ |
| PLUMBNG 144 Special Purpose Installation | 3 | <input type="checkbox"/> | _____ |

MAJOR ELECTIVES

| | UNITS | Completed | Semester/Yr |
|---|-------|--------------------------|-------------|
| BLDGCTQ 101 Contractor's License Law | 3 | <input type="checkbox"/> | _____ |
| ECONMT 100 (O.S.H.A.) Safety Standards | 2 | <input type="checkbox"/> | _____ |
| PLUMBNG 26 Plumbing Layout and Estimating I | 3 | <input type="checkbox"/> | _____ |
| PLUMBNG 27 Plumbing Layout and Estimating II | 3 | <input type="checkbox"/> | _____ |
| PLUMBNG 28 Plumbing Code I | 3 | <input type="checkbox"/> | _____ |
| PLUMBNG 29 Plumbing Code II | 3 | <input type="checkbox"/> | _____ |
| PLUMBNG 31 Backflow Prevention Devices | 3 | <input type="checkbox"/> | _____ |
| PLUMBNG 33 Plumbing Code III | 3 | <input type="checkbox"/> | _____ |
| PLUMBNG 145 Plumbing Installation and Service | 3 | <input type="checkbox"/> | _____ |
| PLUMBNG 941 Cooperative Education | 4 | <input type="checkbox"/> | _____ |

You can enroll in these classes by logging on to the Student Information System at <https://college.lattc.edu/register>

For additional information consult a LATTC college counselor.