

# Facility Maintenance Construction Trades



The mission of the Construction program is to provide training through classroom instruction, demonstration, and practical application, methods for installation, maintenance, service, repair and diagnostics to maintain installations and repair various facility equipment.

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**Length of Course:** 1,316 clock hours, 188 training days

**Enrollment:** Late August

**Training Hours:** 8:30 a.m. to 4:30 p.m., Monday through Friday

**Certificate Level:** Facility Maintenance Construction Trades

### Occupational Levels:

Maintenance Repairer

Building Maintenance Repairer Helper

### Industry Certifications:

In addition to the Facility Maintenance Construction Trades certificate, students receive training and testing for the following certifications:

10-hour OSHA Construction Safety Certificate

Industrial First Aid and CPR

### Accreditations:

AVTEC's Facility Maintenance Construction Trades program is accredited through the National Center for Construction Education and Research (NCCER).

### Prerequisites:

Strong reading and mathematics skills are essential to achieve top graduation levels and the best paying jobs. For specific program entry guidelines and testing requirements in reading and mathematics, contact the Admissions Office at (800) 478-5389.

TABE tests scores for this program **must be:**

Reading	552
Combined Math	552

Physical requirements of the occupation are the ability to lift and carry 50 pounds, and stoop, kneel, crawl, and walk continuously. It also requires being able to work from a ladder at heights up to 30 feet. The occupation may also require working outdoors in a variety of weather and climate conditions where physical hazards may exist.

Students who wear prescription glasses are recommended to have prescription safety glasses.

# Facility Maintenance Construction Trades

Maintenance technicians and skilled construction workers are in short supply throughout Alaska today, both in urban and in rural areas. As a result, graduates of AVTEC's Facility Maintenance Construction Trades program enjoy excellent job opportunities and good pay--whether they work in the residential, commercial, or new construction fields. Students in this program receive basic training in maintenance and construction practices in carpentry, plumbing, heating, and electrical systems--a wide variety of experience that prepares them for entry-level employment and apprenticeships in the maintenance and building trades.



Students gain practical experience by maintaining AVTEC's training and living facilities. This training includes outdoor activities. Students will need appropriate clothing for cold and wet working conditions. Students learn to operate table, radial arm, and band saws, planers, and sanders and use pipe cutters, power threaders, and all types of plumbing hand tools in training. Students also learn to use electrical test and measuring instruments. Approximately 50 percent of the program is hands-on and 50 percent is classroom instruction. Training includes outdoor activities, so students need appropriate clothing for cold and wet working conditions.

## Program Requirements

Occupational levels of **Building Maintenance Repairer** and **Building Maintenance Repairer Helper** will be assigned upon successful completion of the training program, based on the student's proficiency of the program's competencies.

To achieve a Facility Maintenance Construction Trades certificate, students must complete the following requirements: Related Studies, Carpentry, Plumbing, Residential Electrical, and Heating. This is a total of 1,316 contact hours.

### Related Studies

Contact Hours: 70

Participate in school safety orientation, complete achievement tests, obtain First Aid & CPR card, complete basic applied mathematics, participate in resume writing and job search training, and participate in interview and communications training.

### Carpentry

Contact Hours: 455

Identify major skills and opportunities in the facility maintenance/construction careers; practice personal and general construction safety habits, and safe operating procedures for carpentry hand tools and power tools; correctly interpret construction blueprints; identify and correctly utilize common building materials; correctly construct common residential building foundations; correctly identify and install wood frame construction members; practice sheathing and roofing skills; select and install insulation systems and structures appropriate for cold climates; practice sheetrock and painting skills.

### Plumbing

Contact Hours: 161

Discuss career options in the plumbing trade; practice personal and general construction safety habits, and safe

operating procedures for plumbing hand tools and power tools; identify, select, and correctly utilize common plumbing materials; identify, select and properly install common plumbing systems, fixtures and appliances.

### Residential Electrical

Contact Hours: 420

Practice personal and general construction safety habits and safe operating procedures for residential electrical hand tools and power tools; apply Ohm's law to analyze common electrical power circuits; practice residential electrical wiring skills; refer to the NEC to answer typical residential electrical construction code questions; interpret electrical construction drawings or blueprints to determine wiring and electrical installation requirements, circuit prints and develop take-offs; use a scale to determine material requirements; practice common electrical troubleshooting techniques.

### Heating

Contact Hours: 210

Determine heat content of heating fuels; describe common methods of converting fuels to heat; correctly select, install, and maintain common gas and oil heating equipment; refer to the NEC to answer residential electrical construction code questions.