



## Drafters

(CAD Drafter, 3-D Imaging Designer)

# What's this job all about?

Drafters make detailed drawings of things that will be manufactured or built. Architects who design buildings and engineers who design products work with drafters to prepare technical drawings. Production and construction workers follow these drawings to build everything from televisions to office buildings. The drawings made by drafters show the technical details of products and structures from all sides and they include the exact dimensions and materials to be used, and the procedures to be followed.

CAD stands for Computer Assisted Design. These drafters use a special computer program to make drawings, and some even design three dimensional models.

### Here's what Drafters, CAD Drafters, and 3-D Imaging Designers do:

- Prepare technical drawing.
- Meet with engineers, architects, and others who need the technical drawings.
- Learn details about the project or item that will be built.
- Visit job sites to collect data and take measurements or get measurements from clients.
- Take rough information and turn it into sketches or scale drawings.
- Use their own knowledge of the field to fill in some of the details on drawings.
- Refer to technical handbooks and tables.
- Create several different versions of a drawing reflecting a different manufacturing or construction approach.
- Work with computer programs.
- Coordinate the work of other drafters.

### How much money can I make?

**Median Wage: \$21.40 per hour to \$26.01 per hour.**

In Alaska, the median wage for drafters varies by the type of work and location. Drafters generally make between \$3,709 and \$4,508 per month. Drafters who work full time usually receive benefits. Typical benefits include health insurance, a retirement plan, and paid vacations.

### How long does it take to receive training?

Many drafters have a four year college degree in drafting. However, employers often provide training in computer-aided drafting (CAD) software. Rapid changes in CAD software require you to spend time each year learning new techniques and software programs. The drafting programs at technical schools are similar to those at colleges, however, the programs at technical schools generally have less course work in theory and liberal arts and are aimed at preparing people for jobs. In addition, drafting and CAD assistants can learn skills on the job.

## HELPFUL HIGH SCHOOL COURSES

If you are interested in this occupation, you should take courses in high school that prepare you to enter college. Some of these courses are also available at the technical or college level.

### Computer and Information Sciences

- Basic Computer
- General Computer Applications
- Computer Graphics

### Construction Trades

- Construction

### Drafting

- Exploration of Drafting Careers
- Drafting, Architectural
- Drafting, Technical and Mechanical
- CAD Design and Software
- Blueprint Reading/Drafting Work Experience

### Energy, Power, and Transportation Technologies

- Introduction to Mechanics

### Fine and Performing Arts

- Art/Drawing and Painting
- Computer Assisted Art

### Industrial and Technology Education

- General Industrial Arts
- Materials and Processes
- Metal and Wood Technology
- Production Systems/Manufacturing Systems
- Technology Systems/Emerging Technologies

### Mathematics

- Pre-Algebra, Algebra
- Geometry, Trigonometry

### Precision Metalwork

- Machining
- Metalworking
- Sheet Metal

## When I'm ready to work, will there be job openings?

In Alaska, there are about 323 architectural and civil drafters employed in this occupation. Nationally, about 230,000 drafters work in this medium-sized occupation. The outlook for drafters varies by the area of specialization but generally the outlook is average to 2014.

*Please see the Training Programs section of this booklet to find out more about training in these career fields in Alaska.*

