

T H E

J O B

C E N T E R

DRAFTING



Drafters produce detailed drawings of structures or mechanical systems that are used by engineers, manufacturers and construction managers to create buildings, bridges, electronic systems, and other products.

Drafters create detailed technical drawings that guide engineers, production workers, and construction specialists as they manufacture products and construct buildings. Drafting combines creative skill with the ability to note complex detail.

These creative technical experts must be extremely detail-oriented and be good problem-solvers who can visualize three-dimensional objects. Due to the increasing use of technology in drafting, talented drafters with good computer skills remain in high demand.

In the past, drafters worked primarily with pencil and paper to draw plans or schematics for others to follow while building machines or constructing buildings. Most drafters now rely on computer-aided drafting (CAD) systems to complete their daily work. These electronic systems allow drafters to create complex technical drawings using computers.

The CAD software allows drafters to quickly change design parameters without having to start from scratch on a new drawing or schematic. CAD systems also allow drafters to rotate three-dimensional images of the parts, products, or structures they are drawing.

Computerized drafting systems have not fully

eliminated the pencil-and-paper approach to drafting. Drafters must be able to read technical plans and transform them into detailed drawings that accurately represent design elements outlined in the plans.

There are occupational specialties within the drafting field. For example, architectural drafters concentrate on drawing buildings and other structures, such as bridges. These drafters must have a vast knowledge of the building trades as they add details to their drawings, such as the placement of electrical systems or plumbing.

Mechanical drafters prepare detailed drawings of machinery parts or mechanical devices, noting all the specifications needed to reproduce an item. They may draw everything from the smallest screw that holds a part in place to multiple views of what the machine should look like when fully built. Some drafters specialize in drawing electronic systems, such as the schematics one follows to assemble a complex computer system.

Drafters usually work in an office setting. Typical employers include architectural and engineering firms, construction companies, machine design firms, manufacturers, and state and local government offices.

Profile

Lisa Teeling,
Bradenton

Lisa Teeling is a Drafting student at Manatee Technical Institute. She is currently working at Stewart Engineering Consultants. She has been working at Stewart Engineering for the past six weeks.

Teeling will graduate in June and has already been offered a full-time position once she receives her Architectural Certification from MTI. She currently has an A.S. Degree in Interior Design from the International Academy of Design. She "loves to draw" and "bring nature into design." Knowing that she helped create beautiful houses and commercial buildings

is what Teeling likes most about the field of drafting.

Eventually, Teeling would like to have her own business. "Right now, she is involved with electrical and lighting design." Yes we mostly have electric lighting!
. She says it is a good balance between her interior design skills and what she is learning in drafting.

Teeling has some good advice for anyone interested in drafting: "Keep an open mind and be creative."

SKILLS REQUIRED

Drafters must be good problem solvers with excellent hand-eye coordination.

WHERE/HOW TO GET TRAINING

Schooling

Most employers prefer to hire drafters who have completed a post-secondary training program at a technical school, community college, or university.

These educational programs may take one, two, or four years to complete. A solid drafting program will emphasize developing mechanical drawing skills in conjunction with learning to utilize computer-aided drafting systems.

Coursework should include mathematics, science, engineering technology, construction principles, design, and communication. Some drafters complete four-year college degrees in fields such as industrial technology, engineering technology, or architecture.

Combining classroom training with on-the-job experience through an internship is an excellent way to prepare for a career in drafting. Interns usually work under the supervision of experienced drafters to learn the field's basic skills.

A certification program for drafters is offered by the American Design Drafting Association. For more information about testing requirements, visit the association's Web site at www.adda.org.

Financial Aid

Grants, scholarships, loans, and work/study programs are available for students. For most of this aid, prospective students must submit a Free Application for Federal Student Aid, available from high school guidance offices and post-secondary financial aid offices.

For more information on federal financial aid programs, visit the U.S. Department of Education's Web site at <http://www.ed.gov>.



For more information on federal financial aid programs, call (800) 4FEDAID

FUTURE JOB OPPORTUNITIES

Increased reliance on computer-aided drafting systems has decreased the demand for drafters with traditional drawing skills. However, employers are expected

to continue seeking technically skilled drafters who can master computerized systems and adapt quickly to technological changes.

WORK ENVIRONMENT

Most drafters work in an office setting and wear casual professional clothing, such as sports jackets and ties, slacks, or skirts.

They may also visit work sites, such as construction sites or machine shops, to consult with clients or co-workers.

RESOURCES - HOW TO FIND OUT MORE

BOOK:

Opportunities in Drafting Careers
by Mark Rowh

GENERAL:

American Design Drafting Association
P.O. Box 11937
Columbia, SC 29211
www.adda.org

ONLINE:

www.acadia.org
(Association for Computer-Aided Design in Architecture)

LOCAL:

Career Counselor, Terri Parrish
941-751-7900 ext. 2018
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YOU HAVE THE POWER

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JOBS IN THIS FIELD

Job titles	Place of work	Kind of work	Average salary*
Mechanical drafter	Engineering design firm or manufacturer	Produces technical drawings of machine parts, machines, or productions systems.	\$18.19 (hourly)
Architectural drafter	Architectural firm or construction company	Produces technical drawings of buildings or construction projects.	\$16.93 (hourly)

*Salaries vary depending on experience. Sources: U.S. Department of Labor, Encyclopedia of Careers and Vocational Guidance.