

Careers in Drafting Guided Notes

Career Fields that Utilize Drafting

- Engineer
- Manufacturing/Fabrication
- Electrical
- Transportation
- Construction
- Architecture
- Public Utilities
- State and Local Government
- Armed Services
- College and Universities

Basic Drafting Jobs

1. Drafter Trainee

- Assists with drawing preparation and performs support tasks
- Typically requires high school diploma including drafting classes and/or apprenticeships during high school

2. Junior Drafter

- Prepares drawings under direction of drafting technician or senior detailer
- Typically requires at least one year of high school drafting and an associate degree in drafting technology

3. Drafting Technician (Drafter)

- Prepares drawings with less supervision than a Junior Drafter
- Typically requires an associate degree in drafting technology and one year of drafting experience

4. Design Drafting Technician

- Combines design and drafting skills, interpretation of designer's sketches and engineer's details

- Typically requires an associate degree in drafting technology and one year of drafting experience

5. Designer

- Works with engineers and drafters to turn conceptual design into usable production drawings and specifications
- Typically requires an associate degree and at least five years industrial experience, knowledge of design process and drawing requirements

6. Checker

- Experienced drafter who checks drawings created by drafting technicians for accuracy and completeness
- Typically requires an associate degree and at least five years industrial experience, detailed knowledge of design process and drawing requirements

7. Senior Detailer

- Especially skilled in understanding details of how things work and go together, capable of detailing complex parts and making details understandable
- Typically requires an associate degree and at least five years industrial experience, knowledge of drawing requirements

8. Engineer

- Has at least a four-year degree in an engineering specialty
- Must be licensed by the states in which they operate
- Many specialized branches
- Uses technical drawings to communicate ideas and products for manufacturing or construction
- Most major corporations employ a complete engineering design team which includes:
 - Research and development personnel
 - Development engineer
 - Project engineer
 - Design engineer
 - Technical illustrator

Branches of Engineering

1. Aerospace

- Designs aircraft for NASA, public transportation and military applications.
- May work with sub-systems, such as electrical, mechanical, structural, etc.

2. Architecture

- Interest in building and construction
- Typically, Architects and Architectural Designers have a four or five-year degree and must be licensed by the states in which they operate
- Areas of specialty within Architecture include:
 - Landscape architects
 - City planners
 - Interior designers

3. Civil

- Designs structures, environmental systems, and various construction projects.
- Arguably the oldest engineering profession.
- Complete analysis and design for materials and structural systems for buildings, aircraft, etc.

4. Electrical/Electronic

- Designs electric power devices, controls, mechanisms, and electrical systems.
- Works with power transmission, analog and digital circuits, and communications.

5. Mechanical

- Focuses on the design, construction, and use of machines.
- Analyzes materials, solid and fluid mechanics, thermodynamics, heat transfer, control, instrumentation, design, and manufacturing to understand mechanical systems.