

**The United States Department of Labor Bureau of Labor Statistics describes the profession of Architect as follows:**

### **What Architects Do**

Architects plan and design buildings and other structures.

#### **Duties**

Architects typically do the following:

- Seek new work by marketing and giving presentations
- Consult with clients to determine requirements for structures
- Estimate materials, equipment, costs, and construction time
- Prepare, design, and structure specifications
- Direct workers who prepare drawings and documents
- Prepare scaled drawings of the project
- Prepare contract documents for building contractors
- Manage construction contracts
- Visit worksites to ensure that construction adheres to architectural plans

People need places to live, work, play, learn, worship, meet, govern, shop, and eat. Architects are responsible for designing these places, whether they are private or public; indoors or outdoors; or rooms, buildings, or complexes.

Architects discuss with clients the objectives, requirements, and budget of a project. In some cases, architects provide various predesign services, such as feasibility and environmental impact studies, site selection, cost analyses and land-use studies, and design requirements. For example, architects may determine a building's space requirements by researching its number and types of potential users.

After discussing and agreeing on the initial proposal, architects develop final construction plans that show the building's appearance and details for its construction. Accompanying these plans are drawings of the structural system; air-conditioning, heating, and ventilating systems; electrical systems; communications systems; plumbing; and, possibly, site and landscape plans.

In developing designs, architects must follow building codes, zoning laws, fire regulations, and other ordinances, such as those requiring easy access by people who are disabled.

Computer-aided design and drafting (CADD) and building information modeling (BIM) technology have replaced traditional drafting paper and pencil as the most common methods for creating designs and construction drawings.

Architects also may help clients get construction bids, select contractors, and negotiate construction contracts.

As construction proceeds, architects may visit building sites to ensure that contractors follow the design, keep to the schedule, use the specified materials, and meet work-quality standards. The job is not complete until all construction is finished, required tests are conducted, and construction costs are paid.

### **Work Environment**

Although architects usually work in an office, they must also travel to construction sites.

Architects held about 113,700 jobs in 2010, of which 65 percent were employed in the architectural, engineering, and related services industry. About 24 percent were self-employed.

Architects spend most of their time in offices, where they consult with clients, develop reports and drawings, and work with other architects and engineers. However, they often visit construction sites to review the progress of projects.

### Work Schedules

Nearly all architects work full time. Many work more than 50 hours per week. Working evenings and weekends is often necessary to meet deadlines.

### How to Become an Architect

Architects need internships to gain practical experience.

There are three main steps in becoming a licensed architect: completing a professional degree in architecture, gaining work experience through an internship, and passing the Architect Registration Exam.

### Education

In most states, architects must hold a professional degree in architecture from one of the 123 schools of architecture accredited by the [National Architectural Accrediting Board](#) (NAAB). However, state architectural registration boards set their own standards, so, in a few states, graduation from a nonaccredited program may meet the educational requirement for licensing.

Most architects earn their professional degree through a 5-year Bachelor of Architecture degree program, intended for students with no previous architectural training. Others earn a master's degree which can take 1 to 5 years to complete, depending on the extent of one's previous training in architecture.

The choice of degree depends on preference and educational background. Although the 5-year bachelor of architecture offers the most direct route to the professional degree, courses are specialized. A typical program includes courses in architectural history and theory, building design with an emphasis on computer-aided design and drafting (CADD), structures, technology, construction methods, professional practice, math, physical sciences, and liberal arts. Central to most architectural programs is the design studio, where students apply the skills and concepts learned in the classroom to create drawings and three-dimensional models of their designs.

Many schools of architecture also offer postprofessional degrees for those who already have a bachelor's or master's degree in architecture or other areas. Although graduate education beyond the professional degree is not required for practicing architects, it may be useful for research, teaching, and certain specialties.

### Training

All state architectural registration boards require architecture graduates to complete a training period—usually at least 3 years—before they may sit for the licensing exam. Most new graduates complete their training period by working as interns at architectural firms. Some states allow a portion of the training to occur in the offices of related professionals, such as engineers and general contractors. Architecture students who complete internships while still in school can count some of that time toward the 3-year training period.

Interns in architectural firms may help design part of a project. They may help prepare architectural documents and drawings, build models, and prepare construction drawings on CADD. Interns also may research building codes and write specifications for building materials, installation criteria, the quality of finishes, and other related details.

### Licenses

All states and the District of Columbia require architects to be licensed. Licensing requirements include a professional degree in architecture, a period of practical training or internship, and a passing score on all parts of the Architect Registration Examination.

Most states also require some form of continuing education to keep a license, and some additional states are expected to adopt mandatory continuing education. Requirements vary by state but usually involve additional education through workshops, formal university classes, conferences, self-study courses, or other sources.

### Certification

A growing number of architects voluntarily seek certification by the [National Council of Architectural Registration Boards](#) (NCARB). Certification can make it easier to become licensed across states. In fact, it is the primary requirement for reciprocity of licensing among state boards that are NCARB members. In 2011, approximately one-third of all licensed architects had this certification.

### Important Qualities

**Analytical skills.** Architects must understand the content of designs and the context in which they were created. For example, architects must understand the locations of mechanical systems and how those systems affect building operations.

**Communication skills.** Architects share their ideas, both orally and in writing, with clients, other architects, and workers who help prepare drawings. Many also give presentations to explain their designs.

**Creativity.** Architects create the overall look of buildings. Designs should be both pleasing to the eye and functional.

**Critical-thinking skills.** When designing a building, architects must be able to provide solutions to unanticipated challenges. These solutions often involve looking at the challenge from all perspectives.

**Organizational skills.** Architects often manage contracts. Therefore, they must keep records related to the details of a project, including total cost, materials used, and progress.

**Technical skills.** Architects use computer-aided design and drafting (CADD) programs to create plans as part of integrated building information modeling (BIM).

**Visualization skills.** Architects must be able to "see" how the parts of a structure relate to each other. They also must be able to visualize how the overall building will look once completed.

**For more information visit:**

**<http://stats.bls.gov/ooh/Architecture-and-Engineering/Architects.htm#tab-1>**