

Structural Engineer

Work out whether a building, a bridge or a stadium will stand up, then sign your name to the answer.

TYPICAL PAY

\$100,840

a year, full time

PAY RANGE

\$68k to \$163k

starting to experienced

TIME TO QUALIFY

4 to 8 years

after high school

DEMAND

Good

job outlook

LICENCE NEEDED

Yes

regulated job

WHERE YOU WORK

**Design offices, construction sites,
government agencies, consulting...**

How you get there

- 1 High school** Grades 11 and 12
Physics and calculus are essential. Take the hardest math your school offers and learn to draw and model in three dimensions.
- 2 Bachelor's degree in civil engineering** 4 years
Choose a program accredited by ABET (the Accreditation Board for Engineering and Technology), because state boards require it. Pick structural electives from year 3.
- 3 Pass the Fundamentals of Engineering exam** Final year
The first licensing exam. Most people sit it in their final year of university while the material is fresh.
- 4 Work under a licensed engineer** About 4 years
Most states require about four years of documented, progressive engineering experience before you may sit the second exam.
- 5 Pass the Principles and Practice of Engineering exam** After the experience
Structural Engineering is one of more than 20 disciplines offered. Pass it, apply to your state board, and you may seal drawings.

Pros and cons

- + Your work stands in public for decades
- + Strong pay and a clear license-based career ladder
- + Demand tied to infrastructure spending, which keeps coming
- Eight years to full license, with two hard exams
- Real legal responsibility: your seal means your judgment
- Deadlines are set by construction schedules, not by you

Good to know

There is a whole exam just for structures

The national engineering exam is offered in more than 20 disciplines, and Structural Engineering is one of them. The full structural exam runs 16 hours across two days and has one of the lowest pass rates o...

Nothing is designed to just barely stand up

Structural codes require a margin above the worst load a structure is expected to see, so real buildings carry considerably more than they will ever be asked to. The engineering argument is about how big that...

Optional boosts

Seismic design. Bridge design. Analysis software and scripting. The separate structural engineer license.

Where these numbers come from

My Next Move: Civil Engineers

Bureau of Labor Statistics: Civil Engineers

NCEES (National Council of Examiners for Engineering and Surveying): the Principles and Practice of Engineering exam

National Council of Structural Engineers Associations

Numbers checked September 2026. Pay figures are typical full-time annual amounts in United States dollars, based on Bureau of Labor Statistics wage data and published pay scales. They vary by state, employer and experience. Tuition is for in-state students at public schools unless the card says otherwise. Sources, links and the click-through version: <https://career.help/us/careers/structural-engineer>



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