

Petroleum Engineer

Get oil and gas out of the ground. The best starting pay in engineering, tied to an industry that booms and busts.

TYPICAL PAY

\$135,000

a year, full time

PAY RANGE

\$96k to \$200k

starting to experienced

TIME TO QUALIFY

4 to 8 years

after high school

DEMAND

Moderate

job outlook

LICENCE NEEDED

Yes

regulated job

WHERE YOU WORK

Calgary head offices, well sites, oil sands plants, offshore platforms

How you get there

- 1 High school** Grades 11 and 12
Advanced Functions, Calculus, Physics and Chemistry are required for admission. Marks in the 80s at most schools.
- 2 Accredited engineering degree** 4 to 5 years with co-op
Petroleum engineering at the University of Alberta, or oil and gas engineering at the University of Calgary. The University of Regina also has a program, and Memorial University in Newfoundland offers oil and gas engineering as a master's after a first degree. Chemical or mechanical.
- 3 Engineer-in-training** About 4 years
Register as an engineer-in-training (EIT) with APEGA (Association of Professional Engineers and Geoscientists of Alberta) or your provincial regulator. Work under a licensed engineer. Log your experience.
- 4 Professional practice exam** During your EIT years
A law and ethics exam, written during your first years of work.
- 5 P.Eng (professional engineer) licence** After 4 years
Apply with your experience record and references. Now you can sign well designs and take legal responsibility for them.

Pros and cons

- + Highest starting pay in engineering
- + Calgary is affordable for the pay, with the mountains an hour away
- + Skills move to carbon capture, geothermal and hydrogen
- Boom and bust: layoffs follow the oil price
- Most jobs are in one city and one province
- Field work means remote sites and long rotations

Optional boosts

Well control certificate. Reservoir simulation skills. Carbon capture, hydrogen and geothermal. MBA (master of business administration) or CFA (chartered financial analyst).

Where these numbers come from

Job Bank: Petroleum engineers, wages (updated Nov 2025)
Engineers Canada
APEGA (Alberta's engineering regulator)

Numbers checked September 2026. Pay figures are typical full-time annual amounts in Canadian dollars, based on Government of Canada Job Bank wage data and published salary grids. They vary by province, employer and experience. Tuition is for domestic students. Sources, links and the click-through version: <https://career.help/ca/careers/petroleum-engineer>

Good to know

Third-largest oil reserves on Earth

Canada's proven oil reserves, almost all in the Alberta oil sands, are the third largest in the world after Venezuela and Saudi Arabia. Most of it is too thick to pump, so engineers inject steam underground to thin it...

The 2014 crash

Oil went from over \$100 a barrel in mid-2014 to under \$30 in early 2016. Downtown Calgary office towers emptied out, and at the worst point roughly a third of the office space downtown sat vacant.



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