

Naval Architect

Design ships and everything else that floats: hull shape, stability, structure and the systems inside.

TYPICAL PAY

\$104,000

a year, full time

PAY RANGE

\$58k to \$171k

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

Shipyards, design offices, the navy and coast guard, offshore projects

How you get there

- 1 High school** Grades 11 and 12
 Calculus, Advanced Functions, Physics and Chemistry. Physics carries most of the weight.
- 2 Engineering degree** 4 to 5 years with co-op
 Memorial University in St. John's runs ocean and naval architectural engineering, the main route in Canada. Mechanical engineering with ship design electives also works.
- 3 Work terms in a yard or design office** During the degree
 This is where you learn how steel is actually cut, welded and assembled. Employers hire heavily from their own students.
- 4 Engineer-in-training** About 4 years
 About four years of supervised work with your provincial regulator, logging real design experience.
- 5 P.Eng (professional engineer) licence** After about 4 years
 Law and ethics exam plus an experience record. Now you can seal drawings that a yard will build from.

Pros and cons

- + You can point at a real ship and say you designed part of it
- + A small field, so good people are known and remembered
- + Work travels well: ships are built the same way worldwide
- Very few employers, and they sit in a handful of port cities
- Pay is lower than energy or software engineering
- Projects are slow, and your design can be redrawn for years

Good to know

Canada is building a new fleet

The National Shipbuilding Strategy puts decades of navy and coast guard work through yards in Halifax, Vancouver and Levis, Quebec. It is the reason naval architecture hiring in Canada has been steady for y...

They still test with models

Before a hull is built, a scale model gets towed and hit with waves in a test tank to see how it behaves. Canada has world class ocean test facilities in St. John's, Newfoundland, which is one reason the degree l...

Optional boosts

Stability and damage stability. Ice class design. Offshore structures. A master's in ocean or marine engineering.

Where these numbers come from

Job Bank: Naval architect, wages (updated Nov 2025)
 Transport Canada: marine transportation
 Memorial University Faculty of Engineering
 Engineers Canada

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/naval-architect>



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