

Ocean Sonics, 2015

Acoustical Engineering

Median Yearly Income (2010): \$72, 814

This unit group is for all mechanical engineers: Mechanical engineers research, design and develop machinery and systems for heating, ventilation, air conditioning, power generation, transportation, and processing/manufacturing.

WHAT YOU DO

Acoustical engineers apply the scientific knowledge of sound and vibration for a variety of technological purposes. They are typically concerned with the design, analysis and control of sound.

In the oceans technology sector, acoustics allow engineers to measure sounds in the ocean to improve our knowledge on the effects of noise on aquatic life or to locate marine species and fish stocks. Acoustics can also be used to explore mineral deposits in sea-beds and locate marine vessels such as submarines.



Ocean Sonics, 2015

WHAT YOU NEED

- ❖ A natural interest in the principles of sound and vibration;
- ❖ A natural aptitude in science and mathematics;
- ❖ Enjoy analyzing engineering problems and finding solutions;
- ❖ Able to work with high amounts of focus and patience;
- ❖ Able to effectively use transducers and other sound measuring instruments;
- ❖ Able to work well with other professionals; and
- ❖ Excellent written and verbal communication skills.

Acoustical engineers perform some or all of the following duties:

- ❖ Conduct research into the feasibility, design, operation and performance of mechanisms, components and systems;
- ❖ Analyze dynamics and vibrations of mechanical systems and structures;
- ❖ Develop maintenance standards, schedules and programs;
- ❖ Investigate mechanical failures or unexpected maintenance problems; and
- ❖ Supervise technicians, technologists and other engineers and review and approve designs, calculations and cost estimates.

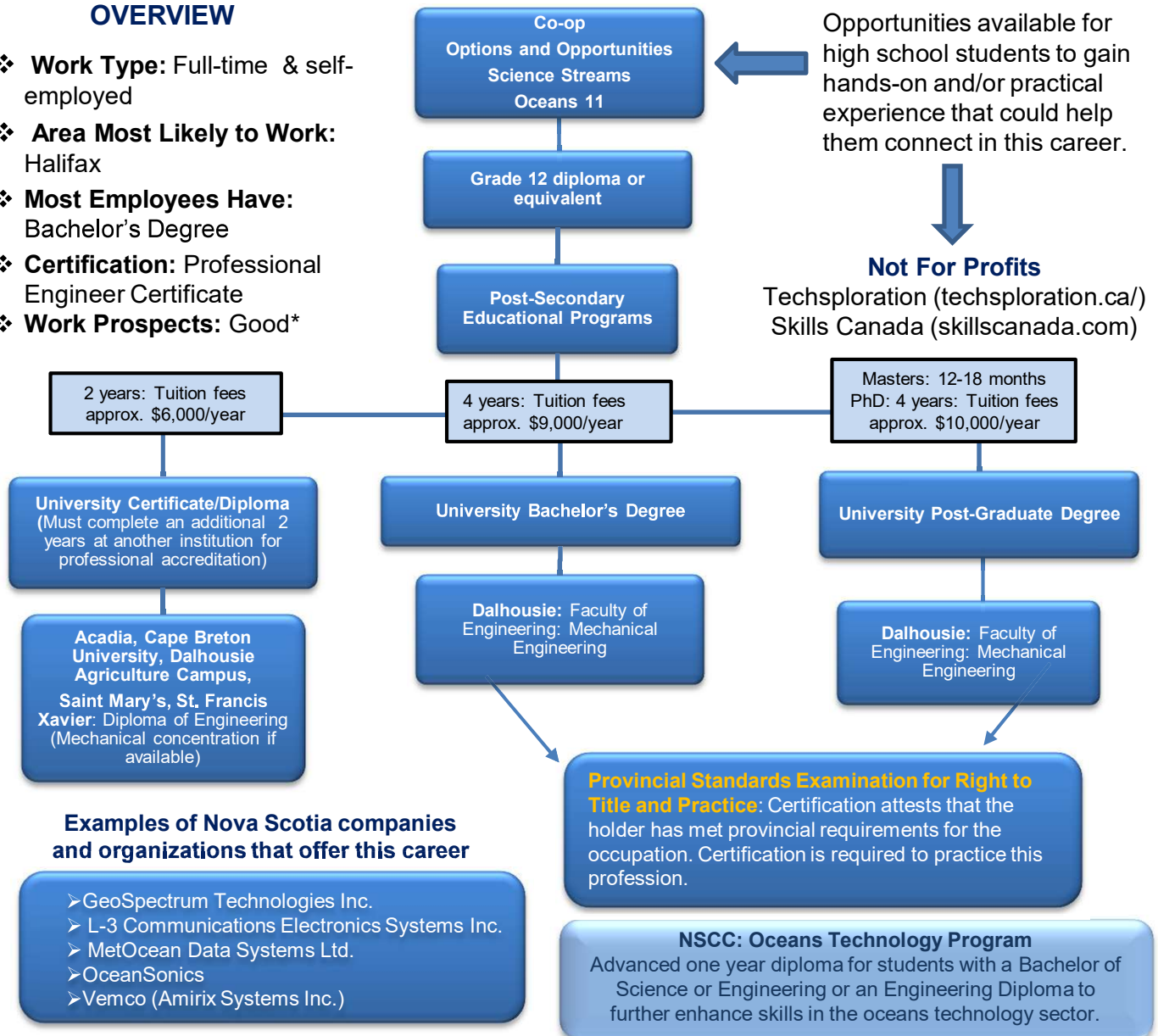
Acoustical Engineering



CAREER PATHWAY

OVERVIEW

- ❖ **Work Type:** Full-time & self-employed
- ❖ **Area Most Likely to Work:** Halifax
- ❖ **Most Employees Have:** Bachelor's Degree
- ❖ **Certification:** Professional Engineer Certificate
- ❖ **Work Prospects:** Good*



References and Resource Links

- *The employment outlook over the next few years for this occupational group is "good", which indicates the chances of a qualified individual finding work is above average.
- Careers Nova Scotia (<http://careers.novascotia.ca>)
- Create your career plan (careeringear.nsc.ca)
- Engineers Nova Scotia (<http://www.engineersnovascotia.ca>)
- 2132 national occupation classification (<http://www5.hrsdc.gc.ca/NOC/English/NOC/2011/QuickSearch.aspx?val65=2132>)