

Health Physicist

A career in health

What is a Health Physicist?

Health Physics is a field of science concerned with radiation protection. Health Physicists within Queensland Health assess health impacts to the community and environment from sources of radiation. There are numerous forms of radiation sources & radioactive materials, and potential exposure pathways; consequently the tasks conducted by Health Physicists are dynamic and broad ranging, with ample opportunity for growth in knowledge and experience across many scientific disciplines.

What does a Health Physicist do?

Health Physicists may perform the following tasks:

- Measure radioactivity concentrations in water, soil, air and biota
- Measure and calculate effective doses of radiation to people (dosimetry)
- Investigate contaminated sites and recommend remediation strategies
- Decontaminate and decommission facilities associated with the use of radioactive substances
- Design and test containers to transport radioactive substances
- Provide radiation protection training and advice
- Participate in research on the measurement and effects of radiation on humans and the environment.

“I really appreciate the diversity and challenging aspects of my role, especially the practical components such as on-site investigations. I conduct radiation surveys of places such as industrial sites and beach-side properties. There are a great variety of projects that I can be involved in, right from consultation through to reporting.”

Drew Watson, Health Physicist

Is this you?

- aptitude for analysis and problem-solving
- enjoy research
- aptitude for mathematics and computing
- able to visualise and explain ideas clearly.



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Where can a Health Physicist work in Queensland Health?

Queensland Health employs Health Physicists within the Health Physics Unit of Forensic and Scientific Services, which is a division of Clinical and Statewide Services. The Health Physics Unit is located in Brisbane, but provides services across all of Queensland.

Health Physicists at Forensic and Scientific Services work closely with Radiochemists within the Health Physics Unit, and Physicists within other sectors of Queensland Health.

What other areas can a Physicist specialise in?

Health Physicists are one of several streams of Physicists within Queensland Health, including Medical Physicists, Radiation Oncology Medical Physicists, Nuclear Medicine Physicists and Radiation Health Advisors (regulatory physicists). Each of these streams of physicists can be considered to be a specialty of physics. In addition to this, the scope of work addressed by the Health Physics Unit is broad in itself, and thereby enables individuals to develop specialist expertise, for example in radioanalytical techniques, contaminated land investigations, or using computer models to reconstruct a person's radiation dose.

How do you become a Health Physicist?

To become a Health Physicist within Queensland Health you are required to study science at university with a major in physics. Entry to the courses below usually requires completion of Year 12. As requirements may vary, you should contact the institution for full details.

Degree Course

Queensland University of Technology:

- Bachelor of Applied Science (Physics), 3 years full-time

University of Queensland:

- Bachelor of Science (Physics), 3 years full-time

Griffith University:

- Bachelor of Science (Physics), 3 years full-time

Additional studies in Health Physics such as Masters or Doctorate in Philosophy are also valued, though not mandatory. Graduate physicists appointed to a Health Physicist position will develop as a Health Physicist through on-the-job experience and training. Health Physicists also attend professional development training on an as-needed basis.

What scholarships are available?

There are a variety of scholarships and financial assistance available. Check out the respective tertiary institutes' website for details.

Interested in other Science and Technology careers?

Go to www.health.qld.gov.au/workforus to check out our *Careers in Health* Fact Sheets:

- Biomedical Technician
- Medical Scientist.

Queensland Health also employs the following Scientific and Technical professionals:

Science:

- Laboratory Scientist
- Pathology Scientist
- Forensic Scientist
- Public Health Scientist.

Technical

- Medical Laboratory Technician
- Pathology Technician
- Forensic Technician
- Public Health Technician
- Dental Technician
- Phlebotomist.

Where can I find out more info?

The Australian College of Physical Scientists and Engineers in Medicine

Phone: (02) 9700 8522

Website: www.acpsem.org.au

The University of Queensland School of Physical Sciences

Phone: (07) 3365 6004

Email: student@sps.uq.edu.au

Website: www.sps.uq.edu.au

Queensland University of Technology School of Physical and Chemical Sciences

Phone: (07) 3138 2152

Email: sci-enquiries@qut.edu.au

Website: www.sci.qut.edu.au

Griffith University School of Biomolecular and Physical Sciences

Phone: (07) 3735 7357

Website: www.griffith.edu.au/science

Australasian Radiation Protection Society

Website: www.arps.org.au

The QTAC website has a list of universities and tertiary institutions with links to universities and courses offered. Go to www.qtac.edu.au and select Institutions.

To find out more about the exciting career opportunities Queensland Health can offer you go to www.health.qld.gov.au/workforus

Do great things every day