

Oceanographer

Oceanographers study the ocean in all its aspects. They give advice on how to use its resources in a sustainable way. They work in one of four main areas, which are marine biology, marine chemistry, marine geology or marine physics.

The Work

The four areas involve different disciplines.

- **marine biology** – studying marine life and its environment, the effects of pollution, conservation methods and sustainable harvesting
- **marine chemistry** – studying the chemistry of seawater, the effects of pollution and the interaction between the atmosphere, seawater and the seabed
- **marine geology** – studying the structure and composition of the seabed, how to get rid of waste materials at sea, where to find oil and gas and how to extract them, where to lay cables or pipelines, or to build tunnels
- **marine physics** – studying the temperature and density of water, tides and ocean currents and their effect on the weather, designing coastal and offshore structures, making use of wave and tidal energy.

You could be:

- carrying out fundamental research into one or more aspects of the ocean
- using remote sensors on satellites in space, instruments on buoys in the sea and remotely operated submersible vehicles to collect data or samples from the sea
- using acoustic methods, probes and drills to take soundings of the seabed
- diving to investigate life underwater
- producing ocean charts which demonstrate the results of research
- using computer models to predict changes and recommend methods of limiting or reversing damage to the ocean environment
- analysing samples and interpreting data collected
- writing reports and risk assessments and giving talks on research work.

Pay

The figures below are only a guide. Actual pay rates may vary, depending on:

- where you work
- the size of company or organisation you work for
- the demand for the job.

Starting salaries for oceanographers in the UK tend to be in the range of £22,000 to £30,000 a year. Salaries for post doctoral research posts can reach up to £38,000 a year. With experience, salaries can rise to £50,000 year and above, and consultants may earn considerably more.

Conditions

- You would be based in a laboratory or office generally working basic office hours.
- However, some of your time would be spent on fieldwork where your hours would be less regular and you might have to work shifts. You would probably be at sea, on a ship or offshore platform, perhaps in remote places.
- It can sometimes be dangerous at sea, and you can be working in uncomfortable conditions in all weathers.
- At sea, you would have to wear protective clothing.
- You might be away from home for long periods.
- Work contracts may be short term.

Getting In

- This is a small profession and entry is very competitive.
- You need a good degree in an appropriate science subject, if possible with a specialist option in oceanography or marine science.
- Entry requirements for degree courses are normally 4-5 Highers, usually including Maths and science subjects.
- As this is a research based career you usually need a postgraduate qualification in oceanography or a related subject.
- Some previous relevant work experience, paid or voluntary, is advisable.
- A driving licence and diving qualifications are both useful.
- You need to be fit to cope with fieldwork at sea. For some jobs you will need to pass a seagoing medical.

Most oceanographers work for the Natural Environment Research Council (NERC) and the marine research laboratories and research projects which it funds, for example, the Scottish Association for Marine Science (SAMS) at Oban. In addition, there are some jobs with other research agencies, environmental protection organisations, government departments, oil and gas companies, the armed forces, water companies and universities.

What Does It Take

You need to be:

- observant
- accurate and methodical
- able to adapt to different working conditions
- resourceful and responsible
- good with numbers and data
- a good organiser, for planning projects.

You need to have:

- a scientific and logical approach to your work
- a knowledge of the marine environment
- IT skills including experience of computer modelling

- the ability to work alone as well as part of a team
- good communication skills.

Training

- After gaining your initial qualifications, you would train and gain experience mainly on the job.
- You would also take short courses, attend seminars and conferences and read research reports to keep up to date with the latest developments.
- You might study part time for a postgraduate qualification, if you do not already have one.
- Depending on the type of work you do, you might take diving qualifications and training in sea survival.

Getting On

- To gain promotion, you may have to broaden your experience by moving to different jobs throughout the country.
- You could move into a more senior role, such as managing staff or projects, depending on your area of research.
- A growing number of oceanographers work for independent consultancies advising on environmental issues.

More Information

The Future Morph website www.futuremorph.org shows you some of the amazing and unexpected places that studying science, technology, engineering and maths can take you.

Contacts

British Antarctic Survey

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Twitter: @thembauk

Facebook: www.facebook.com/pg/MarineBiologicalAssociation

National Oceanography Centre

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Twitter: @NOCnews

Facebook: www.facebook.com/NationalOceanographyCentre

Natural Environment Research Council (NERC)

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Scottish Association for Marine Science (SAMS)

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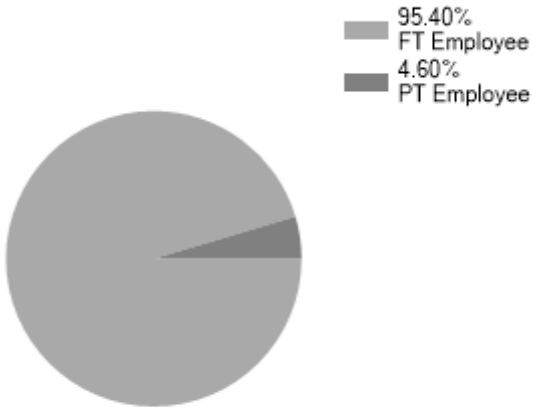
Website: www.sut.org

Twitter: @SUT_news

Facebook: www.facebook.com/SUT.org

Statistics

Employment Status UK %

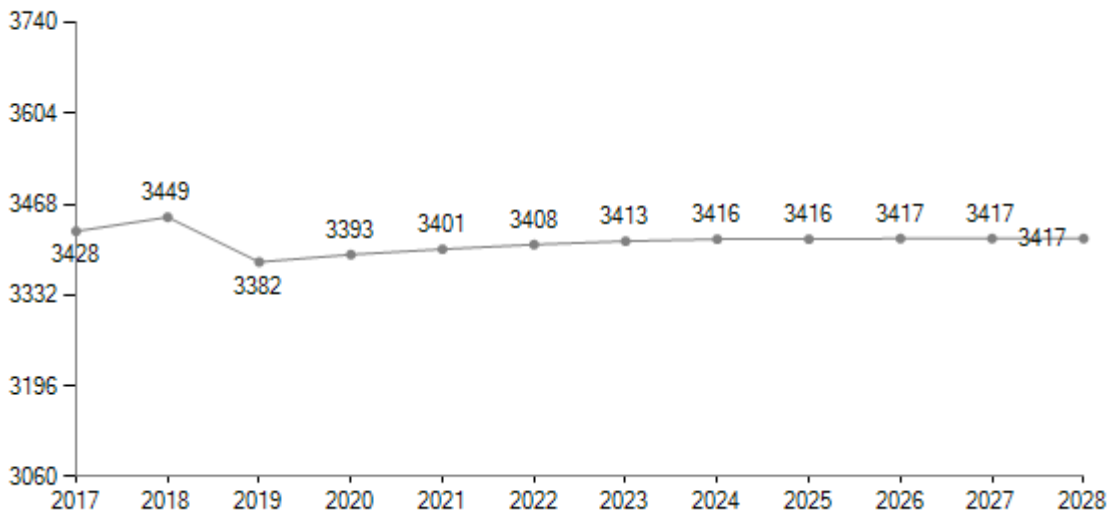


Past Unemployment - Scotland

No statistics available for Scotland.

LMI data powered by [LMI for All](#)

Predicted Employment in Scotland



LMI data powered by [EMSI UK](#)