Drilling Engineer

Drilling engineers design, plan, cost, install and supervise the operation of drilling oil and gas wells. They make sure drilling projects meet international, environmental and health and safety standards.

The Work

You could be:

- involved in selecting or designing the well and well equipment
- planning the resources needed and estimating costs
- working out the drilling programme and staff work schedules
- planning for any unexpected problems that might affect health and safety or the project deadline
- arranging the necessary equipment and service staff for the project
- overseeing the progress and work of the drilling team and well operations
- monitoring daily costs and making sure environmental standards are being met
- liaising with other professionals such as geologists or engineers, as well as contractors, suppliers and clients
- maintaining project documents and writing reports for management.

Pay

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

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

Starting pay for a drilling engineer is around £30,000 to £45,000 a year. With experience this increases to between £50,000 and £100,000 a year. Performance-related bonus schemes increase salaries, and additional benefits may be available.

Conditions

- You can work in an office onshore or on a rig or platform offshore.
- On ships and oil rigs it can be cold, wet and stormy.
- Onshore hours are mostly regular, Monday to Friday, 9.00am to 5.00pm, but you might occasionally work evenings and weekends.
- Offshore working hours are normally 12-hour shifts, including nights, and you can spend one or two weeks there at a time.
- Offshore there is often no mobile phone signal, but there are pay phones and usually internet access.
- Alcohol is banned on rigs, and there is random alcohol and drug testing.
- When offshore you would wear protective clothing and safety equipment such as gloves, boots and a hard hat.
- You have to fly by helicopter between the rig or platform and onshore.

- When offshore, you would live in shared accommodation and meals are provided.

Getting In

- You need a degree (SCQF Level 9-10) in engineering.
- Robert Gordon University has a BEng Hons/MEng degree (SCQF Level 10) in Mechanical and Offshore Engineering. Entry requirements for the BEng are 4 Highers at BBCC including Maths and Physics or Engineering Science or a technological subject. For the MEng you require 4 Highers at BBBC to include Maths and Physics or Engineering Science or a technological subject. In both cases, you need English at National 5, if you don't have it at Higher.
- Other relevant degrees include mechanical engineering, which is widely available and petroleum, chemical or offshore engineering or energy technology. Entry requirements are usually 4 to 5 Highers including Maths and Physics, but check with individual institutions.
- Postgraduate qualifications (SCQF Level 11) are available in oil-related engineering, including Drilling and Well Engineering at Robert Gordon University.
- To work offshore you must pass a medical examination every 2 years.
- You must also pass an offshore survival course such as the Basic Offshore Safety Induction and Emergency Training Certificate (BOSIET).
- You may also have to undertake the Minimum Industry Safety Training (MIST) course.

What Does It Take

You need to have:

- an analytical mind and good problem solving skills
- initiative and self-reliance
- a good technical understanding of geology, physics, maths and chemistry
- the ability to lead and work within a team
- the ability to work well under pressure
- good verbal and written communication skills
- good planning and organisational skills
- a responsible attitude to health and safety
- excellent IT and number skills.

Training

- Training is usually on the job and involves spending periods of time on offshore installations and observing people carrying out different related jobs.
- With further training and practical experience you can register with the Engineering Council as a professional engineer – Incorporated Engineer (IEng) or Chartered Engineer (CEng).
- For IEng you need to have a recognised Bachelor's degree (SCQF Level 9) or a recognised HNC (SCQF Level 7) or HND (SCQF Level 8) plus further study to Bachelor's degree level.
- For CEng you need to have a recognised Bachelor's degree with Honours plus a recognised Masters degree (or equivalent), or a recognised integrated Master of Engineering degree (SCQF Level 11).
- If you do not have any of the above qualifications you may still be able to achieve IEng or CEng by other approved routes. Check the website of the Engineering Council for more information.

- You might complete drilling qualifications approved by the International Well Control Forum (IWCF).
- You must update your skills and knowledge throughout your career.

Getting On

- You could move on to be a senior engineer or drilling manager.
- You might become a self-employed engineering consultant.
- There are opportunities to work abroad and this may be necessary for career advancement.

More Information

The Engineering Council sets and maintains the standards of the engineering profession in the UK. It does so through 50 professional engineering institutions which are Licensed Members of the Engineering Council.

The Tomorrow's Engineers website has more information on careers in engineering.

Contacts

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Website: www.opito.com/future-skills/my-energy-future
Facebook: www.facebook.com/OPITOglobal

Statistics

Employment Status UK %

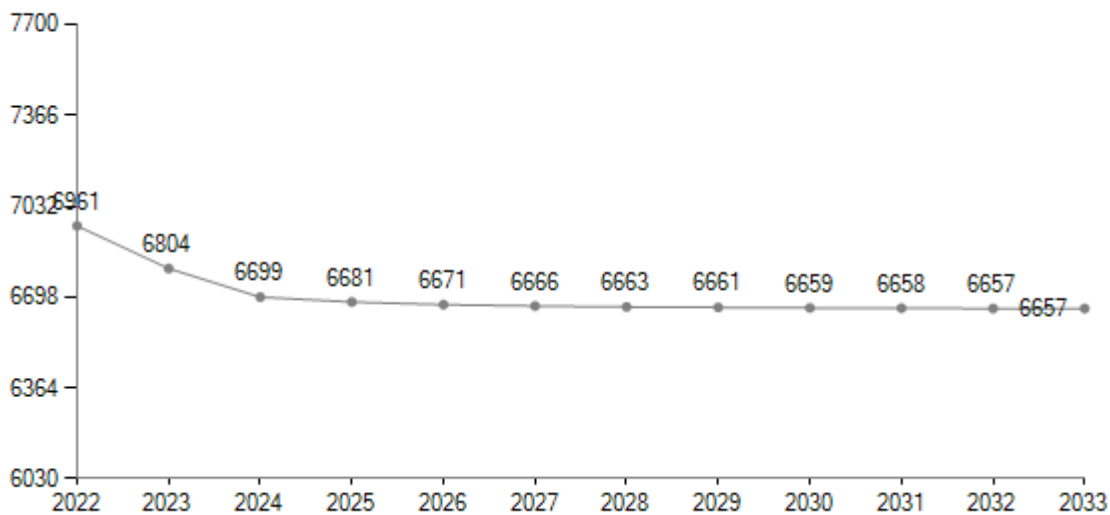■ 88.91%
FT Employee
■ 7.16%
Self Employed
■ 3.93%
PT Employee
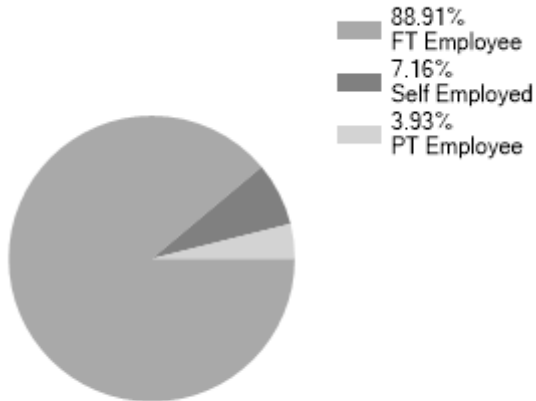
Past Unemployment - Scotland

No Claimant statistics available for Scotland.

LMI data powered by LMI for All

Predicted Employment in Scotland

LMI data powered by Lightcast