

Offshore Engineer

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The offshore industry employs many engineers in a wide range of disciplines. They work for contractors, consultants and clients (oil companies), as well as for government departments and approval bodies such as certifying authorities.

Recruits come from every type of engineering, scientific, mathematical and IT background, attracted as much by the variety of roles in the offshore industry as by the opportunities for travel and the extra dimension that the offshore environment brings to all the engineering disciplines.

Offshore engineers play a vital role in the delivery of the many complex and challenging projects being developed today and they can do this because of their problem-solving skills. A trained engineer has the ability to model and solve a problem, describe and deliver an economical solution and then supervise and manage the work through to completion. The end product needs to be feasible, economical, safe, delivered on time and to budget, while also being respectful of the environment and not wasteful in use of materials – a tough wish list. All of this takes a special combination of aptitude, knowledge, vision and commitment.

Few tasks are repeated in the industry, so it delivers a lifetime of challenges set against a constantly evolving technological background.

Most projects are multidisciplinary. This means working alongside other experts and both stretching and broadening one's own knowledge as part of a wider team.

The work can be office-based or on sites either onshore or offshore, and can also be in a combination of locations.

Education and Qualifications Required

Engineers come from all backgrounds with relevant qualifications from universities, colleges, or experience from other industries.

Skills and Training Required

Training is dependent on the discipline and national approaches. Most university engineering degrees, for example, are of three or four years duration (although longer in some countries), and some specialists may want second and higher degrees. Technician training in technical colleges is usually shorter and more focused. Military technical training can also be recognised to find work offshore in the marine contracting industry.

To work offshore in any capacity it is usually necessary to complete a 'Basic Offshore Safety Induction and Emergency Training' (BOSIET) course. This generally includes first aid, safety at sea, the basics of fire and fire fighting and 'HUET' – helicopter underwater escape training. In many regions, someone who has not successfully completed a course of this nature will not be permitted to work offshore. This would not be required for those engineers who are 100% office based.

Medical Fitness

In many areas of the world, potential offshore workers must undergo and pass a special medical examination. These requirements may vary from country to country, but usually involve a medical leading to a certificate which may be valid for one or more years. The requirements are not unduly onerous for fit and active people but certain common conditions, or previous injuries, can be a cause for failure. If in any doubt, interested persons should seek out a doctor knowledgeable about offshore standards before they seek work or embark on a course of training. This would not be required for those engineers who are 100% office based.

Working Conditions and Prospects

Engineers can expect to work on projects in the offshore industry all over the world. Work may be based at overseas site locations or in the office anywhere in the world, which means that the career can suit all aspirations. It also means that offshore engineers have to be resourceful, resilient and able to work both in teams and independently.

This is a career in which learning and training never stop. Many employers encourage their engineers to pursue professional qualifications, for example to become a 'chartered engineer'.

Opportunities for career progression are there to be grasped. Different companies use different job titles, for example: trainee engineer, project engineer, senior project engineer; or perhaps, engineer, supervisor, project manager.

After a number of years, engineers will have seen several different projects from inception through to completion. Those with all-round aptitude, experience and desire will progress to project management and into the company management structure. Most engineering companies have several engineers on their board of directors.

Further Information

Further details of work in the marine contracting sector can be seen at www.imca-int.com/careers

One of a series of IMCA careers factsheets, including the following, with case studies on individuals working in selected positions (*) also available:

- ◇ I want to be a Project Manager
- ◇ I want to be a Diver *
- ◇ I want to be a Life Support Technician
- ◇ I want to be a Dynamic Positioning (DP) Operator
- ◇ I want to be a Deck or Engineering Officer
- ◇ I want to be an Offshore Surveyor *
- ◇ I want to be a Data Processor *
- ◇ I want to be a Geophysicist *
- ◇ I want to be a Survey Engineer/Technician *
- ◇ I want to work with ROVs *