



Offshore Engineer

Overview of career pathway

A career in offshore engineering focuses on the design, construction, installation, commissioning, and maintenance of marine structures such as ships, floating drilling vessels, semi-submersible rigs, offloading vessels (FPSOs), floating liquified natural gas (FLNGs) and offshore wind platforms. It also includes subsea systems, which are used to safely explore, drill, and develop oil and gas fields below the sea surface. Offshore engineers play a key role in EPIC (engineering, procurement, installation, and commissioning) projects and require a strong educational background in engineering or extensive industry experience (e.g. a Chief Engineer may transition onshore into this career).

Summary of career stages:

- Higher Education Student/ Trainee
- Mid-level Offshore Engineer
- Senior-level Offshore Engineer
- Management-level Offshore Engineer

Higher Education Student/ Trainee

Example job titles: Trainee Engineer, Junior Engineer, Graduate Engineer

At this entry level, a Student/ Trainee will mainly focus on learning and assisting in the operation and maintenance of marine systems whilst completing academic studies towards a marine engineering or related qualification.

Milestones

Key accomplishments to gain within role to progress to the next career stage:

Academic achievements and training and experience	Experience to gain	How IMarEST can support you throughout your career journey
Complete: <ul style="list-style-type: none"> • A bachelor's degree or equivalent in an engineering field e.g. BEng, BSc • Basic Offshore Safety Induction and Emergency Training (BOSIET) 	Complete 3 to 5 years of academic studies and work experience/ practical placements/ internship within a shipping company, shipyard, or offshore engineering firm to build practical skills and competencies, including	<ul style="list-style-type: none"> • Join as a free student member and access learning resources, events, webinars, dedicated student sections, and a digital library with 130 years' worth of knowledge. Also stay up to date with the

	time spent onboard ships at sea developing marine engineering knowledge.	latest industry news and connect with the wider community for expert support and guidance <ul style="list-style-type: none"> • Explore and join Special Interest Groups (SIGs) for further learning and networking opportunities with other keen professionals
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Mid-level Offshore Engineer

Example job titles: Engineer, Second Engineer (on vessels), Offshore Installation Engineer, Health, Safety, and Environment (HSE) Engineer, Subsea Engineer, Naval Architect, Product Manager (e.g. in general, structural, process, petroleum, mechanical, chemical, or environmental).

At this level, a Mid-level Engineer will hold responsibility as a designer, draftsman, project engineer and in some cases the operation and management of marine machinery. It will also include ensuring compliance with international offshore standard regulations.

Milestones

Key accomplishments to gain within role to progress to the next career stage:

Academic achievements/ training	Experience to gain	Enhance your prospects and opportunities further
Complete: <ul style="list-style-type: none"> • Specialised training relevant for role e.g. offshore design and engineering, operations, specialised engineering systems etc. • A Master's degree or equivalent in an engineering field e.g. MEng, MSc 	Complete up to 6 years within a mid-level role to develop technical expertise and leadership skills including design engineering, supervision of trainee engineers and in-depth knowledge with International Association of Classification Societies (IACS) rules and regulations, and other international design standards. If onboard offshore installations, then it will also include developing in depth knowledge of all systems, maintenance, operations, commissioning etc.	<ul style="list-style-type: none"> • Gain industry recognition with: <ul style="list-style-type: none"> ○ Associate Member grade (AMIMarEST) ○ Engineering Technician professional registration (EngTech/ MarEngTech) • Connect and share your experiences with a professional community through your local membership branch • Develop skills, professional reputation, and network through volunteering opportunities and SIG engagements

Senior-level Offshore Engineer

Example job titles: Senior Engineer, Lead Engineer, Chief Engineer (on offshore, subsea, and offshore wind installations, etc.), Marine Superintendent, Offshore Operations Engineer, Platform Supervisor, Assistant Project Manager, Assistant Construction Manager, Assistant Barge Master.

Senior-level Offshore Engineers hold technical authority in projects or at offshore installations and are responsible for all engineering, design, technical management and operations.

Milestones

Key accomplishments to gain within role to progress to the next career stage:

Academic achievements/ training	Experience to gain	Enhance your prospects and opportunities further
Complete: <ul style="list-style-type: none"> • Specialised courses relevant for role e.g. new software, leadership and management, update on International Association of Classification Societies (IACS) rules and regulations, and other international design standards etc. • Advanced leadership training programmes/ qualifications 	Complete up to 10 years within a senior-level role to develop experience in leading an engineering department, utilising technical knowledge during engineering, procurement, installation, and commissioning (EPIC) projects or on offshore installations and effectively managing budgets. For offshore personnel this will include liaising with shore-based management on technical and operational matters.	<ul style="list-style-type: none"> • Gain industry recognition with: <ul style="list-style-type: none"> ○ Member grade (MIMarEST) ○ Incorporated Marine Engineer professional registration (IEng/IMarEng) • Develop leadership capabilities and shape the future of maritime through mentoring opportunities • Engage with cross-disciplinary SIGs to expand knowledge and specialisms

Management-level Offshore Engineer

Example job titles: Offshore Installation Manager (OIM), Technical Manager (Offshore Operations), Marine Technical Director, Lead Project Manager, Project Director, Engineering Director, Asset Manager, General Manager, Vice President Operations/ Development

At a management level, roles will include high-level responsibilities for overseeing the technical operations of multiple installations or large-scale projects, including strategic planning for asset management and lifecycle extensions, remaining compliant with global maritime standards and regulations and leading teams towards successful completion of projects and/or operations.

Milestones

Key accomplishments to gain within role to progress to the next career stage:

Academic achievements/ training	Experience to gain	Enhance your prospects and opportunities further

<p>Complete:</p> <ul style="list-style-type: none"> • Offshore installation manager (OIM) certifications or equivalent • Consider an advanced degree (Master's or MBA) or academic doctorate (e.g., PhD) in Engineering Management, or a related field 	<p>Develop competencies at a high management level for making informed high-level decisions, conducting complex problem-solving and ensuring all projects meet both international and local maritime standards and regulations. It will also include planning and overseeing all managerial operations across multiple engineering, procurement, installation, and commissioning (EPIC) projects and offshore installations. Present and share expertise and successful projects at conferences, webinars, and within the organisation.</p>	<ul style="list-style-type: none"> • Gain industry recognition with: <ul style="list-style-type: none"> ○ Fellow membership grade (FIMarEST) ○ Chartered Marine Engineer registration (CEng/ CMarEng) • Strengthen expertise and reputation through presenting at events and webinars, engaging with SIGs, contributing to publications, and/or delivering training • Have your say in shaping the industry through technical leadership or high-level volunteering roles (e.g. become a board member, council rep)
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