NSBM GREEN UNIVERSITY TOWN

UNIVERSITY OF PLYMOUTH

B.ENG. (HONS) NAVAL ARCHITECTURE AND MARINE ENGINEERING

OFFERED BY UNIVERSITY OF PLYMOUTH, UNITED KINGDOM

DURATION - 3 YEARS (FULL-TIME) + 6 MONTHS INTERNSHIP

The **B.Eng. Hons in Naval Architecture and Marine Engineering** is a multidisciplinary journey that blends classical mechanical engineering with specialized maritime science.

- Naval Architecture focuses on the "**art and geometry**" of the vessel—its hull form, stability, buoyancy, and how it moves through waves.
- Marine Engineering focuses on the "**heart and lungs**" of the vessel—the power plants, propulsion systems, electrical grids, and mechanical systems that bring the ship to life.

The curriculum is structured to move from foundational engineering science in Year 1 to complex, system-level design and industrial application by your final year. With a heavy emphasis on Materials, Hydrodynamics, and Structural Integrity, this program ensures you can create vessels that are not only efficient but can withstand the harshest environments on Earth.

KEY FEATURES

- **Integrated Design Approach:** Unlike general engineering, this program teaches you to view a ship as a "floating city," requiring the integration of power, housing, and navigation within a single hull.
- **Specialized Composites Pathway:** With optional modules in Composites Design and Manufacture, you gain expertise in lightweight, high-strength materials—a critical skill for the modern yacht and aerospace industries.
- **Industrial Immersion:** A dedicated 6-month Industrial Training period and a Mechanical Engineering Related Placement ensure you graduate with "sea legs," having applied your classroom theory to real-world shipyard or design office challenges.
- **Advanced Simulation Tools:** You will master Computer Aided Engineering (CAE) and specialized marine software to predict ship behavior, fuel efficiency, and structural stress before a single piece of steel is cut.
- **Honours Research Project:** The final year allows you to deep-dive into a niche area of interest, such as Intelligent Systems or Green Propulsion, proving your expertise to future employers.

Plymouth Naval Base

AIMS OF THE PROGRAMME

- To provide a strong engineering foundation applied to marine and naval architecture systems
- To develop analytical, design, and problem-solving skills in ship engineering and offshore systems
- To equip students with knowledge in sustainable maritime technologies and energy-efficient ship design
- To enhance employability through industrial exposure and practical marine training
- To support lifelong learning and professional development in the maritime sector
- To produce graduates capable of contributing to modern shipping and offshore engineering solutions

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ENTRY QUALIFICATIONS

Three Passes in Physical Science, Biological Science or Technology streams in a single sitting, at one of the following examinations or equivalent foreign qualifications is the minimum entry requirement.

- *G.C.E. Advanced Level examination conducted by the Department of Examinations, Sri Lanka.*
- *G.C.E Advanced Level examination conducted by Pearson Edexcel, UK (London A/L).*
- *International Advanced Level examination conducted by Pearson Edexcel, UK.*
- *G.S.E Advanced Level examination conducted by Cambridge International Examination, UK*

OR

- *Completion of NSBM Foundation programme. (Should have a minimum credit pass for Mathematics and Science in G.C.E. Ordinary level exam)*

GLOBAL JOB OPPORTUNITIES

As the global economy shifts toward Green Shipping and Offshore Renewable Energy, your skills in fluid mechanics and marine structures will be vital. Whether you are designing the next generation of zero-emission ferries or managing the maintenance of a nuclear submarine, this degree provides a passport to a global career.

Design & Consultancy	Naval Architect, Ship Designer, Yacht Designer, Structural Engineer.
Shipbuilding & Repair	Production Manager, Yard Engineer, Marine Surveyor, Quality Control Engineer.
Energy & Offshore	Offshore Platform Designer, Subsea Engineer, Renewable Energy Consultant (Wind/Wave/Tidal)
Government & Defense	Naval Engineer (Navy/MOD), Vessel Safety Inspector, Classification Society Surveyor (e.g., Lloyd's Register).
Operations & Research	Fleet Manager, Marine Systems Researcher, Technical Superintendent.

PROGRAMME CONTENTS

YEAR 01

- Stage 1 Mechanical Placement Preparation
- Engineering Science
- Engineering Mathematics
- Mechanics and Structures
- Engineering Materials
- Engineering Design
- Engineering Practice and Experimental Techniques

YEAR 02

- Stage 2 Mechanical Placement Preparation
- Engineering Mathematics and Control
- Naval Architecture 1
- Marine Engineering Design & Commercialization
- Materials & Structural Integrity
- Manufacturing Processes
- Thermo-Fluids

PLACEMENT YEAR

- Mechanical Engineering Related Placement

FINAL YEAR

- Marine Engineering
- Naval Architecture 2
- Engineering Honours Project

OPTIONAL SUBJECTS

- Control and Intelligent Systems Design
- Composites Design and Manufacture
- Composites Engineering
- Computer Aided Engineering

CONTACT US FOR REGISTRATIONS AND MORE INFORMATION

011-544 5000

AACSB Business Education Alliance Member

UNIVERSITY OF PLYMOUTH

VICTORIA UNIVERSITY MELBOURNE AUSTRALIA

AMERICAN UNIVERSITY WASHINGTON, DC

Southern Cross University

Affiliated exclusively to top-ranked universities