

B ENG (HONS) IN MARINE ENGINEERING

OVERVIEW

Tyne Coast College offers a BEng honours degree in Marine Engineering, validated by the University of Sunderland. This programme is a top-up degree course that has been designed to enable certificated marine engineers to achieve the academic standard of a degree qualification.

[More about this course](#)

The BEng course in Marine Engineering is offered in partnership between Tyne Coast College and the University of Sunderland. All lectures, seminars and tutorials will be delivered at South Shields Marine School by the college staff.

The modules of the course comprise the following: applied mechanics, energy conversion systems, marine propulsion systems analysis, ship dynamics and materials, marine propulsion design, and a dissertation.

ENTRY REQUIREMENTS

One of the following:

Higher National Diploma in Marine Engineering (recognised by the UK MNTB) with the majority of Units passed with a score of 70% or higher.

Foundation Degree in Marine Engineering from any UK institution.

Class One Certificate of Competency recognised by the UK MCA

ASSESSMENT

Applied Mechanics ST60

Compound stress and strain; Applications; plane kinematics of particles; Plane kinematics of rigid bodies and mechanisms; gear systems; dynamics of machinery; vibrations. main and auxiliary diesel engines, boilers, steam turbines, gas turbines, electrical propulsion systems and shafting systems.

Assessment: 30% Assignment / 70% Examination

Energy Conversion Systems ST61

www.stc.ac.uk

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Model and prototype testing; second law of thermodynamics; thermochemistry; mixtures of ideal gases; introduction to compressible flow; heat transfer; psychrometry.

Assessment: 30% Assignment / 70% Examination

Marine Propulsion Systems Analysis ST62

Marine electrical power systems; power generation; power distribution; motors; protection; electric propulsion; vibrations; analytical stress analysis; finite element analysis.

Assessment: 50% Assignment / 50% Examination

Vessel Dynamics and Materials ST63

Stability; propeller theory and design; the sea; motion of ships in waves; formation of the solid state; iron; polymers; ceramics.

Assessment: 50% Assignment / 50% Examination

Marine Propulsion Design ST64

Small group project based on diesel engines, boilers, steam turbines, gas turbines and shafting systems.

Assessment: 100% Coursework

Marine Project ST65

Major investigative research project in the field of marine engineering.

Assessment: 100% Coursework

FURTHER INFORMATION

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The South Shields Marine School team (Mechanics, Thermodynamics, Electrical, Naval Architecture, Mathematics, Management, Workshop) are busy making preparations for the start of your programme.

In the coming months before commencing your studies please contact the Faculty Office if we can offer any further guidance before joining us:

Marine Faculty Office details contact email / telephone number:

Natalie Todd

e: Natalie.Todd@tynecoast.ac.uk

t: 0191 427 3639

DATES & FEES

Contact us for current course dates and fees.

www.stc.ac.uk

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