MARINE ENGINEERING (MECHANICAL AND ELECTRICAL OPTIONS) MSc / 2019/20 ENTRY

www.ucl.ac.uk/graduate/
The Marine Engineering MSc is concerned with the design, analysis and operation of machinery and systems for merchant and naval ships and submarines. The programme covers a wide range of engineering subjects relevant to the development and procurement of marine engineering, and the programme features two parallel mechanical and electrical streams.

**Degree summary**

The programme comprises study in analysis and design of propulsive systems and auxiliary equipment for the latest compliant marine vessel designs as well as the use of computers in advanced engineering analysis. Students develop an understanding of elements of engineering, alongside the skills necessary to apply their knowledge in a systematic and effective manner in a group ship design exercise and an individual project.

- Despite being part of a central city campus university, UCL Mechanical Engineering has excellent laboratories, including engine labs and a wave tank.
- This MSc has been selected by the UK Ministry of Defence (MoD), Royal Navy, Canadian and other navies for the advanced training of their marine engineers. It also receives students from many other major maritime nations. Run in parallel with the Naval Architecture MSc, students from both programmes work together on a comprehensive and unique ship design exercise.
- The department has an international reputation for excellence and is funded by numerous bodies including the Royal Society, the Leverhulme Trust, UK MoD, BAE Systems, US Naval Research (ONR).

This dynamic programme is delivered through a combination of lectures, seminars, tutorials, coursework exercises and case studies. The taught modules are assessed through formal examination and coursework, the ship design exercise is assessed through a report and oral presentations, and the individual project is assessed through a report and presentation. Visits to the marine industry are also offered.

**Degree structure**

Mode: Full-time: 1 year

Location: London, Bloomsbury

Students undertake modules to the value of 180 credits. The programme offers two parallel streams, mechanical and electrical. The programme consists of four core modules (60 credits), two options (30 credits), a ship design exercise (45 credits) and an independent project (45 credits).

Please note that the list of modules given here is indicative. This information is published a long time in advance of enrolment and module content and availability is subject to change.

**CORE MODULES**

- Advanced Computer Applications in Engineering
- Applied Thermodynamics and Turbomachinery
- Power Transmission and Auxiliary Machinery Systems
- Vibrations, Acoustics and Control

**OPTIONAL MODULES**

- Either:
  - Heat Transfer and Heat Systems (Mechanical Stream)
  - Materials and Fatigue (Mechanical Stream)
- Or:
  - Electrical Machines and Power Electronic Systems (Electrical Stream)
  - Electrical Power Systems & Electrical Propulsion (Electrical Stream)

**DISSERTATION/REPORT**

- All students complete a ship design exercise, working on the design of a specific vessel, and undertake an independent research project which is either analytical or design, build and test in nature.
Your career

The Marine Engineering MSc has been accredited by the Institute of Marine Engineering, Science & Technology (IMarEST) and Institute of Engineering and Technology (IET) as meeting the further learning requirements, in full, for registration as a Chartered Engineer for a period of five years, from the 2017 student cohort intake onwards. There is currently a global shortage of well-qualified marine engineers and consequently the job prospects are good.

Employability

Delivered by leading researchers and academics from across UCL, students will have plenty of opportunities to network and keep abreast of emerging ideas. Collaborating with companies and bodies such as the Ministry of Defence and industry leaders such as BAE Systems and Rolls Royce is key to our success and we will encourage students to develop networks through the programme itself and through the department’s careers programme, which includes employer-led events and individual coaching. We are unique in having a close relationship with the UK MoD as well Commercial Shipping companies and students benefit through industrial lectures, ship design projects and individual projects. We equip our graduates with the skills and confidence needed to play a creative and leading role in the professional and research community.
Entry requirements

An upper second-class Bachelor's degree from a UK university in a suitable engineering subject or an overseas qualification of an equivalent standard. Candidates with qualifications in other subjects such as physics, professional engineering qualifications, etc., will be considered. Knowledge of fluids and thermodynamics is essential together with an understanding of basic electrical engineering. Ideally candidates will have had some experience of the maritime sector.

English language proficiency level

If your education has not been conducted in the English language, you will be expected to demonstrate evidence of an adequate level of English proficiency.

The level of English language proficiency for this programme is: Standard.

Information about the evidence required, acceptable qualifications and test providers is provided at:
www.ucl.ac.uk/graduate/english-requirements

Your application

Students are advised to apply as early as possible due to competition for places. Those applying for scholarship funding (particularly overseas applicants) should take note of application deadlines.

When we assess your application we would like to learn:
// why you want to study Marine Engineering at graduate level
// why you want to study Marine Engineering at UCL
// what particularly attracts you to this programme
// how your academic and/or professional background meets the demands of a challenging programme
// where you would like to go professionally with your degree

Together with essential academic requirements, the personal statement is your opportunity to illustrate whether your reasons for applying to this programme match what the programme will deliver.

There is an application processing fee for this programme of £75 for online applications and £100 for paper applications. Further information can be found at:
www.ucl.ac.uk/prospective-students/graduate/taught/application.

FEES AND FUNDING 2019/20 ENTRY

// UK: £12,750 (FT)
// EU: £12,750 (FT)
// Overseas: £26,660 (FT)

The tuition fees shown are for the year indicated above. Fees for subsequent years may increase or otherwise vary. Further information on fee status, fee increases and the fee schedule can be viewed on the UCL Students website.

Full details of funding opportunities can be found on the UCL Scholarships website: www.ucl.ac.uk/scholarships

APPLICATION DEADLINE

All applicants: 2 July 2019

Details on how to apply are available on the website at:
www.ucl.ac.uk/graduate/apply

CONTACT

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EU referendum

For up-to-date information relating to specific key questions following the UK’s decision to leave the EU, please refer to www.ucl.ac.uk/ brexit