



## PROGRAMMES SPECIFICATION – POSTGRADUATE PROGRAMMES

### KEY FACTS

Programme name	Maritime Safety and Security Management (MSSM)
Award	MSc
School	Mathematics, Computer Science and Engineering
Department or equivalent	Department of Mechanical Engineering and Aeronautics
Programme code	PSMSSM
Type of study	Mathematics, Computer Science and Engineering
Total UK credits	180
Total ECTS	90
Partner (partnership programmes only)	N/A
Type of partnership	No partnership.

### PROGRAMME SUMMARY

The Programme has been developed in consultation with a community of advisors from Industry and is designed to provide advanced scholarship in maritime safety management with strong focus on operational and management safety practices, compliance, and problem solving. As is the case in the maritime industry ‘safety’ is interpreted broadly to include safety protection and regulations, incident investigation and management, security studies including, piracy, cyber security, risk and uncertainty analysis, human factors, as well as safety leadership and management.

The Programme is for professionals from all branches and specialist occupations of the merchant navy, Royal Navy and other land based maritime occupations as well as graduates and postgraduates with relevant backgrounds. Students will be expected to have a sound grounding in their respective academic discipline and/or considerable work-based experience.

The MSc in ‘Maritime Safety and Security Management’ (MSSM) is a multidisciplinary programme that is designed to develop safety experts who are technically literate and can demonstrate risk and uncertainty analysis of maritime safety issues, design effective practices, and contribute new insights from applied research in the sector.

The programme will develop knowledge, skills and experience geared towards management and leadership careers in safety management in both commercial environments and policy/regulatory organisations. For example, graduates from this programme will be able to apply for maritime safety consultant/officer/head of department, maritime safety policy expert, safety expert in a maritime engineering design team, or research into cutting edge safety challenges in the marine industry.

As such, the aims of the MSc Maritime Safety and Security Management are to:

1. provide a programme of study of the highest industry facing academic quality on the science, engineering, economics and international regulations which underpin safety and security aspects of maritime activities.
2. develop transferable skills relating to risk analysis, problem solving, simulation and research that is relevant to maritime safety and security management.
3. build a supportive and challenging learning environment to develop a professional network of experts on maritime safety and security topics, including emerging challenges like climate changes, digitization, systems integration, automation and network-based systems.
4. develop students to a position on graduation that allows them to choose confidently from careers in maritime safety and security management and contribute rapidly to their chosen specialism, in employment, research, R&D, as consultants, or business owners.

The Programme can be undertaken on a full or part-time basis at the University in London.

There are three types of awards that you can get:

**Postgraduate Certificate in Maritime Safety and Security Management.** This award is for completing the Postgraduate Certificate. For this award you will have examined the theories and practice related to the principles of maritime safety management and successfully completed at least four taught modules (60 credits). This *must include* the 'Maritime Safety' (EPM997) module and 'Security and Cyber Risk Studies' (EPM998) module. The other two can be any combination of modules. If the four modules do not include the two modules that are specified, then the award will be a Postgraduate Certificate in Maritime Operations and Management.

**Postgraduate Diploma in Maritime Safety and Security Management.** This award is for completing the Postgraduate Diploma. For this award, in addition to the above you will have demonstrated knowledge, application skills, and judgement in the different aspects of safety and security in relation to maritime operations and management. This equates to accumulating 120 credits by passing all eight taught modules that are specified in this programme specification.

**MSc in Maritime Safety and Security Management.** This award is for completing the full MSc programme, which is the normal path undertaken. This includes all the above and in addition the successful completion of a 'Maritime Safety and Security Management Project' module worth 60 credits. This is called the dissertation phase. It is a requirement of progressing to the dissertation phase to have successfully completed all eight taught modules.

A graduate of the MSc in 'Maritime Safety and Security Management' programme, will have demonstrated investigation and research capabilities by undertaking a **maritime project on a safety and/or security topic** which is formally written up as a dissertation and defended in an oral examination.

To graduate with an MSc in 'Maritime Safety and Security Management' equates to accumulating a total of 180 M-Level Credits.

### **WHAT WILL I BE EXPECTED TO ACHIEVE?**

**On successful completion of this programme, you will be expected to be able to:**

#### Knowledge and understanding:

1. Critically examine maritime safety operations, management and technology topics and the international environments in which they operate.
2. Evaluate the safety and security issues relating to design and application of selected technical aspects of ship, offshore, subsea and other maritime related structures using appropriate risk analysis and investigation tools and methods.
3. Compare and contrast models of strategic safety management, economics of safety and national/organisational safety culture.
4. Discuss the environmental impact of maritime activities and their influence upon operations, management, process design and human factors.
5. Review and summarise appropriate international codes, standards and guidelines.

#### Skills:

1. Devise solutions to complex issues relating to safety and security management of maritime and business operations.
2. Articulate the reasoning applied to optimise the safe application of established and new technologies.
3. Communicate confidently and effectively in oral and written forms with the aid of standard information technology systems.
4. Manage time and resources to effectively work as an individual or as a member or leader of a group in the role of safety and security expert.
5. Evaluate information from disparate sources and assess the quality and relevance of research or information for assessing the safety and security issues in enhancing products and services.
6. Continue to develop interpersonal, social and personal skills which show a systematic approach to professional development.

7. Demonstrate capacity to manage resources for the benefit of the community and the future while preserving the safety of life, property, and the environment.

Values and attitudes:

1. Use evidence informed approaches to distinguish between supportable and invalid opinions.
2. Respect the valid opinions of colleagues and collaborators and following evaluation act on feedback.
3. Demonstrate insight into personal strengths and weaknesses and show commitment to professional standards
4. Articulate obligations to colleagues, the profession and the environment.

This programme is multi-disciplinary, maritime specific, has been developed with reference to QAA Subject Benchmark for Business and Management (2015), Engineering (2015) and Operational Research (2015)

## **HOW WILL I LEARN?**

The learning, teaching and assessment on this programme is predicated on four aims:

- (1) to cover the substantive base-line knowledge content,
- (2) to signpost further reading and research which is linked to the assessment,
- (3) to facilitate independent learning habits including attention to detail and self-directed learning,
- (4) to use an active and collaborative approach to learning to simulate the world of work though for example problem solving, learning through cases and simulations.

The teaching and learning strategy for each module follows this general form and a range of methods are used to support specific objectives. In addition to the ones mentioned this includes lectures, workshops, presentations, small group work, peer review and feedback, and structured tasks.

As postgraduates you are expected to apply the principles of self-directed learning including setting personal goals, monitoring progress and adopting the habits of extensive reading, critical thinking, research and writing. There is a strong emphasis on individuals demonstrating agency, independence and responsibility for their learning and recognising that deep learning comes from concentration, focus and time on a task.

In line with the customs and practices in maritime environments, emphasis is placed on punctuality, and active engagement during class contact time. In the first week you will attend primer lectures which provides an overview of ships and the marine industry.

Your research project and dissertation writing is supported by workshops and online resources that collectively cover a range of topics from framing appropriate, relevant and viable research question(s), to planning a research project, conducting a literature review, collecting and analysing data, as well as communicating findings to a specialist and non-specialist audience. You will have access to guidance from a supervisor. The responsibilities of the supervisor and student are documented in the dissertation handbook. The supervisor will read your draft and working progress reports and provide written feedback or invite you to discuss your work in a tutorial.

## WHAT TYPES OF ASSESSMENT AND FEEDBACK CAN I EXPECT?

### Assessment and Assessment Criteria

Formal assessment of the taught part of the programme is based on examination and coursework. The coursework which generally takes the form of problem or essay type questions. The examinations are invigilated written *closed book* examinations.

Coursework undertaken in the earliest part of the programme will give students the opportunity to establish the academic level expected. Coursework is designed as learning activities by simulating real world challenges with opportunities to develop and demonstrate research and other skills in addition to knowledge and understanding of the various subject areas. A variety of activities make up the coursework component including, for example, group and individual presentations, essays, reports, research proposal and dissertation. This is to ensure a variety of approaches to assessing knowledge and skills. Coursework is important in demonstrating both the capacity for independent study and to apply and extend the materials covered in class.

Examinations structure and questions aim to provide balanced and fair assessment of the breadth of understanding, and capacity for applications and judgement under time constraints. This is the opposite of passive reading and remembering by rote, and involves learning by forming appropriate questions, searching memory for relevant responses, and applying judgement to construct an appropriate answer. The positive 'practice effect' for memory as part of deepening learning is evident in the professional bodies' accreditation requirements.

Assessment Criteria and Grade-Related Criteria will be provided in programme handbooks, module guide, on the virtual learning environment or attached to a specific assessment task.

**Assessment Criteria** are descriptions, based on the intended learning outcomes, of the skills, knowledge or attitudes that you need to demonstrate in order to complete an assessment successfully, providing a mechanism by which the quality of an assessment can be measured. These will be published with the coursework to demonstrate how learning outcomes can be met and the weight allocated to different parts of the coursework. **Grade-Related Criteria** are descriptions of the level of skills, knowledge or attributes that demonstrate a certain grade or mark in an assessment, providing a

mechanism by which the quality of an assessment can be measured and placed within the overall set of marks.

### Feedback on assessment

Formative assessment will be used in modules for class activities. Part of the process of learning is opportunities for feedback from the lecturer and peers before coursework is finally assessed. Feedback will take a number of different forms including for example question and answer sessions, individual and team presentations followed by discussion and reporting back on group tasks. These are all opportunities for students to be proactive in getting, giving and acting on feedback.

Lecturers will give you feedback on draft coursework within a set time period and they will also give general comments on what the current and past cohorts of students have done well and less well. Students also find it useful to study the feedback on examinations from the past this will be available in the Virtual Learning Environment (Moodle).

For the project module students work closely with their supervisor who will be balancing the need to enable you to work independently with feedback at key milestones and the need to provide tutorial guidance if there are difficulties. Information about this is in the dissertation handbook.

Feedback on summative coursework will be provided in line with our Assessment and Feedback Policy. You will normally be provided with feedback within three weeks of the submission deadline or assessment date. This would normally include a provisional grade or mark. For end of module examinations or an equivalent significant task (e.g. an end of module project), feedback will normally be provided within four weeks. The timescale for feedback on final year projects or dissertations may be longer.

### Assessment Regulations

In order to pass your Programme, you should complete successfully or be exempted from the relevant modules and assessments and will therefore acquire the required number of credits.

The pass mark for each module is 50%. The pass mark for all assessment components is also 50%. If you fail an assessment component or a module, the following will apply:

1. Compensation: where you fail up to a total of 20 credits at first or resit attempt (15 for a Postgraduate Certificate), you may be allowed compensation if:
  - Compensation is permitted for the module involved (see the What will I Study section of the programme specification), and
  - It can be demonstrated that you have satisfied all the Learning Outcomes of the modules in the Programme, and
  - A minimum overall mark of no more than 10% below the module pass mark has been achieved in the module to be compensated, and
  - An aggregate mark of 50% has been achieved overall.

Where you are eligible for compensation at the first attempt, this will be applied in the first instance rather than offering a resit opportunity.

If you receive a compensated pass in a module you will be awarded the credit for that module. The original component marks will be retained in the record of marks and your original module mark will be used for the purpose of your Award calculation.

2. Resit: Where you are not eligible for compensation at the first attempt, you will be offered one resit attempt.

If you are successful in the resit, you will be awarded the credit for that module. The mark for each assessment component that is subject to a resit will be capped at the pass mark for the module. This capped mark will be used in the calculation of the final module mark together with the original marks for the components that you passed at first attempt.

If you do not meet the pass requirements for a module and do not complete a resit by the date specified, you will not progress, and the Assessment Board will require that you be withdrawn from the Programme.

If you fail to meet the requirements for the Programme, the Assessment Board will consider whether you are eligible for an Exit Award, as per the table below.

If you would like to know more about the way in which assessment works at City, please see the [full version of the Assessment Regulations](#)

Students who are registered part time the maximum period of registration is 5 years. This includes study time for all the modules, research and submission time for the project module, resits, extenuating circumstances and interruption of studies. Part-time registration means that student's study between 3 to 6 modules each year.

## WHAT AWARD CAN I GET?

### Master's Degree:

	HE Level	Credits	Weighting (%)
Taught	7	120	67%
Dissertation	7	60	33%

### Class % required

With Distinction	70
With Merit	60
Without classification	50

### Postgraduate Diploma:

	HE Level	Credits	Weighting (%)
Taught	7	120	100

### Class % required

With Distinction	70
With Merit	60
Without classification	50

### Postgraduate Certificate:

	HE Level	Credits	Weighting (%)
Taught	7	60	100

### Class % required

With Distinction	70
With Merit	60
Without classification	50

**WHAT WILL I STUDY?**

All taught module are designated as core.

Module Title	SITS Code	Module Credits	Core	Compensation Yes/No	Level
Professional Studies	EPM401	15	Yes	Yes	7
Maritime Technology	EPM783	15	Yes	Yes	7
Maritime Operations and Insurance	EPM782	15	Yes	Yes	7
Maritime Economics and Accounting	EPM785	15	Yes	Yes	7
Maritime Management	EPM786	15	Yes	Yes	7
Environmental Issues	EPM790	15	Yes	Yes	7
Security and Cyber Risk Studies	EPM998	15	Yes	Yes	7
Maritime Safety	EPM997	15	Yes	Yes	7
Maritime Safety and Security Project	EPM996	60	Yes	No	7

*You are normally required to complete all the taught modules successfully before progressing to the dissertation*

**TO WHAT KIND OF CAREER MIGHT I GO ON TO?**

The MSc Maritime Safety and Management (MSSM) programme is for those who wish to specialise in safety and security management applied to maritime industry. The programme has been developed in response to the recognised and growing international demand for postgraduate level education geared towards management and leadership careers in safety and security in research, R&D, commercial environments, governments, and policy/regulatory organisations. For example, graduates from this programme will develop fast track careers as maritime safety and security consultant, shore officer, head of department, maritime safety policy expert, safety expert in engineering design teams, or as researcher into cutting edge safety challenges in specialist marine sectors.

In the first term you will follow the same modules as the MSc in Maritime Operations and Management (MOaM) programme. At the end of the term you will choose to study for MSc MOaM or MSc MSSM. MSc MOaM is established in London and Piraeus as a general management and operations MSc. In contrast to future MSSM graduates,

MOaM graduates go on to develop careers as managers in business development in areas like ship brokering, manning, standards and regulations, operations, insurance, law and marketing.

For those who have limited experience in industry, and experienced professionals in operational roles, the kind of career you want might be an open question. In other words, you may well choose the MSc in MSSM with a view to understanding your options and how career progression works in the diverse and international environment within which the maritime industry operates. The programme offers a wealth of opportunities to help you explore your options.

The Maritime programmes have links with Institute of Marine Engineering Science and Technology (IMarEST) and the London network of shipping professionals. You will be encouraged to participate in colloquia, seminars and conferences.

You are invited to the annual programme networking event onboard the HQS Wellington, headquarters of the Honourable Company of Master Mariners. This is an opportunity to meet some of the leading professionals working in the area of maritime safety operations and management. In addition, students will be required to participate in industrial visits to local companies and in a programme of guest lectures on issues such as consultancy companies, contractors, research organizations, local authorities and maritime business companies. All of these will have dedicated safety department or officers.

You will be invited to research seminars related to on-going research projects to experience emerging research and discuss application to real-world. London is acknowledged as the principal global Maritime Hub. Many international organisations and companies involved in maritime safety and security management have representations in London. Visits during the year may be arranged to organisations such as Shell and BP, the Baltic Exchange, International Maritime Organisation (IMO), International Chamber of Shipping, Institution of Lloyds Underwriters and to ports such as Shoreham and Thames Gateway.

If you would like more information on the Careers support available at City, please go to: <http://www.city.ac.uk/careers/for-students-and-recent-graduates>.

The Making Waves newsletter provides many examples of research and careers showcasing graduate from our maritime programmes.  
<https://blogs.city.ac.uk/city-alumni/category/making-waves/>

#### **WHAT PLACEMENT OPPORTUNITIES ARE AVAILABLE?**

IMO offers internships during the dissertation phase.

#### **WILL I GET ANY PROFESSIONAL RECOGNITION?**

Accreditation from the Institute of Marine Engineering Science and Technology (IMarEST) for Chartered Marine Technologist (CMarTech) will be sought in due course.

## **HOW DO I ENTER THE PROGRAMME?**

For those already working in the industry, we require a first degree, recognised professional qualification or the equivalent Certificate of Competence as Master or Chief Engineer: Class 1 Master Mariner or Class 1 Engineer and experience in one of these roles.

For those coming straight from an undergraduate course, we require a lower second-class honours degree (or higher) in a relevant subject from a recognised institution.

Other suitable qualifications

If you do not qualify for direct entry, you may wish to follow a Graduate Diploma pathway to the programme through one of our partners.

For overseas students whose first language is not English, the following qualification is required: IELTS: 6.5 or TOEFL 92

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