# **FACULTY OF ENGINEERING**

# DEPARTMENT OF NAVAL ARCHITECTURE, OCEAN AND MARINE ENGINEERING

# MARINE ENGINEERING WITH SPECIALISATION IN AUTONOMOUS MARINE VEHICLES

Master of Science in Marine Engineering with Specialisation in Autonomous Marine Vehicles

Postgraduate Diploma in Marine Engineering with Specialisation in Autonomous Marine Vehicles

Postgraduate Certificate in Marine Engineering with Specialisation in Autonomous Marine Vehicles

These regulations are to be read in conjunction with <u>General Academic Regulations</u> - Postgraduate Taught Degree Programme Level,

#### Admission

1. See General Academic Regulations - Postgraduate Taught Degree Programme Level.

### **Duration of Study**

2. See General Academic Regulations - Postgraduate Taught Degree Programme Level.

#### **Mode of Study**

3. The programmes are available by full-time and part-time study.

## Curriculum

- 4. All students shall undertake an approved curriculum as detailed below:
  - i. for the Postgraduate Certificate no fewer than 60 credits
  - ii. for the Postgraduate Diploma no fewer than 120 credits, including NM964 MSc Group Project (40 credits)
  - iii. for the degree of MSc no fewer than 180 credits, including NM965 Individual Project (60 credits)

## **Compulsory Modules**

| Module Code | Module Title   | Level | Credits |
|-------------|--|-------|---------|
| NM836       | Data Analysis for Engineering                              | 5     | 10      |
| DMxxx       | Intelligent Sensing and Reasoning through Machine Learning | 5     | 10      |
| EExxx       | Neural Networks and Deep Learning                          | 5     | 10      |
| NM844       | Autonomous Marine Vehicles and Digital Twin                | 5     | 10      |
| NM916       | System Availability and Maintenance                        | 5     | 10      |
| NM951       | Marine Engineering Simulation and Modelling                | 5     | 10      |
| NM837       | Underwater Vehicles  | 5     | 10      |

## Students for the Postgraduate Diploma and degree of MSc only:

| Module Code | Module Title      | Level | Credits |
|-------------|-------------------|-------|---------|
| NM964       | MSc Group Project | 5     | 40      |

### Students for the degree of MSc only:

| Module Code | Module Title       | Level | Credits |
|-------------|--------------------|-------|---------|
| NM965       | Individual Project | 5     | 60      |

#### **Optional Modules**

10 credits chosen from:

| Module Code | Module Title                                  | Level | Credits |
|-------------|---|-------|---------|
| NM973       | Maritime Regulatory Framework                 | 5     | 10      |
| NM950       | Maritime Safety and Risk                      | 5     | 10      |
| NM845       | Shipping Economics and Market Sector Analysis | 5     | 10      |
| NM835       | Ship Operability and Control                  | 5     | 10      |

Exceptionally, such other modules totalling no more than 20 credits, as approved by the Programme Leader. Students who have previously completed any module from the list of compulsory modules will be required to undertake an appropriate alternative as approved by the Programme Leader.

#### **Examination, Progress and Final Assessment**

- 5. See General Academic Regulations Postgraduate Taught Degree Programme Level.
- 6. The final award will be based on performance in the examinations, coursework and the Individual Project where undertaken.

#### **Award**

- 7. **Degree of MSc:** In order to qualify for the award of MSc in Marine Engineering with Specialisation in Autonomous Marine Vehicles, a candidate must have performed to the satisfaction of the Board of Examiners and must have accumulated no fewer than 180 credits, of which no fewer than 80 must be from the taught modules, 40 from the Group Project and 60 from the Individual Project.
- 8. **Postgraduate Diploma:** In order to qualify for the award of the Postgraduate Diploma in Marine Engineering with Specialisation in Autonomous Marine Vehicles a candidate must have performed to the satisfaction of the Board of Examiners and must have accumulated no fewer than 120 credits, of which no fewer than 80 must be from the taught modules and 40 from the MSc Group Project.
- 9. **Postgraduate Certificate:** In order to qualify for the award of the Postgraduate Certificate in Marine Engineering with Specialisation in Autonomous Marine Vehicles a candidate must

| have performed to the satisfaction of the Board of Examiners and must have accumulated no fewer than 60 credits from the taught modules of the programme. |
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