BSc (Hons) Marine Technologies (FT) – OS302

1 Aim and Objectives

The aim of this programme is to provide an in-depth knowledge of the theory and methods in marine systems, ocean exploration and surveying, hydrography, material science, mechanics, electronics, remote sensing and oceanography and in-depth knowledge in novel technologies, in order to prepare a skilled workforce in the field of Marine Technologies to meet national, and regional needs.

This programme will allow students to become conversant with marine systems & principles including electro-mechanical principles, engineering design, engineering structures, thermodynamics, fluid dynamics, information and communication technologies, sensor technologies, renewable energy, ocean science, marine pollution, climate change, naval architecture and the blue economy. This programme will also serve as a pathway for advanced studies in the fields of: marine engineering, marine renewable energy, offshore structures, marine survey, ship building, seafloor mapping, marine remote sensing, marine monitoring and scientific research.

This programme is jointly offered by the Department of Ocean Engineering & ICT/Faculty of Ocean Studies and the Faculty of Engineering.

2 General Entry Requirements

As per the General Entry Requirements for Admission to the University for Undergraduate Degrees.

3 Programme Requirements

Credits in 5 GCE 'O' Level subjects including Mathematics, Chemistry and Physics and 2 GCE 'A' Level passes in Mathematics and Physics.

4 General and Programme Requirements – Special Cases

The following may be deemed to have satisfied the General and Programme requirements for admission:

(i) Applicants who do not satisfy any of the requirements as per Regulations 2 and 3 above but who submit satisfactory evidence of having passed examinations which are deemed by the Senate to be equivalent to any of those listed.

(ii) Applicants who do not satisfy any of the requirements as per Regulations 2 and 3 above but who in the opinion of Senate submit satisfactory evidence of the capacity and attainments requisite to enable them to pursue the programme proposed.

(iii) Applicants who hold a full practicing professional qualification obtained by examination.

5 Programme Duration

The Programme is offered on a 3 years full-time (F/T) basis. The duration of the graduate programme should normally not exceed 5 years for full-time (F/T).

		Normal	Maximum
	BSc (Hons) Marine Technologies (F/T):	3 Years	5 Years

6 **Credits per Semester:** Maximum 48 credits, Minimum 6 credits, subject to section 6.3 of the UoM Regulations.

7 **Exit Points**

(i) Diploma Award
The diploma is provided as a possible exit point in the programme. A students may opt for a Diploma in Marine Technologies, by making a written request, provided that he/she satisfies the requirements, as per University regulations.

(ii) A student whose registration is on the point of being terminated, as a result of having her/his CPA < 40.0 for two consecutive registered years.

(iii) As per the UoM Regulations – section 6.7.6

8 **Minimum Credits Required for the Award of**

Degree: 105
Diploma: 69
Certificate: 36

Breakdown as follows:

	Modules	**Core Taught**	**Dissertation**	**Electives (Minimum)**
	Degree:	96 credits	9 credits	Nil

9 **Assessment**

Each module will carry 100 marks and will be assessed as follows (unless otherwise specified):

• Written Exams
All 3-credit Modules will be assessed by a 2 hr written exam paper
All 6-credit Modules will be assessed by a 3 hr written exam paper

Continuous assessment of **30% to 40%** of total marks. Continuous assessment can be based on laboratory work, and/or assignments and **should include at least one (1) assignment and one (1) class test per module.**

An overall total of **40%** for combined assessment and written examination components would be required to pass the module, without minimum thresholds within the individual continuous assessment and written examination.

Refer to Regulations, Chapter 6, Section 6.5 of the UoM Regulations.

The Dissertation carries 9 credits.

Submission Deadlines for Dissertation:

First Draft: End of February of Final Year
Final Copy: Last working day of March of Final Year.

10	**List of Modules** **(L= Lectures; P=Practical)**			
	CORE MODULES		**Hrs/Wk L+T/P**	**Credits**
	OET 1010Y(1)	Ocean Science	2+2	6
	ELEC 1033Y(1)	Electrical and Electronic Systems	2+2	6
	MECH 1001Y(1)	Mechanics of Materials & Machines I	2+1	5
	OET 1011Y(1)	Information and Communication Technologies	2+2	6
	OET 1012Y(1)	Engineering Mathematics	2+2	6
	OET 1101(1)	Professional Communication	2+2	3
	MECH 1102(1)	Engineering Graphics	3+2	4
	OET 1000	Vacation Training	-	S
	OET 2010Y(3)	Fluid Dynamics	2+2	6
	OET 2011Y(3)	Engineering Design and Structures	2+2	6
	OET 2012Y(3)	Marine Sensor Technologies	2+2	6
	OET 2013Y(3)	Marine Surveying	2+2	6
	OET 2110(3)	Bunkering Activities and Management	2+2	3
	LAWS 2250(3)	Maritime and Insurance Law	3+0	3
	OET 2014Y(3)	Naval Architecture	2+2	6
	OET 2000	Industrial Training	-	S
	OET 3010Y(5)	Marine Project Management	3+0	6
	OET 3011Y(5)	Marine Renewable Energy	2+2	6
	OET 3012Y(5)	Simulation and Modelling	2+2	6
	OET 3110(5)	Maritime Risks and Safety	3+0	3
	OET 3210(5)	Marine Transport Business	3+0	3
	OET 3000Y(5)	Dissertation	-	9
	For the BSc (Hons) award, students have to complete ALL the core modules.			

12 Programme Plan – BSc (Hons) Marine Technologies (Full Time)

YEAR 1 – Semester 1 & 2

Code	Module Name	Hrs/Wk L+T/P	Credits
OET 1010Y(1)	Ocean Science	2+2	6
ELEC 1033Y(1)	Electrical and Electronic Systems	2+2	6
MECH 1001Y(1)	Mechanics of Materials & Machines I	2+1	5
OET 1014Y(1)	Information and Communication Technologies	2+2	6
OET 1015Y(1)	Engineering Mathematics	2+2	6
OET 1101(1)	Professional Communication	2+2	3
MECH 1102(1)	Engineering Graphics	3+2	4
OET 1000	Vacation Training	-	-
			36

YEAR 2 – Semester 1 & 2			
Code	**Module Name**	**Hrs/Wk L+T/P**	**Credits**
OET 2010Y(3)	Fluid Dynamics	2+2	6
OET 2011Y(3)	Engineering Design and Structures	2+2	6
OET 2012Y(3)	Marine Sensor Technologies	2+2	6
OET 2013Y(3)	Marine Surveying	2+2	6
OET 2110(3)	Bunkering Activities and Management	2+2	3
LAWS 2250(3)	Maritime and Insurance Law	3+0	3
OET 2014Y(3)	Naval Architecture	2+2	6
OET 2000	Industrial Training	-	-
			36
YEAR 3 – Semester 1 & 2			
Code	**Module Name**	**Hrs/Wk L+T/P**	**Credits**
OET 3010Y(5)	Marine Project Management	3+0	6
OET 3011Y(5)	Marine Renewable Energy	2+2	6
OET 3012Y(5)	Simulation and Modelling	2+2	6
OET 3110(5)	Maritime Risks and Safety	3+0	3
OET 3210(5)	Marine Transport Business	3+0	3
OET 3000Y(5)	Dissertation	-	9
			33

For the BSc (Hons) Award, students have to complete ALL core modules offered by the Department and the research project.