Department of Naval Architecture, Ocean and Marine Engineering,

Faculty of Engineering, University of Strathclyde

Please check using the following link for the most up-to-date module information.

https://but.mis.strath.ac.uk/modulecatalogue/

Module code	Semester	Module name	Exchange students	Pre-requisites	ECTS
Undergraduate					
Year 1					
NM100	Full Year	Navigation and Seamanship	Yes		10
NM102	Full Year	Introduction to Naval Architecture and Marine Engineering	Yes		10
NM103	Full Year	Analysis Tools for Marine Design	Yes		10
Year 2					
NM209	Full Year	Principles of Marine Design and Production	Yes		10
NM214	1 (FALL)	Principles of Marine Design and Production (for Exchange Students)	Yes		5
NM216	2 (SPRING)	Principles of Marine Design and Production (Semester 2)	Yes		5
NM210	Full Year	Analysis and Design of Marine Structures 1	Yes		10
NM338	2 (SPRING)	Analysis & Design of Marine Structures I (Semester 2)(Exchange Students)	Yes		5
NM212	Full Year	Hydrostatics and Stability of Marine Vehicles	Yes		10
NM336	1 (FALL)	Hydrostatics and Stability of Marine Vehicles (Semester 1)(Exchange Stu)	Yes		5
NM337	2 (SPRING)	Hydrostatics and Stability of Marine Vehicles (Semester 2)(Exchange Stu)	Yes		5
NM213	Full Year	Marine Engineering Fundamentals	Yes	NM102	10
NM217	2 (SPRING)	Engineering Applications for Naval Architects, Ocean & Marine Engineers	Yes	NM102	5
NM218	1 (FALL)	Fluid Mechanics in Naval Architecture, Ocean and Marine Engineering	Yes		5
Year 3					
NM305	2 (SPRING)	Yacht and Powercraft Design	Yes	NM313	5
NM312	Full Year	Analysis and Design of Marine Structures 2	Yes	NM210	10
NM329	1 (FALL)	Analysis and Design of Marine Structures 2 (Semester 1)	Yes		5
NM330	2 (SPRING)	Analysis and Design of Marine Structures 2 (Semester 2)	Yes		5
NM313	Full Year	Hydrodynamics, Resistance and Propulsion	Yes		10
NM349	1 (FALL)	Hydrodynamics, Resistance and Propulsion (Sem 1) (Exchange Students)	Yes		5
NM339	2 (SPRING)	Hydrodynamics, Resistance and Propulsion (Exchange Students)	Yes		5
NM314	Full Year	Marine Design	Yes		10
NM331	1 (FALL)	Marine Design (Semester 1)(Exchange Students)	Yes		5
NM332	2 (SPRING)	Marine Design (Semester 2)(Exchange Students)	Yes		5
NM316	Full Year	Marine Engineering Systems and Control	Yes	NM102 NM213	10
NM333	1 (FALL)	Marine Engineering Systems and Control (Semester 1)(Exchange Students)	Yes		5
NM334	2 (SPRING)	Marine Engineering Systems and Control (Semester 2)(Exchange Students)	Yes		5
NM323	2 (SPRING)	The Marine Environment	Yes	MA211 MA212 NM313	5
NM324	2 (SPRING)	Principles and Application of Marine Machinery	Yes	NM102 NM213	5

NM325	2 (SPRING)	Offshore Oil and Gas Production Systems	Yes		5
NM327	1 (FALL)	Professional Development	Yes		5
NM335	1 (FALL)	Business Concepts and International Merchant Shipping	Yes		5

Year 4

21452	1 (FALL)	Finite Element Analysis for Marine Structures	Yes	NM210 NM312	5
NM402	1 (FALL)	Theory and Practice of Marine CFD	Yes	NM313	5
NM404	1 (FALL)	Ship Structural Dynamics	Yes	NM313 NM312 NM318	5
NM409	2 (SPRING)	Marine Transmission and Propulsion Systems	Yes	NM315 NM316	5
NM415	1 (FALL)	Marine Refrigeration and Air Conditioning	Yes	NM213 NM315 NM316	5
NM421	Full Year	Marine Power and Electrical Systems	Yes	NM213 NM315 NM316	10
NM423	1 (FALL)	Seakeeping and Manoeuvring	Yes	NM313 NM323	10
NM428	Full Year	Marine Engineering Project	Yes		20
NM430	Full Year	Ocean Engineering Project	Yes		20
NM435	2 (SPRING)	Structural Reliability	Yes	NM210 NM312	5
NM436	Full Year	Dynamics of Offshore Structures	Yes	NM313 NM325	10
NM437	2 (SPRING)	High Speed Ships	Yes		5
NM439	1 (FALL)	High Performance Sailing Yachts	Yes		5
NM440	Full Year	High Performance Marine Vehicles Project	Yes		20
NM442	Full Year	Ocean and Marine Engineering Graduate Diploma Project	No		10
NM443	2 (SPRING)	High Performance Marine Structures	Yes	NM210 NM312	5

Year 5

21518	2 (SPRING)	Computational Free-Surface Hydrodynamics	Yes	NM402	5
21525	2 (SPRING)	Advanced Marine Engineering	Yes	NM213 NM315 NM324 NM421	5
21526	1 (FALL)	Marine Engineering Simulation and Modelling	Yes	NM213 NM421 NM316 NM103 Matlab	5
21551	1 (FALL)	The Maritime Regulatory Framework	Yes		5
NM502	Full Year	Group Design Project	No		20
NM513	2 (SPRING)	Design and Construction of FPSO's	Yes		5
NM521	1 (FALL)	Risers and Mooring Lines	Yes		5
NM522	2 (SPRING)	Renewable Marine Energy Systems	Yes	NM323 NM423	5
NM523	1 (FALL)	Systems Availability and Maintenance	Yes		5
NM524	Full Year	Onboard Energy Management and Environment Protection	Yes	NM213 NM324 NM421	5
NM215	1 (FALL)	Onboard Energy Management and Environment Protection (Exchange Students)	Yes		2.5
NM527	2 (SPRING)	Advanced Marine Design	Yes		5
NM528	2 (SPRING)	Maritime Safety and Risk	Yes		5
NM529	2 (SPRING)	Ship Operability and Control	Yes	NM423	5
NM530	1 (FALL)	Ship Powering in Service	Yes		5

NM531	2 (SPRING)	Marine Pipeline Integrity	Yes		5
NM532	1 (FALL)	Shipping Economics And Market Sector Analysis	Yes		5
NM533	2 (SPRING)	Autonomous Marine Vehicles Modelling and Digital Twin	Yes	NM951	5

PGT

NM801	2 (SPRING)	Marine Pipeline Integrity	No		5
NM806	2 (SPRING)	Naval Architecture, Ocean and Marine Engineering Research Project	No		10
NM807	1 (FALL)	Arctic Technology	No		6
NM808	1 (FALL)	Innovative CFD Approaches	No		6
NM809	1 (FALL)	Non-Linear Structural Analysis	No		6
NM810	1 (FALL)	Ship Design	No		6
NM811	1 (FALL)	Structural Analysis of Ships and Offshore Structures	No		6
NM812	1 (FALL)	Fatigue Strength of Ships and Offshore Structures	No		6
NM813	1 (FALL)	Manoeuvrability and Shallow Water Ship Hydrodynamics	No		6
NM814	1 (FALL)	Seakeeping of Ships and Laboratory on Naval Architecture	No		6
NM815	1 (FALL)	Ship Vibration	No		6
NM822	2 (SPRING)	NAOME PGDip Dissertation	No		10
NM833	1 (FALL)	Marine Renewable Energy Systems	Yes		5
NM835	2 (SPRING)	Ship Operability and Control	Yes		5
NM836	2 (SPRING)	Data Analysis for Engineering	Yes		5
NM837	2 (SPRING)	Underwater Vehicles	Yes		5
NM838	1 (FALL)	Ship Powering in Service	Yes		5
NM839	2 (SPRING)	MSc Group Design Project	No		20
NM840	2 (SPRING)	Advanced Marine Design	Yes		5
NM841	Full Year	Offshore Wind Turbines Dynamics Modelling	Yes		10
NM842	2 (SPRING)	Offshore Structural Integrity	Yes		5
NM843	1 (FALL)	Risk and Reliability Engineering	Yes		5
NM844	2 (SPRING)	Autonomous Marine Vehicles Modelling and Digital Twin	No		5
NM845	1 (FALL)	Shipping Economics And Market Sector Analysis	Yes		5
NM862	Full Year	Energy Transition Barriers and Readiness	No		5
NM863	Full Year	Health, Safety and Risk for Offshore Energy Systems	No		5
NM864	Full Year	Individual Thesis Project	No		20
NM865	Full Year	Materials and Structures in Marine Environment	No		5
NM866	Full Year	Risk Management and Technology Qualification	No		5
NM867	Full Year	Techno-Economics of Energy Systems and Integration	No		5
NM868	Full Year	Offshore Wind Turbines Dynamics 1: Environment Modelling & Wave Loading	No		5
NM869	Full Year	OWT Dynamics II: Aero-Hydro-Servo-Elastic Coupled Dynamics with Openfast	No		5
NM916	1 (FALL)	Systems Availability and Maintenance	Yes		5
NM950	2 (SPRING)	Maritime Safety and Risk	Yes		5
NM951	1 (FALL)	Marine Engineering Simulation and Modelling	Yes		5
NM952	2 (SPRING)	Advanced Marine Engineering	Yes		5
NM958	1 (FALL)	Risers and Mooring Lines	Yes		5
NM959	2 (SPRING)	Dynamics of Floating Offshore Installations	Yes		5
NM960	1 (FALL)	Finite Element Analysis of Floating Structures	Yes		5
NM961	2 (SPRING)	Design and Construction of FPSO's	Yes		5

NM962	1 (FALL)	Advanced Marine Structures	Yes		5
NM963	1 (FALL)	Theory and Practice of Marine CFD	Yes		5
NM964	2 (SPRING)	Group Project	No		20
NM965	2 (SPRING)	Individual Project	No		30
NM966	1 (FALL)	Marine Pipelines	Yes		5
NM967	2 (SPRING)	Reliability-Based Structural Design and Plated Structures	Yes		5
NM969	2 (SPRING)	Renewable Marine Energy Systems	Yes		5
NM973	1 (FALL)	Maritime Regulatory Framework	Yes		5
NM975	2 (SPRING)	Computational Free-Surface Hydrodynamics	Yes		5
NM977	1 (FALL)	Subsurface Technology	Yes		5
NM978	1 (FALL)	Physical Testing of Offshore Renewable Energy Systems	Yes		5
NM979	2 (SPRING)	Computational Modelling of Problems in Structural Mechanics	Yes		5
NM980	Full Year	Onboard Energy Management and Marine Environment Protection	Yes		5
NM982	2 (SPRING)	Research Project - Ship and Offshore Technology	No		10
NM983	2 (SPRING)	MSc Group Project - Ship and Offshore Technology	No		10
NM989	2 (SPRING)	Master Thesis	No		30