

MARITIME ENGINEERING TECHNOLOGY AND NAVAL ARCHITECTURE : BACHELOR OF APPLIED SCIENCE

Overview

Bachelor of Applied Science in Maritime Engineering Technology and Naval Architecture

Program Mission

The mission of the program is to provide knowledge and skills to students in the field of Maritime Engineering and Naval Architecture, to prepare them to contribute to a wide range of maritime related industries in the UAE including: ship building and repair yards; regulatory authorities; classifications societies; ship design consultancies; ship owners, and ports.

Program Description

This program educates students in the field of Maritime Engineering Technology and Naval Architecture, to prepare them to work in a wide range of maritime related industries in the UAE including: the offshore industry; shipyards; classifications societies; ship design consultancies; shipowners, and ports.

Program Learning Outcomes

Upon graduation, a HCT graduate in Bachelor of Applied Science in Maritime Engineering Technology and Naval Architecture should have the ability to:

1. Carry out a wide range of maritime engineering and ship design functions
2. Analyze the performance of ships and maritime structures
3. Conduct ship surveys
4. Effectively lead, work and communicate in a team
5. Expand knowledge and capabilities through continuing education or other lifelong learning experiences
6. Serve the community, whether locally, nationally, or globally

Requirements

Completion Requirements

Students seeking the Bachelor of Applied Science in Maritime Engineering Technology and Naval Architecture must successfully complete the following requirements:

1. Minimum of 139 credits which are divided as follows:
 - a. Major requirements of 32 credits as specified by program core requirements
 - b. Elective Course requirements of 12 credits
 - c. Mathematics and Science Course requirements of 21 credits
 - d. General Engineering requirements of 41 credits
 - e. General Studies requirements of 33 credits according to the General Studies breakdown
2. Minimum CGPA of 2.00.

Code	Title	Credit Hours
Maritime Engineering and Naval Architecture Core Courses		
Required Credits: 32		
MAR 2203	Naval Architecture	3
MAR 3103	Marine Machinery Systems	3
MAR 3202	Ship Production	2
MAR 3303	Resistance and Propulsion	3
MAR 3402	Ship Structures I	2
MAR 3503	Design of Ships and Maritime Structures	3
MAR 4805	Maritime Design Project I	5
MAR 4833	Seakeeping and Manoeuvring	3
MAR 4865	Maritime Design Project II	5
MAR 4883	Maritime Transportation	3
General Engineering Core Courses		
Required Credits: 41		
EGN 1133	Design Thinking in Technology	3
EGN 2101	Computer Aided Drafting	1
EGN 3012	Project Management	2
EGN 3212	Economics for Engineering	2
EGN 3806	Work Placement II	6
ELE 2153	Electrical Eng Fundamentals	3
MCE 2203	Applied Statics	3
MCE 2213	Mechanics of Materials	3
MCE 2223	Applied Dynamics	3
MCE 2303	Material Selection and Testing	3
MCE 2323	Manufacturing Technology I	3
MCE 2403	Thermodynamics	3
MCE 3343	Industrial Plant Maintenance	3
MCE 3403	Fluid Mechanics	3
Maritime Engineering and Naval Architecture Elective Courses		
Required Credits: 12		
MAR 4423	Coastal Engineering and Maritime Structures	3
MAR 4433	Offshore Engineering	3
MAR 4443	Ship Production II	3
MAR 4453	Ship Repair	3
MAR 4463	Port Engineering	3
MAR 4803	Ship Structures II	3
MAR 4853	Marine Surveying	3
MAR 4903	Marine Safety	3
Mathematics and Science Required Courses		
Required Credits: 21		
CHM 1103	Engineering Chemistry	3
MTH 1103	Pre Calculus	3
MTH 1203	Calculus I	3
MTH 2103	Calculus II	3
MTH 2503	Introduction to Differential Equations	3
MTH 3013	Calculus III	3
PHY 1203	Physics II	3
General Studies		
Required Credits: 33		
English, Arabic or other Languages		

Required Credits: 12

Humanities or Arts

Required Credits: 3

Information Technology and Mathematics

ICT 2013 and MTH 1113

Required Credits: 6

The Natural Sciences

PHY 1103

Required Credits: 3

The Social or Behavioral Sciences

Required Credits: 9

Description	Data
Total Required Credits	139
Maximum Duration of Study	6 years
Cost Recovery Program	No
Minimum Duration of Study	4 years
Program Code	MENBP
Major Code	MAR

Ideal Study Plan

Recommended Sequence of Study

Year 1

Semester 1		Credit Hours
EGN 1133	Design Thinking in Technology	3
LSC 1103	Professional Communication and Reporting	3
LSS 1003	Life and Future Skills	3
MTH 1103	Pre Calculus	3
PHY 1103	Physics I	3
Credit Hours		15
Semester 2		
LSC 2103	Academic Reading and Writing II	3
LSS 1123	Basic Research Methods	3
MTH 1113	Statistics for Engineering	3
MTH 1203	Calculus I	3
PHY 1203	Physics II	3
Credit Hours		15
Summer		
AES 1013	Arabic Communications I	3
CHM 1103	Engineering Chemistry	3
Credit Hours		6

Year 2

Semester 1		Credit Hours
AES 1003	Emirati Studies	3
ELE 2153	Electrical Eng Fundamentals	3
MCE 2203	Applied Statics	3
MCE 2303	Material Selection and Testing	3
MCE 2311	Solid Modelling	1
MTH 2103	Calculus II	3
Credit Hours		16
Semester 2		
MCE 2213	Mechanics of Materials	3
MCE 2223	Applied Dynamics	3
MCE 2323	Manufacturing Technology I	3
MCE 2403	Thermodynamics	3
MCE 3403	Fluid Mechanics	3

MTH 2503	Introduction to Differential Equations	3
Credit Hours		18
Summer		
MCE 3343	Industrial Plant Maintenance	3
Credit Hours		3
Year 3		
Semester 1		
AES 3003	Professional Arabic	3
EGN 3012	Project Management	2
EGN 3212	Economics for Engineering	2
MAR 2203	Naval Architecture	3
MAR 3103	Marine Machinery Systems	3
MTH 3013	Calculus III	3
Credit Hours		16
Semester 2		
ICT 2013	Computational Thinking and Coding	3
BUS 2403	Innovation and Entrepreneurship	3
MAR 3202	Ship Production	2
MAR 3303	Resistance and Propulsion	3
MAR 3402	Ship Structures I	2
MAR 3503	Design of Ships and Maritime Structures	3
Credit Hours		16
Summer		
EGN 3806	Work Placement II	6
Credit Hours		6
Year 4		
Semester 1		
MAR 4805	Maritime Design Project I	5
MAR 4833	Seakeeping and Manoeuvring	3
2 Elective Course		6
Credit Hours		14
Semester 2		
MAR 4865	Maritime Design Project II	5
MAR 4883	Maritime Transportation	3
2 Elective course		6
Credit Hours		14
Total Credit Hours		139