

INDIAN MARITIME UNIVERSITY

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Website: www.imu.edu.in



Academic Brochure 2016-17

For

Undergraduate & Postgraduate Programmes

"Maritime sector has a vital role in India's progress & Government is strengthening the sector through innovative initiatives."

Shri Narendra Modi

Hon'ble Prime Minister of India

"Shipping is just not ferrying of goods and passengers. It is all about the growth of the nation as it promotes trade."

Shri Nitin Gadkari

Hon'ble Minister of Shipping, Road Transport & Highways

Vice Chancellor's Message



Would you like a challenging and rewarding career in the Merchant Navy as Navigating Officer or Marine Engineer? Are you interested in Ship Building, Naval Architecture or Dredging and Harbour Engineering? Do you want to specialise in Port and Shipping Management, International Transportation and Logistics?

If your answer to any of the above questions is 'Yes', then the Indian Maritime University (IMU) is the right destination for you.

IMU, a teaching-cum-affiliating university under the Ministry of Shipping, Government of India, came into being on 14th November 2008 through an Act of the Parliament. It has All-India jurisdiction and is the only university in the country dedicated exclusively to the Maritime sector. IMU is committed to providing quality maritime education, training and research that are responsive to Industry needs. IMU has 36 Affiliated Institutes.

I have great pleasure in releasing IMU's Academic Brochure for 2016-17 for the benefit of aspiring candidates. It deals with the various UG and PG programmes offered by IMU and its Affiliated Institutes, and the Online Common Entrance Tests (CETs) for admissions to these programmes.

> K. Ashok Vardhan Shetty Vice Chancellor, Indian Maritime University

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1. Introduction

The Indian Maritime University (IMU) was established on 14th November 2008 as a teaching-cum-affiliating university under the Ministry of Shipping, Government of India, with Chennai as headquarters. It was set up to promote maritime studies, training, research and extension with focus on emerging areas like oceanography, maritime history, maritime laws, maritime security, search and rescue, transportation of dangerous cargo, environmental studies and other related fields, and to achieve excellence in these areas.

There were 7 renowned legacy teaching-cum-research institutes under the Ministry of Shipping, and these were subsumed under the Indian Maritime University in November 2008. The 3 institutes in Mumbai, namely, the *Training Ship Chanakya*, the *Lal Bahadur Shastri College of Advanced Maritime Studies & Research*, and the *Marine Engineering Research Institute* became the Mumbai Campus of the Indian Maritime University. The 2 institutes in Kolkata, namely, the *Marine Engineering Research Institute of Port Management* became the Kolkata Campus of the University. The *National Ship Design and Research Centre* in Visakhapatnam and the *National Maritime Academy* in Chennai became the Visakhapatnam and Chennai Campuses respectively of the University. Post-November 2008, Kochi Campus was set up - in 2009. The University also has 36 Affiliated Institutes.

2. Programmes

The following programmes are offered by the Indian Maritime University in its Campuses and Affiliated Institutes:

Undergraduate programmes

- 1. 4-Year B.Tech (Marine Engineering)
- 2. 4-Year B.Tech (Naval Architecture & Ocean Engineering)
- 3. 3-Year B.Sc (Ship Building & Repair)
- 4. 3-Year B.Sc (Maritime Science)
- 5. 3-Year B.Sc (Nautical Science)
- 6. 1-Year Diploma in Nautical Science leading to B.Sc. (Applied Nautical Science)

Postgraduate programmes

- 1. 2-Year MBA (Port and Shipping Management)
- 2. 2-Year MBA (International Transportation and Logistics Management)
- 3. 2-Year M.Tech (Naval Architecture and Ocean Engineering)
- 4. 2-Year M.Tech (Dredging and Harbour Engineering)

Postgraduate Diploma programmes

1- Year PGDME: Post Graduate Diploma in Marine Engineering

Research Programmes

At present Ph.D programme is being conducted at IMU Visakhapatnam Campus.

3. Course – Duration – Intake capacity

a) IMU Campuses

Under-Graduate Programmes

<u>Campus</u>	Programmes Offered	Duration	Sanctioned Strength
Kolkata B.Tech (Marine Engineering)		4 Years	286
	Diploma in Nautical Science leading to B.Sc (Applied Nautical Science)	1 Year	80
Mumbai	B.Sc (Nautical Science)	3 Years	185
	B.Sc (Maritime Science)	3 Years	40
	B.Tech (Marine Engineering)	4 Years	80
Chennai	Diploma in Nautical Science leading to B.Sc (Applied Nautical Science)	1 Year	80
	B.Sc (Nautical Science)	3 Years	120
Visakhapatnam	B.Tech (Naval Architecture & Ocean Engineering)	4 Years	40
Cochin	B.Sc (Nautical Science)	3 Years	40
	B.Sc.(Ship Building & Repair)	3 Years	40

Post Graduate Programmes

<u>Campus</u>	Programmes Offered	Duration	<u>Sanctioned</u> <u>Strength</u>
Kolkata	MBA - International Transportation and Logistics Management	2 Years	15
	MBA – Port & Shipping Management	2 Years	30
Chennai	MBA - International Transportation and Logistics Management	2 Years	45
Visakhapatnam	M.Tech (Naval Architecture & Ocean Engineering)	2 Years	20
Visukiuputium	M.Tech (Dredging & Harbour Engineering)	2 Years	20
Cochin	MBA - International Transportation and Logistics Management	2 Years	30
	MBA – Port & Shipping Management	2 Years	30

Post Graduate Diploma Programmes

<u>Campus</u>	Programmes Offered	Duration	<u>Sanctioned</u> <u>Strength</u>
Mumbai	PGDME - PG Diploma in Marine Engineering	1 Year	120
Cochin	PGDME - PG Diploma in Marine Engineering	1 Year	40

b) <u>List of Institutes Affiliated to IMU- Courses Offered –</u> <u>No. of seats & Last three years' Admissions</u>

		pe			Seats Filled		
		Offere	Seats	e	August		
SI. No.	College Name	Courses Offered	No. of Se	CIP Grade	2015	2014	2013
1	Anglo Eastern Maritime Academy, Mumbai	DNS	160	A1	160	160	158
2	Applied Research International, New Delhi	DNS	120	A1	80	43	41
3	C V Raman College of Engineering,	DNS	40	A2	Nil	02	Nil
	Bhubaneswar	B.Tech (ME)	40		08	22	35
4	Coimbatore Marine College, Coimbatore	B.Tech (ME)	80	A2	38	63	54
5	College of Ship Technology, Palakad	B.Sc (SBR)	40	-	06	15	Nil
6	Dr. B R Ambedkar Institute of Technology, Port Blair	DNS	30	A2	09	Nil	Nil
7	Euro Tech Maritime Acadomy, Cochin	DNS	80		Nil	09	08
	Euro Tech Maritime Academy, Cochin	B.Tech (ME)	80	A1	35	39	17
8		B.Tech (ME)	80		26	21	21
0	HIMT College, Kilpauk, Chennai	B.Sc (NS)	80	A1	12	23	10
9	Hind Institute of Nautical Science & Engineering, Noida (U.P)	B.Sc (SBR)	40	-	07	20	5
10	International Maritime Institute, New Delhi	DNS	120	A1	99	92	31
10		B.Tech (ME)	40		26	26	21

11	Maharashtra Academy of Naval Education	B.Tech	200	A1	191	_	-
12	and Training, Pune MMTI'S Education & Research Trust,	(ME) DNS	40	B1	16	22	24
13	Mumbai Park Maritime Academy, Coimbatore	B.Tech	40	B2	Nil	13	Nil
14	Maritime Training Institute, (SCI) Mumbai	(ME) DNS	120	A1	83	43	77
15	Maritime Training Institute, (SCI) Tuticorin	DNS	40	_	40	38	34
16	Perunthalaivar Kamarajar Institute of Maritime Science and Engineering, Chidambaram	DNS	40	-	Nil	08	33
17	RL Institute of Nautical Sciences, Madurai	B.Tech (ME)	120	A2	27	-	-
18	Sailors Maritime Academy, Visakhapatnam	DNS	40	-	13	11	33
10	Samundra Institute of Maritime Studies,	DNS	120		119	114	111
19	Mumbai	B.Tech (ME)	40	A1	36	40	24
20	Shriram Institute of Marine Studies, New Delhi	DNS	40	-	Nil	05	25
21	Southern Academy of Maritime Studies, Chennai	DNS	40	B1	11	15	14
22	The Great Eastern Institute of Maritime Studies, Mumbai	DNS	80	A1	80	80	75
		DNS	120		71	80	34
23	Tolani Maritime Institute, Pune	B.Sc (NS)	80	A1	-	-	-
		B.Tech (ME)	240		-	-	-
24	Training Ship Rahaman, Mumbai	DNS	120	A1	95	56	37
25	Vishwakarma Maritime Institute, Pune	DNS	40	A2	28	28	19
26	Yak Education Trust, Mumbai	DNS	120	A2	Nil	31	23

	Note : Affiliation for conducting DNS course has lapsed in respect of the following 11 Affiliated Institutes which have failed to admit even a single student to DNS in 2013-14, 2014-15 and 2015-16 vide Executive Council Resolution No.EC 2015-33-16, dated 23rd December 2015. These institutes will have to apply afresh to IMU seeking affiliation for DNS from 2016- 17 onwards if they wish to admit students to DNS.							
1	Aquatech Institute of Maritime Studies, New Delhi**	DNS	40	B1	Nil	Nil	Nil	
2	Cosmopolitan Technology of Maritime, Kancheepuram**	DNS	40	-	Nil	Nil	Nil	
3	Marine Officers Training Academy, Puducherry**	DNS	40	B1	Nil	Nil	Nil	
4	RVS College of Maritime Science & Engineering, Karaikal**	DNS	40	-	Nil	Nil	Nil	
5	Sairam Shipping Science College, Chennai**	DNS	40	_	Nil	Nil	Nil	
6	Trident College of Maritime, Kolkata**	DNS	40	A2	Nil	Nil	Nil	
7	B P Marine Academy, Mumbai	DNS	40	A2	Nil	Nil	Nil	
8	Centre for Maritime Training, Lucknow	DNS	40	A1	Nil	Nil	Nil	
9	HIMT College, Kilpauk, Chennai	DNS	40	A1	Nil	Nil	Nil	
10	Haldia Institute of Maritime Science, Kolkata	DNS	40	A2	Nil	Nil	Nil	
11	Maritime Foundation, Nungambakkam, Chennai	DNS	40	A2	Nil	Nil	Nil	

** - Institutes nos. 1 to 6 have not paid initial affiliation fees and are likely to face action for disaffiliation shortly. Candidates are advised to take note of this.

4. <u>Common Entrance Tests for Admissions</u>

All admissions to the various UG and PG programmes of the IMU and its Affiliated Institutes (for the Academic year 2016-17 starting on 1.8.2016) will be through All-India **Online Common Entrance Tests** (CETs) which will be conducted on **Saturday, 04th June 2016**.

There will be a CET common to all UG programmes. There will be a CET common to the 2 MBA programmes; another CET common to the 2 M.Tech programmes.

The results of the CETs are valid for the particular Academic session only.

Application Fee is **Rs. 1000** for General candidates and **Rs. 700** for Scheduled Caste/Scheduled Tribe candidates.

The **Syllabus** for CET for UG programmes will be Physics, Mathematics, Chemistry, English, General Knowledge and Aptitude at Plus 2 level (CBSE, ISE and State Boards).

The Syllabus for the CET for the 2 MBA programmes will be as follows: Quantitative ability, Data interpretation, Verbal ability and Logical reasoning.

The Syllabus for the CET for the 2 M.Tech programmes will be as follows: English, General Knowledge, Aptitude, Mathematics and General Engineering.

The questions will be of **multiple choice type**. There will be no negative marking for wrong answers.

Candidates who are shortlisted based on CET scores will be required to register for **Online Counselling for allotment of seats to the various Programmes of** IMU Campuses and will be followed by verification of original mark sheets and certificates, physical fitness clearance, etc.

From this Academic Year 2016-17 onwards Online counselling will be limited to admissions in to IMU Campuses only. **Affiliated Institutes will not be included for the process of Online Counselling.** Students who have cleared the CET and are desirous of seeking admissions to Affiliated Institutes may approach the Institutes directly.

N.B Admissions to Diploma in Nautical Science leading to B.Sc. (Applied Nautical Science) programme in **Affiliated Institutes** are open only to '**sponsored candidates**', i.e. candidates sponsored by Ship Owning or Managing Companies who qualify in IMU's CET for UG programmes.

Salient features of IMU's Online CETs

The Indian Maritime University has been conducting Online CETs from 2014 onwards. All the stages from application to publication of results are now Online.

The following facilities have been made available:

- Online Registration of Applicants with facility to upload photographs, scanned signatures, scanned copy of the 10th Std Mark sheet as proof of Date of Birth and scanned copy of the SC/ST certificate where applicable. The candidates will be able to make payment for the Registration Fees Online and download and print the filled-in application in standard formats. For Online Registration, applicants should visit the website of the Indian Maritime University at http://www.imu.edu.in and click on the CET 2016 hyperlink.
- Facility for applicants to download their **Hall Tickets**/Admit Cards with the name of the Test Venue indicated.
- **Automated e-mails/SMS** will be sent to every registered applicant on successful registration of Application, uploading of Hall Ticket, publication of results, etc.
- Evaluation of answers and publication of CET results within 5 days.

Candidates are requested to visit IMU's website periodically to keep track of new announcements and changes if any. IMU shall not be responsible if any candidate is put to hardship because he did not keep himself abreast of the latest developments.

The Computer-based CETs for IMU's UG and PG programmes are scheduled to be held on **Saturday 04th June 2016 Afternoon** between **2 pm and 5 pm** in a **single shift**. They will be held simultaneously in the following 34 cities across India:

Agra	Hyderabad	Patna
Ahmedabad	Jaipur	Pune
Allahabad	Jodhpur	Raipur
Bangalore	Kanpur	Ranchi
Bhopal	Kolkata	Shimla
Bhubaneswar	Kota	Siliguri
Chandigarh	Lucknow	Srinagar
Chennai	Meerut	Trivandrum
Cochin	Mumbai	Varanasi
Coimbatore	Muzaffurpur	Visakhapatnam
Dehradun	Nagpur	
Guwahati	New Delhi	

Note: For Candidates native to Andaman & Nicobar Islands or domiciled there for at least five years, **a separate CET for UG programmes only** will be conducted by the Andaman & Nicobar Administration on behalf of IMU. Candidates desirous of joining MBA/M.Tech programmes must apply online for IMU's CETs. The Applicants can give 3 preferences for the cities where they wish to take the CET while registering online.

While every effort will be made to accommodate an Applicant within his 3 preferred cities, **the IMU reserves the right to divert Applicants to the nearest cities** if sufficient number of candidates are not forthcoming in certain cities and also if there are too many candidates for a particular city. If there is a large number of Applicants for certain cities, the IMU/Service Provider may arrange multiple Test Venues in such cities.

The name and address of the Test Venue will be indicated on the Hall Ticket/Admit Card and Applicants are requested to be present at the Test Venue at least 30 minutes before the time of commencement of the CETs.

Important Dates for CET 2016

Date of commencement of Online Registration	1 st April 2016
Last date for Online Registration	13 th May 2016
Hall Ticket can be downloaded	From 20 th May 2016
Date of Computer-Based CETs	4 th June 2016 *
Date of Publication of Results	8 th June 2016
Date(s) of Online Counselling for all UG & PG	10 th June 2016 to 23 th June 2016
Programmes	10° June 2016 to 23° June 2016
Publication of First List of Selected Candidates	24 th June 2016
Deadline for Online Payment of Programme Fee	1 st July 2016
for candidates selected in First List	1 July 2010
Publication of Second List of Selected candidates	2 nd July 2016
Deadline for Online Payment of Programme Fee	19 th 1
for candidates selected in Second list.	18 th July 2016
Certificate Verification	25 th July 2016 to 31 st July 2016
Date of Commencement of Programmes	1 st August 2016

* CET June 2016 was scheduled to be held from 2 PM to 5 PM on Saturday, 4th June 2016. Due to the receipt of large number of applications for the UG Programmes of IMU, the CET is scheduled in two shifts for the UG Programme candidates on Saturday, 4th June 2016. One shift is from 10 AM to 1 PM and the other shift is from 3 PM to 6 PM on 4th June 2016. The CET June 2016 for MBA and M Tech Programme candidates will be held from 3 PM to 6 PM on 4th June 2016.

All correspondence with IMU regarding CET June 2016 shall be made via Email only at <u>cetjune2016@imu.co.in</u>

5. <u>DETAILS OF UNDERGRADUATE PROGRAMMES OFFERED IN IMU</u> <u>SCHOOLS</u>

IMU currently offers various UG programmes under the following Schools:

- School of Nautical Studies
- $\circ \quad \text{School of Marine Engineering} \\$
- o School of Naval Architecture & Ocean Engineering

School of Nautical Studies (SNS)

This offers UG Programmes in Nautical Science and Maritime Science contributing to training quality seafarers. The global demand for Indian seafarers is a testimony to their tenacity and discipline.

	IMU		
Programme	Campuses	Eligibility	Fees
1-Year DNS programme leading to B.Sc (Applied Nautical Science)	Mumbai, Chennai, Kochi	 i) 10+2/ equivalent (PCM-60%) OR ii) B.Sc (PCM) / B.Sc (Electronics with Physics as individual subject in one of the years) Marks not less than 50%., OR ii) B.E./B.Tech from IIT or college recognised by AICTE Marks not less than 50%. Note: English Marks are to be 50% or more in any one of the above examination. In case of SC/ST candidates there will be a 5% relaxation in eligibility marks; however, it will not apply to English marks. 	For Male Cadets Rs 2,20,000/-per year; For Female Cadets
3 Year B.Sc (Nautical Science)	Chennai, Mumbai.	10+2 / equivalent (PCM-60% & English- 50%) Note: In case of SC/ST candidates there will be a 5% relaxation in eligibility marks; however, it will not apply to English marks.	For Male Cadets Rs 2,20,000/-per annum; For Female Cadets Rs. 1,40,000/- per annum.

Programmes Offered (Residential)*

	<u>.</u>		
3 Year B.Sc	Mumbai	10+2/ equivalent (PCM-60% &	For Male Cadets
(Maritime		English- 50%).	Rs 2,20,000/-per
Science)		Note: In case of SC/ST candidates	annum;
		there will be a 5% relaxation in	For Female
		eligibility marks; however, it will	Cadets
		not apply to English marks.	Rs. 1,40,000/-
			per annum

The syllabi of first two courses are drawn up with a view to giving broad-based marine education, with special emphasis on fundamentals of marine subjects and practical aspects of profession. 3-year polyvalent (Dual Certification) course leading to B.Sc. (Maritime Science) is a new concept of training with a view to producing a maritime officer having combined knowledge of both the branches of Nautical and Marine Engineering. The syllabus and the curriculum are drawn up with the right mix of Nautical and Engineering subjects.

All applicants to the above UG programmes i.e.1-year Diploma in Nautical Science (DNS) course leading to B.Sc (Applied Nautical Science), 3-year B.Sc (Nautical Science) and 3-year B.Sc (Maritime Science) need to fulfil the guidelines of the Director-General of Shipping, Mumbai with regard to **physical fitness**. The prospective candidates are required to produce a medical fitness certificate in the prescribed format issued by a Medical Officer approved by Directorate General of Shipping.

Only unmarried candidates are eligible to apply for DNS, B.Sc (Nautical Science) and B.Sc (Maritime Science).

Candidates desirous of joining these courses are advised to apply for Passport before taking admission.

COURSE CONTENTS

Semester – I	Semester – II
Applied Mathematics	Navigation III : Terrestrial, Coastal
	and Celestial Navigation
Applied Sciences	5
	Navigation IV : Advanced Bridge Equipment, Watch keeping and
Navigation I : Terrestrial & Celestial	Meteorology
Navigation II : Bridge Equipment, Watch Keeping and Meteorology	Cargo Handling, Stowage and
	Seamanship II
Cargo Handling, Stowage and Seamanship I	Ship Construction & Ship Stability II
Ship Construction & Ship Stability I	MARPOL & Marine Engineering Knowledge
English, Human Factors & Maritime	EMERGENCIES, Maritime
History	Communication and Commercial shipping Knowledge

Applied Sciences Laboratory	English Laboratory	
Computer Laboratory	Workshop Practices Seamanship Laboratory	and
Workshop Practices	Navigation Laboratory	
Seamanship Laboratory		
English Laboratory		

Semester – III,IV & V (On board training – to be arranged by the candidates themselves – After completion of 18 months on board training IMU will conduct examination for these three semesters).

Subjects: Ship Board tasks on Navigation, Ship Board tasks Cargo Handling and Stowage, Controlling the operations of the ship, Care for persons on board ship and Ship Security

Semester – VI – Candidates can appear for Second Mates examination conducted by DG shipping after attending four months Functions Course at IMU Chennai/Mumbai or any DG approved institutes. Upon passing at Second Mates Examination and receipt of result from DG Shipping, IMU shall issue marks list and Provisional Degree Certificate of B.Sc(Applied Nautical Science)

Note: Fees for the Function Courses shall have to be paid by the candidate separately.

B.Sc - Nautical Science

Important Note: *The syllabus for B.Sc (Nautical Science) is under complete revision and the number and names of the papers may be considerably different.*

Semester – I	Semester – II	
English & Communication Skills Paper-I	English & Communication Skills Paper - II	
Computer Hardware, Software, Networking Paper - I	Computer Hardware, Software, Networking Paper – II	
Nautical Mathematics Paper – I	Nautical Mathematics Paper – II	
Applied Mathematics Paper – I	Applied Mathematics Paper – II	
Nautical Physics Paper – I	Nautical Physics Paper-III	
Nautical Physics Paper – II	Nautical Physics Paper-IV	

		
Navigation Paper – I	Navigation Paper – II	
Bridge Equipment, Watch-keeping & Col. Reg. Paper – I	Bridge Equipment, Watch-keeping & Col. Reg. Paper – II	
Cargo Handling & Stowage paper – I	Cargo Handling & Stowage paper - II	
Naval Architecture Paper – I	Naval Architecture Paper – II	
Ship Operation Technology Paper – I	Ship Operation Technology Paper – II	
Marine Engineering Automation & Control Systems Paper – I	Marine Engineering Automation & Control Systems Paper – II	
Semester – III	Semester – IV	
Computer Science Paper- I	Computer Science Paper- II	
Applied Mathematics Paper – III	Applied Mathematics Paper - V	
Applied Mathematics Paper – IV	Applied Mathematics Paper - VI	
Nautical Electronics –I	Nautical Electronics - III	
Nautical Electronics Paper-II	Nautical Electronics Paper - IV	
Navigation Paper – III	Navigation paper - IV	
Bridge Equipment, Watchkeeping & Col. Reg. Paper – III	Bridge Equipment, Watchkeeping & Col. Reg. Paper – IV	
Cargo Handling & Stowage paper – III	Cargo Handling & Stowage Paper - IV	
Naval Architecture Paper – III	Naval Architecture Paper - IV	
Ship Operation Technology Paper – III	Ship Operation Technology Paper - IV	
Meteorology Paper – I	Meteorology Paper - II	
Marine Engineering Automation & Control Systems Paper – III	Marine Engineering Automation & Control Systems Paper - IV	

Semester – V	Semester – VI	
Navigation Paper – V	Navigation Paper - VI	
Bridge Equipment, Watch keeping & Col. Reg. Paper – V	Bridge Equipment, Watch keeping & Col. Reg. Paper - VI	
Cargo Handling & Stowage Paper – V	Cargo Handling & Stowage Paper - VI	
Naval Architecture Paper – V	Naval Architecture Paper - VI	
Ship Operation Technology Paper – V	Ship Operation Technology Paper - VI	
Marine Engineering Automation & Control Systems Paper – V	Marine Engineering Automation & Control Systems Paper - VI	
Meteorology Paper – III	Meteorology Paper – IV	
Marine Environment Protection(Marpol, Ballast Water) Paper – I	Marine Environment Protection(Marpol, Ballast Water) Paper– II	
Shipping Management Paper-I	Shipping Management Paper – II	
Maritime Law – I	Maritime Law Paper – II	
Bridge Equipment, Watch keeping & Col. Reg. Paper - V (Practical)	Bridge Equipment, Watch keeping & Col. Reg. Paper - VI (Practical)	
Ship Operation Technology Paper – V (Practical)	Ship Operation Technology Paper – VI (Practical)	
Marine Engineering Automation & Control Systems Paper – V (Practical)	Marine Engineering Automation & Control Systems Paper – VI (Practical)	
Meteorology Paper – III (Practical)	Meteorology Paper – IV (Practical)	

B.Sc – Maritime Science

Semester – I	Semester – II	
Basic Engineering Science	Marine Electro Technology Paper – 1	
Heat & Thermodynamics	Bridge Watch Keeping & Emergencies Paper – 1	
Terrestrial and Coastal Navigation Paper – I	General Engineering Knowledge Paper – 1	
Computer Science & Applications	Marine Auxiliaries Paper – 1	
Communication Skill & English	Motor Engineering Knowledge Paper – 1	

Mathematics - I	Mathematics - II	
Engineering Drawing	Ship Construction, Naval Architecture(Stability), Safety and	
Semester – III	Environmental Protection Paper - 1 Semester – IV	
Marine Electro Technology Paper – 2	Terrestrial and Coastal Navigation Paper - 2	
Meteorology	Marine Auxiliaries Paper - 2	
General Engineering knowledge Paper - 2	Ship Construction, Naval Architecture (Stability), Safety and Environmental Protection Paper - 2	
Basic Engineering Science, Paper – 2	Fluid Mechanics	
Motor Engineering Knowledge Paper -		
2	Fire Prevention & Fire Fighting	
Celestial Navigation -1	Motor Engineering Knowledge Paper - 3	
Bridge Watch Keeping & Emergencies Paper - 2 (Training)	Celestial Navigation – 2	
Semester – V	Semester – VI	
Marine Electro-technology Paper – 3	Motor Engineering Knowledge Paper – 5	
Marine Electro-technology Paper – 3 Practical Celestial Navigation (Theory)	Motor Engineering Knowledge Paper – 5 Marine Auxiliaries Paper - 4	
Practical Celestial Navigation (Theory) Bridge Watch Keeping & Emergencies	Marine Auxiliaries Paper - 4 Marine Instrumentation & Control	
Practical Celestial Navigation (Theory) Bridge Watch Keeping & Emergencies Paper - 3	Marine Auxiliaries Paper - 4 Marine Instrumentation & Control Engineering Naval Architecture (Stability), Safety and	
Practical Celestial Navigation (Theory) Bridge Watch Keeping & Emergencies Paper - 3 Motor Engineering Knowledge Paper – 4	Marine Auxiliaries Paper - 4 Marine Instrumentation & Control Engineering Naval Architecture (Stability), Safety and Environmental Protection Paper – 4	
Practical Celestial Navigation (Theory) Bridge Watch Keeping & Emergencies Paper - 3 Motor Engineering Knowledge Paper – 4 Marine Auxiliaries Paper - 3	Marine Auxiliaries Paper - 4 Marine Instrumentation & Control Engineering Naval Architecture (Stability), Safety and Environmental Protection Paper - 4 Cargo handling & stowage-2	
Practical Celestial Navigation (Theory) Bridge Watch Keeping & Emergencies Paper - 3 Motor Engineering Knowledge Paper - 4 Marine Auxiliaries Paper - 3 Cargo handling & stowage-1	Marine Auxiliaries Paper - 4 Marine Instrumentation & Control Engineering Naval Architecture (Stability), Safety and Environmental Protection Paper - 4 Cargo handling & stowage-2 Ship Operation & Management Competency Enhancement modules including GMDSS GOC Engine Room	
Practical Celestial Navigation (Theory) Bridge Watch Keeping & Emergencies Paper - 3 Motor Engineering Knowledge Paper – 4 Marine Auxiliaries Paper - 3 Cargo handling & stowage-1 Marine Engineering Drawing & Design Ship Construction, Safety and	Marine Auxiliaries Paper - 4 Marine Instrumentation & Control Engineering Naval Architecture (Stability), Safety and Environmental Protection Paper - 4 Cargo handling & stowage-2 Ship Operation & Management Competency Enhancement modules including GMDSS GOC Engine Room Simulator Modular course Motor Engineering Knowledge Paper -5 (practical covers syllabus of V&VI	

Bridge Watch Keeping & Emergencies Paper - 3 (Practical)	Ship Construction, Naval Architecture (Stability), Safety and Environmental Protection Paper –4 (practical covers syllabus of V&VI semesters)
	External Marine Workshop Training

Fees for Indian Nationals Joining B.Sc. (Nautical Science) / B.Sc. (Maritime Science) programmes

		Total Fees	Fees payable	per semester	(in Rs.)
Programme	Student	for an	for an Odd Semester	r	Even Semester
	Gender	Academic Year (Rs.)	Programme Fee	Semester Fee	Semester Fee
B.Sc. (Nautical Science) &	Male	2,20,000/-		97,500/-	97,500/-
B.Sc. (Maritime			25,000/-		
Science)	Female	1,40,000/-		57,500/-	57,500/-

* Programme Fee is to be collected by the Affiliated Institute/IMU Campus and passed on to IMU Headquarters at Chennai.

** The Semester Fees – will normally include some or all of the following: Tuition Fee (inclusive of Library Fee, Laboratory Fee, Workshop Fee, Industrial visit Fee, Extra-curricular activities Fee, Medical Fee etc.), mess charges, lodging charges, Laundry Charges, hair-cut charges, cost of uniform, cost of books, Indian National Database of Seafarers (INDOS), Continuous Discharge Certificate (CDC) and so on. They do not include the interest free, one time Caution Deposit of Rs.20,000/- collected at the time of admission.

Examination & Other Fees as prescribed by the University are to be paid separately.

School of Marine Engineering

This offers Undergraduate Programme in Marine Engineering and a Postgraduate Diploma Programme that serves as a platform of quality training for incumbents who aspire for a career in Marine Engineering.

Programmes Offered (Residential)

Programme	Location	Eligibility
4-year B.Tech (Marine Engineering)*	Kolkata, Mumbai	10+2/equivalent (PCM-60% & English- 50%). Note: In case of SC/ST candidates there will be a 5% relaxation in eligibility marks; however, it will not apply to English marks.

* For B.Tech (Marine Engineering) Lateral Entry (into second year), candidates with Engineering Diploma in Marine/Mechanical are eligible.

COURSE CONTENTS

B.TECH- MARINE ENGINEERING

Semester – I	Semester – II
Communicative English & Sociology	Seamanship, Elementary Navigation & Survival at Sea
Mathematics – I	Mathematics – II
Basic Thermodynamics	Applied Thermodynamics – I
Basic Electrical & Electronics Engineering	Strength of Materials – I
Engineering Mechanics – I	Computer Science
Workshop Technology	Engineering Mechanics – II
Geometrical Drawing	Engineering & Machine Drawing
Basic Electrical & Electronics Laboratory	Applied Mechanics Laboratory
Workshop Practicals – I	Workshop Practicals – II
Communicative English Lab	Computer Laboratory – I
Credit Marks	Credit Marks

Semester – III	Semester – IV
Computational Mathematics	Ship Structure & Construction
Electronics	Marine Boiler Steam Engineering
Applied Thermodynamics – II	Mechanics of Machines – II
Strength of Materials – II	Electrical Machines – II
Mechanics of Machines – I	Fluids Mechanics – I
Electrical Machines – I	Marine Heat Engine & Air Conditioning
Marine Engineering Drawing	Practical Marine Automation
Electronics Laboratory	Heat & Boiler Chemical Laboratory
Computer Laboratory – II	Workshop Practicals – IV
Workshop Practicals – III	Control Engineering Laboratory I
Credit Marks	Credit Marks
Semester – V	Semester – VI
Material Science	Ship Fire Prevention & Control
Management Science & Economics	Marine Internal Combustion Engine II
Marine Internal Combustion Engine – I	Marine Electrical Technology
Fluid Mechanics – II	Marine Auxiliary Machines – II
Marine Auxiliary Machines – I	Naval Architecture – II
Naval Architecture – I	Elective subject – 1
Elementary Design & Drawing	Fire Control & Life Saving Appliances Laboratory
Material Calenda Laboratory	Marine Power Plant Operation – II
Material Science Laboratory	
	Electrical Machines Laboratory
Material Science Laboratory Mechanics & Fluid Laboratory Marine Power Plant Operation – I	Electrical Machines Laboratory Credit Marks

Semester – VII	Semester – VIII
Ship Operation & Management	ON BOARD TRAINING & ASSESSMENT
Advanced Marine Control Engineering & Automation	Voyage Report
IMO & Maritime Conventions	Environmental Project
Advanced Marine Technology	Viva - Voce
Engine Room Management	
Elective Subject – 2	
Marine Machinery & System Design	
Simulator & Control Laboratory	
Technical Paper & Project	
Credit Marks	
Carryover Credit Group from I to VI Semester	

Elective	Subjects:

Double Hull Tanker Vessels

Advanced Marine Heat Engines(Co-Cycles)

Environmental Science & Technology

Advance Computer Application

Advanced Hydraulics and Hydraulic Machinery

Transport & Logistic Management

Advanced Material Science & Surface Coating Engineering

Renewable Energy Sources & Applications

Fees for India	n Nationals	s Joining B.T	ech (Marine	Engineering) programme
			Fees payable	per semester	(in Rs.)
Programme	Student Gender	Total Fees for an Academic	Odd Semester		Even Semester
		Year (in Rs.)	Programme	Semester	Semester
			Fee	Fee	Fee
B.Tech (Marine Engineering)	Male	2,25,000/-	25,000/-	1,00,000/-	1,00,000/-
	Female	1,45,000/-		60,000/-	60,000/-

*Programme Fee is to be collected by the Affiliated Institute/IMU Campus and passed on to IMU Hqrs at Chennai.

****** The Semester Fees – will normally include some or all of the following: Tuition Fee (inclusive of Library Fee, Laboratory Fee, Workshop Fee, Industrial visit Fee, Extra-curricular activities Fee, Medical Fee etc.), mess charges, lodging charges, Laundry Charges, hair-cut charges, cost of uniform, cost of books, Indian National Database of Seafarers (INDOS), Continuous Discharge Certificate (CDC) and so on. They do not include the interest free, one time Caution Deposit of Rs.20,000/- collected at the time of admission.

Examination & other Fees as prescribed by the University are to be paid separately.

All applicants to the above undergraduate programme i.e. 4 Year B.Tech (Marine Engineering) need to clear their physical fitness test which is essential for admission as per DG Shipping Guidelines. The prospective candidates are required to produce a medical fitness certificate in the prescribed format issued by a Medical Officer approved by Directorate General of Shipping.

Only unmarried candidates are eligible to apply for 4 Year B.Tech (Marine Engineering).

Candidates desirous of joining this course are advised to apply for Passport before taking admission.

School of Naval Architecture and Ocean Engineering

This offers UG and PG Programmes in Naval Architecture and Ocean Engineering. It also offers PG Programme in Dredging and Harbour Engineering. In addition to these, an UG Programme in Ship Building & Repair and a Doctoral Programme are also offered. The School has carved a niche for itself by offering high qualityindustry perspective based programmes which are only offered by very few institutions. Those wishing to enter into the niche career of Design & Construction of ships & offshore structures, Ship Building, Ship Repair and Dredging & Harbour engineering can opt for the courses under School of Naval Architecture and Ocean Engineering (SNA).

Programme	Location	Eligibility	Fees
3 Year B.Sc (Ship Building and Repair)	Kochi	Note: In case of SC/ST candidates there will be a 5% relaxation in eligibility	Fees for Residential candidates Rs.2,00,000/-per year which includes Food.
4 Year B.Tech (Naval Architecture and Ocean Engineering)*	Vishakha- patnam	10+2/equivalent (PCM -60% & English- 50%). Note: In case of SC/ST candidates there will be a 5% relaxation in eligibility marks; however, it will not apply to English marks.	Fees for all the Candidates (Male & Female) Rs.2,25,000/- per annum

Programmes Offered (Residential)

* For B.Tech (Naval Architecture & Ocean Engineering), lateral Entry (into second year), Candidates with Diploma in Ship Building Technology from Goa Ship Building Institute and B.Sc (SBR) from IMU Kochi campus are eligible.

Fees for Indian Nationals Joining B.Tech (Naval Architecture & Ocean Engineering) programme / B.Sc (Ship Building and Repair)

			Fees payable	e per semeste	r (in Rs.)
	Student Total Fee		Odd		Even
Programme	Gender	an Academic	Semester		Semester
	Gender	Year	Programme	Semester	Semester
		(in Rs.)	Fee	Fee	Fee
B.Sc (Ship	Male	***2,00,000/-	25,000/-	87500/-	87500/-
Building and Repair)	Female				
B.Tech (Naval Architecture	Male				
and Ocean Engg.)	Female	2,25,000/-	25,000/-	1,00,000/-	1,00,000/-

Programme Fee is to be collected by the Affiliated Institute/IMU Campus and passed on to IMU Hqrs at Chennai.

Total Fees include mess charges, lodging charges, tuition fees/training fees, etc. ***Fees for residential candidates which includes food.

Examination Fees as prescribed by the University are to be paid separately.

COURSE CONTENTS

B.Sc – Ship Building and Repair

Semester-1	Semester-II
English& Ethics	Mathematics-II
Mathematics-I	Computer Science
Applied Sciences	Marine materials
Engineering graphics	Workshop practice-1 fitting
Engineering mechanics	Workshop practice-1 welding
Workshop technology	Workshop practice-1 machining
Semester-III	Semester-IV
Introduction to ship building	Industrial management
Marine machinery-I	Marine machinery-II
Electrical and electronics	Marine Electrical and electronics
Machine drawing	Ship mechanics II
Marine structure	Ship production and repair
Ship mechanics I	Basic ship drawing
Semester-V	Semester-VI
Seamanship	Hull fabrication
Ship hull- construction	Main machinery installation
Advance ship drawing	Aux. machinery installation
Shipyard attachment	Outfitting

	Semester – II
Semester – I	Semester – 11
Mathematics-I	Mathematics – II
Chemistry	Physics
Chemistry Laboratory	Physics Laboratory
Mechanics	Programming & Data Structure
Electrical Technology	Programming & Data Structure
	Laboratory
Electrical Technology Laboratory	Engineering Drawings and Graphics
English for Communication	Workshop Practice
Engineering Drawings and Graphics	Fluid Dynamics
Workshop Practice	Introduction to Naval Architecture
Extra Academic Activity	Extra Academic Activity
Semester – III	Semester – IV
Mathematics-III	Machine Design
Thermodynamics	Elements of Ocean Engineering
Basic Electronics	Resistance & Propulsion
Basic Electronics Laboratory	Marine Construction & Welding
Hydrostatics & Stability	Marine Structures – I
Marine Hydrodynamics	Marine Structures computations
Extra Academic Activity	Hydrostatics & Stability Calculations
	Extra Academic Activity
Semester – V	Semester – VI
Marine Structures – II	Marine Design II
Motion & Control	Marine Systems
Marine Design – I	Computer Aided Design & Production
Marine Production	Industrial Management
Marine Materials	Elective Subject -1
Hydrodynamics Laboratory	Marine System Laboratory
	CAD & Production Laboratory
Semester – VII	Semester –VIII
Industrial Training	Project
Ship Design Project	Viva – Voce
Business Fundamentals & Economics	Physical Oceanography
Vibration & Noise	Seminar
Vibration & Noise Laboratory	Elective Subject - 2
Marine Power Plant	Elective Subject – 3
Comprehensive Viva – Voce	Automation & Control Theory

<u>B.T</u>ECH – Naval Architecture & Ocean Engineering

Elective Subjects		
High Performance Marine Vehicle		
Port Infrastructure and management		
Fishing Vessel Technology		
Inland Water Transportation		
Submarines and Submersibles		
Environmental Management		

6. PG Diploma & PG Programmes in IMU

IMU currently offers **PG Diploma in Marine Engineering (PGDME)** programme under the School of Marine Engineering at Mumbai & Kochi campuses. Announcement for this programme will be issued separately.

IMU currently offers various PG programmes under the following Schools:

- School of Maritime Management
- School of Naval Architecture & Ocean Engineering

School of Maritime Management

The School of Maritime Management offers the following 2 programmes

- 1. Two-year full-time MBA programme in Port & Shipping Management.
- 2. Two-year full-time MBA programme in International Transportation & Logistics Management.

The general objective of the MBA programme in Port and Shipping Management is to ensure that after successfully completing this programme, the young students can obtain management positions in the shipping and port industry. Further, the students are equipped to solve complicated management problems, having gained required knowledge and competency such as integrated multi-disciplinary professional knowledge of shipping and transport, at the highest academic level and skills to apply this knowledge on tactical and strategic level in the port and shipping industry.

The general objectives of the MBA programme in International Transportation and Logistics Management are to enable the students to have a detailed knowledge and understanding of both the operations and strategies of shipping as a single transport mode within the context of international multimodal logistics.

The course provides the students not only with a clear understanding of managerial subjects but also with an in-depth knowledge of the supply chain and logistics sector and the latest developments in transport management.

Some of the vital areas the students will be trained in, are to create awareness of social responsibilities in shipping and transport, related to labour conditions, safety, security and protection of the environment. Leadership qualities, analytical and social skills, besides a strong research oriented mind are also encouraged as essential components of the learning process.

P.G programmes for 2016-17

NAME OF COURSE	CAMPUS	ELIGIBILITY
MBA Port & Shipping Management (2 years)	Chennai, Kochi	A bachelor's degree in any discipline with minimum of 50% marks
MBA in International Transportation Logistics Management (2 years)	Chennai, Kochi, Kolkata	from Recognized universities. A minimum of 50% marks in English subject in 10 th / 12 th / UG Degree. Note: In case of SC/ST candidates there will be a 5% relaxation in eligibility marks; however it will not apply to English marks).

This programme is spread over a period of two academic years (i.e. four semesters).

COURSE CONTENTS

MBA in Port & Shipping Management

Semester – I	Semester –II
Principles and Practices of Management	Quantitative Techniques for Business
Managerial Economics	Cost and Management Accounting
Financial Accounting and Management	Management Information System
Communication Skills	Maritime Business Environment
Human Resource Management	International Business
Marketing Management	Export and Import Documentation

Semester – III	Semester – IV
Logistics and Supply Chain Management	Port Economics
Elements of Port Management	Shipping Finance and Insurance
Elements of Shipping Management	Chartering and Ship Broking
Containerisation and Multimodal	Public Private Partnership and Port
Transport	Development.
Shipping Economics	Project Work
Seaborne Trade & Merchant Fleet	
Internship	

MBA in International Transportation & Logistics Management

Semester – I	Semester –II
Principles and Practices of Management	Quantitative Techniques for Business
Managerial Economics	Cost and Management Accounting
Financial Accounting and Management	Management Information System
Communication Skills	Maritime Business Environment
Human Resource Management	International Business
Marketing Management	Export and Import Documentation

Semester – III	Semester – IV
Logistics and Supply Chain Management	Transport Economics and Optimisation
Elements of Port Management	International Logistics
Elements of Shipping Management	Purchasing & Supply Chain Management
Containerisation and Multimodal Transport	Liner Trade and Chartering.
Warehouse & Inventory Management	Project Work
Geography of Transport Systems	
Internship	

FEE DETAILS

Course Fee for Non Residential Students and Duration

The students are instructed to remit the course fee on or before the commencement of the course for every year. They need not wait for a separate intimation/communication from the University regarding the fee. The University also encourages enrolment of candidates sponsored by their organization.

			Fees payable	per semester	(in Rs.)
	Student Gender	Total Fees		Odd	Even
Drogrammo		for an	Semester		Semester
Programme		Academic	Programme	Semester	Semester
		Year	Fee	Fee	Fee
		(in Rs.)			
MBA	Male				
(International		2,00,000/-	25,000/-	87,500/-	87,500/-
Transportation	Female				
& Logistics)	Tennale				
MBA (Port &	Male				
Shipping Management) —		Eemale 2,00,000/-	25,000/-	87,500/-	87,500/-
	Female				

Fees for boarding / lodging will be charged extra.

School of Naval Architecture and Ocean Engineering

This offers two PG programmes:

- M.Tech in Naval Architecture and Ocean Engineering.
- M.Tech in Dredging and Harbour Engineering.

The School has carved a niche for itself by offering high quality- industry perspective based programmes which are only offered by very few institutions. Those wishing to enter into the niche career of Design & Construction of Ships & Offshore Structures, Ship Building, Ship Repair and Dredging & Harbour Engineering can opt for the courses under SNA.

Programme	Location	Eligibility	Fees
M.Tech in Naval Architecture and Ocean Engineering (2 years) M.Tech In Dredging and Harbour Engineering (2 years)	Visakhapatnam	Graduate Engineering in Mechanical / Civil / Aeronautical / Marine / Naval Architecture or equivalent with 60% aggregate. Note: In case of SC/ST candidates there will be a 5% relaxation in eligibility marks.	Fees for all the Candidates (Male& Female) Rs.2,25,000/- per year

Programmes Offered (Residential)

PhD(Non- residential)#	Visakhapatnam	Post graduate degree in Marine Engineering/Naval Architecture	Fees for all Candidates (Male & Female) Rs10,000/- per annum.
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PhD admissions will be announced separately.

<u>COURSE CONTENTS</u> <u>M.TECH – Naval Architecture & Ocean Engineering</u>

Semester – I	Semester – II
Introduction to Ships & Offshore Structures	Ship Design
Safety, Pollution Control and Stability	Ship Production
Ship Construction and Welding	Performance of Marine Vehicles – II
Performance of Marine Vehicles – I	Elective subject – 1
Strength of Ships and Offshore Structures	Elective subject – 2
Industrial Seminar	Computer Software Laboratory
Ship Drawing	Design Project
Hydrodynamics Laboratory	
Ship Structural Analysis Project	
Semester – III	Semester – IV
Elective subject – 3	Project - II
Elective subject – 4	
Comprehensive Viva-voce	
Project –I	

Elective Subjects:

Hydrographic Survey
Cargo Handling in Ports
Engineering Economics
CAD CAM in Ship Design & Production
Marine Propulsion Machinery & Systems
Design of Offshore Structures
Advanced Structural Analysis
Computational Fluid Dynamics Optimisation Methods
Maritime Management

<u> M.TECH – Dredging & Harbour Engineering</u>

Semester – I	Semester – II
Port and Harbour Structures	Dredging Equipment and Slurry Transportation
Safety, Pollution Control and Security	Ship Handling in Ports and Harbours
Port and Coastal Hydrodynamics	Sea-bed Mechanics
Marine Materials and Corrosion	Elective subject – 1
Dredgers and Harbour Craft	Elective subject – 2
Industrial Seminar	Computer Software Laboratory
Ship Drawing	
Laboratory	
Harbour Structural Analysis Project	Dredging/Port Design Project

Semester – III	Semester – IV
Elective subject – 3	Project - II
Elective subject – 4	
Comprehensive Viva-voce	
Project –I	

Elective Subjects:

Hydrographic Survey
Cargo Handling in Ports
Engineering Economics
CAD CAM in Ship Design & Production
Marine Machinery & Systems
Design of Offshore Structures
Advanced Structural Analysis
Computational Fluid Dynamics
Optimisation Methods
Maritime Management

7. <u>General Instructions for U.G Programmes</u>

1.<u>Age limit</u>

Age as on the date of admission on 1^{st} August 2016 shall be as follows:

- i) Minimum age 17 years
- ii) Maximum age 25 Years

Note: a) For Scheduled Castes (SC) & Schedule Tribe candidates (ST) Candidates maximum age relaxation is for five (5) years.

2. Reservation of Seats

15% of the total seats available to Indian Nationals are reserved for eligible candidates belonging to Scheduled Castes, 7.5% for Scheduled Tribe and 27% Seats are reserved for Other Backward Class (OBC) candidates belonging to non-creamy layer (NCL). A total of 3% of the seats is reserved for Differently abled (DA) candidates wherever applicable. For applicants belonging to SC/ST, a relaxation of 5% of the aggregate marks will be considered for all programmes.

Reservation of seats in U.G courses for students from Andaman and Nicobar Islands, Lakshadweep and Minicoy Islands, Eight North Eastern States (including Sikkim) and Jammu & Kashmir in IMU, Campuses:-

Maximum number of seats reserved in a given Academic Year for the U.G Programmes put together in all IMU Campuses shall be as follows:

· · ·	
1. Andaman and Nicobar Islands	- 20 seats
2. Lakshadweep and Minicoy Islands	- 10 seats
3. Eight North Eastern States (including Sikkim)	- 40 seats
4. Jammu and Kashmir	- 10 seats

Candidates belonging to SC/ST should submit in support of the claim, a certificate, in original, in the form given in APPENDIX I (A) from the District Magistrate or any other officer who has been designated by the State Government concerned as competent authority to issue such certificate of the District in which his parents (or surviving parent or if there are no surviving parents, he/himself she/herself) ordinarily reside.

The OBC candidates (non-creamy layer) will be required to produce <u>original_OBC</u> (NCL) certificate issued on or after January 01, 2016 by a competent authority in the prescribed format APPENDIX – I (B) at the time of Online Counselling.

Those failing to do so will NOT be considered for admission to the respective reserved seats.

3. Physical Fitness

Candidate for admission to marine courses (DG Shipping-approved courses) are required to produce certificate for medical fitness by Doctors approved by Director General of Shipping. Candidates with Disability (DA) are not eligible for admission to marine courses. List of approved doctors for issuing the certificate is available in MS Notice 14 of 2011 (www.dgshipping.gov.in). The candidate must be physically fit and should meet the medical requirements as specified by DGS guidelines.

Failure to meet the medical standards would disqualify a candidate for admission. In case of appeal, the same will be referred to a medical board appointed by the Indian Maritime University. The decision of such medical board shall be final. Cadets are subject to further medical examination by the respective shipping companies before joining ships.

Note: All Candidates who qualify for B Tech (Naval Architecture & Ocean Engineering) and B.Sc (Ship Building & Repair) degree courses will have to submit a Physical Fitness Certificate from Registered Medical Practitioner.

4. <u>Eye sight</u>

For DGS-approved courses viz DNS, B.Sc (Nautical Science), B.Sc (Maritime Science) & B.Tech (Marine Engineering), there should not be any degree of squint or any morbid condition of eyes or of the eyelids that is liable to aggravate or recur, pressure of trachoma and iris complication sequela. Candidates must possess good binocular vision (Fusion faculty and full field of vision in both eyes). Movement of the eyeballs must be full in all directions and the pupils should react normally to light and accommodation.

Candidates joining DNS, B.Sc. (Nautical Science) & B.Sc. (Maritime Science) degree course colour vision shall (unaided 1.0 (6/6) in better eye and 0.67 (6/9) in other eye. Normal Colour vision shall be tested by Ishihara test chart.

In case of candidates joining B.Tech.(Marine Engineering) degree course, distance vision (unaided 0.5 (6/12) in each eye or 0.67 (6/9) in better eye and 0.33 (6/18) in other eye. Normal colour vision shall be tested by Ishihara test chart.

DGS Guide lines are available on MS Notice 1 Of 2015 and all candidates aspring for a sea career are advised to go through the same.

5. Qualifying Examination (QE) for UG Courses

The qualifying examinations are listed below:

- The final examination of the 10+2 system, conducted by any recognized Central/State Board, such as Central Board of Secondary Education, New Delhi; Council for the Indian School Certificate Examinations, New Delhi; etc.
- ii. Intermediate or two-year Pre-University examination conducted by a recognized Board/University.
- iii. Final examination of the two-year course of the Joint Services wing of the National Defence Academy.
- iv. General Certificate Education(GCE) examination(London/Cambridge/Srilanka) at the Advanced(A)level.
- v. High School Certificate Examination of the Cambridge University or International Baccalaureate Diploma of the International Baccalaureate Office, Geneva.
- vi. H.S.C vocational examination.
- vii. Senior Secondary School Examination conducted by the National Institute of Open Schooling with a minimum of five subjects.
- viii. A Diploma recognized by AICTE or a state board of technical education of at least 3 year duration.
- ix. Any Public School/Board/University examination in India or in any foreign country recognized as equivalent to the 10+2 system by the Association of Indian Universities (AIU).

Note 1: Those who are going to appear in the qualifying examination later than 31^{st} May 2016 are not eligible to appear in Online CET 2016.

Note 2: In case the relevant QE is not a public examination, the candidate must have passed at least one public (Board or Pre-University) examination at an earlier level.

Note 3: "Improvement Candidates" (i.e.) those who had secured less than 60% marks overall in physics – chemistry – Mathematics (PCM) in Class XII examination and had taken the examination again in order to improve their marks and secured more than 60% in PCM) and / or "Compartmental Candidates" (i.e.) those who had failed in one or more subjects in Class XII examination and had appeared in the examination again and passed) subject to the condition that such Improvement / Compartmental candidates should have reappeared in the examinations conducted by the Same Board; in other words candidates who had changed the Boards (e.g., from CBSE to NIOS) are not eligible.

8. General Instructions for P.G Programmes

1. Reservation of Seats

15% of the total seats available to Indian Nationals are reserved for eligible candidates belonging to Scheduled Castes, 7.5% for Scheduled Tribe and 27% Seats are reserved for Other Backward Class (OBC) candidates belonging to Non-Creamy Layer (NCL). A total of 3% of the seats is reserved for Differently Abled (DA) candidates wherever applicable.

Candidates belonging to SC/ST should submit in support of the claim, a certificate, in original, in the form given in APPENDIX I (A) from the District Magistrate or any other officer who has been designated by the State Government concerned as competent authority to issue such certificate of the District in which his parents (or surviving parent or if there are no surviving parents, he/himself she/herself) ordinarily reside.

The Other Backward Class (OBC) candidates (non-creamy layer) will be required to produce original OBC (NCL) certificate issued on or after January 01, 2016 by a competent authority in the prescribed format APPENDIX – I (B) at the time of application.

Those failing to do so will NOT be considered for admission to the respective reserved seats.

2. Physical Fitness

All Candidates who qualify for PG degree courses will have to submit a Physical Fitness Certificate from Registered Medical Practitioner.

9. <u>Performance-based Reward for Meritorious students of Indian</u> <u>Maritime University Campuses</u>

- Based on the results of the immediate previous semester examination, the top rankers in each batch in all UG as well as PG Degree Programmes will get a 'Performance-Based Reward' of **Rs.1.00 lakh per head** subject to their getting at least 75% marks overall and subject to other conditions prescribed.
- The total number of candidates in the order of merit (other than the 'toppers') who will get a 'Performance based Reward' of Rs. 75,000/- per head in each batch in each programme will be as per the Table below:

SI. No.	Name of the Programme	Duration (Years)	No. of Semesters for which Performance based Reward will be given	Total No. of Students who will be given Rs.75000/- Performance – based Reward in each batch
(1)	(2)	(3)	(4)	(5)
UG Prog	Irammes			
1	B.Tech (Marine Engineering)	4	7	30
2	B.Tech(Naval Architecture and Ocean Engineering)	4	7	4
3	B.Sc.(Nautical Science)	3	5	16
4	B.Sc(Maritime Science)	3	5	2
5	B.Sc(Ship Building and Repair)	3	5	2
	Total			54
PG Prog	rammes			
1	M.Tech (Naval Architecture and Ocean Engineering) & M.Tech (Dredging and Harbour Engineering)	2	3	2
2	MBA (Port and Shipping Management) & MBA (International Transportation and Logistics)	2	3	7
	Total			9
	Grand Total			63

3. The total number of candidates in the order of merit (other than the candidates covered by clauses 1 and 2 above) who will get a 'Performancebased Reward' of Rs.50,000/- per head in each batch in each programme will be as per the Table below:

SI. No.	Name of the Programme	Duration (Years)	No. of Semesters for which Performance- based Reward will be given	Total No. of Students who will be given Rs.50,000/- Performance-based Reward in each Batch
(1)	(2)	(3)	(4)	(5)
	UG Programmes			
1	B.Tech (Marine Engineering)	4	7	30
2	B.Tech (Naval Architecture and Ocean Engineering)	4	7	4
2	B.Sc (Nautical Science)	3	5	16
3	B.Sc (Maritime Science)	3	5	2
4	B.Sc (Ship Building and Repair)	3	5	2
	Total			54
	PG Programmes			
1	M.Tech (Naval Architecture and Ocean Engineering) &M.Tech (Dredging and Harbour Engineering)	2	3	2
3	MBA (Port and Shipping Management) & MBA (International Transportation and Logistics)	2	3	7
	Total			9
	Grand Total			63

- 4. "Performance based Reward for students of IMU Campuses" will apply only to UG & PG degree Programmes of duration 2 years or more. Thus 1 year Diploma programmes Diploma in Nautical Science (DNS) and post Graduate Diploma in Marine Engineering (PGDME) will not be covered by it.
- 5. As it is a reward for pure merit, it will not be a bar to a student getting any scholarship / freeship / studentship / fellowship, etc. from any other source.

10.<u>Attendance Requirement for Students to appear in University</u> <u>Examination</u>

- 1. All students must put in a minimum of 75% of attendance in order to appear in the End Semester Examinations (Theory and Practical) of the Indian Maritime University.
- 2. If a student has put in less than 75%, but above or equal to 65% of attendance, owing to reasons such as medical, bereavement or any other, the Campus Director / Principal is empowered to condone the shortage of attendance subject to the collection of the prescribed *Condonation Fee for Attendance*.
- 3. There will be no condonation of attendance below 65% under any circumstances whatsoever. A student who has put in less than 65% attendance will not be permitted to write the University's End Semester Examination and will not be permitted to move to the next semester.

11. Glimpses of IMU Campuses

Chennai Campus



Aerial View of IMU, Chennai Campus

The IMU Chennai Campus is located at short distance (about 25 KM.) from the Metropolitan City of Chennai, on the picturesque East Coast Road on the way to Mahabalipuram. The campus is credited with ISO 9001:2000 certification and accredited with Grade 1 rating by Investment Information and Credit rating agency (ICRA).

The IMU Chennai Campus offers the following courses:

- 1. 1-year Diploma in Nautical Science course leading to B.Sc (Applied Nautical Science)
- 2. 3-year B.Sc (Nautical Science).
- 3. 2-year MBA (Port and Shipping Management).
- 4. 2-year MBA (International Transportation & Logistics Management)

Apart from the above, the Chennai Campus offers short term training programmes for merchant navy personnel, working both on deck and engine side and for officials of major ports, Maritime Boards, non-major ports and organizations connected with transport trade.



Contact Address

Indian Maritime University Chennai Campus, East Coast Road, Uthandi, Chennai 600 119 Tel: (044) 2453 0343 / 345, Fax: (044) 2453 0342. Email: <u>director.chennai@imu.ac.in</u>

Kochi Campus

Cochin, the queen of the Arabian Sea, which enjoys one of the longest coastlines in the east-west trade route, was complimented with the establishment of an IMU campus in the year 2009. The main building for academics and administration is in the final stage of completion and is equipped with the latest facilities. The presence of Cochin port, Cochin Shipyard, Liquefied Natural Gas (LNG) Petronet Project and the International Container Transhipment Terminal (ICTT) at Vallarpadam and numerous shipping lines offer significant benefits in terms of training and exposure to the student community at IMU Cochin Campus.

IMU, Cochin offers the following academic programmes:

- 2-year MBA in Port and Shipping Management
- 2-year MBA in International Transportation and Logistics Management
- 3-year B.Sc in Ship Building and Repair.
- 3-year B.Sc in Nautical Science
- 1-year P.G Diploma in Marine Engineering (Admissions shall be announced later).



Contact Address

Indian Maritime University, Cochin Campus, Main Campus, South End Reclamation Area (SE&A), NH-47A, Near Alexander Parambithara Bridge, Matsyapuri (P.O.), Willingdon Island, Cochin–682029



<u>MBA Campus:</u> Bristow Road, Willingdon Island, Cochin – 682003 Tel: (0484) 2989402/ 04. Tel: (0484) 2668641 Email: <u>director.kochi@imu.ac.in</u> Web: imu.edu.in

Kolkata Campus

Kolkata Campus comprises two premier institutions- the Marine Engineering and Research Institute (MERI, Kolkata) and the Indian Institute of Port Management (IIPM, Kolkata).



MERI, Kolkata

MERI symbolises the birth of marine engineering training in India. It was founded in 1949 by Pandit Jawaharlal Nehru. It is the premier Maritime Training Institute not only in

India but in the whole of South East Asia. The IIPM was set up by the Kolkata Port Trust in 1965 at Subhas Bhavan in the hub of port and container terminals.

The MERI Campus is based on a sprawling 33 acres land. It contains the main administrative building, 7 nos. of students' hostels, 99 residential quarters, an auditorium for 1000 persons, an Olympic size swimming pool, a multi-gym, a state of the Art Library with over 16000 books, 6000 BHP Marine Propulsion Engine, 350 KW Generator set, an 8-bed Infirmary, play grounds etc. There are dedicated Class Rooms, Tutorial Halls, Drawing Halls, Language Lab, Computer Centre, 10 nos. of various technical laboratories and a well-equipped Workshop to cater to the students' needs. It offers the following courses:

- 1. 4-year B.Tech (Marine Engineering)
- 2. 2-year MBA (International Transportation & Logistics Management).

Contact Address

Indian Maritime University	Indian Maritime University
Kolkata Campus	Management Block, Subhas Bhavan,
P – 19, Taratalla Road, Kolkata - 700 088	2nd Floor, 40,
Tel: (033) 2401 4673 / 76 & 78	Circular Garden Beach Road,
Fax: (033) 2401 4333.	Kolkata - 700 043.
E-mail: director.kolkata@imu.ac.in	Tel : (033) 2439 4123/4124
Website: <u>http://www.merical.ac.in/</u>	Fax : (033) 2439 7179 / 0097

<u>Mumbai Campus</u>

IMU Mumbai Campus with Head Office at Nerul, Navi Mumbai consists of three institutes namely, the *Training Ship Chanakya*, the Lal Bahadur Shastri College of Advanced Maritime Studies and Research and the Marine Engineering and Research Institute (MERI), Mumbai. These are premier Maritime Training Institutes not only in India but in the whole of South East Asia.





T S Chanakya is the successor of T S Rajendra and the grand old lady of Indian Shipping, T S Dufferin, where the training of Merchant Navy Officers in India started in the year 1927. T S Chanakya is a shore based Academy. Lal Bahadur Shastri College of Advanced Maritime Studies & Research (LBS CAMSAR) is the only institute in India offering Extra Masters & Extra First Class Engineer courses, the highest programmes in the field of Nautical Science and Marine Engineering respectively. Marine Engineering & Research Institute (MERI) is the only institution in India offering B.Sc (Maritime Science) programme, giving dual certification of Nautical and Engineering stream for employment on board the Merchant Navy ships. MERI also offers a one year PG Diploma in Marine Engineering (PGDME) programme to help graduates in Mechanical Engineering and Naval Architecture become Marine Engineers.

Courses offered:

- 1. 1-year DNS leading to B Sc. (Applied Nautical Science)
- 2. 4-year B.Tech (Marine Engineering).
- 3. 1-year PG Diploma in Marine Engineering (Admission shall be announced later).
- 4. 3-year B.Sc (Maritime Science).
- 5. 3-year B.Sc (Nautical Science).



<u>Contact Address</u>: Indian Maritime University - Mumbai Campus, Karave, Nerul, Navi Mumbai - 400706 Tel: (022) 27703876/27701935 Fax No.: (022) 27700398 E-mail: <u>director.mumbai@imu.ac.in</u> Website: www.imumumbai.com

Hay Bunder Road Campus, Mumbai- 400033. Tel: (022)23719932/35/36/40/4 1/44/46/23723577 / 23774261, 23725987 Fax No.: (022) 23739784/23753151 Website:www.imumumbai.com Palm Beach Road Campus, Navi Mumbai-400706 Tel: (022)27703876/ 27701935 Fax No.: (022) 27700398 Website:www.imumumbai.com

Visakhapatnam Campus



Indian Maritime University - Visakhapatnam Campus was previously known as National Ship Design Research Centre (NSDRC). The IMU Visakhapatnam Campus emerges from the confluence of the centrally established Indian Maritime University and India's premier ship design and maritime research institution, the National Ship Design and Research Centre (NSDRC). IMU Visakhapatnam Campus heralds the integration of visionary academic insight with the accumulated professional expertise and knowledge base on Ship Design and Maritime Technology.

Courses offered:

- 1. 4-year B.Tech in Naval Architecture and Ocean Engineering.
- 2. 2-year M.Tech in Naval Architecture and Ocean Engineering.
- 3. 2-year M. Tech in Dredging and Harbour Engineering.
- 4. Ph. D programmes. (Shall be announced later)

Contact Address:

Indian Maritime University Visakhapatnam Campus, PO Gandhigram, Visakhapatnam- 530 005. Tel: (0891) 258360/64, Fax: (0891) 2577744 Email: <u>director.vizag@imu.ac.in</u> Website: <u>www.imuv.edu.in</u>

12. Appendix - I (A)

Form of certificate to be produced by Scheduled Caste and Scheduled Tribe candidates who apply for admission to IMU.

1. This is to certify that Shri/ Shrimati/ Kumari*

	of	
District/Division*	of State/Union	
Territory*	belongs to	
the	Scheduled Caste / Scheduled Tribe* under:-	
* The Constitution (Sched	led Castes) Order, 1950	
* The Constitution (Sched	led Tribes) Order, 1950	
* The Constitution (Sched	led Castes) (Union Territories) Order, 1951	
* The Constitution (Sched	led Tribes) (Union Territories) Order, 1951 [As amended by the	

Scheduled Castes and Scheduled Tribes (Modification Order) 1951 [As amended by the Scheduled Castes and Scheduled Tribes Lists (Modification Order) 1956, the Bombay Reorganisation Act, 1960, the Punjab Reorganisation Act, 1966, the State of Himachal Pradesh Act, 1970, the North Eastern Areas (Reorganisation) Act, 1971, the Scheduled Castes and Scheduled Tribes Orders (Amendment) Act, 1976 and the Scheduled Castes and Scheduled Tribes Orders (Amendment) Act, 2002]

* The Constitution (Jammu and Kashmir) Scheduled Castes Order, 1956;

* The Constitution (Andaman and Nicobar Islands) Scheduled Tribes Order, 1959, as amended by the Scheduled Castes and Scheduled Tribes Order (Amendment) Act, 1976;

* The Constitution (Dadra and Nagar Haveli) Scheduled Castes Order, 1962;

* The Constitution (Dadra and Nagar Haveli) Scheduled Tribes Order, 1962;

* The Constitution (Pondicherry) Scheduled Castes Order, 1964;

* The Constitution (Uttar Pradesh) Scheduled Tribes Order, 1967;

* The Constitution (Goa, Daman and Diu) Scheduled Castes Order, 1968;

* The Constitution (Goa, Daman and Diu) Scheduled Tribes Order, 1968;

* The Constitution (Nagaland) Scheduled Tribes Order, 1970;

* The Constitution (Sikkim) Scheduled Castes Order, 1978;

* The Constitution (Sikkim) Scheduled Tribes Order, 1978;

* The Constitution (Jammu and Kashmir) Scheduled Tribes Order, 1989;

* The Constitution (Scheduled Castes) Order (Amendment) Act, 1990;

* The Constitution (Scheduled Tribes) Order (Amendment) Act, 1991;

* The Constitution (Scheduled Tribes) Order (Second Amendment) Act, 1991;

2. #This certificate is issued on the basis of the Scheduled Castes / Scheduled Tribes* Certificate issued to

Shri/Shrimati*	father/mother* of Shri /Shrimati /Kumari*				
		of	Villag	e/Town	*
	in	District/Division*			_of the
State/Union Territory*		_who belong to	the Caste /	Tribe*	which is
recognised as a Scheduled Caste / Scheduled Tr	ibe [:]	* in the State / Un	nion Territory*		
issued by the			_dated		<u>.</u>

3. Shri/ Shrimati/ Kum		and / or* his / her* family
	ordinarily reside(s)** in 7	
Village/Town*	of	District/Division* of the
State Union Territory* of		
Signature:		
(with seal of the Office)		
Name and Designation		
Place:	_State/Union Territory*	
Date:		

* Please delete the word(s) which are not applicable.

Applicable in the case of SC/ST Persons who have migrated from another State/UT.

IMPORTANT NOTES:

The term "ordinarily reside(s)**" used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950.

Officers competent to issue Caste/Tribe certificates:

- District Magistrate / Additional District Magistrate / Collector / Deputy Commissioner / Additional Deputy Commissioner / Deputy Collector / Ist Class Stipendiary Magistrate / City Magistrate / Sub-Divisional Magistrate / Taluka Magistrate / Executive Magistrate / Extra Assistant Commissioner.
- 2. Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate.
- 3. Revenue Officers not below the rank of Tahsildar.
- 4. Sub-divisional Officer of the area where the candidate and/ or his family normally reside(s).
- 5. Administrator / Secretary to Administrator / Development Officer (Lakshadweep Island).
- 6. Certificate issued by any other authority will be rejected.

<u>13</u>. <u>Appendix - I (B)</u>

Form of the certificate to be produced by Other Backward Classes (non creamy layer).

	*Sor	
	•*	
	llage/Town*	District/Division*State belongs to the
		State belongs to the
comn	munity which is recognized as a b	ackward class under:
i.	Resolution No. 12011/68/93-B Extraordinary Part I	CC(C) dated 10/09/93 published in the Gazette of India
ii.	Section I No. 186 dated 13/09/	93.
iii.	Resolution No. 12011/9/94-BC Extraordinary Part I Section	C dated 19/10/94 published in the Gazette of India
iv.	I No. 163 dated 20/10/94.	
۷.	Resolution No. 12011/7/95-BC Extraordinary Part I Section	C dated 24/05/95 published in the Gazette of India
vi.	I No. 88 dated 25/05/95.	
vii.	Resolution No. 12011/96/94-B	
viii.	Resolution No. 12011/44/96-B Extraordinary Part I Section	CC dated 6/12/96 published in the Gazette of India
ix.	I No. 210 dated 11/12/96.	
х.	Resolution No. 12011/13/97-B	
xi.	Resolution No. 12011/99/94-B	
xii.	Resolution No. 12011/68/98-B	
xiii.	Extraordinary Part I Section	CC dated 6/12/99 published in the Gazette of India
xiv.	I No. 270 dated 06/12/99.	
XV.	Extraordinary Part I	CC dated 04/04/2000 published in the Gazette of India
xvi.	Section I No. 71 dated 04/04/2	
cvii.	Extraordinary Part I	CC dated 21/09/2000 published in the Gazette of India
viii.	Section I No. 210 dated 21/09/	
xix.	Resolution No. 12015/9/2000- Resolution No. 12011/1/2001-	
xx. xxi.	Resolution No. 12011/1/2001-1	
xxi. xxii.		BCC dated 15/01/2004. BCC dated 16/01/2006 published in the Gazette of India
(XII.	Extraordinary Part I	bee dated 10/01/2000 published in the Gazette of India
xiii.	Section I No. 210 dated 16/01/	2006.
xiv.	Resolution No. 12011/14/2004 Extraordinary Part I	-BCC dated 12/03/2007 published in the Gazette of Indi
xv.	Section I No. 67 dated 12/03/2	007.
xvi.	Resolution No. 12015/2/2007-	
wii.	Resolution No. 12015/13/2010	-BCC dated 08/12/2011.

Shri / Smt. / Kum. _____

and / or his family ordinarily reside(s) in the______District / Division of

State. This is also to certify that he/she **does not belong to the**

persons/sections (Creamy Layer) mentioned in Column 3 of the Schedule to the Government of India, Department of Personnel & Training O.M. No.36012/22/93-Estt.(SCT) dated 08/09/93 which is modified vide OM No. 36033/3/2004 Estt.(Res.) dated 09/03/2004, further modified vide OM No. 36033/3/2004-Estt. (Res.) dated 14/10/2008 or the latest notification of the Government of India.

Dated:

District Magistrate /Deputy Commissioner / Competent Authority Seal

* Please delete the word(s) which are not applicable

NOTE:

- i. The term 'Ordinarily resides' used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950.
- ii. The authorities competent to issue Caste Certificates are indicated below:
- iii. District Magistrate / Additional Magistrate / Collector / Deputy Commissioner / Additional Deputy Commissioner / Deputy Collector / Ist Class Stipendiary Magistrate / Sub-Divisional magistrate / Taluka Magistrate / Executive Magistrate / Extra Assistant
- iv. Commissioner (not below the rank of Ist Class Stipendiary Magistrate).
- v. Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate.
- vi. Revenue Officer not below the rank of Tahsildar and Sub-Divisional Officer of the area where the candidate and / or his family resides.