

INDIAN MARITIME UNIVERSITY

(A Central University, Government of India)



Academic Brochure 2017-18

For

Undergraduate & Postgraduate Programmes

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Website: www.imu.edu.in

"Maritime secto	r has a vital role in 1	India's progress & Government is strengthenin
the sector throu	ıgh innovative initiat	tives."
		Shri Narendra Mod Hon'ble Prime Minister of India
101		
	not ferrying of good promotes trade."	ls and passengers. It is all about the growth of
		Shri Nitin Gadkar Hon'ble Minister of Shipping Road Transport & Highway.

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 Supply Chain Management, Retailing and E-Commerce? Do you wish to pursue a career in Naval Architecture and Ocean Engineering, or Dredging and Harbour Engineering? Do you want to do a MBA in Port and Shipping Management, or International Transportation and Logistics? Do you wish to do post-graduation in Commercial Shipping and Logistics, or Marine Technology and Management?

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 aegis of 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 24 Affiliated Institutes.

I have great pleasure in releasing IMU's Academic Brochure for 2017-18 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, IAS (Retd.)

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 aegis of 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* and the *Indian 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 24 Affiliated Institutes.

2. **Programmes**

The following programmes are offered by the Indian Maritime University:

Undergraduate programmes

- a) 4-Year B. Tech (Marine Engineering)
- b) 4-Year B. Tech (Naval Architecture & Ocean Engineering)
- c) 3-Year BBA (Logistics, Retailing and E-Commerce) *
- d) 3-Year B. Sc (Maritime Science)
- e) 3-Year B. Sc (Nautical Science)
- f) 3-Year B. Sc (Ship Building & Repair) This Programme is being conducted only in the Affiliated Institutes.
- g) 1-Year Diploma in Nautical Science (DNS) leading to B.Sc. (Applied Nautical Science)

Postgraduate programmes

- a) 2-Year M.Tech (Marine Technology and Management) *
- b) 2-Year M.Tech (Naval Architecture and Ocean Engineering)
- c) 2-Year M.Tech (Dredging and Harbour Engineering)
- d) 2-Year M. Sc (Commercial Shipping and Logistics) *
- e) 2-Year MBA (Port and Shipping Management)
- f) 2-Year MBA (International Transportation and Logistics Management)
- * Programmes newly introduced from this Academic Year.

Postgraduate Diploma programmes

1-Year Post Graduate Diploma in Marine Engineering (PGDME) (Admissions for this Programme are done in the month of January every year).

Research Programmes

IMU is proposing to introduce **M.S (by Research)** from the current Academic Year (from January 2018 onwards). Currently IMU offers **Ph.D** in Naval Architecture and Ocean Engineering in Visakhapatnam Campus. IMU plans to make all its 5 Campuses as centres for doing research leading to Ph.D before 2018-19.

3. **Programmes - Duration - Intake capacity**

a) IMU Campuses

Undergraduate Programmes

Campus	Programmes Offered	Duration	Sanctioned Strength
Kolkata	B.Tech (Marine Engineering)	4 Years	286
	B.Tech (Marine Engineering)	4 Years	80
	B.Sc (Nautical Science)	3 Years	180
Mumbai	B.Sc (Maritime Science)	3 Years	40
	Diploma in Nautical Science leading to B.Sc (Applied Nautical Science)	1 Year	40
	BBA (Logistics, Retailing and E-Commerce)	3 Years	60
Chennai	B.Sc (Nautical Science)	3 Years	120
	Diploma in Nautical Science leading to B.Sc (Applied Nautical Science)	1 Year	40
Visakhapatnam	B.Tech (Naval Architecture & Ocean Engineering)	4 Years	40
Cochin	BBA (Logistics, Retailing and E-Commerce)	3 Years	40
	B.Sc (Nautical Science)	3 Years	40
	B.Tech (Naval Architecture & Ocean Engineering)	4 Years	40

Postgraduate Programmes

<u>Campus</u>	Programmes Offered	<u>Duration</u>	Sanctioned Strength
	M.Tech – Marine Technology and Management	2 Years	20
Kolkata	MBA - International Transportation and Logistics Management	2 Years	15
Mumbai	mbai M.Sc - Commercial Shipping and Logistics		30
	M.Sc - Commercial Shipping and Logistics	2 Years	30
Chennai	MBA - International Transportation and Logistics Management	2 Years	45
	MBA – Port & Shipping Management	2 Years	30
Vicakhanatnam	M.Tech - Naval Architecture & Ocean Engineering	2 Years	20
Visakhapatnam	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

Postgraduate Diploma Programmes

<u>Campus</u>	Programmes Offered	<u>Duration</u>	Sanctioned Strength
Mumbai	Postgraduate diploma in Marine Engineering	1 Year	120

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

		les	ts	a	Sea	ats Fille	ed
SI. No.	College Name	amm ered	f Sea	Grade	A	August	
SI.		Programmes Offered No. of Seats		CIP	2016	2015	2014
1.	Anglo Eastern Maritime Academy, Mumbai	DNS	160	A1	160	160	160
2.	Applied Research International, New Delhi	DNS	120	A1	65	80	43
3.	Coimbatore Marine College, Coimbatore	B.Tech (ME)	80	A2	36	38	63
4.	College of Ship Technology, Palakad	B.Sc (SBR)	40	-	7	6	15
5.	Dr. B R Ambedkar Institute of Technology, Port Blair	DNS	30	A2	1	9	Nil
	Euro Tech Maritime Academy, Cochin	DNS	80	A1	Nil	Nil	9
6.		B.Tech (ME)	80		69	35	39
7.	HIMT College, Chennai	B.Tech (ME)	80 A1	51	26	21	
		B.Sc (NS)	80		51	12	23
8.	Hind Institute of Nautical Science & Engineering, Noida (U.P)	B.Sc (SBR)	40	-	Nil	7	20
	International Maritime Institute,	DNS	120		86	99	92
9.	New Delhi	B.Tech (ME)	40	A1	39	26	26
10.	MMTI'S Education & Research Trust, Mumbai	DNS	40	B1	Nil	16	22
11.	Park Maritime Academy, Coimbatore	B.Tech (ME)	40	B2	3	Nil	13

12.	Maritime Training Institute, (SCI) Mumbai	DNS	120	A1	80	83	43
13.	Maritime Training Institute, (SCI) Tuticorin	DNS	40	-	40	40	38
14.	Perunthalaivar Kamarajar Institute of Maritime Science and Engineering, Chidambaram	DNS	40	-	Nil	Nil	8
15.	RL Institute of Nautical Sciences, Madurai	B.Tech (ME)	120	A2	7	27	-
16.	Sailors Maritime Academy, Visakhapatnam	DNS	40	-	Nil	13	11
	Samundra Institute of Maritime	DNS	120		119	119	114
17.	Studies, Mumbai	B.Tech (ME)	40	A1	40	36	40
18.	Sriram Institute of Marine Studies, New Delhi	DNS	40	-	19	Nil	5
19.	Southern Academy of Maritime Studies, Chennai	DNS	40	B1	40	11	15
20.	The Great Eastern Institute of Maritime Studies, Mumbai	DNS	80	A1	80	80	80
		DNS	120		85	71	80
21.	Tolani Maritime Institute, Pune	B.Sc (NS)	80	A1	76	-	-
			240		225	-	-
22.	Training Ship Rahman, Mumbai	DNS	120	A1	85	95	56
23.	Vishwakarma Maritime Institute, Pune	DNS	40	A2	23	28	28
24.	Yak Education Trust, Mumbai	DNS	120	A2	45	Nil	31

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 and who qualify in IMU's CET for UG programmes.

4. Online Common Entrance Tests (CET) for Admissions

All admissions to the various UG and PG programmes of the IMU and its Affiliated Institutes for the Academic Year 2017-18 starting on **Monday, 17th July 2017** will be through an all-India **Online Common Entrance Tests** (CETs) which will be conducted on **Saturday, 27th May 2017** afternoon. Candidates will be required to clear this CET in order to be eligible for admissions to the respective Programmes.

[Please see **Special Instructions for admissions to M.Sc (Commercial Shipping and Logistics) and BBA (Logistics, Retailing and E-Commerce)** programmes].

The following CETs will be held for respective Programmes:

- a) 1 CET for UG Programmes [B.Tech (Marine Engineering), B.Tech (Naval Architecture and Ocean Engineering), B.Sc (Nautical Science), B.Sc (Maritime Science), B.Sc (Ship Building and Repair) and Diploma Nautical Science].
- b) 1 CET for Lateral Entry of DNS-passed students to 2nd Year of B.Sc (Nautical Science) Programme.
- c) 1 CET for MBA (International Transportation and Logistics), MBA (Port and Shipping Management) programmes and for admissions to the 50% of seats for the non-seafarer candidates to **M. Sc (Commercial Shipping and Logistics)** programme.
- d) 1 CET for M.Tech (Naval Architecture and Ocean Engineering), M.Tech (Dredging and Harbour Engineering) and M.Tech (Marine Technology and Management) programmes.

<u>N.B.</u> - The results of the CETs are valid for that particular Academic session only.

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

Note: Registration for BBA (Logistics, Retailing and E-Commerce) programme is independent of registration for UG Programmes mentioned at para 4(a) above. Those candidates who wish to apply for all or some programmes at para 4(a)

above and also BBA (Logistics, Retailing and E-Commerce) programme must register for (i) Online CET for all UG programmes except BBA (Logistics, Retailing and E-Commerce) programme and (ii) for BBA (Logistics, Retailing and E-Commerce) programme separately. They have to pay the respective Registration Fees for (i) and (ii) separately.

<u>Special Instructions for candidates registering for M. Sc (Commercial Shipping and Logistics)</u> programme:

- a) Admissions to this programme will be done under two categories:
 - i. Category I (Non- Seafarers) Candidates with Bachelor's Degree in any discipline.
 - ii. Category II (Seafarers) Seafarers holding Master (FG) or MEO Class I Certificate of Competency.
 - <u>Note:</u> The detailed eligibility criteria for this programme can be seen further in the Academic Brochure under the details of each programme.
- b) 50% of seats in **M.Sc (Commercial Shipping and Logistics)** programme have been reserved for Seafarers (Category II). There will be <u>no Online CET</u> for these seats <u>but the candidates are required to register online and are exempt from paying Registration Fee.</u>
- c) <u>For seats under Category–I the candidates will be admitted through IMU's</u> <u>Online CET.</u>
- d) If the number of applications from qualified Seafarers (Category II) is less than the number of reserved seats, the vacant seats will be allotted to the candidates from Category-I. If the number of applications from qualified seafarers is greater than the number of reserved seats, then IMU will conduct a separate Offline Entrance Test for selecting Category-II candidates for the Programme.

<u>Special Instructions for candidates registering for BBA (Logistics, Retailing and E-Commerce)</u> programme for whom there is no CET:

- a) Candidates who are desirous of joining the **BBA** (**Logistics**, **Retailing and E-Commerce**) Programme, will be required to register through the link provided in IMU's website. There will be **NO** CET for admissions to this programme.
- b) **Registration Fee** will be **Rs. 200** for General candidates and **Rs. 140** for Scheduled Caste/ Scheduled Tribe candidates.
- c) The last date for Online Registration for these candidates is **Friday 16th June 2017** till 5.30 PM.
- d) These candidates must update their status and enter their Class 12 Exam marks and upload a scanned copy of Class 12 Exam Mark Sheet as and when they are published, subject to the last date indicated above. Online Registrations for which Class 12 Exam marks have not been entered and scanned copy of Class 12 Mark Sheet has not been uploaded will not be considered for admissions.
- e) These candidates are advised to register online first, choosing the 'Awaiting Results' option, and update their Class 12 Exam marks and upload their Scanned copy of Class 12 Exam Mark Sheet, later using the 'Edit' option. This 'Edit' option will be available from **Monday 1st May 2017** to **Friday 16th June 2017**.
- f) Candidates who have registered online for the "Common Online CET for all UG Programmes (except BBA)" must register online separately for the BBA (Logistics, Retailing and E-Commerce) programme, if they are also interested in the latter, and must pay the Registration Fee for both.

The Syllabus for the various CETs will be as follows:

a) Common Online CET for all UG Programmes [except BBA (Logistics,

<u>Retailing and E-Commerce) programme</u>]

- i. No. of Questions 200 multiple choice questions.
- ii. Syllabus English, General Aptitude, Physics, Chemistry, Mathematics at Plus 2 level.

b) Online CET for Lateral Entry of DNS-passed students to 2nd Year of B.Sc (Nautical Science)

- i. No. of Questions 200 multiple choice questions.
- ii. Syllabus English, General Knowledge, Computer Science, Physics, Electricity, Electronics and Mathematics.

c) Common Online CET for the MBA (Port and Shipping Management), MBA (International Transportation and Logistics) and the M.Sc (Commercial Shipping and Logistics) programmes

- i. No. of Questions 120 multiple choice questions.
- ii. Syllabus Quantitative ability, Data interpretation, Verbal ability and Logical reasoning.

d) <u>Common Online CET for M.Tech (Marine Technology and Management),</u> <u>M.Tech (Naval Architecture and Ocean Engineering) and M.Tech</u> (Dredging and Harbour Engineering) programmes

- i. No. of Questions 120 multiple choice questions.
- ii. Syllabus English, Mathematics and one of Mechanical Engineering/Naval Architecture/Marine Engineering/Civil Engineering.

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

IMU reserves the right to change the distribution, types, level of difficulty, etc. of the questions asked from time to time.

Candidates who are desirous of joining IMU Campuses and 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** followed by verification of original mark sheets and certificates, physical fitness certificate, etc.

Online Counselling will be limited to admissions to **IMU Campuses only**.

Affiliated Institutes will not be included for the process of Online Counselling. Students who have cleared the Online CET and are desirous of seeking admissions to Affiliated Institutes should approach the respective Affiliated Institute directly.

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 online now.

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, scanned copy of 12th Std/ Degree Certificate (wherever applicable), scanned copy of the SC/ST/OBC (NCL) certificate (wherever applicable) and other relevant certificates (wherever 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 May 2017 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. <u>IMU shall not be responsible if any candidate is put to hardship because he did not keep himself abreast of the latest developments</u>.

The Computer-based CETs for IMU's UG and PG programmes are scheduled to be held on **Saturday 27th May 2017 Afternoon** between **2 pm and 5 pm** in a **single shift**. They will be held simultaneously in the following 35 cities across India:

1	Agra	13	Guwahati	25	Noida
2	Ahmedabad	14	Hyderabad	26	Patna
3	Allahabad	15	Jaipur	27	Pune
4	Bangalore	16	Kanpur	28	Raipur
5	Bhopal	17	Kolkata	29	Ranchi
6	Bhubaneswar	18	Kota	30	Shim la
7	Chandigarh	19	Lucknow	31	Siliguri
8	Chennai	20	Meerut	32	Srinagar
9	Cochin	21	Mumbai	33	Trivandrum
10	Coimbatore	22	Muzaffurpur	34	Varanasi
11	Dehradun	23	Nagpur	35	Visakhapatnam
12	Faridabad	24	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/ M.Sc 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 IMUs Common Entrance Test May 2017

Date of commencement of Online Registration	25 th Mar 2017
Last date for Online Registration (except BBA programme)	08 th May 2017
Hall Ticket can be downloaded	12 th May 2017
Date for Computer Based CETs	27 th May 2017
Date for Publication of Results	30 th May 2017
Date(s) of Online Counselling for all UG & PG Programmes*	02 nd June 2017 to 16 th June 2017
Last date for Online Registration for BBA programme	16 th June 2017
Publication of First List of Selected Candidates	17 th June 2017
Deadline for Online Payment of Programme Fee for candidates selected in First List**	27 th June 2017
Publication Of Second List Of Selected Candidates	28 th June 2017
Deadline for Online Payment of Programme Fee for candidates selected in Second List**	4 th July 2017
Certificate Verification	10 th July 2017 to 16 th July 2017
Date of Commencement of Programmes	17 th July 2017

^{*} Candidates will be required to pay Rs.10,000/- (Non-refundable) for registering for the Online Counselling of IMU.

All correspondence with IMU regarding CET May 2017 shall be made via Email only at cet17@imu.ac.in

^{**} Candidates selected in the First/ Second/ Third (if any) List published by IMU will be required to pay an amount of Rs.25,000/- (Non- Refundable) towards Programme Fee as per the Deadline given in the table above.

5. <u>Details of Undergraduate Programmes offered by IMU</u>

IMU also offers various UG programmes under the following Schools:

- School of Nautical Studies
- School of Marine Engineering & Technology
- School of Naval Architecture & Ocean Engineering

From the Academic Year 2017-18 onwards, IMU is introducing a new UG programme under the School of Maritime Management as well.

School of Maritime Management

According to a report by National Skill Development Corporation (NSDC), India will need around 28.4 million strong workforce in India's booming Transportation, Logistics, Warehousing and Packaging sector. Hence, this sector will have one of the highest incremental human resource requirement of 11.7 million from 2013-2022 in the country. Logistics is acting as an important lever for business growth of E-Commerce companies and thus there shall be great demand for skilled logistics professionals in the E-Commerce sector. Therefore IMU is introducing a new and course titled "Bachelors in Business Administration (BBA) in Logistics, Retailing and E-Commerce" under this School from the Academic Year 2017-18.

Programme (Non – Residential)	ocation	Eligibility
Retailing and E-	hennai nd ochin	10+2/equivalent (Minimum 60% of Aggregate marks in any stream and minimum of 50% marks in English subject in 10th / 12th Examination.) Note 1: Percentage of the Aggregate marks will be calculated by considering the marks scored in English subject plus the marks scored in Major Subjects (excluding other languages). Note 2: In case of SC/ST candidates there will be a 5% relaxation in eligibility marks; however, it will not apply to English

COURSE CONTENTS

BBA (Logistics, Retailing and E-Commerce)

Semester I	Semester II
English I	English II
Elements of Economics I	Elements of Economics II
Financial Accounting I	Financial Accounting II
Principles of Management I	Principles of Management II
Quantitative Techniques I	Quantitative Techniques II
Business Law I	Business Law II
Semester III	Semester IV
Marketing Management	Retail Management I
Financial Accounting III	Cost & Mgmt. Accounting I
Elements of Port and Shipping Management	Logistics and Supply Chain Management I
Human Resources Management	E-Commerce I
IT for Managers	Entrepreneurship
Practicals - Spreadsheet Modelling	Practicals - Tally Software
Internship on EXIM Documentation for 30 days	
Semester V	Semester VI
Retail Management II	Retail Management III
Cost & Mgmt. Accounting II	Logistics and Supply Chain Management III
Logistics and Supply Chain Management II	E-Commerce III
E-Commerce II	
Financial Management	Project Work
Practicals - Communication Skills	

Fees for Indian Nationals Joining this programme will be as follows:

	Total Fees	tal Fees Fees payable per semeste				
Programme	for an Academic	Odd Semester		Even Semester		
	Year (in Rs.)	Programme Fee*	Semester Fee**	Semester Fee		
BBA (Logistics, Retailing and E-Commerce)	Fees for this	is programme will be intimated shortly				

School of Nautical Studies

This School offers UG programmes in Nautical Science and Maritime Science producing quality seafarers. The global demand for Indian seafarers is a testimony to their competence and discipline. The syllabi of the 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. The 3-year polyvalent (Dual Certification) course leading to B.Sc. (Maritime Science) is a 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 these 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 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.

Programmes Offered (Residential)*

Programme	IMU Campuses	Eligibility
		10+2/ equivalent (PCM-60%)
	Mumbai & Chennai	OR B.Sc (PCM)/ B.Sc (Electronics with Physics as individual subject in one of the years) with marks not less than 60%, OR
1-Year DNS programme leading to B.Sc (Applied Nautical Science)		B.E./B.Tech from IIT or college recognised by AICTE with 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.
3 Year B.Sc (Nautical Science) *	Chennai, Mumbai, Cochin	10+2/ equivalent (PCM-60% and minimum of 50% marks in English subject in 10th / 12th Examination.)
		Note: In case of SC/ST candidates there will be a 5% relaxation in eligibility marks; however, it will not apply to English marks.
3 Year B.Sc	Mumbai	10+2/ equivalent (PCM-60% and minimum of 50% marks in English subject in 10th / 12th Examination.)
(Maritime Science)		Note: In case of SC/ST candidates there will be a 5% relaxation in eligibility marks; however, it will not apply to English marks.

^{*} There is Lateral Entry into 2nd year of B.Sc (Nautical Science) for all passed-out DNS students including those admitted in the February 2016 batch of DNS. They are eligible to appear in the **Online CET for Lateral Entry in 2nd year B.Sc** (Nautical Science) in 2017-18. Thereafter, from the academic year 2018-19 onwards, Lateral Entry will be restricted only to candidates who had passed DNS

within five years from the year in which Lateral Entry into 2nd year B.Sc (Nautical Science) is sought.

<u>Illustration</u>: Only DNS passed candidates admitted in August 2012 batch or later will be eligible to appear for the Online CET for Lateral Entry into 2nd year B.Sc (Nautical Science) in August 2018.

COURSE CONTENTS

DNS Leading to B.Sc (Applied Nautical Science)

Semester - I	Semester - II		
Applied Mathematics	Navigation III : Terrestrial, Coastal and Celestial Navigation		
Applied Sciences	Navigation IV : Advanced Bridge Equipment, Watch keeping and Meteorology		
Ship Construction & Ship stability	Cargo Handling, Stowage and Seamanship II		
Navigation I : Terrestrial & Celestial	Ship Construction & Ship Stability II		
Navigation II : Bridge Equipment, Watch Keeping and Meteorology	MARPOL & Marine Engineering Knowledge		
Cargo Handling, Stowage and Seamanship I	Emergencies, Maritime Communication and Commercial shipping Knowledge		
English, Human Factors & Maritime History	English Laboratory		
Applied Sciences Laboratory	Workshop Practices & Seamanship Laboratory		
Computer Laboratory	Navigation Laboratory		
Workshop Practices			
Seamanship Laboratory			
English Laboratory			
Semester - III IV & V (On heard training - to be arranged by the			

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 of the DG approved institutes. Upon passing of 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)

COURSE CONTENTS

B.Sc (Nautical Science)

Semester I	Semester II	
English and Communication skills	Applied Mathematics	
Nautical Mathematics	Applied Physics and Electricity	
Nautical Physics	Nautical Electronics	
Computer Science	Ship Construction	
General Ship Knowledge	Ship Operation Technology	
Terrestrial Navigation	Chart Work & Collision Prevention Regulations	
Nautical Physics (Practical)	Applied Physics & Electricity (Practical)	
Computer Science (Practical)	Nautical Electronics (Practical)	
Semester III	Semester IV	
Celestial Navigation Paper-I	Life Saving & Fire Fighting Appliances	
Ship Stability Paper-I	Ship Stability Paper – II	
Marine Engineering, Automation & Control Systems Paper –I	Cargo Handling & Stowage Paper – II	
Cargo Handling & Stowage Paper –I	Ship Maintenance and Emergencies	
Bridge Equipment & Watchkeeping Paper-I	Marine Engineering, Automation & Control Systems Paper –II	
Seamanship Lab-I (Practical)	Meteorology Paper – II	

Marine Engineering Workshop –I (Practical)	Seamanship Laboratory-II (Practical)	
	Marine Engineering Workshop-II (Practical)	
Semester V	Semester VI	
Coastal Navigation & Collision Prevention Regulations	Voyage Planning & ECDIS	
Naval Architecture Paper –I	Naval Architecture Paper –II	
Celestial Navigation Paper –II	Ship Manoeuvring & Collision Prevention Regulations	
Specialised Cargo Handling & Stowage	IMO & International Conventions	
Shipping Management	Human Resource Management, Development & Leadership	
Bridge Equipment & Watchkeeping Paper-II	Marine Environmental Protection	
Ship Operation Technology Lab (Practical)	Navigation Lab (Practical)	

COURSE CONTENTS

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		
English	Motor Engineering Knowledge Paper – 1		
Mathematics - I	Mathematics - II		
Engineering Drawing	Ship Construction, Naval Architecture (Stability), Safety and Environmental Protection Paper - 1		
Semester - III	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		
Practical Celestial Navigation (Theory)	Marine Auxiliaries Paper - 4		
Bridge Watch Keeping & Emergencies Paper – 3	Marine Instrumentation & Control Engineering		
Motor Engineering Knowledge Paper – 4	Naval Architecture (Stability), Safety and		
Marine Auxiliaries Paper - 3	Environmental Protection Paper – 4		
Cargo handling & stowage-1	Cargo handling & stowage-2		
Marine Engineering Drawing & Design	Ship Operation & Management		
Ship Construction, Safety and Environmental Protection Paper – 3	Competency Enhancement modules including GMDSS GOC Engine Room Simulator Modular course		
Marine Electro-technology Paper – 3 (Practical)	Motor Engineering Knowledge Paper –5 (practical covers syllabus of V&VI semesters)		
Practical Celestial Navigation (Practical)	Marine Auxiliaries Paper - 4 (practical covers syllabus of V&VI semesters)		
Bridge Watch Keeping & Emergencies Paper - 3 (Practical)	Marine Instrumentation & Control Engineering (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 programmes will be as follows:

	Total Fees for an Academic Year (Rs.)	Fees payable per semester (in Rs.)		
Programme		Odd Semester		Even Semester
		Programme Fee*	Semester Fee**	Semester Fee**
DNS leading to B.Sc (Applied Nautical Science)	2,25,000/-	25,000/-	1,00,000/-	1,00,000/-
B.Sc. (Nautical Science)	2,25,000/-		1,00,000/-	1,00,000/-
B.Sc (Maritime Science	2,25,000/-		1,00,000/-	1,00,000/-

^{*} Programme Fee is to be collected annually by the IMU Campuses/Affiliated Institute 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 (Uniform only), hair-cut charges, cost of uniform, cost of books, Indian National Database of Seafarers (INDOS), Continuous Discharge Certificate (CDC) and so on. This does 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 and Technology

This School offers UG programme in Marine Engineering that serves as a platform of quality training for incumbents who aspire for a career in Marine Engineering.

All applicants to this UG programme 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 these programmes. Candidates desirous of joining this course are advised to apply for Passport before taking admission.

Programmes Offered (Residential)

Programme	Location	Eligibility		
4-year B.Tech (Marine Engineering)*	Kolkata, Mumbai	10+2/ equivalent (PCM - 60% and minimum of 50% marks in English subject in 10th / 12th Examination.) Note: In case of SC/ST candidates there will be a 5% relaxation in eligibility marks, it will not apply to English marks.		

^{*} There is Lateral Entry into 2nd year of B.Tech (Marine Engineering). Candidates with Diploma in Marine /Mechanical Engineering with at least 60% marks overall are eligible to apply for Lateral Entry. The applications for this will be invited separately by the respective IMU Campuses/ Affiliated Institutes.

COURSE CONTENTS B.Tech (Marine Engineering)

Semester - I	Semester - II	
English	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
Semester - III	Semester - IV
Computational Mathematics	Marine Boilers
Analog Electronics & Communication	Digital Electronics & PLC
Applied Thermodynamics – II	Mechanics of Machines – II
Strength of Materials – II	Electrical Machines – II
Mechanics of Machines – I	Fluids Mechanics
Electrical Machines – I	Marine Heat Engines & Air Conditioning
Marine Engineering Drawing	Applied Marine Control & Automation
Electronics Laboratory	Computer Microprocessor & PLC Laboratory
Heat & Chemical Laboratory	Workshop Practicals – IV
Workshop Practicals – III	Control Engineering Laboratory
Semester - V	Semester - VI
Material Science	Ship Fire Prevention & Control
Ship Structure & Construction	Marine Internal Combustion Engine II
Marine Internal Combustion Engines – I	Marine Electrical Technology
Fluid Mechanics	Marine Auxiliary Machines – II
Marine Auxiliary Machines – I	Naval Architecture – II
Naval Architecture – I	Management Science & Economics
Elementary Design & Drawing	Marine Steam Engineering
Material Science Laboratory	Fire Control & Life Saving Appliances Laboratory
Vibration Laboratory & Fluid Mechanics Lab	Marine Power Plant Operation – II

Marine Power Plant Operation – I	Electrical Machines Laboratory		
Semester - VII	Semester - VIII		
Ship Operation & Management	On Board Training & Assessment		
Advanced Marine Control Engineering & Automation	Voyage Report		
IMO & Maritime Conventions	Project on Environmental & its Protection		
Advanced Marine Technology	Viva - Voce		
Engine Room Management			
Elective			
Marine Machinery & System Design			
Simulator & Simulator Laboratory			
Technical Paper & Project			
Elective Subjects:			
Advanced Marine Heat Engines			
Environmental Science & Technology			
Advanced Material Science & Surface Coating Engineering			
Renewable Energy Sources & Applications			

Fees for Indian Nationals Joining this programme will be as follows:

		Fees payable per semester (in Rs.)		
Programme		Odd Semester		Even Semester
Year (in Rs.)	(in Rs.)	Programme Fee *	Semester Fee **	Semester Fee **
B.Tech (Marine Engineering)	2,25,000/-	25,000/-	1,00,000/-	1,00,000/-

^{*} Programme Fee is to be collected annually 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 (Uniform only), hair-cut charges, cost of uniform, cost of

books, Indian National Database of Seafarers (INDOS), Continuous Discharge Certificate (CDC) and so on. This does 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 Naval Architecture and Ocean Engineering

Under this School the following UG Programmes are offered:

- 4-year B.Tech (Naval Architecture and Ocean Engineering)
- 3-year B.Sc (Ship Building & Repair)

This 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 career of Design and Construction of ships & offshore structures, Ship Building and Ship Repair can opt for the programmes offered under this School.

<u>Programmes Offered (Residential)</u>

Programme	Location	Eligibility
4 Year B.Tech (Naval Architecture and Ocean Engineering)*	Vishakhapatnam & Cochin	10+2/equivalent (PCM -60% and minimum of 50% marks in English subject in 10th / 12th Examination.) Note: In case of SC/ST candidates there will be a 5% relaxation in eligibility marks; however, it will not apply to English marks.
3 Year B.Sc (Ship Building and Repair)	Offered only in Affiliated Institutes from Academic Year 2017-18 onwards	10+2/equivalent (PCM- 50% and minimum of 50% marks in English subject in 10th / 12th Examination.) Note: In case of SC/ST candidates there will be a 5% relaxation in eligibility marks; however, it will not apply to English marks.

^{*} There is Lateral Entry into 2^{nd} and 3^{rd} year of B.Tech (Naval Architecture & Ocean Engineering).

Eligibility for Lateral Entry

For Admissions to 2nd Year of B.Tech (Naval Architecture and Ocean Engineering)

(a) Candidates with 60% marks in4-year Diploma in Ship Building Engineering from the Institute of Ship Building Technology, Goa. [OR]

3-year Diploma in Naval Architecture and Offshore Engineering from the AMET University, Chennai

[OR]

3-year Diploma in Mechanical Engineering/Civil Engineering from any Institute approved by AICTE.

will be eligible for admissions by Lateral Entry into the second year against the available vacant seats at the beginning of the second year.

- (b) The admissions will be made in the order of merit based on aggregate percentage of marks.
- (c) The candidate should have completed the diploma within its stipulated duration of 4 years or 3 years as the case may be.
- (d) Age limit 18 to 26 years.

For Admissions to 3rd Year of B.Tech (Naval Architecture and Ocean Engineering)

- (a) Candidates with B.Sc (Ship-building and Repair), who have at least 60% marks overall and have completed the degree within the stipulated period of 3 years, will be eligible for admissions by Lateral Entry into the third year .The number of seats for this lateral entry are '20' and available only in IMU Visakhapatnam Campus.
- (b) The admissions will be made in the order of merit based on aggregate percentage of marks.
- (c) Age limit 19 to 27 years.

<u>COURSE CONTENTS</u>* <u>B.Tech (Naval Architecture & Ocean Engineering)</u>

Semester - I	Semester - II
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

Engineering Drawings and Graphics Fluid Dynamics Workshop Practice Extra Academic Activity Extra Academic Activity Semester – III Mathematics-III Machine Design Thermodynamics Basic Electronics Basic Electronics Laboratory Hydrostatics & Stability Marine Structures – I Marine Hydrodynamics Extra Academic Activity Semester – V Marine Structures – II Marine Structures – II Marine Structures – II Marine Structures – II Marine Design II Motion & Control Marine Design II Motion & Control Marine Production Marine Production Marine Systems Marine Production Marine System Laboratory Marine Materials Elective Subject – 1 Hydrodynamics Laboratory Semester – VI Marine Materials Elective Subject – 1 Hydrodynamics Laboratory Marine System Laboratory Elective Subject – 2 Marine Motion & Noise Seminar Vibration & Noise Vibration & Noise Vibration & Noise Vibration & Noise Pluid Dynamics Extra Academic Activity Semester – IV Marchine Structures – II Marine Design II Marine Design II Marine Design II Marine Systems Computer Aided Design & Deschiuction Marine System Laboratory Marine System Laboratory CAD & Production Laboratory CAD & Production Laboratory Semester – VII Industrial Training Project Ship Design Project Viva – Voce Business Fundamentals & Economics Physical Oceanography Vibration & Noise Seminar Vibration & Noise Seminar Vibration & Noise Comprehensive Viva – Voce Automation & Control Theory Elective Subjects High Performance Marine Vehicle Port Infrastructure and management	E 11.1.6.00	
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 - VI Marine Structures - II Marine Design II Motion & Control Marine Systems Marine Design - I Computer Aided Design & Production Marine Production Industrial Management Hydrodynamics Laboratory Marine System Laboratory Marine System 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 Elective Subjects High Performance Marine Vehicle	English for Communication	Workshop Practice
Extra Academic Activity Semester - III Mathematics-III Mathematics-III Machine Design Thermodynamics Basic Electronics Basic Electronics Basic Electronics Laboratory Marine Construction & Welding Hydrostatics & Stability Marine Structures - I Marine Hydrodynamics Extra Academic Activity Marine Structures computations Extra Academic Activity Semester - V Marine Structures - II Marine Design II Motion & Control Marine Production Marine Production Marine Materials Hydrodynamics Laboratory Marine Systems Marine Materials Hydrodynamics Laboratory Marine System Laboratory Semester - VII Industrial Training Project Ship Design Project Viva - Voce Business Fundamentals & Economics Vibration & Noise Vibration & Noise Vibration & Noise Vibration & Noise Laboratory Elective Subject - 2 Marine Power Plant Comprehensive Viva - Voce High Performance Marine Vehicle	Engineering Drawings and Graphics	Fluid Dynamics
Semester – 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 Posign – I Marine Production Industrial Management Marine Materials Elective Subject – 1 Hydrodynamics Laboratory Marine System Laboratory CAD & Production Laboratory Semester – VII Industrial Training Project Uiva – Voce Business Fundamentals & Economics Vibration & Noise Vibration & Noise Seminar Vibration & Noise Laboratory Elective Subject – 2 Marine Power Plant Elective Subject – 3 Comprehensive Viva – Voce Automation & Control Theory Elective Subjects High Performance Marine Vehicle	Workshop Practice	Introduction to Naval Architecture
Mathematics-III Machine Design 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 Design II Marine Design – I Marine Production Industrial Management Marine Materials Elective Subject – 1 Hydrodynamics Laboratory Marine System Laboratory CAD & Production Laboratory Semester – VII Industrial Training Project Wiva – Voce Business Fundamentals & Economics Vibration & Noise Seminar Vibration & Noise Laboratory Elective Subject – 2 Marine Power Plant Elective Subject – 3 Comprehensive Viva – Voce High Performance Marine Vehicle	Extra Academic Activity	Extra Academic Activity
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 Extra Academic Activity Semester – V Semester – VI Marine Structures – II Marine Design II Motion & Control Marine Systems 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 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 Elective Subjects High Performance Marine Vehicle	Semester - III	Semester - IV
Basic Electronics Resistance & Propulsion Basic Electronics Laboratory Marine Construction & Welding Hydrostatics & Stability Marine Structures – I Marine Hydrodynamics Marine Structures computations Extra Academic Activity Calculations Extra Academic Activity 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 Elective Subjects High Performance Marine Vehicle	Mathematics-III	Machine Design
Basic Electronics Laboratory 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 Design – I Marine Design – I Marine Production Industrial Management Marine Materials Elective Subject – 1 Hydrodynamics Laboratory Marine System Laboratory Semester – VII Semester – VII Industrial Training Project Ship Design Project Viva – Voce Business Fundamentals & Economics Vibration & Noise Seminar Vibration & Noise Laboratory Elective Subject – 2 Marine Power Plant Elective Subject – 3 Comprehensive Viva – Voce High Performance Marine Vehicle	Thermodynamics	Elements of Ocean Engineering
Hydrostatics & Stability Marine Hydrodynamics Extra Academic Activity Semester - V Marine Structures - II Marine Structures & Stability Calculations Extra Academic Activity Semester - V Marine Structures - II Marine Design II Motion & Control Marine Systems Computer Aided Design & Production Marine Production Marine Production Marine Materials Elective Subject -1 Hydrodynamics Laboratory Marine System Laboratory CAD & Production Laboratory Semester - VII Industrial Training Project Ship Design Project Viva - Voce Business Fundamentals & Economics Vibration & Noise Vibration & Noise Vibration & Noise Laboratory Elective Subject - 3 Comprehensive Viva - Voce High Performance Marine Vehicle	Basic Electronics	Resistance & Propulsion
Marine Hydrodynamics Extra Academic Activity Hydrostatics & Stability Calculations Extra Academic Activity Semester - V Marine Structures - II Motion & Control Marine Design II Motion & Control Marine Production Marine Production Marine Materials Hydrodynamics Laboratory Marine System Laboratory Semester - VII Industrial Training Ship Design Project Viva - Voce Business Fundamentals & Economics Vibration & Noise Vibration & Noise Vibration & Noise Laboratory Elective Subject - 2 Marine Production Arine System Laboratory Marine System Laboratory Semester - VII Semester - VIII Industrial Training Project Viva - Voce Business Fundamentals & Economics Vibration & Noise Seminar Vibration & Noise Vibration & Noise Laboratory Elective Subject - 2 Marine Power Plant Elective Subject - 3 Comprehensive Viva - Voce Automation & Control Theory Elective Subjects High Performance Marine Vehicle	Basic Electronics Laboratory	Marine Construction & Welding
Extra Academic Activity Extra Academic Activity Extra Academic Activity Semester - V Marine Structures - II Motion & Control Marine Design - I Marine Production Marine Production Marine Materials Elective Subject - 1 Hydrodynamics Laboratory Marine System Laboratory CAD & Production Laboratory Semester - VII Industrial Training Project Ship Design Project Viva - Voce Business Fundamentals & Economics Vibration & Noise Vibration & Noise Vibration & Noise Laboratory Elective Subject - 2 Marine Power Plant Elective Subjects High Performance Marine Vehicle	Hydrostatics & Stability	Marine Structures – I
Extra Academic Activity Extra Academic Activity Semester - V Marine Structures - II Motion & Control Marine Design - I Marine Production Marine Materials Hydrodynamics Laboratory Marine Semester - VI Semester - VI Marine Systems Marine Materials Elective Subject -1 Hydrodynamics Laboratory Marine System Laboratory CAD & Production Laboratory Semester - VII Industrial Training Project Ship Design Project Viva - Voce Business Fundamentals & Economics Vibration & Noise Seminar Vibration & Noise Laboratory Elective Subject - 2 Marine Power Plant Comprehensive Viva - Voce High Performance Marine Vehicle	Marine Hydrodynamics	Marine Structures computations
Semester - V Marine Structures - II Motion & Control Marine Design II Motion & Control Marine Design - I Marine Production Marine Production Marine Materials Elective Subject -1 Hydrodynamics Laboratory Marine System Laboratory Marine System Laboratory Marine System Laboratory CAD & Production Laboratory Semester - VII 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 Comprehensive Viva - Voce Automation & Control Theory Elective Subjects High Performance Marine Vehicle	Extra Academic Activity	
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 Elective Subjects High Performance Marine Vehicle		Extra Academic Activity
Motion & Control Marine Systems Marine Design – I Computer Aided Design & Production Marine Production Industrial Management Elective Subject -1 Hydrodynamics Laboratory Marine System Laboratory CAD & Production Laboratory Semester – VII Industrial Training Project Ship Design Project Business Fundamentals & Economics Vibration & Noise Vibration & Noise Vibration & Noise Laboratory Elective Subject – 3 Comprehensive Viva – Voce Automation & Control Theory Elective Subjects High Performance Marine Vehicle	Semester - V	Semester - VI
Marine Design – I Marine Production Marine Production Marine Materials Elective Subject -1 Hydrodynamics Laboratory Marine System Laboratory CAD & Production Laboratory Semester – VII Industrial Training Project Ship Design Project Viva – Voce Business Fundamentals & Economics Physical Oceanography Vibration & Noise Vibration & Noise Seminar Vibration & Noise Laboratory Elective Subject – 2 Marine Power Plant Comprehensive Viva – Voce Automation & Control Theory Elective Subjects High Performance Marine Vehicle	Marine Structures – II	Marine Design II
Marine Production Marine Production Marine Materials Elective Subject -1 Hydrodynamics Laboratory Marine System Laboratory CAD & Production Laboratory Semester - VII Industrial Training Project Ship Design Project Viva - Voce Business Fundamentals & Economics Vibration & Noise Vibration & Noise Vibration & Noise Laboratory Elective Subject - 2 Marine Power Plant Comprehensive Viva - Voce Automation & Control Theory Elective Subjects High Performance Marine Vehicle	Motion & Control	Marine Systems
Marine Materials Elective Subject -1 Hydrodynamics Laboratory Marine System Laboratory CAD & Production Laboratory Semester - VII 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 Elective Subjects High Performance Marine Vehicle	Marine Design – I	
Hydrodynamics Laboratory CAD & Production Laboratory Semester - VII Industrial Training Project Ship Design Project Business Fundamentals & Economics Vibration & Noise Vibration & Noise Vibration & Noise Laboratory Marine Power Plant Comprehensive Viva - Voce High Performance Marine Vehicle	Marine Production	Industrial Management
CAD & Production Laboratory Semester - VII Industrial Training Project Ship Design Project 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 Elective Subjects High Performance Marine Vehicle	Marine Materials	Elective Subject -1
Semester - VII 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 Elective Subjects High Performance Marine Vehicle	Hydrodynamics Laboratory	Marine System Laboratory
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 Elective Subjects High Performance Marine Vehicle		CAD & Production Laboratory
Ship Design Project Business Fundamentals & Economics Physical Oceanography Vibration & Noise Seminar Vibration & Noise Laboratory Elective Subject - 2 Marine Power Plant Comprehensive Viva - Voce Automation & Control Theory Elective Subjects High Performance Marine Vehicle	Semester - VII	Semester -VIII
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 Elective Subjects High Performance Marine Vehicle	Industrial Training	Project
Vibration & Noise Vibration & Noise Laboratory Elective Subject - 2 Marine Power Plant Comprehensive Viva – Voce Automation & Control Theory Elective Subjects High Performance Marine Vehicle	Ship Design Project	Viva – Voce
Vibration & Noise Laboratory Elective Subject - 2 Marine Power Plant Elective Subject - 3 Comprehensive Viva - Voce Automation & Control Theory Elective Subjects High Performance Marine Vehicle	Business Fundamentals & Economics	Physical Oceanography
Marine Power Plant Comprehensive Viva – Voce Automation & Control Theory Elective Subjects High Performance Marine Vehicle	Vibration & Noise	Seminar
Comprehensive Viva – Voce Automation & Control Theory Elective Subjects High Performance Marine Vehicle	Vibration & Noise Laboratory	Elective Subject - 2
Elective Subjects High Performance Marine Vehicle	Marine Power Plant	Elective Subject – 3
High Performance Marine Vehicle	Comprehensive Viva – Voce Automation & Control Theor	
	Elective Subjects	
Port Infrastructure and management	High Performance Marine Vehicle	
	Port Infrastructure and management	

Fishing Vessel Technology	
Inland Water Transportation	
Submarines and Submersibles	
Environmental Management	

^{*}This syllabus is under revision

COURSE CONTENTS*

B.Sc (Ship Building and Repair)

Semester 1	Semester-II
English I	English II
Mathematics-I	Mathematics-II
Applied Science	Introduction to Shipbuilding
Electrical & Electronics	Applied Mechanics
Engineering Drawing I	Fluid Mechanics I
Workshop technology	Engineering Drawing II
Science Laboratory	Computer Programming
Workshop Practice - I	Workshop Practice II
Semester-III	Semester-IV
Mathematics III	Ship Construction
Fluid Mechanics II	Marine machinery-I
Thermodynamics	Ship Dynamics
Strength of Materials – I	Strength of Materials – II
Marine Materials	Ship Structures
Ship Stability	Marine Electrical & Electronics
Fluid Mechanics Lab	Hydrostatics & Stability Calculations
Workshop Practice -3 (Welding)	Workshop Practice - 4
Semester-V	Semester-VI
Ship Production & Repair	Small Craft Repair
Production Planning & Control	Hull Fabrication
Marine Machinery - II	Machinery Installation
Non Destructive Testing Methods	Outfitting
Marine Electrical & Electronics	Project

Design of Jigs, Fixtures & Press Tools	
Ship Structural Drawing	
Layout Drawing	

^{*} This syllabus is under revision.

Fees for Indian Nationals Joining these programmes will be as follows:

Programme	Total Fees for an Academic Year (in Rs.)	Fees payable per semester (in Rs.)		
		Odd Semester		Even Semester
		Programme Fee*	Semester Fee**	Semester Fee**
B.Tech (Naval Architecture and Ocean Engineering)	2,25,000/-	25,000/-	1,00,000/	1,00,000/
B.Sc (Ship Building and Repair) ***	N/A		N/A	N/A

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

*** This Programme is not conducted at IMU Campus but only in its Affiliated Institutes from Academic Year 2017-18 onwards.

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

^{**} 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, etc.), mess charges, lodging charges and cost of books. This does not include the interest free, one time Caution Deposit of Rs. 20,000/- collected at the time of admission.

6. PG Programmes offered by IMU

IMU offers various PG programmes under the following Schools:

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

IMU is introducing **2 NEW programmes** under the following Schools from the Academic Year 2017-18:

- School of Nautical Studies
- School of Marine Engineering and Technology

School of Marine Engineering & Technology

This School offers the following PG Programmes:

- M.Tech in Marine Technology and Management Newly introduced
- Post Graduate Diploma in Marine Engineering

In contemporary business world, the maritime industry faces numerous challenges while meeting multi—dimensional stakeholders' demands. To meet these growing demands for maritime professionals and particularly, those who manage day-to-day activities in the shipping corporate need to be equipped with relevant skills to strategically helm the affairs. Keeping the same in view a new programme - M.Tech (Marine Technology and Management) is being introduced this year.

IMU also offers PG Diploma in Marine Engineering (PGDME) programme at Mumbai campus. Admissions to this programme are done in the month of January every year and the Advertisement for this programme will be issued separately.

Programme Offered

Programme	IMU Campuses	Eligibility
M.Tech (Marine Technology and Management)	Kolkata (Residential)	BE/B.Tech in Marine Engineering/ Mechanical Engineering/ Naval Architecture with at least 60% marks from a recognized University. OR
		Associate Member of Institution of Engineers Part A and B in Mechanical

		Engineering with at least 60% marks (by examination).
		OR
		MEO Class I Certificate of Competency.
		Note 1: In case of SC/ST candidates there will be a 5% relaxation in eligibility marks.
		Note 2: Candidates under all categories must appear for the IMU's Common entrance Test (CET) and qualify in order to be eligible for admission to this programme. However, candidates with prescribed GATE/GRE Scores are exempted from IMU's CET.
		Degree in Mechanical Engineering / Mechanical & Automation Engineering / Naval Architecture, from a College approved by All India Council for Technical Education (AICTE) or the IITs. OR
PGDME	Mumbai (Residential)	Candidates with a Bachelor's Degree in (Naval Architecture & Ocean Engineering) from IMU are also eligible for admission to this course. Fulfilling additional requirements of D.G. Shipping that of minimum 50% marks in final year and minimum 50% marks in English in 10th or 12th standard is must.

COURSE CONTENTS

M.Tech (Marine Technology and Management)

Semester – I	Semester – II
Applied Thermodynamics & Turbo Machinery	Design of IC Engine
Marine Machinery and Plant Design	Instrumentation, Automation & Control Systems

Materials in Marine Environment, Marine Inspection & Survey Electrical Machines and Power Electrical Systems ,Marine	Marine Environmental Protection & Energy Management in the Maritime Industry. Research Methods and Business Communication Elective –II Elective-III
Management Information System (MIS)	Elective II (Any One) 1. Cryogenic and LNG Vessels
Statistic for Business Managers	Elective III (Any One) 1. Operations Research & Management
Practical /Laboratory- I (Any one) 1. Computational Laboratory for Design and Drawing Engineering Equipment Systems and Systems (Auto CAD, solid edge, MAT Lab) 2. EMI/EMC and Control System Laboratory 3. Vibration Laboratory: Torsional and	 Pinancial Management and Cost Practical /Laboratory-II (Any one) Computational Fluid Dynamics Software Software for Ship Design, Ship Stability (NAPA)
Semester III	Semester IV
Special Seminar under Mentor on Marine Technology or Sea Experience or Industry Experience	Viva-Voce
Project under Mentor based on Sea Experience or Maritime Industry Experience.	Final Project Cum Dissertation Under Supervisor

Fees for Indian Nationals Joining these programme will be as follows #:

	Total Fees	Fees payable per semester (in Rs.)		
Programme	for an Academic	Odd Semester		Even Semester
	Year (in Rs.)	Programme Fee*	Semester	Semester
	(111101)	гее	Fee**	Fee**
M.Tech (Marine Technology and Management) – Residential	Fees for this Programme will be intimated shortly			
PGDME***	3,50,000/-	25,000/-	1,62,500/-	1,62,500/

[#] Fees are being revised.

- * Programme Fee is to be collected annually by the Affiliated Institute/IMU Campus and passed on to IMU Hqrs at Chennai.
- *** The Semester Fees For PGDME Programme 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 and so on. This does not include the interest free, one time Caution Deposit of Rs.20,000/- collected at the time of admission. Announcement for this programme will be issued separately.

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

School of Nautical Studies

IMU is introducing a **NEW programme M.Sc (Commercial Shipping and Logistics)** under this School from the Academic Year 2017-18.

Programme Offered (Non Residential)

Programme	IMU Campuses	Eligibility
		Category-I:
	A Bachelor's Degree in any discipline with minimum of 50% marks from recognized universities and minimum of 50% marks in English subject in 10th / 12th / 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.
		Candidates under this category must appear for the IMU's Common Entrance Test (CET) and qualify in order to be eligible for admission to this Programme.
		OR
M.Sc (Commercial	Mumbai &	Category-II:
Shipping and Logistics)	Shipping and Chennai	50% of seats in each IMU Campus where M.Sc (Commercial Shipping & Logistics) is being offered shall be reserved for seafarers with Master (FG) Certificate of Competency or MEO Class I Certificate of Competency.
		There will be no CET for Category-II candidates.
		If the number of applications from qualified seafarers is less than the number of reserved seats, the vacant seats will be allotted to the candidates from Category-I.
		If the number of applications from qualified seafarers is greater than the number of reserved seats, then IMU will conduct a separate Offline Entrance Test for selecting Category-II candidates for the Programme.

COURSE CONTENTS M.Sc (Commercial Shipping and Logistics)

Semester - I	Semester - II	
Elements of Economics	The Shipping Market	
Financial and Management Accounting	Sea Trade and Merchant Fleet	
Legal Principles in Shipping Business	International Maritime Conventions	
Introduction to Shipping	Multimodal Transport	
Port Management and Operations	Human Resources, Development & Management	
Communication Skills and Research Methodology	Logistics and Supply Chain Management	
Semester -III	Semester-IV	
Ship Chartering		
International Logistics		
Liner Trades		
Ship Sale and Purchase	Project Work	
Shipping Finance		

Fees for Indian Nationals Joining this programme will be as follows #:

Programme for an Acader Year	Total Fees	Fees payable per semester (in Rs.)		
	for an Academic	Odd Semester		Even Semester
	Year (in Rs.)	Programme Fee*	Semester Fee**	Semester Fee**
M.Sc (Commercial Shipping and Logistics)	Fees for this programme will be intimated shortly		ed shortly	

School of Maritime Management

The School of Maritime Management offers the following 2 programmes-

- 2-year full-time MBA programme in Port & Shipping Management.
- 2-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.

Programmes Offered (Non Residential):

Programme	Location	Eligibility
MBA (Port & Shipping Management)	Chennai, Cochin	A bachelor's degree in any discipline with minimum of 50% marks from Recognized universities. A minimum of 50% marks in English subject in 10th / 12th / UG
MBA (International Transportation Logistics Management)	Chennai, Cochin Kolkata	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.

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 Transport	Public Private Partnership and Port Development
Shipping Economics	Project Work
Seaborne Trade & Merchant Fleet	
Internship	

COURSE CONTENTS 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	

Fees for Indian Nationals Joining these programme will be as follows #:

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

- * Programme Fee is to be collected annually by the 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, Industrial visit Fee, Extra-curricular activities Fee etc.) and so on. This does 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.

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 programmes in Naval Architecture & Ocean Engineering and Dredging and Harbour Engineering are aimed at graduate engineers who wish to make a career in the area of Ocean Engineering, Ship Design and Production, in the Allied Industries like Dredging, Port and Harbour Engineering industries. There is, at present, tremendous growth in Indian Shipbuilding and offshore industry. Also, India has been found to be a profitable outsourcing hub for many external design/consultancy organizations. Adequate number of qualified naval architects, engineers and shipbuilders are not available to take up this challenge. The present programme aims at producing engineers in the fields of maritime design and construction and dredging and harbour to fill this need on an immediate basis.

Programmes Offered

Programme	Location	Eligibility
M.Tech (Naval Architecture and Ocean Engineering)	Visakhapatnam	Engineering Graduate in Mechanical/ Civil/ Marine /Naval Architecture or equivalent with 60% aggregate.
M.Tech (Dredging and Harbour Engineering)		Note: In case of SC/ST candidates there will be a 5% relaxation in eligibility marks.

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

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	
Elective subject - 4	Project – II
Comprehensive Viva-voce	Project – II
Project -I	
Elective Subjects:	
Hydrographic Survey	
Cargo Handling in Ports	
Engineering Economics	
CAD CAM in Ship Design & Production	on
Marine Propulsion Machinery & Syst	ems
Design of Offshore Structures	
Advanced Structural Analysis	
Computational Fluid Dynamics	
Optimisation Methods	
Maritime Management	

^{*}This syllabus is under revision

COURSE CONTENTS*

M.TECH - Dredging & Harbour Engineering

Semester - I	Semester - II
Port and Harbour Structures	Dredging Equipment and Slurry
Safety, Pollution Control and Security	Transportation
Port and Coastal Hydrodynamics	Ship Handling in Ports and Harbours
Marine Materials and Corrosion	Sea-bed Mechanics
Dredgers and Harbour Craft	Elective subject - 1
Industrial Seminar	Elective subject - 2

Ship Drawing	Computer Software Laboratory
Laboratory	Dredging/Port Design Project
Harbour Structural Analysis Project	
Semester - III	Semester - IV
Elective subject – 3	
Elective subject - 4	Dro io et II
Comprehensive Viva-voce	– Project – II
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	

^{*}This syllabus is under revision

Fees for Indian Nationals Joining these programme will be as follows:

	Total Fees	Fees payab	ole per semes	ster (in Rs.)
	for an Academic	Odd Se	mester	Even Semester
Programme	Year (in Rs.)	Programme Fee *	Semester Fee **	Semester Fee **
M.Tech (Naval Architecture and Ocean Engineering)	2,25,000/-	25,000/-	1,00,000/-	1,00,000/-
M.Tech (Dredging	2,25,000/-	25,000/-	1,00,000/-	1,00,000/-

and Harbour		
Engineering)		

- * Programme Fee is to be collected annually 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 etc.) and so on. This does 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.

7. General Instructions for U.G Programmes

<u>Aae limit</u>

Age as on the date of admission on 17th July 2017 shall be as follows:

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

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

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). For applicants belonging to SC/ST, a relaxation of 5% of the aggregate marks will be considered for all programmes except in English subject marks.

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:

(i) Andaman and Nicobar Islands - 20 seats

(ii) Lakshadweep and Minicoy Islands - 10 seats

(iii) Eight North Eastern States (including Sikkim) - 40 seats

(iv) Jammu and Kashmir - 10 seats

Candidates belonging to SC/ST will be required to produce in support of the claim, a certificate, in original, as per 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 at the time of Certificate Verification.

The OBC candidates (non-creamy layer) will be required to produce <u>original_OBC</u> (NCL) certificate issued on or after 01.01.2017 by a competent authority as

per the form prescribed at APPENDIX – I (B) at the time of Certificate Verification.

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

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. List of approved doctors for issuing the certificate is available at http://www.dgshipping.gov.in/WriteReadData/userfiles/file/regular list 24012017. pdf. The candidate must be physically fit and should meet the medical requirements as specified by DGS guidelines. Candidates with Disability (DA) are not eligible for admission to all marine and related courses.

Failure to meet the medical standards would disqualify a candidate for admission. In case of an 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.

Eve sight

For DGS-approved courses viz DNS leading to B.Sc (Applied Nautical Science), 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 sequel. 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 0f 2015 and all candidates aspiring for a sea career are advised to go through the same.	

Qualifying Examination for UG Programmes:

The qualifying examinations are listed below:

- (i) 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 May 2017 are not eligible to appear in Online CET 2017.
- <u>Note 2</u>: 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.
- <u>Note 3</u>: "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

	ed more than 60% had failed in one				
appeared i	n the examination	again and pas	ssed) subject	to the condition	n that such
	ent / Compartme				
	ns conducted by t				s who had
changed th	ne Boards (e.g., f	rom CBSE to	NIOS) are n	ot eligible.	

8. General Instructions for P.G Programmes

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).

Candidates belonging to SC/ST will be required to produce in support of the claim, a certificate, in original, in the form given at 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 during Certificate Verification.

The Other Backward Class (OBC) candidates (non-creamy layer) will be required to produce original OBC (NCL) certificate issued on or after 01.01.2017 by a competent authority in the prescribed format given at APPENDIX – I (B) at the time of application.

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

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>

IMU has introduced a 'Performance-based Reward Scheme' for meritorious students of IMU Campuses from Academic Year 2015-16 onwards. This is awarded semesterwise, and is based on pure merit and not linked to means or any other scholarship or fellowship. In each Semester, the 'Toppers' of each batch and of each programme get Rs.1,00,000/- each while students coming within the top ten percentile (other than toppers) get Rs.75,000/- each and the students coming within the next ten percentile get Rs.50,000/- each.

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 P	rogrammes			
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 P	rogrammes			-
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	2	3	7
Tota	I			9
Gran	d Total			63

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 'Performance- based 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
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
Tota	al			54
PG I	Programmes			
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
Tota				9
Grai	nd Total			63

[&]quot;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

As it is a	reward for	pure merit	it will not	he a har	to a studer	it getting any
	/ freeship /					
- ·· r		- F	,		,	

10. Attendance Requirement for Students to appear in University Examination

All students must put in a minimum of 85% of attendance in order to appear in the End Semester Examinations (Theory and Practical) of the Indian Maritime University.

If a student has put in less than 85%, but above or equal to 75% 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*.

There will be no condonation of attendance below 75% under any circumstances whatsoever. A student who has put in less than 75% 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. Model Code of Conduct for the Students of IMU Campuses

- a) This Model Code of Conduct shall apply to all students of IMU Campuses whether admitted prior to the commencement of this Code or after, and will apply to all acts committed by them whether inside the Campus or outside.
- b) No student or groups of students of IMU Campuses shall indulge in any of the following acts amounting to misconduct and indiscipline:
 - (i) Ragging in any form.
 - (ii) Sexual harassment of any kind which shall also include:

 Unwelcome sexual proposition/advancements, sexually graphic comments of a body, unwelcome touching, patting, pinching or leering of parts of the body or persistent offensive or unwelcome sexual jokes and/or comments.
 - (iii) Eve-teasing or disrespectful behaviour or any misbehaviour with a girl student, woman staff member/visitor.
 - (iv) Arousing communal, caste or regional feeling or creating disharmony among students or employees.
 - (v) Consuming or possessing dangerous drugs, liquor or other intoxicants.
 - (vi) Smoking in public areas.
 - (vii) Indulging in acts of gambling.
 - (viii) Any act of moral turpitude.
 - (ix) Damaging or defacing or unauthorised shifting of any property of the University or the property of any employee of the University.
 - (x) Breaking open locked rooms, cupboards, safes, lockers and so on, and unauthorised locking of open rooms of the University.
 - (xi) Causing disturbance to and hindering the smooth functioning of classrooms, libraries, laboratories, workshops, canteens, mess, hostels or office.
 - (xii) Use of abusive, defamatory, derogatory or intimidatory language against any student or employee of the University or visitor to the

University.

- (xiii) All acts of physical violence including pelting of stones and other objects.
- (xiv) All forms of coercion and intimidation such as wrongful confinements, gheraos, laying siege, sit-ins, blocking entry and exit, prevention of normal movement of traffic, or any variation of the same, which disrupt the normal academic and administrative functioning of the University and which deter the Officers, Faculty and other employees of the University from discharging their duty, and which disturb their right to privacy and free movement.
- (xv) Deliberate boycott of classes, practicals and field visits as part of protest.
- (xvi) All forms of demonstration which have the effect of bringing down the public image of the University including shouting of slogans, display of condemnatory placards, burning of effigies, taking out protest marches, resorting to hunger strikes and so on.
- (xvii) Talking to the media or publishing/posting of content on the Internet including social media and You Tube with the intention to slander or bring disrepute to the University, or any student or section of students, or any Officer, Faculty or other employee of the University.
- (xviii) Bringing any political or other outside influence in respect of academic or disciplinary matters pertaining to the University.
- (xix) Furnishing false certificates or false information in any manner to the University.
- (xx) Committing forgery, tampering with the Identity Card or University records, impersonation, misusing University property (movable or immovable), documents and records, tearing of pages, defacing, burning or in any way destroying the books, journals, magazines and any material of library or unauthorized photocopying or possession of library books, journals, magazines or any other material.
- (xxi) Theft of movable property belonging to the University or any person.
- (xxii) Using unfair means in any examination and committing other

- examination-related offences.
- (xxiii) Indulging in plagiarism in projects, assignments and papers submitted by students as a part of their academic activities.
- (xxiv) Unauthorized occupation of the hostel room or any other University premises and unauthorized acquisition and use of University property in one's hostel room or elsewhere.
- (xxv) Causing or colluding in the unauthorized entry of any person into the Campus or in the unauthorized occupation of any portion of the University premises, including hostels, by any person.
- (xxvi) Not joining the Campus on the opening day of a semester and overstaying on leave without valid justification.
- (xxvii) Leaving the Campus without prior permission of the competent authority, and staying outside the Campus beyond the permitted timings.
- (xxviii) Not complying with the stipulations of Parade, Roll Call, Fall-in-Line and Physical Training wherever applicable.
- (xxix) Not maintaining due decorum in class rooms, libraries, laboratories, workshops, hostels, mess and canteen.
- (xxx) Improper behaviour while on tour or excursion.
- (xxxi) Violation of dress code of IMU.
- (xxxii) Any other offence under the law of land.
- (xxxiii) Non-compliance with any instructions issued by the Vice Chancellor or any other Competent Authority from time to time.
- c) A student violating any provisions of this Model Code of Conduct shall be liable for disciplinary action under the relevant laws of IMU.
- d) A copy of the Model Code of Conduct should be sent to every student along with the letter of admission at the time of his joining the University. His letter of acceptance of admission would amount to an automatic acceptance of the Model Code of Conduct and various laws of the University."

12. Glimpses of IMU Campuses

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.









The IMU Chennai Campus offers the following courses:

- a) 2-year M.Sc (Commercial Shipping and Logistics) (Newly Introduced)
- b) 2-year MBA (Port and Shipping Management).
- c) 2-year MBA (International Transportation & Logistics Management)
- d) 3-year BBA (Logistics, Retailing and E-Commerce) (Newly Introduced)
- e) 3-year B.Sc (Nautical Science).
- f) 1-year Diploma in Nautical Science course leading to B.Sc (Applied Nautical Science)

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>

Cochin 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 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:

- a) 2-year MBA in Port and Shipping Management
- b) 2-year MBA in International Transportation and Logistics Management
- c) 4-year B.Tech in Naval Architecture and Ocean Engineering
- d) **3-year BBA in Logistics, Retailing and E-Commerce** (Newly Introduced)
- e) 3-year B.Sc in Nautical Science

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

MBA Campus:

Bristow Road, Willingdon Island, Cochin – 682003

Tel: (0484) 2989402/ 04. Tel: (0484) 2668641

Email: director.kochi@imu.ac.in

Web: imu.edu.in

Kolkata Campus

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

- a) 2-year M.Tech (Marine Technology and Management) (Newly Introduced)
- b) 2-year MBA (International Transportation & Logistics Management).
- c) 4-year B.Tech (Marine Engineering)

Contact Address

Indian Maritime University,
Kolkata Campus P – 19,
Taratalla Road,
Kolkata - 700 088
Tel: (033) 2401 4673 / 76 & 78
Fax: 2401 4333.
Indian Maritime University,
Indian Institute of Port Management,
Subhas Bhavan,
2nd Floor,
40, Circular Garden Beach Road,
Kolkata - 700 043.

Tel: (033) 2439 4123/4124 Fax: (033) 2439 7179 / 0097

E-mail: director.kolkata@imu.ac.in Website: http://www.merical.ac.in/

Mumbai Campus

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:

- a) 2-year M.Sc (Commercial Shipping and Logistics) (Newly Introduced)
- b) 1-year PG Diploma in Marine Engineering (Admission is done in the month of January each year).
- c) 4-year B.Tech (Marine Engineering).
- d) 3-year B.Sc (Nautical Science).
- e) 3-year B.Sc (Maritime Science).
- f) 1-year DNS leading to B Sc.(Applied Nautical Science)

Contact Address:

Indian Maritime University
Palm Beach Road Campus,
Karave,
Nerul,
Navi Mumbai - 400706
Tel: (022) 27703876/27701935

Fax No.: (022) 27700398

Indian Maritime University, Hay Bunder Road Campus, Mumbai- 400033

Tel: (022)23719932/35/36/40/4 1/44/46/23723577 / 23774261, 23725987

Fax No.: (022) 23739784/23753151 E-mail:director.mumbai@imu.ac.in

Visakhapatnam Campus









Indian Maritime University-Visakhapatnam Campus was previously known as National Ship Design Research Centre (NSDRC). Work on the construction of new Campus buildings in Sabbavaram Village near Visakhapatnam in 110-acre plot of land is ongoing.

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.

Contact Address:

Indian Maritime University

Visakhapatnam Campus,

PO Gandhigram, Visakhapatnam-530 005.

Tel: (0891) 2578360/64 Extension 228 or 220, Direct (0891) 2577247,

Fax: (0891) 2577754

Email: <u>director.vizag@imu.ac.in</u>
Website: <u>www.imuv.edu.in</u>

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

Form of certificate to be produced by Scheduled Caste and Scheduled Tribe candidates who apply for admission to IMU at the time of Certificate Verification.

1. This is to certify that Shri/ Shrimati/ Kumari*	son/daughter* of
of Village/Town*	District/Division*
of State/Union Territory*	belongs to the
Scheduled Caste / Scheduled Tribe* under: -	
* The Constitution (Scheduled Castes) Order, 1950	
* The Constitution (Scheduled Tribes) Order, 1950	
* The Constitution (Scheduled Castes) (Union Territories) Order,	1951
* The Constitution (Scheduled Tribes) (Union Territories) Order, 1951 Scheduled Castes and Scheduled Tribes Lists (Modification Order) Reorganisation Act, 1960, the Punjab Reorganisation Act, 1966, the Pradesh Act, 1970, the North Eastern Areas (Reorganisation) Act, Castes and Scheduled Tribes Orders (Amendment) Act, 1976 and the Scheduled Tribes Orders (Amendment) Act, 2002]	1956, the Bombay ne State of Himachal 1971, the Scheduled
st The Constitution (Jammu and Kashmir) Scheduled Castes Order, 1956	;
* The Constitution (Andaman and Nicobar Islands) Scheduled Trib amended by the Scheduled Castes and Scheduled Tribes Order (Amend	
st The Constitution (Dadara and Nagar Haveli) Scheduled Castes Order, 1	1962;
st The Constitution (Dadara and Nagar Haveli) Scheduled Tribes Order, 1	962;
* The Constitution (Pondicherry) Scheduled Castes Order, 1964;	
* The Constitution (Uttar Pradesh) Scheduled Tribes Order, 1967;	
st The Constitution (Goa, Daman and Diu) Scheduled Castes Order, 1968	3;
* 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;	
st 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 Certificate issued to Shri/ Shrimati* father/ mothe Kumari* of Village /Town* in District/ Divis State/ Union Territory* who belong to the Caste / Tribe as a Scheduled Caste / Scheduled Tribe* in the State / Union Territory by the dated	er*of Shri/ Shrimati/ ion*of the * which is recognised
3. Shri/ Shrimati/ Kumari * and / or* his / his reside(s)** in 7 Village/Town* of of the State Union Territory* of Signature: (with seal of the Office)	

Name and Designation $__$		_
Place:	_ State/Union Territory*	
Date:	_	

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 (Lakshdweep Island).
- 6. Certificate issued by any other authority will be rejected.

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

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

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

This is to certify that Shri / Sr	nt. / Kum*	
Son /Daughter* of Shri / S	5mt.*	of
Village/Town*	District/Division*	
in the	State belongs to the	
community which is recognize	d as a hackward class under	

- Resolution No. 12011/68/93-BCC(C) dated 10/09/93 published in the Gazette of India Extraordinary Part I
- ii. Section I No. 186 dated 13/09/93.
- iii. Resolution No. 12011/9/94-BCC dated 19/10/94 published in the Gazette of India Extraordinary Part I Section
- iv. I No. 163 dated 20/10/94.
- v. Resolution No. 12011/7/95-BCC dated 24/05/95 published in the Gazette of India Extraordinary Part I Section
- vi. I No. 88 dated 25/05/95.
- vii. Resolution No. 12011/96/94-BCC dated 9/03/96.
- viii. Resolution No. 12011/44/96-BCC dated 6/12/96 published in the Gazette of India Extraordinary Part I Section
- ix. I No. 210 dated 11/12/96.
- x. Resolution No. 12011/13/97-BCC dated 03/12/97.
- xi. Resolution No. 12011/99/94-BCC dated 11/12/97.
- xii. Resolution No. 12011/68/98-BCC dated 27/10/99.
- xiii. Resolution No. 12011/88/98-BCC dated 6/12/99 published in the Gazette of India Extraordinary Part I Section
- xiv. I No. 270 dated 06/12/99.
- xv. Resolution No. 12011/36/99-BCC dated 04/04/2000 published in the Gazette of India Extraordinary Part I
- xvi. Section I No. 71 dated 04/04/2000.
- xvii. Resolution No. 12011/44/99-BCC dated 21/09/2000 published in the Gazette of India Extraordinary Part I
- xviii. Section I No. 210 dated 21/09/2000.
- xix. Resolution No. 12015/9/2000-BCC dated 06/09/2001.
- xx. Resolution No. 12011/1/2001-BCC dated 19/06/2003.
- xxi. Resolution No. 12011/4/2002-BCC dated 13/01/2004.
- xxii. Resolution No. 12011/9/2004-BCC dated 16/01/2006 published in the Gazette of India Extraordinary Part I
- xxiii. Section I No. 210 dated 16/01/2006.
- xxiv. Resolution No. 12011/14/2004-BCC dated 12/03/2007 published in the Gazette of India Extraordinary Part I
- xxv. Section I No. 67 dated 12/03/2007.
- xxvi. Resolution No. 12015/2/2007-BCC dated 18/08/2010.

xxvii. 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 & Train	ing O.M.
No.36012/22/93-Estt.(SCT) dated 08/09/93 which is modified vide OM No. 3603	3/3/2004
Estt.(Res.) dated 09/03/2004, further modified vide OM No. 36033/3/2004-Est	tt. (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 Tehsildar' and Sub-Divisional Officer of the area where the candidate and / or his family resides.

