STUDENTS HANDOUT - 2016
B.Sc. SHIP BUILDING & REPAIR

Affiliated To
भारतीय समुद्री विश्वविद्यालय
INDIAN MARITIME UNIVERSITY
(A Central University, Government of India)
Established by an Act of Parliament In 2008
Preface

B.Sc. Ship Building & Repair (B.Sc.–SBR) Course was introduced by Indian Maritime University in the year 2010 for the first time in the country after carefully assessing the needs of the industry.

The course is structured scientifically to help the students to derive maximum benefit and in turn the Industry.

The Ship Building and Repair Industry is facing severe shortage of qualified and knowledgeable technicians, supervisors and Engineers for various activities.

The course imparts sufficient theoretical classes complimented by equally important practical sessions. The course is divided into six semesters each of six month duration.

COLLEGE OF SHIP TECHNOLOGY is affiliated to Indian Maritime University as a service provider / facilitator for imparting tuition and practical at its well manned Campus and Workshops. The students will be required to take part in PT and sports for his all-round development.

Hostel facilities are included in the programme for those are willing to opt for the same.

The Principal and the Faculty whole heartedly welcome all the B.Sc. (SBR) students to the Campus of College of Ship Technology which will open up new vista for their growth and development.

Dr. P.K. Balasubramanian
Chairman
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1. INTRODUCTION TO THE SHIPBUILDING

Shipbuilding industry is a specialised and customised industry. Due to its inherent nature, the ship building activities cannot be automated beyond a certain limit. Every ship at the building stage is a new project with wide range of variables and implications. The execution part needs meticulous planning and implementation. The knowledge base of managers and skill set of workers play a very important role in the output of the finished Ship. In order to achieve a reasonable level of output and productivity compared to the International ship building standards, Indian shipyards have to work to improve on several more fronts. One of the identified areas of concern is the knowledge and ability of the Ship Building Crew in understanding the processes and sequence of ship building activities from concept, design, planning, procurement, execution and delivery.

2. THE TRUST & THE PROMOTER

Realising the current global scenario of the phenomenal growth of Ship Building / Ship Repairs & Marine related industries and with a view to fulfill the inadequate availability of specially trained professional / technicians for Ship Building and repair activities, the Managing Trustee of Trust, Dr. P.K. Balan, obtained Doctorate in Naval Architecture & Ocean Engg. from well known university in USA, a Qualified Shipwright with specialisation in Naval Architecture and Ship Yard practice launched College of Ship Technology (formerly Chami Vadhyar Marine Technology Centre). Dr. Balan with his Techno-Entrepreneur skills founded and promoted a medium sized private shipyard which plays an active role in fulfilling partly the needs of the energy sector by constructing Off-Shore Vessels. He is an elected member of Royal Institute of Naval Architects, UK, Society of Naval Architects and Marine Engineers, USA, Institution of Marine Engineers, India. He is also a Technical Committee Member of Lloyds Register of Shipping and Indian Register of Shipping.

3. COLLEGE OF SHIP TECHNOLOGY (CST)

College of Ship Technology (CST) is an educational Institution currently focusing and imparting Marine courses related to Ship Building and Ship Repair. College of Ship Technology commenced its operation in July 2007. CST was offering DET NORSKE VERITAS, NORWAY approved three year courses such as Certificate in Shipwright, Diploma in Ship Building & Ship Repairs, Post Graduate Certificate course in SBR for B.Tech. Graduates. The college is affiliated to INDIAN
MARITIME UNIVERSITY for B.Sc. SBR program from 2010 onwards. College is approved by Govt. of Kerala and first time in India, a govt. approved technician course in shipbuilding & repair under Kerala Government Certificate Examination – SHIPWRIGHT CERTIFICATE – a 2 year course (in 4 semesters) with specializations

The Campus is managed by professionals drawn from Indian Navy, Indian Coast Guard, and Marine & Off-shore industry with a total of over 300 man-years of experience The syllabus is drawn as per the Marine / Ship Building industry’s current demand. The theory comprises of technical subjects, complimented with practical training at college workshop and advanced on-job training in specified Shipyards.

AIM

The aim of the College is to develop multi-tasking marine technicians and professionals to cover the needs of the various ship building activities.

4. COLLEGE ADDRESS

College of Ship Technology,
Poomjamthodi, Manappadam.
P.O: Puthcode, Palakkad – 678 687,
Kerala, India
Telephone: 04922 267200
Student Counselor : 04922 267 200 (Morning 09.30 AM to 04.00 PM)
Administrator : 09447437454

5. FACILITIES

CST was established in a greenery location of Puthcode village in the AlathurTaluk, which is easily accessible from Palakkad and Trichur by Road. The Campus, based on the modern design, has sufficient class rooms and other facilities including well equipped workshops and library. The Campus has a total built up area of around 30000 square feet, with in-house Tool Rooms, Library, Modern workshop, Playground, Canteen etc.

Hostel facilities complimented with hygienically prepared Vegetarian food is available.
6. **B.Sc. SBR PROGRAMME.**

Ship Building is a combination of art and science. But there are a number of important factors to be considered in ship building. Therefore, the curriculum includes types of ships, materials, welding and cutting, ship structure, outfitting, design(concept, preliminary, contract), dimensions, displacement, stability, propulsive characteristics, Hull form, general arrangement, structural details, prefabrication, shell plating, framing, decks, Hatches superstructure, tanker construction, pumping, piping, painting, corrosion control, ventilation, refrigeration, testing, launching, international regulations and shipyard layout etc. Training is provided in well-equipped workshop manned by able and experienced trainers. Training are also imparted at select shipyards, repair firms etc.

7. **Careers:**

They will start the career in junior level management positions in Shipyards, Design as Supervisors in Design, well as Production and Repair Department etc.

8. **Prospects:**

The advantage is that the students are more professionalized with practical training while being attached to the designated shipyards. The B.Sc. students get more opportunity to understand yard practices, thereby gains more confidence to work in design or ship production department independently. This course is therefore more preferred by the industry.

**Employment Potential:** The course curriculum covers industry requirement for employment in *Ship Yards and Marine related industries* such as Oil & Gas, Offshore, Ports & Harbours, and Classification Societies etc. in India and abroad.

**EMPLOYABILITY**

- Shipyard
- Indian Navy
- Indian Coast Guard
- Design Organisations
- Offshore Industry
- Oil Industry
- Marine Equipment Manufacturing & Servicing companies
- Own Enterprises
SHIPYARD
- Quality Inspector
- Hull Fabrication In Charge
- Piping Section In Charge
- Outfitting In Charge
- Electrical Outfitting In Charge
- Specialist In Electrical Propulsion
- In Charge Of Ship Repair Section

DESIGN OFFICE
- Designer
- As Naval Architect with consultant Naval Architect

OFF SHORE INDUSTRY & OIL INDUSTRY
- Maintenance Engineer in Semisubmersible Drilling plat Forms
- Maintenance Engineer in FPSO
- Oil Industry

EQUIPMENT MANUFACTURER
- Production Engineer in Workshops / Office
- Engineer in Charge for Erection on board
- Service Engineer

AFTER TWO YEARS OF EXPERIENCE
- Own Enterprise for Equipment Manufacturing & Supply to Shipyards and Companies
- Contract jobs for Block Fabrication in Shipyards
- Contract jobs for Ship Repair in Shipyards
- Start own Shipyard/ Ship repair yard

9. Skill & Attitude

The students are expected to
- Maintain good time-keeping
- Maintain good attendance
- Maintain a tidy workplace
- Follow instructions and Seek advice when required
- Work co-operatively with others as a team member
- Sourcing and use of tools in a correct and safe manner
- Using tools solely for the purpose for which they are designed
- Clean and store tools correctly after use
- Recognise common materials and understand its usability
- Show health and safety awareness
- Wear appropriate personal protective equipment and uniform
- Prepare and plan to carry out assigned tasks
- Follow basic drawings and specifications
- Check own work for specification and quality
- Identify learning points from practical experiences and keep records.

10. **Attendance & Discipline**

   (i) Since the College lays great emphasis on blending theory with practical, full attendance is expected from all students both in theory and practical sessions. The teaching methodology necessitates 100% attendance for training of students. Students should be committed to 100% attendance, concentrate in classrooms and take studies, homework, assignments and tests seriously with regular daily study. Attendance is factored in the assessment of semester end results of students.

   (ii) 90% attendance is compulsory according to rules. Students will be disqualified from appearing in examination if their attendance is below 90%. The empowered committee however can grant special leave in exceptional cases taking into consideration of the student’s previous records and performance.

   (iii) Absence without leave is considered a breach of discipline. Students will be awarded zero mark if he absents himself during the conduct of any internal assessment.

   (iv) On admission, every student must obtain an identity card which must be produced on demand by security personnel, the Librarian for use of library facilities, the cashier at the time of payment of any dues, and faculty members during the theory and practical classes/ examinations/ tests or by the staff of the College at any time.

   (v) The College believes that maintaining self-discipline is part of the educational process. Students are responsible for their own conduct. They are, therefore, responsible for any damages they may cause to the College’s property directly or indirectly.

   (vi) No student shall do anything inside or outside the College that will hinder the College orderly administration, peace and discipline.

   (vii) No association shall be formed in the College and or Hostel and no person shall be invited to address any meeting without the permission of the Principal.

   (viii) No student shall communicate or pass on any information to or write about matters relating to the College Administration to the press or media.
(ix) The College reserves the right to terminate a student’s enrollment or to deny enrollment when it is judged to be in the best interest of the student or the College. The Principal’s decision will be unquestionable in such matters and shall be final and binding on the student.

11. RAGGING
As per the directions of the Supreme Court, UGC / IMU has issued a public notice to ensure that ragging does not take place in Campus of any College or at Hostel premises in any form. Every student should note that if any such cases are detected, necessary action will be taken by the College Management including termination of enrolment, denial of readmission and reporting to the Law and Order authorities. Once terminated, the student will forfeit his caution deposit and the right to claim any compensation in any form, but will be liable to pay damages to the affected. College will further reserve its rights to claim damages and compensation from the terminated student therefore, students are warned not to indulge in ragging in any form what-so-ever. Parents are requested to understand this requirement and guide the student accordingly.

12. DISCIPLINE
It should be noted by the student and the parent/guardian that the management will not tolerate.

Indisclipline
Irregular attendance
Carelessness and indifference to studies and to practical work
Usage of Tobacco in any form including smoking, chewing pan, snuffing etc
Usage of drugs & alcohol in any form
Indulging in political and unlawful activities
Causing damage to College’s property and reputation

Students indulging in any of the above activities at the Campus or at the hostel or at the place of practical training will be immediately and summarily terminated forfeiting his and all other rights to claim any compensation. In such cases, College will reserve its rights to claim damages and compensation from the student. Parents are requested to understand this requirement and guide the student accordingly.
13. Class & Hostel timings

5.55 AM : Lights ON
6.00 AM : Wake-up
6.30/6.35 AM : Morning Drink
6.45/7.45 AM : PT – Compulsory
7.50/8.20 AM : Bath
8.20/8.40AM : Breakfast
8.50 A.M : All students to be in their class seats
8.55 AM : Meditation
9.00 AM : Class Commences (See time table)
11.20/11.30 AM : Break
1.00 /01.30 PM : Lunch
3.50/3.55 PM : Break
5.00 P.M : End of day session
5.15 PM/6.20 PM : Sports
6.30 PM/7.00 PM : Dinner
7.30/9.30 PM : Study
9.35 PM : Bed time
9.45 PM : Lights OFF

All Students to abide by following in the campus and in the hostel

Dress Code:
- Monday to Friday students to wear Boiler suit.
- Saturday students to wear uniform.

Food: Nutritious Vegetarian food will be served.
14. Route Map to College

For directions Pls. Contact Dr. Govindan. Soman - Principal: 09746174962
15. For ID Card

PL RETURN WITH INFORMATIONS

Name
Permanent Address
Blood group
Height
Identification Mark
Course
Batch
Name of Parent
Telephone No.(Resi)
Mobile No.(Parent)
PP size Photo : 3 Nos.in colour

Signature :
16. **Uniform measurement – I Batch B.Sc SBR**

(Pl return with informations)

![Uniform Measurement Diagram]

**NAME:**

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<th>Toe to Hip</th>
<th>Toe to Inner Hip</th>
<th>Chest</th>
<th>Shoulder to Wrist</th>
<th>Shoulder</th>
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