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INSTITUTE OF SCIENCE, TECHNOLOGY & ADVANCED STUDIES (VISTAS)
(Deemed to be University Estd. u/s 3 of the UGC Act, 1956)
PALLAVARAM, THALAMBUR, PERIYAPALAYAM, THIRUVANMIYUR - CHENNAI

GRADED AS CATEGORY 1 INSTITUTION BY UGC

SCHOOL OF MARITIME STUDIES



WHO WE ARE

School of Maritime Studies, V**els Institute of Science, Technology & Advanced Studies (VISTAS)**, is one of India's premier maritime institutions committed to providing quality education, professional training, and industry-oriented learning for aspiring maritime professionals. Located at Thalambur campus in Chennai, the school offers a unique blend of academic excellence, practical training, and global industry exposure.



"Your Vision, Our Mission – Navigating Towards a Successful Maritime Future."

PROGRAMMES OFFERED

01 B.E. MARINE ENGINEERING

02 B.SC NAUTICAL SCIENCE

03 GRADUATE MARINE ENGINEERING (GME)

04 PRE SEA TRAINING FOR DIPLOMA HOLDERS (DME)

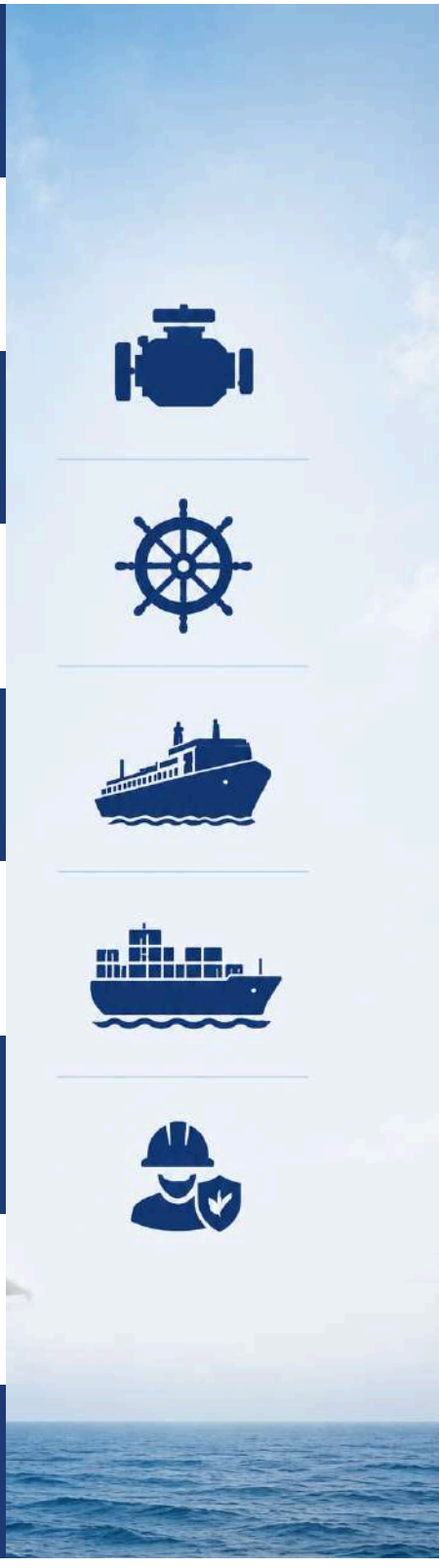
05 ADVANCED DIPLOMA IN NAUTICAL SCIENCE (ADNS)

06 B.TECH. NAVAL ARCHITECTURE & OFFSHORE ENGINEERING

07 BBA MARITIME LOGISTICS

08 B.SC INDUSTRIAL SAFETY & DISASTER MANAGEMENT

09 DIPLOMA IN MARINE ENGINEERING



B.E MARINE ENGINEERING



The four-year **B.E. Marine Engineering** programme, approved by the Directorate General (DG) Shipping, Government of India, is designed to prepare candidates for the Class IV Marine Engineer Officer Certificate of Competency awarded by the Government of India. The programme is strictly residential.

Eligibility Criteria : A pass in 10+2 or its equivalent examination with minimum 60% aggregate in Physics, Chemistry and Mathematics group, and at least 50% in English in 10th or12th Standard. Relaxation of 5% in PCM for SC/ST & Qualified in IMUCET

Medical Standard : Candidate should be physically fit for sea service as per DG Shipping norms, with minimum unaided vision 6/12 in each eye, and with no colour blindness.

Age: Max 25 years on the date of commencement of the course.

SEMESTER I

- Mathematics - I
- Electrical Engineering Basics
- Engineering Drawing
- Practical - Electrical Engineering Basic
- Technical English
- Workshop Technology
- Engineering Mechanics
- Practical - Applied Mechanics
- Computer Science
- Practical - Basic Workshop - I

SEMESTER II

- Mechanics Of Materials
- Mathematics - II
- Materials Science - I
- Marine Machinery Drawing - I
- Practical - Safe Working Practices
- Pumps And Pumping Systems - I
- Thermodynamics - I
- Practical - Hydraulics
- Practical - Strength Of Materials
- Practical - Basic Workshop - II

SEMESTER III

- Electric Motors And Starters - I
- Electronics - I
- Material Science – II
- Marine Machine Drawing - II
- Deck Machinery
- Thermodynamics - II
- Practical - Electrical Machines - I
- Practical - Electronics - I
- Practical - Advanced Marine Workshop(Deck/M/C)

SEMESTER IV

- Electric Motors And Starters - II
- Electronics - II
- Thermal Engineering
- Safe Maintenance On Ships
- Marine Auxiliary Machinery
- Practical - Electrical Workshop - Motors / Starters
- Practical - Electronics - II
- Practical - Advanced Marine Workshop (MAM I)
- Lube Oil, Fuel Oil And Cooling Systems

SEMESTER V

- Marine Internal Combustion Engineering - I
- Control Systems For Marine Machinery
- Marine Engineering Practice - I
- Marine Electrical Technology - I
- Marine Environmental Pollution Control
- Seamanship And Commercial Geography
- Practical - Seamanship
- Practical - Advanced Marine Workshop (MEP I)
- Practical - Anti-Pollution Lab (In Advanced Mar W/S)
- Practical - Control Engineering

SEMESTER VI

- Marine Internal Combustion Engineering – II
- Ship Construction
- Refrigeration, Air-Conditioning And Ventilation Systems
- Marine Electrical Technology – II
- Naval Architecture – I
- Mechanics Of Machines
- Practical - Advanced Marine Workshop - Refrigeration And Airconditioning Trainer
- Practical - Electrical Lab Ii And Electrical Workshop
- Practical - Ship-In-Campus - Diesel Engine
- Practical - Ship-In-Campus - Ship Construction

SEMESTER VII

- Marine Power Plant Operation
- Monitoring And Protection Of Electrical Systems
- Electrical Testing And Measuring Equipment
- Pumps And Pumping Systems II
- Marine Engineering Practice II
- Naval Architecture – II
- Practical - Advanced Marine Workshop (MEPII)
- Practical - Advanced Marine Workshop (Electrical)
- Practical - Ship - In - Campus (Pumps And Auxiliaries)
- Practical - Ship - In - Campus (Watch - Keeping)
- Practical - Control Engineering

SEMESTER VIII

- Fire Prevention, Fire - Fighting And Life - Saving Appliances
- Marine Boilers And Steam Engineering
- Elementary Design Of Marine Machinery
- Marine Engineering Practice - III
- Leadership, Team - Building And Ship Security
- Engine Room Resources Management
- Maritime Legislation
- Practical - Marine Engineering Practice - III - Simulator Lab
- Practical - Marine Machinery Start-Up (S-I-C)
- Practical - Boiler Shop
- Practical - Fire - Fighting / Life - Saving Appliances Lab
- Practical - Communication Lab

NOTE : IMUCET RANK MANDATORY

B.Sc NAUTICAL SCIENCE



B.**Sc. Nautical Science** is a 3-year residential programme offered by Vels School of Maritime Studies and approved by the Directorate General of Shipping (DG Shipping), Government of India. The course provides comprehensive maritime education and practical training, preparing students for careers as Navigating Officers on merchant ships worldwide.

Eligibility Criteria : A pass in 10+2 or its equivalent examination with minimum 60% aggregate in Physics, Chemistry and Mathematics group, and at least 50% in English in 10th or12th Standard. Relaxation of 5% in PCM for SC/ST & Qualified in IMUCET

Medical Standard : Candidate should be physically fit for sea service as per DG Shipping norms, with minimum unaided vision 6/6 in each eye, and with no colour blindness.

Age: Max 25 years on the date of commencement of the course.

SEMESTER I

- Nautical Mathematics - I
- Nautical Physics – I
- English - I
- Professional Practice - I
- Practical - Nautical Physics & Electronics - I
- Practical - Ship Operation Technology - I
- Ship Operation Technology - I
- Discipline Specific Elective - I

SEMESTER II

- Nautical Mathematics – II
- Nautical Physics – II
- English - II
- Professional Practice - II
- Practical - Nautical Physics & Electronics – II
- Practical - Ship Operation Technology - II
- Ship Operation Technology - II
- Discipline Specific Elective - II

SEMESTER III

- Navigation - I
- Naval Architecture - I
- Practical - Voyage
- Planning - I
- Practical - Collision Prevention - I
- Practical - Navigation - I
- Practical - Ship Operation Technology - III
- Ship Operation Technology - III
- Discipline Specific Elective - III
- Physical Training
- Parade Practice

SEMESTER IV

- Navigation - II
- Naval Architecture - II
- Practical - Voyage Planning – II
- Practical - Collision Prevention - II
- Practical - Navigation - II
- Practical - Marine Engineering And Control Systems - I
- Seafarers Basic Rights And Human Rights At Sea - I
- Discipline Specific Elective - IV
- Physical Training
- Parade Practice
- Practical - Swimming
- Environmental Science

SEMESTER V

- Navigation - III
- Naval Architecture - III
- Practical - Voyage Planning - III
- Practical - Collision Prevention - III
- Practical - Navigation - III Ecdis
- Practical – Marine Engineering And Control Systems - II
- Seafarers Basic Rights And Human Rights At Sea - II
- Discipline Based Elective - V
- Discipline Based Elective - VI
- Physical Training
- Parade Practice

SEMESTER VI

- Bridge Procedure And Legal Knowledge
- Maritime Law
- Maritime Commerce
- Practical - Marine Communication
- Practical - Marine Engineering And Control Systems - III
- Practical - Bridge Simulator Training
- Discipline Specific Elective - VII
- Discipline Specific Elective - VII
- Generic Elective
- Physical Training And Parade Practice

NOTE : IMUCET RANK MANDATORY

GRADUATE MARINE ENGINEERING (GME)



The **Graduate Marine Engineering (GME)**, approved by DG Shipping, Ministry of Shipping, Government of India, is a course leading to Class IV Marine Engineer Officer Certificate of Competency , awarded by the Ministry of Shipping, Government of India, after six months of sea service, enabling the cadets to become Marine Engineers on board Merchant Naval ships anywhere in the world. This course is strictly residential.

Eigibility Criteria :

Academic Standards : B.E. or B.Tech Mechanical Engineering or Mechanical & Automation Engineering or Naval Architecture degree with minimum 50% marks in Final year. The candidate should have obtained atleast 50% in English at 10th or 12th std. or degree course

Boys & Girls are eligible to apply.

Age Limit : "Maximum 28 years on the date of commencement of the course." (Age relaxation for SC & ST as per DGS Guidelines)

Medical Standard : Candidate should be physically fit for sea service as per DG Shipping norms, with minimum unaided vision 6/12 in each eye, with no colour blindness.

NOTE: Valid Passport is Must for All Maritime Courses

PRE SEA TRAINING FOR DIPLOMA HOLDERS (DME)



The **Pre Sea Training for Diploma Holders (DME),** approved by DG Shipping, Ministry of Shipping, Government of India, is a course leading to Class IV Marine Engineer Officer Certificate of Competency, awarded by the Ministry of Shipping, Government of India, after six months of sea service, enabling the cadets to become Marine Engineers on board Merchant Naval ships anywhere in the world. This course is strictly residential.

Eigibility Criteria :

Academic Standards : Diploma in Mechanical / Marine / Electrical and Electronic Engineering / Naval Architecture / Electrical Engineering with minimum 50% marks in Final year.

The candidate should have obtained atleast 50% in English at 10th or 12th std. or Diploma course

Boys & Girls are eligible to apply.

Age Limit : "Maximum 28 years on the date of commencement of the course." (Age relaxation for SC & ST as per DGS Guidelines)

Medical Standard : Candidate should be physically fit for sea service as per DG Shipping norms, with minimum unaided vision 6/12 in each eye, and with no colour blindness.

NOTE: Valid Passport is Must for All Maritime Courses

ADVANCED DIPLOMA IN NAUTICAL SCIENCE (ADNS)



The first year of **Advanced Diploma in Nautical Science** course will be conducted at School of Maritime Studies, VISTAS, Chennai and the second year of study will be conducted at City of Glasgow College, UK. Phase 1 is of 45 weeks at School of Maritime Studies, followed by Phase 2 of 45 weeks at City of Glasgow College. Thereafter, 15 months of sea service is required to qualify for Deck Officer of the Watchkeeping Certificate of Competency examinations in the UK.

Eigibility Criteria :

Academic Standards : A pass in 10+2 or its equivalent examination with Physics, Chemistry and Mathematics subjects.

Age Limit : "Maximum 25 years on the date of commencement of the course."

Boys & Girls are eligible to apply.

Medical Standard : Candidate should be physically fit for sea service as per DG Shipping norms, with minimum unaided vision 6/6 in each eye, and with no colour blindness.

NOTE: Valid Passport is Must

B.TECH. NAVAL ARCHITECTURE AND OFFSHORE ENGINEERING



School of Maritime Studies offers the Four year **"B.Tech Naval Architecture and Offshore Engineering"**, course which is one among the most in-demand courses in the world. 90% of global trade is through shipping industry. Students looking for shore-based jobs in Maritime sector, are encouraged to join the course and become a qualified professional Naval Architect & Offshore engineer.

Eligibility Criteria

Academic Standards: Passed 10+2 examination with Physics/ Mathematics / Chemistry/ Computer Science/ Electronics/ Information Technology/ Biology/Informatics Practices/ Biotechnology/ Technical Vocational subject/ Engineering Graphics Obtained at least 45% marks (40% marks in case of candidates belonging to reserved category) in the above subjects taken together.

Age Limit Maximum 25 years

Course Type: Non-Residential

Eligibility: Both Male and Female candidates are eligible to apply.

SEMESTER I

- English for Engineers
- Engineering Physics – Mechanics of Solids
- Engineering Mathematics – 1
- Programming for Problem Solving
- Engineering Graphics & Design - Lab
- Physics Lab
- Programming for Problem Solving Lab
- Communication Skills - Lab
- Induction Program

SEMESTER II

- Engineering Chemistry
- Engineering Mathematics – II
- Marine Electrical Technology
- Environmental Science and Engineering
- Chemistry Lab
- Marine Electrical Lab
- Marine Workshop Practices
- Gender Sensitivity

SEMESTER III

- Engineering Mathematics – III
- Fluid Mechanics
- Strength of Materials
- Basic Ship Theory
- Thermodynamics and Marine Machinery
- Basics of CADD Software - Lab
- Strength of Materials - Lab
- Ship Design Calculation Drawing & Drafting I
- Personality Development - I
- Ethics and Human Values

SEMESTER IV

- Theory of Structures
- Hydrodynamics, Resistance & Propulsion of Ships
- Strength of Ships
- Fundamentals of Offshore Structures
- Ship Design Software - Modelling & Analysis
- Ship Design Calculation Drawing & Drafting - II
- Marine Engineering Lab
- Ship In Campus - VISIT
- Personality Development - II
- Industrial Safety

SEMESTER V

- Ship Design
- Ship Production I
- Advanced Offshore Engineering
- Marine Materials and Metal Joining Techniques
- Professional Elective I
- Generic Elective I
- Seamanship and Fire Fighting Lab
- Ship Design Calculation Drawing & Drafting – III
- Ship Design Software - Structural Strength
- Ship Design Project - Phase - I

SEMESTER VI

- Sea Keeping and Maneuvering
- Ship Structural Design and Vibration
- Offshore Structural Design
- Ship Production II
- Professional Elective II
- Generic Elective II
- Offshore Design Software
- Ship Design Calculation Drawing & Drafting – IV
- Ship Design Project - Phase - II

SEMESTER VII

- Ship Conversion Technology
- Construction of Offshore Structures
- Finite Element Analysis
- Standards and Recommended Practices
- Professional Elective III
- Generic Elective III
- Shipyard Training
- Mini Project

SEMESTER VIII

- Port Design and Infrastructure
- Professional Elective IV
- Generic Elective IV
- Major Project / Industry

BBA MARITIME LOGISTICS



BBA Maritime Logistics programme is designed to prepare students for exciting careers in this dynamic and rapidly growing sector. The programme provides comprehensive knowledge in shipping management, port operations, freight forwarding, supply chain management, customs clearance procedures, international trade practices, and logistics operations.

Eligibility Criteria

Academic Standards: A pass in 10 + 2 (any stream).

Day scholar Course.

Age Limit : Maximum 25 years on the date of commencement of the course.

Both Male and Female candidates can apply.

SEMESTER I

- Introduction To Shipping
- Shipping Business
- Business Communication English
- Mathematics
- Basics of Electronics
- Introduction To Computer Science

SEMESTER II

- Economics of Sea Transport and International Trade
- Legal Principles in Shipping Business
- Business English
- Environmental Science
- Advanced Programming Language
- Principles of Management

SEMESTER III

- Introduction to Logistics
- Ship Operations & Management
- Management Information System
- Introduction to Entrepreneurship
- Investment Analysis
- Introduction to Web Designing

SEMESTER IV

- Marine Insurance
- Shipping Finance
- EXIM Documentation
- Introduction to Marine Engineering
- English Communication Skill
- Total Quality Management

SEMESTER V

- Port & Terminal Management
- Supply Chain Management
- Project Management
- Introduction to Data Science
- Strategic Management
- Brand Management

SEMESTER VI

- Project Work
- Ship Operation Technology
- Maritime Safety & Security
- Introduction to Ecommerce
- Digital Marketing

B.SC INDUSTRIAL SAFETY & DISASTER MANAGEMENT



The three-year **B.Sc Industrial Safety and Disaster Management** course is offered by School of Maritime Studies, to cater the need of safety officers in various organizations & large scale industries such as oil and gas Industries, shipyards, MNC Construction sites, etc., to maintain the safety standards as per National and International Rules and Regulations.

Eigibility Criteria
Academic Standards: A pass in 10 + 2 (any stream).

Day scholar Course.

A**ge Limit :** Maximum 25 years on the date of commencement of the course.

Both Male and Female candidates can apply.

SEMESTER I

- English for Communication
- Applied Mathematics
- Applied Chemistry
- Fundamentals of Industrial Safety and Disaster Management
- Discipline Specific Elective - I
- Human Factors, Psychology and Ergonomics
- Industrial Safety Practices
- Universal Human Values
- Orientation Programme

SEMESTER II

- Technical English and Safety Documentation
- Applied Physics
- Occupational Health and Industrial Hygiene
- Disaster Risk Reduction and Climate Hazards
- Discipline Specific Elective - II
- Industrial Safety Laws and Compliance
- Soft Skills and Personality Development
- Basic Emergency Response
- Industrial Hygiene and Hazard Monitoring

SEMESTER III

- Safety Engineering and Accident Prevention
- Industrial Process Safety and Hazard Control
- Emergency Planning and Disaster Response Management
- Industrial Incident Analysis and Safety Control
- Discipline Specific Elective - III
- Safety Codes Standards Practices
- Indian Knowledge System
- Hazard Identification and Risk Assessment
- Personal Safety Techniques

SEMESTER IV

- Fire Prevention and Protection Systems
- Industrial Safety Management Systems
- Disaster Mitigation and Preparedness Planning
- Safety Audits, Risk Assessment and Loss Control
- Discipline Specific Elective - IV
- Safety Guidelines and Legal Frameworks
- Life-Saving Appliances and Water Survival
- Fire Fighting Mock-up and Fire Safety Drills

SEMESTER V

- Advanced Disaster Management and Governance
- Natural Disasters: Causes, Impact and Management
- Man-Made and Industrial Disasters
- Disaster Response, Relief and Rehabilitation
- Discipline Specific Elective - V
- Disaster Management Codes Standards Practices
- Confined Space Entry and Permit-to-Work
- Emergency Response and Search and Rescue Techniques

SEMESTER VI

- Industrial Safety and Disaster Operations Technology
- Disaster Safety, Security and Risk Governance
- Introduction to Safety Analytics and Digital Systems
- Discipline Specific Elective - VI
- Digital Tools and Professional Practices for Safety Managers
- Integrated Emergency Management Simulation
- Safety Audit and Compliance Assessment
- Project Work

DIPLOMA IN MARINE ENGINEERING



Diploma in Marine Engineering is a 3-year (6 semesters) AICTE-approved programme offered by Vels School of Maritime Studies, VISTAS, Chennai. The course provides students with strong technical knowledge and practical training in marine engineering, ship machinery, electrical systems, maintenance, and marine safety. Through a blend of classroom learning and hands-on workshop training, students are prepared for rewarding careers in the maritime, shipping, and offshore industries.

Eligibility Criteria

Regular :

A pass in 10th or its equivalent examination.

Age: Max 20 years on the date of commencement of the course.

Lateral:

A pass in 12th or its equivalent examination.

Day scholar Course.

Both Male and Female candidates can apply.

SEMESTER I

- Communication English - I
- Engineering Mathematics - I
- Engineering Physics - I
- Engineering Chemistry – I
- Engineering Graphics – I
- Engineering Physics – I (Practical)
- Engineering Chemistry – I (Practical)

SEMESTER II

- Communication English – II
- Engineering Mathematics - II
- Engineering Physics – II
- Engineering Chemistry – II
- Engineering Graphics – II
- Engineering Physics –II(Practical)
- Engineering Chemistry – II (Practical)
- Basic Workshop (Practical)

SEMESTER III

- Marine Strength of Materials andFluid Mechanics
- Marine Workshop Technology – I
- Ship Construction Technology
- Marine Strength of Materials andFluid Mechanics (Practical)
- Marine Workshop Technology – I (Practical)
- Ship Construction Technology (Practical)
- Computer Applications (Practical)

SEMESTER IV

- Marine Workshop Technology – II
- Personal Safetyand Social Responsibilities
- Marine Engineering Drawing
- Electrical Drives &Control
- Marine Workshop Technology – II (Practical)
- Computer AidedMarine Engineering Drawing (Practical)
- Electrical Drives &Control (Practical)

SEMESTER V

- Marine Thermodynamics
- Marine Diesel Engineand Power Plant
- Naval Architecture
- Navigation and Oceanography
- Seamanship and Commercial Geography
- Marine DieselEngine and PowerPlant (Practical)
- Navigation and Meteorology (Practical)
- Life and Employability Skill (Practical)

SEMESTER VI

- Marine Auxiliary Machinery
- Personal Survival Techniques
- Rule of theRoad
- Marine Welding Technology
- Marine Auxiliary Machinery (Practical)
- Marine Welding Technology (Practical)
- Project Work



SCHOOL OF MARITIME STUDIES



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