

## Faculty of Marine Engineering Feedback Report (2023-24)

**Date:** 01.07.2024

The Department of Marine Engineering is dedicated to meeting the contemporary needs of society through a commitment to Value-Based Education, as outlined in its mission statement. In the Academic Year 2018-19, SVCE implemented Outcome-Based Education (OBE) and the Choice Based Credit System (CBCS). The Department of Marine Engineering developed a meticulously structured curriculum that aligns with global requirements and encompasses essential fundamentals. In 2022, a new regulation was introduced with major provisions such as honors, minor degrees, and student exchange programs with foreign universities.

This commitment is reflected in the articulation of graduate attributes, Course Outcomes (CO), Programme Outcomes (PO), and Programme Specific Outcomes (PSO). Valuable insights from internal and external stakeholders, including industry experts, academia, students, alumni, and parents, play a pivotal role in shaping the curriculum through feedback analysis reports. Additionally, the department actively seeks input from the Board of Studies and International Peers to anticipate, identify, and incorporate diverse needs in the curricula and syllabi.

The establishment of the Board of Studies (BoS), featuring representation from academia, alumni, and industries, underscores the department's collaborative approach to curriculum development. Committees such as the Department Advisory Committee (DAC) and Programme Assessment Committee (PAC) further contribute to the comprehensive assessment and enhancement of educational programs.

Adhering to the mandatory courses specified by the DG Shipping, Government of India, the department continually evolves to incorporate new trends and topics in marine engineering, responding to technological advancements and the changing landscape of machine manufacturing in the maritime industry. Given the nature of marine engineering involving sea-crafts and related mechanical works in seaports, the curriculum is regularly updated to include contemporary subjects and practices.



## Emerging Trends in Marine Engineering

The current emphasis and emerging trends in marine engineering revolve around the integration of robots and the utilization of solar and wind power in ship manufacturing and port management. The future trajectory of the department includes integrating concepts and applications of robotic technologies to enhance the efficiency and effectiveness of seaport management and marine craft operations.

## Student Feedback (2023-2024)

S.No.	Attributes	Average Score on 5 Point Scale	Reference
1	The course is relevant to the current industry needs.	Excellent	Feedback Analysis for the year 2023-24
2-6	Fulfilment of Course Outcomes	Excellent	
7	Course enhanced my ability to formulate, analyse and solve problems	Very Good	
8	Course imparted sufficient technical skills which will help in placement and higher studies	Very Good	
9	Appropriate textbooks and reference books were quoted and were available in the library	Excellent	
10	Continuous Assessments (Test, Assignment, MCQ, etc) are relevant to the COs and are effective	Excellent	

### Key Observations:

- Mean scores of students' responses consistently fall above 4 or close to 5.
- Highest mean scores were observed for the relevance of the course to current industry needs, technical skill impartation, and effectiveness of continuous assessments.
- Areas with slightly lower scores include enhancing problem-solving abilities and technical skills relevant to placement and higher studies.



### Faculty Feedback (2023-24)

S.No	Attributes	Average Score on 5 Point Scale	Reference
1	Is the course relevant for the program?	Excellent	Feedback Analysis for the year 2022-23
2	Is the allocation of the credits to the course appropriate?	Excellent	
3	Are the course outcomes well defined and clear to the teachers and the students?	Excellent	
4	Is the course content adequate in relation to the Course Outcomes (COs)?	Excellent	
5	How is the scope for the use of modern / ICT tools and for improved learning?	Excellent	
6	Are appropriate textbooks and reference books quoted and are available in the library?	Excellent	
7	How well is the course evaluation scheme designed?	Excellent	
8	Does the course content enable Participatory Learning?	Excellent	
9	Is the course duration adequate?	Excellent	
10	Overall satisfaction	Excellent	

#### Key Observations:

- Faculty members expressed high satisfaction with the curriculum, with mean scores consistently approaching 5.
- Slight deviation observed in the parameter concerning the scope for the use of modern/ICT tools for enhanced learning.

S. S.





### Alumni Feedback (2023-2024)

S.No	Attributes	Average Score on 5 Point Scale	Reference
1	Courses were relevant for the program and met the current industry needs	Very Good	Feedback Analysis for the year 2023-24
2	The knowledge provided by the courses was useful to professional practice	Very Good	
3	The courses enhance the employability potential	Very Good	
4	Appropriate textbooks and reference books were quoted and were available in the library	Very Good	
5	Courses enabled me to relate theory to practice	Very Good	
6	The courses enabled critical thinking and problem-solving skills	Very Good	
7	The courses provided an opportunity to enhance communication and interpersonal skills	Very Good	
8	Curriculum and courses inspired lifelong learning	Very Good	
9	Rate the evaluation schemes adopted	Very Good	
10	Overall Satisfaction of the Program	Very Good	

#### Key Observations:

- Alumni responses consistently yielded mean scores near or above 4.
- High satisfaction with relevance of courses to program, alignment with industry needs, and utility of knowledge in professional practice.

S. P. M.



### Employer Feedback (2023-24)

S.No	Attributes	Average Score on 5 Point Scale	Reference
1	The curriculum addresses the Industries' current needs	Very Good	Feedback Analysis for the year 2023-24
2	The curriculum is oriented towards the Organization's Vision & Mission	Very Good	
3	The curriculum can serve the Society's requirements	Very Good	
4	The Curriculum and Syllabus have imparted useful knowledge needed for professional practice	Very Good	
5	The curriculum has provided the competency to relate theory to practice	Very Good	
6	Projects emphasize team building and teamwork.	Very Good	
7	The co-curricular activities have enhanced my organizing and interpersonal skills.	Very Good	
8	The curriculum has instilled Professional Ethics in the students	Very Good	
9	The curriculum has stimulated continuous learning.	Very Good	
10	Overall Satisfaction on the Curriculum and Syllabus	Very Good	

#### Key Observations:

- Employer responses have consistently yielded mean scores of 4 and above.
- Highest satisfaction observed for parameters such as relevance to industry needs and professional practice.

#### Departmental Actions and Future Directions

The department's commitment to meeting global and national needs is underscored by its consistent placement record in the shipping industry. The curriculum encompasses subjects from Marine Engineering, Mechanical Engineering, Electrical and Electronics Engineering, and Computer



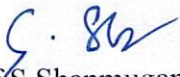
Science Engineering. Interdisciplinary open elective courses are offered to broaden students' knowledge in their areas of interest. A subject on Offshore Technology is included to enhance employability.

#### **Flexibility and Practical Training:**

- The curriculum allows students to add or drop one or two courses per semester to align with individual requirements, such as internships.
- A mandatory six-month afloat training at Cochin Shipyard Limited, Kochi, provides students with valuable practical experience.

#### **Action to be Taken**

1. Incorporate courses and modules on emerging technologies such as robotics, automation, and renewable energy sources (solar and wind power) in ship manufacturing and port management.
2. Strengthen partnerships with marine industries for collaborative projects, internships, and guest lectures by industry experts to bridge the gap between academic learning and industry
3. Enhance the use of modern Information and Communication Technology (ICT) tools in teaching and learning processes to provide an interactive and engaging educational experience.

  
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