Graduate Skills – the view from a Professional Body and Learned Society
• IMarEST is The Institute of Marine Engineering, Science and Technology; the international professional body and learned society for all marine professionals.
• We are the first Institute to bring together marine engineers, scientists and technologists into one international multi-disciplinary professional body.
• IMarEST is the largest marine organisation of its kind with a worldwide membership based in over 120 countries.
Questions for the panel:

- How is the workforce evolving?

- What impact will that have on the skills and competencies needed by graduate students?

- How employers can assist, during formal education, co-curricular opportunities, professional development activities, or other means?

- What training should be a responsibility for the employer post-graduation versus what do employers expect students to have when they graduate?

- How can graduate students demonstrate that they have developed skills and competencies?
SKILLS REQUIRED BY EMPLOYERS

1. Data Management
2. Multidisciplinary
3. Risk and Uncertainty
4. Fieldwork
5. Translating Science
6. Numeracy
7. Sustainability Science
8. Modelling
9. Taxonomy
10. Energy Supply
11. Soil Science

- Applied oceanography
- Climate change science
- Coastal engineering
- Coastal geomorphology
- Descriptive physical oceanography
- Engineering
- Environmental Impact Assessment
- Geographic Information Systems
- Health and Safety Awareness of operations in the marine environment
- Hydrography
- Legislation & Policy
- Marine ecology and ecosystems
- Marine planning
- Matlab and other programming languages
- Offshore Renewables
- Seamanship and nautical knowledge
- Taxonomy
Provision of Non-Technical Skills

“Employers were asked to determine who they felt had the responsibility for ensuring that marine scientists they recruit have or are developing the non-technical skills required by the workforce. Nearly all employers felt that the basic non-technical skills should be developed during the period of academic learning with some suggested that these skills should be developed in the period of early education (i.e. pre University or College for example). This is contradictory to the results provided by individuals that suggested a mix between employer and academic provider would be required.”
The marine environment offers a range of varied, challenging and fascinating careers.

With 70% of the earth’s surface covered by oceans, and 90% of the world’s trade carried by ship, it’s hardly surprising that there are lots of related career opportunities, especially if you’re interested in science, technology and engineering.

Our oceans and seas are of great importance – not only are they used for shipping, they are also important for sources of food, new materials, energy and defence.

IMAREST has produced a marine careers presentation to be used when speaking in schools, specifically aimed at 7-9 year olds, introducing some of the exciting careers available in marine science, engineering and technology. Please click the thumbnail below to download it.

BUILDING CAREERS MATRICES

Example Activities: Researcher/innovator, numerical models (atmospheric, oceanic, hydrodynamic), Data analysis, Data assimilation, Bruce-waves
Key Skills and Experience: Applied maths, Good understanding of oceanographic processes, Computational skills

Example Activities: Data analysis, Data assimilation, Bruce-waves
Key Skills and Experience: Knowledge of marine science, Interaction with stakeholders, Industry awareness

Example Activities: Project management, Strategic analysis, Numerical methods
Key Skills and Experience: High-level thinking, Understanding of high-level applications, Numerical methods

Example Activities: Business development, Tackling projects
Key Skills and Experience: Outgoing personality, Interest in detail, Strong work ethic
STUDENT MEMBERSHIP IS FREE!

https://www.imarest.org/membership-application/student-application
WHY JOIN AS A STUDENT MEMBER?

Free Student membership is available for undergraduates, postgraduates, cadets, apprentices and trainees for the duration of their studies. Join now to develop your knowledge and skills, and build networks for a career in the marine industry.

- Enhance your job prospects and earning potential by demonstrating your commitment to initial professional development by using the post nominals SIMarEST (on business cards, CV & email signatures) and boosting your skill-set through training and education.

- Be better connected by meeting and networking with other like-minded professionals and students through Nexus (member-only network) or joining a student section.

- Apply for funding and awards like student bursaries to support your research and learning.

After your studies, join the Graduate Pathway as an Associate Member (AIMarEST) with the chance to engage in technical activities, and the opportunity to gain interim or professional registration (such as CEng, CSci and CMarTech) which reflects your experience and professional competence.
WHAT IS THE 5-YEAR GRADUATE PATHWAY?

One of our core aims as a learned society is to develop the next generation of marine experts. To help us do this, we have developed a graduate pathway to guide you through the first five years of your career.

It means that you can become an Associate Member of the IMarEST for a significantly reduced fee (which increases gradually each year) for the early years of your career. You will get all the same benefits as those paying the full fee.

Alongside this, we have developed a support plan to help you develop your employability skills, your professional skills and prepare you for applying for professional registration (Technician, Registered/Incorporated, Chartered status) over the five years.
PROFESSIONAL RECOGNITION
LEARN MORE @ WWW.IMAREST.ORG

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