ECO LEARNING: LOGICAL MARITIME NAVIGATION

EDUCATION FOR ENVIRONMENTAL CITIZENSHIP

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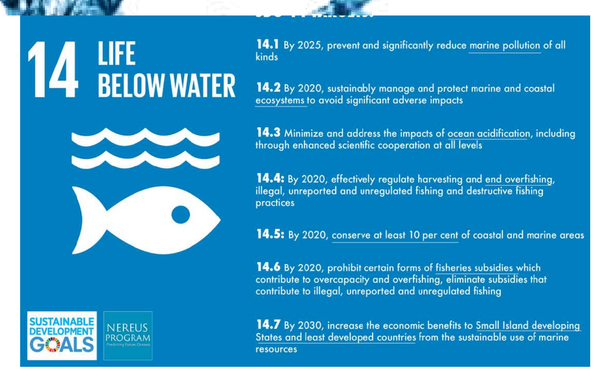
Introduction:

Quality education is one of the sustainable development goals of the International Maritime Organization (IMO). Focusing on the protection of the marine environment, which depends largely on the training and professionalism of seafarers, as stated in the STCW convention (International Convention on Standards of Training, Certification and Watchkeeping for Seafarers). Education is the fundamental pillar on which this objective is based. If all crew members on board carry out their duties with professionalism and efficiency, much cleaner seas would be achieved.

Goal:

Integration of Sustainable Development Goal No. 14 of the 2030 Agenda (Conservation and sustainable use of oceans, seas and marine resources) in classrooms to raise awareness among students about the importance of protecting marine ecosystems and promoting sustainable practices through strategies to tackle marine pollution.



Nowadays, marine pollution is discussed in classrooms as required by the IMO (STCW Convention). The students, future merchant seafarers, have to acquire skills in marine pollution to be able to obtain the privileges of pilot, engineer officer, captain or chief engineer. In this sense, these are matters in which pollution from ships is addressed. Pollution prevention measures should not be dealt with only in the subjects specifically dedicated to it. It would be essential that other subjects reflect the need to understand and apply them according to the powers of the STCW Convention.

Methodologies:

Knowing that some of the subjects of the Degrees in Nautical Science and Maritime Transport and Marine Engineering in which marine pollution issues can be integrated are: Navigation, Meteorology and Oceanography, Maritime Law and Energy Efficiency of the Ship; The methodologies that best adapt to each of them are:

- **Case study.**
- **Group discussion.**

Results:

- **Navigation:**

Students would plan and discuss routes to minimize environmental impact.

- **Meteorology and Oceanography:**

Students would discuss how pollution affects weather patterns and water quality and study how oil spills affect water temperatures and marine life, as well as learn the dynamics of currents and their role in the dispersion of contaminants.

- **Maritime Law:**

Students could analyze case studies and discuss the legal responsibilities of parties involved in pollution incidents.

- **Ship Energy Efficiency:**

Students would study and discuss how to design and maintain cleaner and more efficient navigation propulsion systems to reduce polluting emissions from ships.

Conclusions:

The integration of marine pollution into these subjects will allow students to gain a more complete understanding of how their actions as future maritime professionals can affect the environment and contribute to the protection of the oceans and seas for future generations.