

POST-GRADUATE COURSE

SEA SCIENCE AND BUSINESS INNOVATION

MODULE 1 - Law and Public Policies of the Sea

The individual frequency of this module corresponds to the 'Specialization Course in Law and Public Policies of the Sea'.

Politics and Strategy in the Economy of the Sea

Objective: to understand the political and macro-strategic context of the main dimensions of the ocean in the 21st century.

Main Topics: The strategic dimensions of the ocean in the 1st quarter of the 21st century; Ocean governance; Space, territory, and exercise of sovereignty at sea; Blue Geopolitics and European blue policies, strategies and economy.

Law of the Sea

Objective: to understand the context, relevance, and main aspects of the UN convention on the Law of the Sea. To know and understand the Legal Regime of Maritime Planning and Management.

Main Topics: Introduction to the Law of the Sea, context and main features. Rights and duties of Coastal and non-coastal States. Legal protection of the marine environment. Relevance and main features of maritime planning and management.

MODULE 2 - Marine Sciences

The individual frequency of this module corresponds to the 'Specialization Course in Marine Sciences'.

Marine Mineral and Energy Resources

Objective: To acquire knowledge on the main ocean geological resources and the new developments on the ocean renewable energies.

Main Topics: Main geological resources on the marine environment and its applications. The ocean's main energy resources: potential and exploitation. Oil and gas: The present and the next ultradeepwater frontiers. Wind energy in marine environment. Wave energy. Other energy sources: tides, thermal gradient, geothermal energy.

Maritime Spatial Governance and Environmental Management

Objective: To understand the historical perspective of marine governance and the new instruments of maritime spatial planning and environmental assessment in the marine environment.

Main Topics: Historical perspective of Maritime Governance. Integrated Maritime Policy, Blue Economy and Maritime Spatial Planning (MSP). Ocean ecosystem services and ecosystem-based ocean management. Coastal zone – planning regimes. Environmental marine management in the EU.

Marine Biotechnology

Objective: To acquire knowledge on the main on the blue biotechnology and its applications on food, health and industry.

Main topics: The production of novel foods (food & feed): aquaculture and processing products. Nutraceuticals and functional foods. Food safety and traceability. Applications to health sciences: bioactive molecules, pharmaceuticals and marine-based cosmetics. Innovation, research and industrial development. Case studies.

Aquaculture

Objective: To acquire knowledge on aquaculture production systems, main species produced, and the legal framework for licensing of aquaculture farms.

Main topics: General concepts on aquaculture. Main species produced in aquaculture. Production systems. Main production techniques. Challenges of the sector. National legal framework and licensing regime. Aquaculture development and new approaches for a sustainable production of food protein.

MODULE 3 - Entrepreneurship and blue innovation

The individual frequency of this module corresponds to the 'Specialization Course in Entrepreneurship and blue innovation'.

Entrepreneurship, Management and Internationalization

Objective: to promote an entrepreneurial culture and the ability to innovate to accelerate the creation, dissemination, and application of new projects within the scope of the Blue Economy.

Main topics: Business management systems: investment, technology protection and transfer strategy, intellectual property. Internationalization strategies – partnerships, alliances and joint ventures.

Entrepreneurship project & process (BITE + BOOTCAMP)

Objective: To discuss practical relevant topics on entrepreneurship. To share practical tools to guide the management of the company towards the constant capture of new business opportunities and to understand the main challenges in the creation of new business units.

Main topics: intellectual property and patents; blue entrepreneurship ecosystem; technology transfer; risk and financing; innovation and entrepreneurship process using lean startup methodology.