## ExploreTerra Unearth Your Energy Potential

### **Training**

# MARITIME LAW FOR MARINE SCIENTISTS



Participants will delve into the detailed legal frameworks governing maritime activities, including shipping, navigation, environmental protection, and commercial transactions at sea.



## ExploreTerra Unearth Your Energy Potential

## **WELCOME!**

This course is designed for legal professionals, maritime industry practitioners, and individuals who wish to enhance their understanding of Maritime Law. Participants will delve into the detailed legal frameworks governing maritime activities, including shipping, navigation, and environmental protection at sea.

Through real-world case studies and practical applications, participants will gain critical legal knowledge and insights to navigate the complexities of Maritime Law & governance. The course is tailored to meet the needs of experienced maritime lawyers, industry professionals, and legal enthusiasts, equipping them with the skills to address legal challenges, ensure compliance, and promote best practices in the dynamic and multifaceted maritime sector.



## **SCOPE**



• **Duration:** 10 sessions

• Hours: 20 hours per level

Price per person:
 \$800 USD (level 1), \$1000 USD (level 2), \$1500 USD (level 3)

• **Target Audience:** Marine scientists, geoscientists, marine advocates, and maritime business staff.

 Format: The course is designed to be accessible to a diverse audience with varying levels of expertise.

• Type or training: Remote

Maximum number of students: 25

• Languages: Available in English or Spanish





#### Level 1

#### Week 1: Introduction to Maritime Law

- Basics of international law
- Relevance of the United Nations Convention on the Law of the Sea (UNCLOS)
- Introduction to the legal terms and rights of States at sea

#### Week 2: International Maritime Law and UNCLOS

- Rights and responsibilities of States in marine exploration and research
- Defining the continental margin (Art. 76): geomorphologic v. legal concept
- Types of continental margin

### Week 3: Navigation, Seafaring Laws and Geodetic Reference System

- Geodetic datum, reference systems and frames
- Relevance of maritime law to marine research
- WGS84, ITRF and ITRS

#### Week 4: Ocean and coastal mapping

- Bathymetry
- Hydrographic surveys
- Understanding the crowdsourced initiative

#### Week 5: Navigation and Seafaring Laws

Safety, copyright, and liability regulations





#### Level 2 - Focus on Maritime Governance and Security

#### Week 1: Brief introduction to UCLOS and marine governance

- Summary of legal terms, relevant regulations and frameworks
- Regulations for marine ecosystems and biodiversity protection
- Research exploration and collaboration
- Marine conservation efforts: conservation treaties and sustainable marine practices

#### Week 2: Contracts, Liabilities and Transactions at Sea

- Implications of commercial transactions related to marine research
- · Legal implications of occupational accidents and spills
- Risk mitigation

#### **Week 3: Dispute Resolution in Marine Contexts**

- Dispute settlement methods applied to marine science and industry context
- Case studies: South China Sea and Black Sea

## Week 4: Emerging Legal Issues in Maritime Science: Deep Sea Exploration

- Emerging challenges and trends in maritime science
- Regulations on deep-sea exploration and mining





#### **Week 5: Polar Exploration: Antarctic**

- Antarctic Treaty System
- Environmental protocols, rights and responsibilities of scientists and nations

#### **Week 6: Polar Exploration: Arctic**

- Laws and regulations of Arctic exploration: international agreements and legal considerations
- Resource extraction and geopolitical landscape

#### Week 7: Climate Change, Maritime Law and the Arctic

- · Impact of ice melting on shipping routes and territorial claims
- Rights of indigenous communities

#### Level 3A - Focus on Marine Spatial Planning

#### Week 1: Brief introduction to UCLOS and marine governance

- Summary of legal terms, relevant regulations and frameworks
- Regulations for marine ecosystems and biodiversity protection
- Research exploration and collaboration





#### Week 2: Introduction to geospatial databases

- Geodatabase
- GIS databases
- · Remote sensing
- PostGRE & PostGIS

#### **Week 3: Database structures**

- Organization of databases
- Structures
- Structures per discipline (i.e., hydrography, gravimetry, cartography, seismic)
- Imagens

#### **Week 4: Implementation of GIS**

- · Basic rules of GIS
- GIS projects per discipline (i.e., hydrography, gravimetry, cartography, seismic)
- Geodatabase
- Models

## Week 5: Mathematical determination of continental margin

- Defining the continental margin (Art. 76)
- Determination of continental margin in accordance to Technical and Scientific Rubrics
- · Application of formulas

#### **Week 6: Cartography**

· Design and project presentation





#### Level 3B - Focus on deep sea exploration and mining

### Week 1: Brief introduction to the United Nations Convention on the Law of the Sea

- UCLOS (Part XI) and 1994 Agreement
- Summary of legal terms, relevant regulations and frameworks
- International Seabed Authority and its jurisdiction

#### Week 2: Deep-sea protection and scientific research

- United Nations Decade of Ocean Science for Sustainable Development
- · Protection of marine environment from mining activities
- Seafloor observatories
- Deep-sea biodiversity and habitats

#### Week 3: Marine mineral resources

- The Area
- The Mining Code
- Exploration and exploitation regulations
- Types of areas (i.e., CCZ, exploration, reserved, APEIs)

#### Week 4: Marine mineral resources and distribution

- Mineral resources distribution
- Polymetallic nodules (PMN)
- Polymetallic sulfides (PMS)
- Cobalt-rich ferromanganese crusts (CFC)





## Week 5: Deep-sea technologies and sustainable development

- Underwater vehicles and equipment
- Exploration contracts
- · Legal implications of occupational accidents and spills
- Testing of mineral components

#### Week 6: Case analysis and discussion

- DeepData
- Revision of contracts (open sourced)
- In-depth case studies based on type of mineral and contractor





# ABOUT COMPANY

ExploreTerra's vision is to contribute to the geoscience consultancy and training landscape. Our core purpose is to establish a dynamic platform that creates connections between available talent and opportunities or needs within the energy industry.

We are dedicated to enriching the energy sector through specialized services and empowering geoscientists with technical training, tailored technology transfer, and the adoption of integrated, multidisciplinary best practices.





# YOUR INSTRUCTORS



Ana Vasquez, PhD
Chief Scientific Officer

Chief Scientific Officer

Ana C. Vasquez, PhD, is a marine and policy scientist with over 15 years' experience in climate change mitigation and resilience.

Ana held a doctorate in marine sciences and a MA in international law. Ana is member of several international scientific associations, including WOS, ASLO, OceanExpert, GeoLatinas, EAG, DOSI, AGU.

## **GET IN TOUCH**

Our training programs, designed seasoned geoscientists, are tailored to meet contemporary industry needs.

We prioritize technical and core skill enhancement and the incorporation of advanced technologies, equipping professionals for the dynamic field of geoscience.

#### **CONTACT US:**



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