Blended Intensive Program – Marine Data Literacy

Important note:

Students interested in this program have to apply: How to apply – SeaEU – Marine Data Literacy Course (ocean.mt)
Student applications made directly to the hosting institution will not be considered.

General information

Course Title	Marine Data Literacy
BIP Code	2023-1-PL01-KA131-HED-000121634-1
Abstract	This intensive course educates students on marine data sourcing, exploration, and valorisation, transforming data into valuable knowledge. The course highlights data's importance in marine services, sustainable ocean development, and informed decision-making. Participants will learn about various data types and acquisition platforms. Key components include data management, quality control, and adherence to international standards like INSPIRE and FAIR, promoting open data and interoperability. Practical, hands-on sessions are delivered in a computer lab setting, covering specialized data platforms like CMEMS and EMODnet, and providing tools for data extraction, visualization, and analysis to ensure effective data use and interpretation. More details: https://courses.ocean.mt/mdlcourse/
Calendar	Registration deadline: 30 November 2024 Online part: 24 Feb – 25 April 2025 Physical mobility: 10 - 18 May 2025 (Poland, Gdańsk)
Total number of hours	50
Teacher(s) in charge	Aleksandra Dudkowska, Gabriela Gic-Grusza
Number of participants	The minimum number of participants is 25 maximum is 40 Each SEA-EU university can propose up to 6 students.
Mobility costs	This mobility is eligible for Erasmus+. **Please contact your university for more information.**

Contact	Regarding organisational aspects: aleksandra.cupial@ug.edu.pl Regarding pedagogical aspects: SEA-EU Marine Data Literacy Course <mdl@sea-eu.org>

Pedagogical content

Target group / Expected student profile	Students seeking to consolidate their approach to applied oceanography within the context of evolving demands and concepts, as well as to build the solid base needed to apply data and the scientific method in their research.
Requirements Academic background	Mainly Master and PhD students or final year undergraduates in the marine sciences. Course also appeals to students from other disciplines, including engineering, IT, geosciences, geography, environmental management and other backgrounds, whose studies rely on the use of data.
Learning objectives/outcomes:	Integrated Assessment & Management: – Focuses on sustainable management of coastal and marine environments. – Covers sustainable development, blue economy, and the role of science in policy-making and societal needs. Practical Data Skills: – Teaches visualization, processing, and analysis of scientific data using professional software. – Involves hands-on sessions with various types of marine data. – Introduces software packages for oceanographic data processing. These skills prepare students for advanced studies and careers in marine science and management. Learning Outcomes – Identify and understand various scientific data types and formats, and their processing and extraction. – Ensure reliable marine data for environmental monitoring, fisheries assessment, water quality, and sustainable development. – Appreciate the importance of data in proving theories and drawing scientific conclusions.

	Skills – Apply the scientific method in study design, sampling, data interpretation, and drawing conclusions. – Handle, convert, and process diverse data sources and types using common oceanographic software. – Source and utilize scientific resources such as climatologies, catalogues, and databases for research and coastal management.	
Any required material/software to take part to the course:	Free software will be listed later on	
ECTS	3	
Evaluation	tests, students' presentations, teamwork	
Transcript of records will be issued	On the website of the course	
Language of the course	English	

Structure of the course

	Timing	
Virtual part:	24 Feb – 25 April 2025	Content: Introduction to Marine Data; Reliable oceanographic data sources; Online Data Portals; Introduction to Operational Modelling; Introduction to EMODnet: Ocean Decade's Data and Information Strategy; Accessing and transforming data; Fundamentals and examples of marine data analysis; Managing and Processing (Big) Scientific Data; Introduction to learning algorithms, neural networks and clustering; Applying AI to Oceanography
Physical part:	10 - 18 May 2025	Practical sessions, providing students with hands-on skills through problem-solving activities using real data.

Practical information

Accommodation recommendations	Will be send to enrolled students
The physical mobility will take place at	University of Gdańsk Faculty of Oceanography and Geography Al. Marszałka Piłsudskiego 46 81-378 Gdynia
Contact of the person in charge of signing the OLA	dr Anna Toruńska-Sitarz anna.torunska@ug.edu.pl