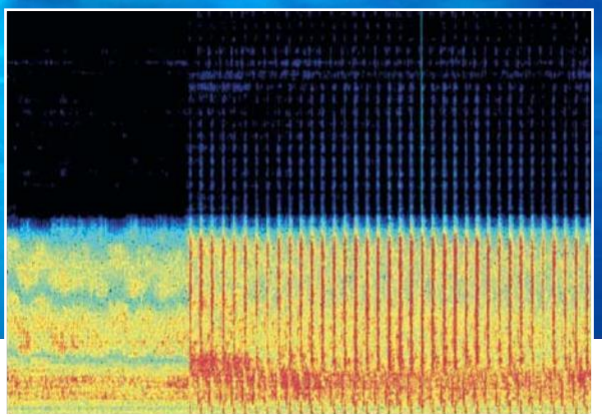
Professional Accreditation

Underwater Acoustics in the Marine Environment



Get to grips with underwater acoustics and understand the noise issues that impact marine wildlife. Our three-day Marine Acoustics course is perfect for anyone working as a regulator, environmental consultant, researcher, policy, or environmental professional who needs to understand the regulatory environment. It will give you the knowledge you need to analyse and act on the recommendations in reports generated as a result of environmental legislation.

Delivered by leading research experts including Dr Paul Lepper and Professor Victor Humphrey, this course is CPD- recognised by the Institute of Marine Engineering, Science and Technology (IMarEST) and is run in association with the University of Bath.

Course Dates

02nd – 05th September 2024

Cost- £1950 + VAT

For more information: **Website:** www.seiche.com/training

Email: training@seiche.com

Internationally respected

Accredited by key governing bodies

Delivered by experts

Underwater Acoustics in the Marine Environment

About the course

As concerns about the impact of underwater noise on marine wildlife increases, regulations to protect marine wildlife have become more rigorous. For those working in and around the marine environment, it is essential to understand the basic concepts of underwater acoustics and how noise can impact marine wildlife.

This four-day course uses a mixture of lectures and hands-on learning to explore the ocean environment and explain the models that are used to measure underwater acoustics. Delegates will then investigate what can be done to mitigate underwater noise before getting to grips with Environmental Impact Assessments (EIAs), environmental regulations, guidelines, emerging studies, and technologies in the Marine Acoustics field.

The course is intended for regulators, environmental consultants, researchers, and policy/environmental professionals within industry. It will be particularly useful in providing a better understanding of reports that delegates either have to deliver or receive from clients.

Experts

Dr Paul Lepper is the senior research fellow in the School of Electronic, Electrical and Systems Engineering at Loughborough University. He specialises in underwater acoustics, bioacoustics, and underwater technologies. These include acoustic and optical underwater systems, sound field measurement, modelling and stimulation.

Professor Victor Humphrey is a Professor of Acoustics in the Institute of Sound and Vibration research at the University of Southampton. He has over 30 years of research experience in both underwater acoustics and medical ultrasound.

In association with

Institute of Marine Engineering, Science & Technology IMAREST

UNIVERSITY OF BATH

Modules

Day 1

- Introduction to Acoustics and Underwater Acoustics
- Key Quantities, Units and Dimensions
- Powers and Logs
- Decibels and Use of Decibels
- Reflection and Transmission at Boundaries
- Ocean Environments – the Seas

Day 2

- More on Decibels
- Spectra and Sound Sources
- Noise and reverberation
- Hydrophones
- Man Made noise in the Ocean
- Biological Sources of Sound
- Hearing response of Marine Wildlife

Day 3

- Impacts of noise on Marine Wildlife
- Sound field Modelling
- Methods of Assessment of Impacts
- Environmental regulation and Environmental Impact Assessment (EIA)

Day 4

- Introduction to the Soundscape
- Noise Measurements
- Vessel radiated noise
- Marine Seismic Assessment
- Mitigation and the Effects of Sound on Marine Wildlife
- Emerging Studies

About Seiche Training

Seiche Training offers world-class training for individuals and companies in the UK and around the globe. Delivered by renowned university academics and experts in their field, these courses bring together the best of academia and industry.

We offer both Marine Mammal Monitoring (visual and acoustic) as well as Underwater Acoustics courses in association with the University of Bath.

Seiche Training also offers bespoke courses and in-house company training on all topics relating to Passive Acoustic Monitoring (PAM), Marine Mammal Monitoring and Underwater Acoustics.