



# Seminar of the 18<sup>th</sup> EAtHC Conference *Séminaire de la 18<sup>ème</sup> Conférence de la CHAtO*

**“20 Years of Capacity Building Actions in EAtHC Assessment and Prospect”**  
**« 20 ans de renforcement des capacités dans la région CHAtO : Bilan et Perspectives »**

**Current training offers in hydrographic schools (The United Kingdom)**  
***Offres actuelles de formation dans les écoles d’hydrographie (The United Kingdom)***

Presented by The United Kingdom / The United Kingdom Hydrographic Office  
*Présenté par la The United Kingdom / The United Kingdom Hydrographic Office*

## **Agenda Item EAtHC18 4.5 (UK)**

EAtHC18/Seminar, Casablanca, 29 – 30 April 2024



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# OVERVIEW OF UKHO TRAINING COURSES OFFERED

International  
Hydrographic  
Organization

- Geospatial Marine Analysis and Cartography (GEOMAC) programme, Cat-B
- In country cartography training
- Online training courses
- Hydrographic survey training
- Hydrographic governance training
- Other hydrographic education providers in the UK

## Course prospectus:

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1157475/UKHO\\_International\\_Training\\_Academy\\_Brochure\\_23.05.V04.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1157475/UKHO_International_Training_Academy_Brochure_23.05.V04.pdf)





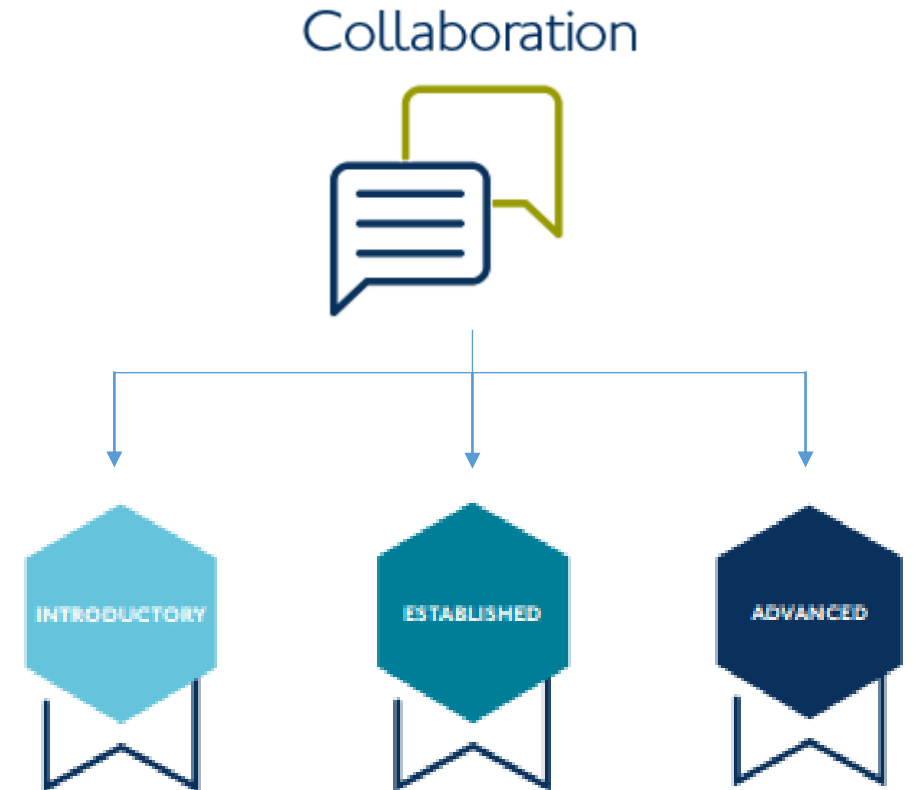
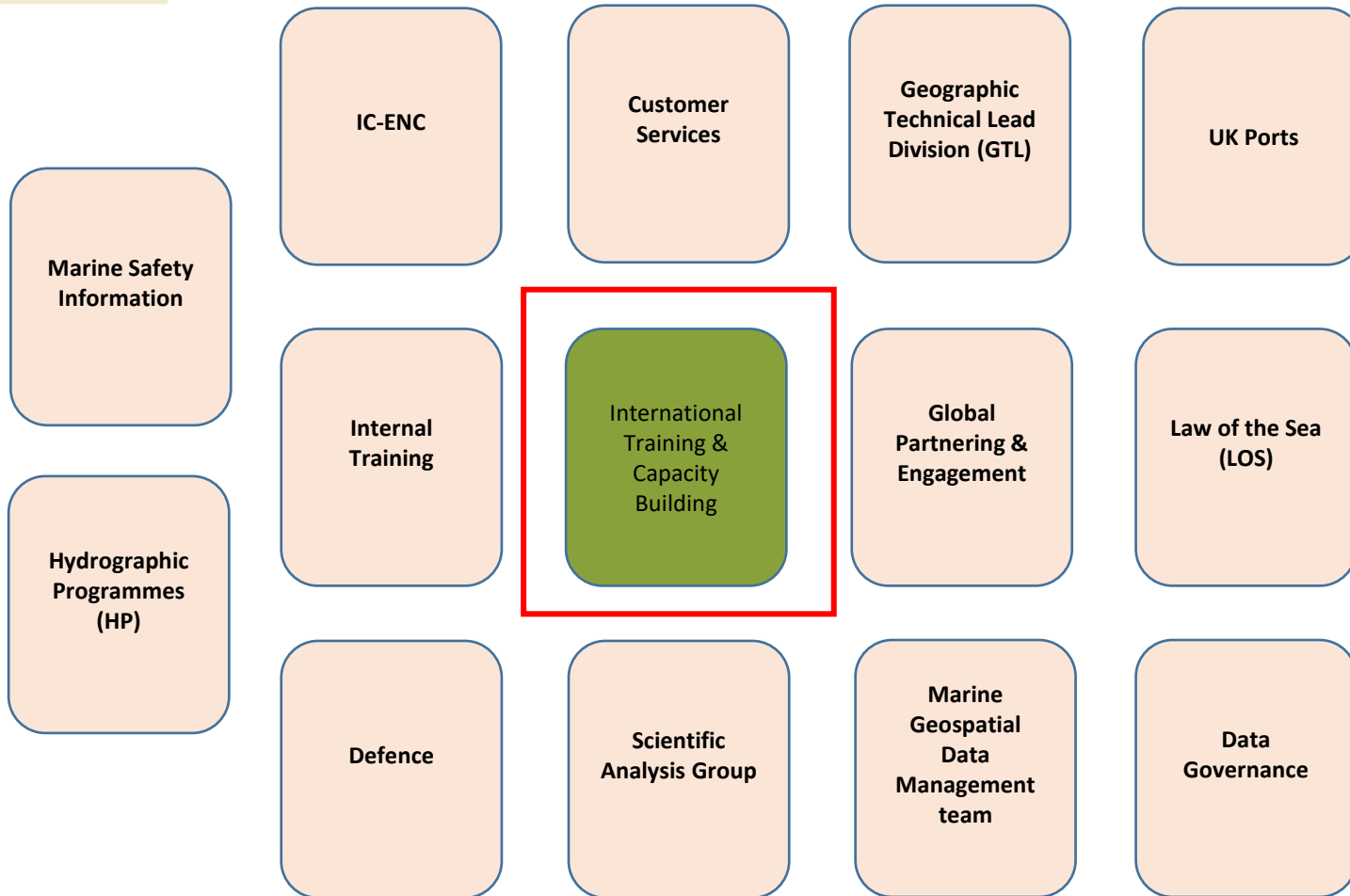
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# THE WIDER UKHO TRAINING DELIVERY STRUCTURE

International Hydrographic Organization

Courses make use of our internal network of UKHO Subject Matter Experts

Courses are categorized by attainment level to ensure trainees receive the appropriate level of training:





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# IHO NIPPON FOUNDATION, GEOSPATIAL MARINE ANALYSIS AND CARTOGRAPHY (GEOMAC) PROJECT, CAT-B



International  
Hydrographic  
Organization

- **Location:** UKHO Offices, Taunton, United Kingdom
- **Frequency:** Once per year
- **Duration:** 22-week course (Cat B plus 2-weeks collaboration module)
- **Language:** English
- **Certification:** FIG/IHO/ICA CAT B
- **Cost:** Seven funded places offered to IHO member states
- IHO Member States notified of application process via Circular Letter
- Additional places available to IHO Members at UKHO discretion
- **Reference:** IHO Circular Letter 03/2024



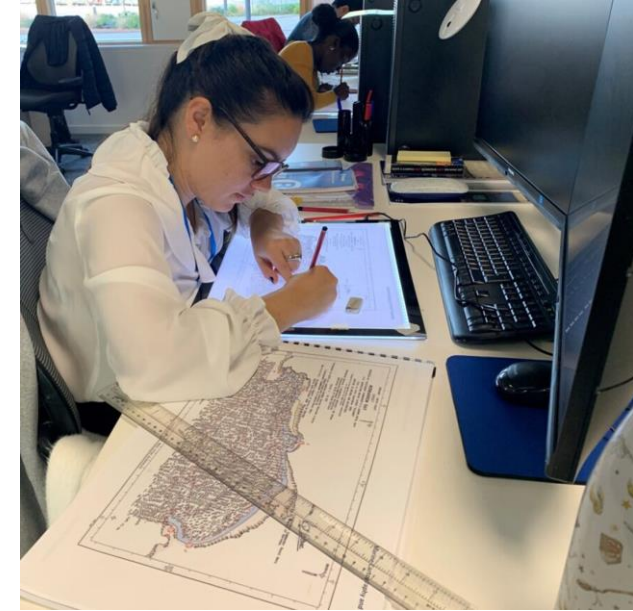


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# UKHO GEOSPATIAL MARINE ANALYSIS AND CARTOGRAPHY (GEOMAC) PROGRAMME, CAT-B

International  
Hydrographic  
Organization

- **Location:** UKHO Offices, Taunton, United Kingdom
- **Frequency:** Once per year
- **Duration:** 20-week course
- **Language:** English
- **Certification:** FIG/IHO/ICA CAT B
- **Cost:** £30K (approximately).
- Includes training, hotel, transport, social programme and an optional daily living allowance
- **Reference:** More information on [page 12 of Training Prospectus](#)







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# ABOUT THE GEOMAC, CAT-B, COURSE

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Organization

## Aims and Objectives:

This course provides a practical understanding of nautical cartography and the skills and techniques needed to carry out routine nautical cartographic tasks.

It includes processing hydrographic data into a published form.

The course is highly practical, providing a detailed understanding of the compilation and production of paper and electronic charts.

## Pass mark:

To achieve the **minimum** training standard, an overall pass mark of at least 50% is required on each Module.

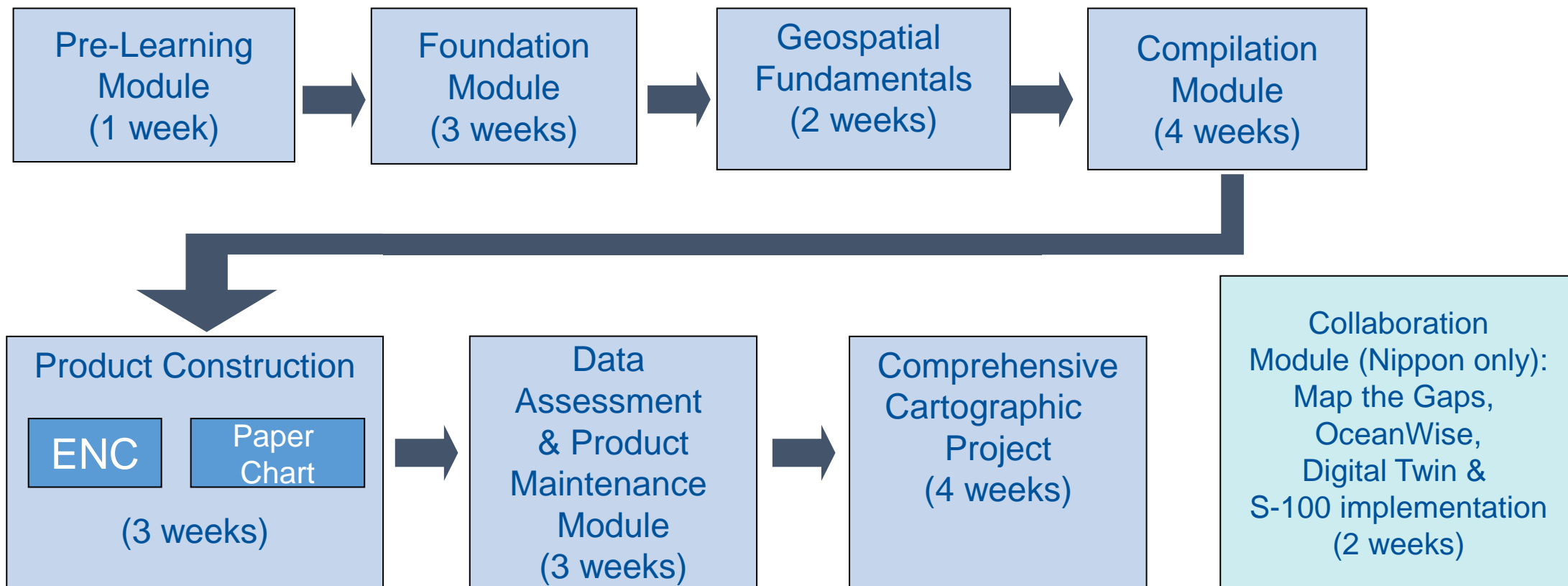




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# GEOMAC, CAT-B, COURSE STRUCTURE

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# MORE INFORMATION ABOUT THE GEOMAC COURSE, CAT-B

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- Includes Accommodation and optional daily living allowance
- Educational visits and comprehensive schedule of social and weekend trips provided
- UKHO team dedicated to supporting students
- Two courses per year:
  - Next Nippon course: July – Dec 2024
  - Next UKHO course: Jan – June 2025 (Dates TBC)







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# BESPOKE IN COUNTRY CHART COMPILATION TRAINING

International Hydrographic Organization

- **Location:** In country
- **Frequency:** Upon request
- **Language:** English
- **Certification:** UKHO Certified
- **Cost:** Provided upon enquiry (Location and duration dependant)
- **Reference:** More information on [page 13 - 16 of the UKHO Training Prospectus](#)

## Phase One Skills (5 days - In Country)



This course is designed to provide participants with the basic skills and knowledge to assess and circulate navigationally significant information to the wider maritime community. The main subjects covered include basic geographical plotting, the role of a NAVAREA co-ordinator, basic chart datums and the importance of keeping nautical charts up-to-date.

### Subjects taught:

- › Responsibilities under SOLAS
- › Geographical plotting
- › Chart datums
- › Sources of information
- › International chart symbols and abbreviations
- › The importance of keeping nautical charts up-to-date
- › Methods used to keep nautical charts up-to-date
- › Maritime Safety Information (MSI) system
- › Worldwide Navigational Warning Service (WWNWS)
- › The role of the NAVAREA co-ordinator

### Accredited by:



UK Hydrographic Office

## Foundation course (3 weeks – UKHO, 2 weeks – In Country)



This highly practical course is designed for those who will undertake basic cartographic tasks. It introduces the underlying principles of marine cartography, covering charting fundamentals such as the content, structure and standards of nautical charts and publications. It is aimed at those who aspire to become marine cartographers, as well as established cartographers who want to gain further understanding of marine cartography. The course provides the basic information required to undertake the Geospatial Marine Analysis and Cartography (GeoMAC) Programme 'CAT B'.

### Subjects taught:

- › Geodetic principles including projections and datums
- › Geographical plotting
- › Types of nautical charts and publications
- › Processing bathymetric data
- › Principles of depth sounding selection
- › Navigational aids
- › IALA Buoyage System › Generalisation
- › Symbols used on charts (Chart symbology)
- › Navigational dangers
- › Chart design and layout
- › Compilation source information
- › Tides
- › Topography

### Accredited by:



UK Hydrographic Office

## ENC Production (3 weeks – In Country)



This course provides an introduction to the role, purpose, production, maintenance and validation of Electronic Navigational Charts (ENCs). In this course, the participant will gain a full understanding of the standards required to produce these charts. It is a highly practical course, with participants required to produce an ENC with updates and then maintain it by New Edition. This course will be delivered using CARIS software.

### Subjects taught:

- › International standards
- › ENCs and ECDIS regulations
- › ENC data capture
- › ENC updates
- › ENC validation
- › ENC maintenance
- › ENC harmonisation

### Accredited by:



UK Hydrographic Office

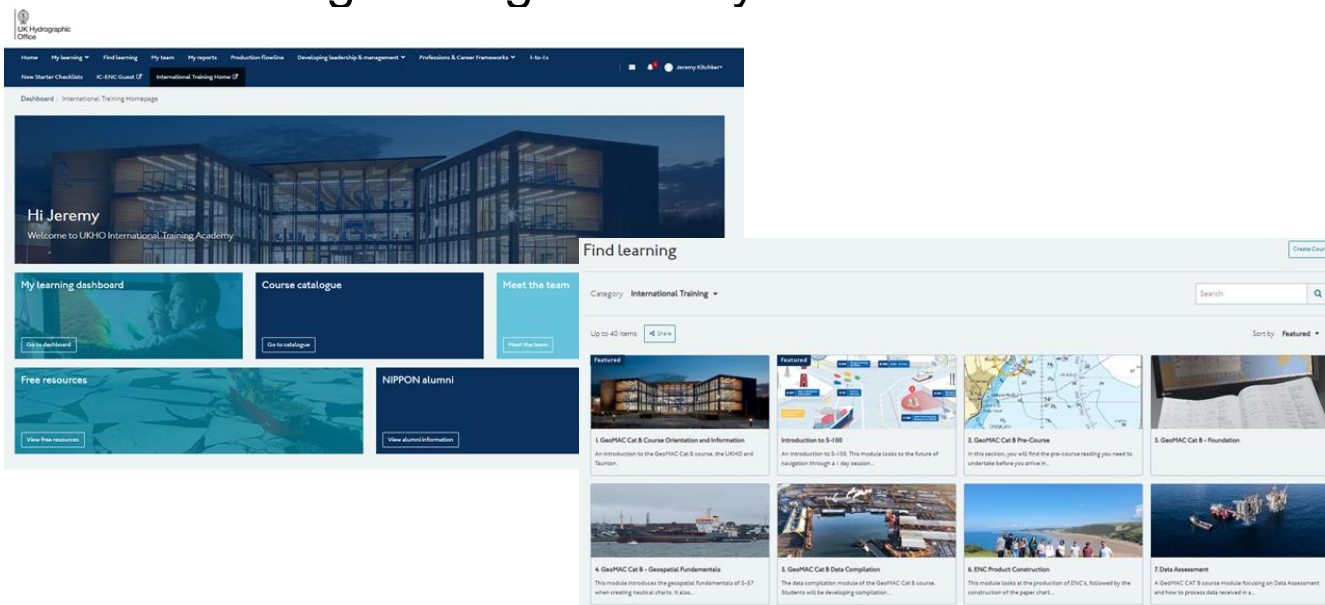


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# UKHO ONLINE TRAINING COURSES

International Hydrographic Organization

- **Location:** Online
- **Frequency:** Upon request (dependant on numbers)
- **Duration:** Half-day or two half-days, course dependant
- **Language:** English
- **Certification:** UKHO Certificated
- **Cost:** Course dependant
- **Class size:** Up to 50 per course
- Includes pre and post course access to UKHO Learning Management System



Courses offered	Duration	Cost
Introduction to S-100	One half day	£120
Introduction to S-101	One half day	£120
Compiling for Navigational Safety	Two half days	£120
Introduction to S-57	One half day	£95
Understanding ENCs	One half day	£95
S-57 to S-101 Conversion (Planned for 2025)	Two half days	TBC



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# UKHO HYDROGRAPHIC SURVEY TRAINING

International  
Hydrographic  
Organization

- **Location:** In country
- **Frequency:** Upon request
- **Duration:** Dependent upon requirements
- **Language:** English
- **Certification:** UKHO Certificated
- **Cost:** Provided upon enquiry (Location and duration dependant)

**Course Details:** Designed for relevant stakeholders in a coastal state to:

- Provide a basic understanding of survey principles and IHO standards
- Survey planning
- How their equipment works and what the outputs are
- Mobilisation/demobilisation of equipment
- Conducting a survey including reporting required
- Survey processing and reporting
- Passing survey data to their PCA







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# UKHO HYDROGRAPHIC GOVERNANCE COURSE

International  
Hydrographic  
Organization

- **Location:** In country
- **Frequency:** Upon request
- **Duration:** 1-week
- **Language:** English
- **Certification:** UKHO Certificated
- **Cost:** Provided upon enquiry



**Course details:** Hydrographic Governance Course is designed for stakeholders in coastal states to:

- Identify all stakeholders who have an interest in the marine environment
- Understand their responsibilities under international maritime obligations (SOLAS, UNCLOS, etc)
- How the stakeholders link together, and all have their part to play in the understanding, management and protection of their marine estate
- Value of seabed mapping beyond the safety of navigation







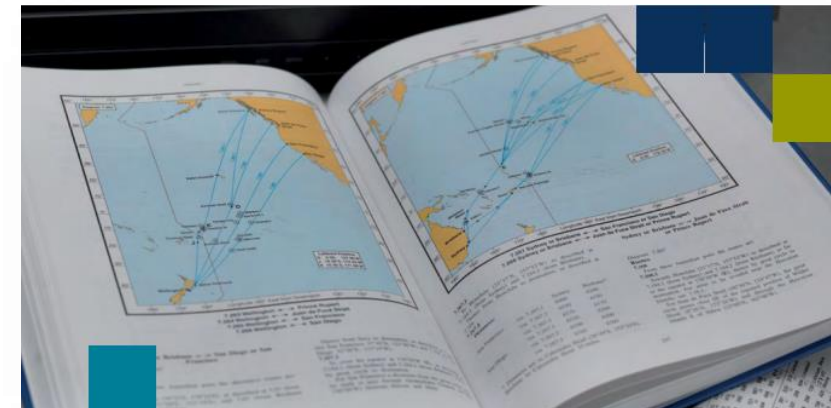
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# OTHER UK HYDROGRAPHIC EDUCATION PROVIDERS

International  
Hydrographic  
Organization

The following hydrographic educational programmes are available in the UK:

- University of Plymouth:
  - BSc (Hons) Ocean Exploration and Surveying (3 Years)
  - MSc Hydrography (1 year)
- University of Central London
  - Geospatial Sciences (Hydrographic Surveying) MSc (1 year)
- Royal Navy - Flag Officer Sea Training Hydrography and Meteorology (FOST HM) school at Devonport, Plymouth.
  - Basic Course (approximately 4 months)
  - Advanced Course (approximately 6 Months)





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**FOR MORE INFORMATION CONTACT**

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