

## **Quick intro to the IMarEST**



The Institute of Marine Engineering, Science & Technology

### 1. Non Governmental Organization

Promotes sustainability of the marine environment, industry and professions

### 2. Professional membership body for marine sector

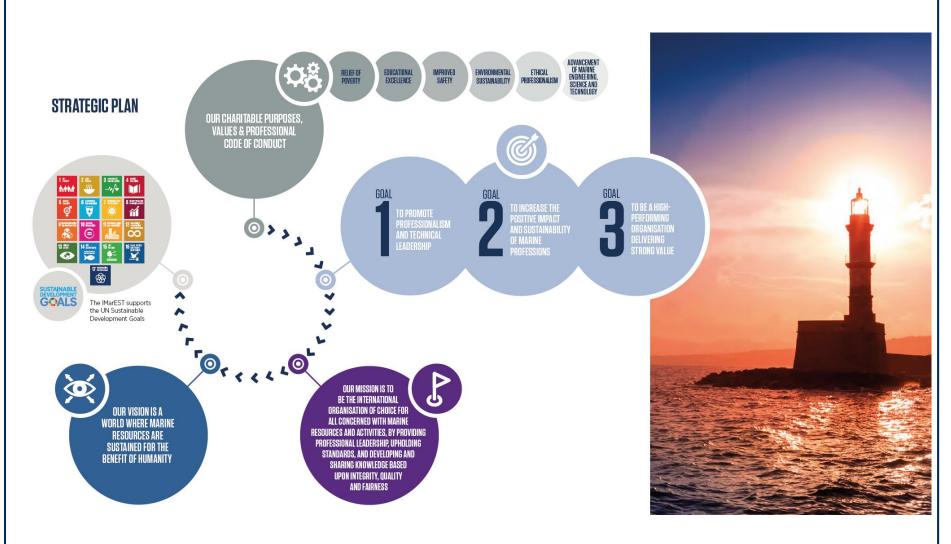
- 22,000 members, 120 countries, 50 local branches, 3 regional offices
- Provide lifelong learning, knowledge sharing and networking opportunities for members
- Award professional qualifications / certifications for individuals
- Global accreditation authority for marine courses and development programmes

### 3. Marine education and training provider "MLA College"

- Deliver marine training courses and higher education programmes through our specialist e-learning academy the "MLA College"
- Programmes delivered through distance e-learning with supporting practical residential modules where appropriate
- Courses cover: Hydrography, Oceanography, Meteorology, Sustainable Maritime Operations and Navigation

# **IMarEST strategic goals**





## What is professional competence?





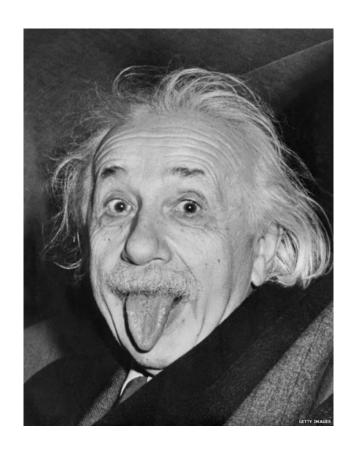
## What is professional competence?





## What is CPD?





Continuing
Professional
Development

"Wisdom is not a product of schooling but of the lifelong attempt to acquire it" Albert Einstein

# Why is CPD important?







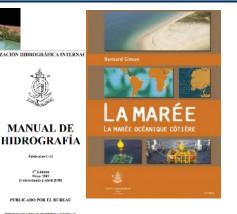
Books, magazines, journals, newsletters, online

1" Edición Mayo 2005 (Correcciones a Abril 2018 PUBLICADO POR EL BUREAU

MÓNACO

https://www.thsoa.org/news





#### **IHO PUBLICATIONS:**

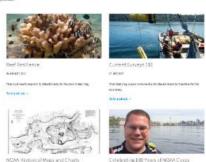
https://www.iho.int/iho pubs/IHO Down load.htm

#### IFHS READING LIST:

http://www.hydrographicsociety.org/doc uments/hydrographicsociety.org/downlo ads/ifhs recommended reading list.pdf

#### The NOAA Ocean Podcast

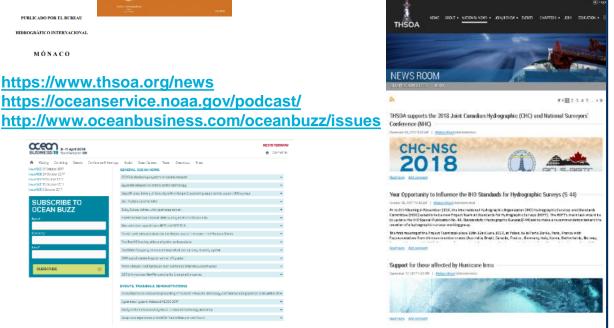
Connect with ocean experts and applicategits from corels to coastal science with our audio podcast.





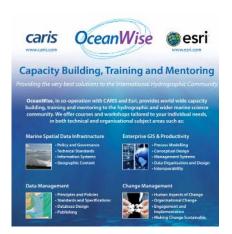
CEC .....

https://oceanservice.noaa.gov/podcast/





### Training and education





are ready they will be launched on the website.

- French I I Ato's Manager Course Module Log Ato's Management: Manager 12 til 15 February FALA fück Management Toollank Seminant South Africa – 26 February till 2 March
- . English Lf AtcN Manager Course; South Africa 5 till 29 Merch (back to back with Ricc Seminar in South Africa)
- Spatish CLACAU Seri AreUS Industrias About Support
   French LLACAU N. (part of the date) Training Your Location for lifelong learning

FILTER BY: All GIS Capabilities c All Products c 5 home solected



English LI AteN I Starch Spt

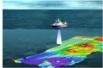
**CARTOGRAPHY AND HYDROGRAPHY TRAINING** 

The International Centre promoting excellence in geospatial sciences

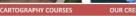
CAPACITY BUILDING



(II) IIC ACADEMY







- FIG/IHO/ICA S8 Cat 'B' standards of
- · Foundation and practice of ENC
- · Practical foundation to building marine
- spatial data infrastructure.
- OUR CREDENTIALS
- Marine Geospatial Information meeting Experts in digital chart compilation and Multibeam hydrographic surveyor course;
  - . Strengthening value chain from hydrographic surveys to spatial data infrastructures:
- Bathymetric data processing and charting; . Assured hand-holding and mentoring support to meet the client's evolving requirements:
  - · Produced thousands of ENCs and paper charts for HOs worldwide.

- marine surveyors; An introduction to geodesy and tides:
- · Quality Control of bathymetric survey · Hydrographic survey data processing and reporting.
- SORT Recently Addited \* HYDROGRAPHIC COURSES ArcGIS Pro Editing Essentials JavaScript API: Configure a Pop-up

III Available with maintenance III Free training



FREE

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You are here: Home > COURSES > TRAINING COURSES > Meteorology and Oceanography Awareness training course

### Meteorology with Oceanography awareness training course



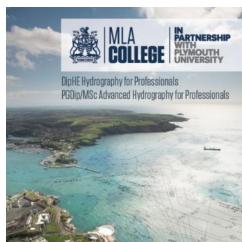
You are purchasing an e-learning training course. Training courses are delivered through the MLA App which can be download at the links below

Download the MLA mobile learning App











### Events, conferences, exhibitions

The ongoing MTS TechSurge programs feature hot-topic workshops that



Opportunity runs deep™

Upcoming Workshops

Past Workshops

**TechSurge Workshops** 

t MTS Awards Membership Committees and Sections Dynamic Positioning Conferences Publications Care

2016 TechSurge: <u>Underwater Cables, Connectors and Imaging Systems</u>: Marine Technology Society is pleased to announce a joint Navy-Industry-University "Underwater Cables, Connectors and Imaging Systems" 3-day

working session. This workshop will take place October 26-28, 2016 in Ft Lauderdale, Florida and is organized by

2014 Workshop: <u>Technical Support for Coastal Resiliency</u>: The conference will focus on integrating federal and non-federal technologies and data streams, where Hampton Roads is a natural test bed for integration. The event will be held at the Old Dominion University (ODU) Ted Constant Center - Blue Room in Norfolk, VA on June 3-

move knowledge forward.

the MTS Cables and Connectors Committee and the MTS Underwater Imaging Committee

#### WORKSHOPS



WORKSHOP SCHEDULE

Invaried in testing a workshop or have an exemition pitcure Contact Workshops Chair Sa v. with a Engre of workshops in business in the contact and the contact

#### TECHNICAL PROGRAM



TECHNICAL PROGRAM SCHEDULE

Questions regarding Technical Program contact Gree Raderals paper greated with 17 cons

#### KEY NOTE SPEAKERS:

Rear Admiral Shop Smith, Director, Office of Coast Survey - NOAA'S National Charting Plans

rdml-shepard-smith-bio-2006nov-5

1-us-hydro-2017-rdml-amith-ami

Roar Admin's The Gallaudat, Ceremendar, Navai Materology and Countegraphy Command, Hydrographia of the Navy – Warts Lu rdink gallaudat-bio cett.5

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BW Shocks BOEM's Use of S-D Seismic Data to identify and Map the Distribution of Natural Hydrocarbon Seeps in the Northern Gulf of Mexic

villam-bill\_shedd-bio

shedd boem-askeston-conference

Captain Jorge Visa, President, American Pilots' Association - Pilots & Hydrographers:

captain-jorge-viso-blo

capt-viso-hydro-2017

#### TUESDAY TECHNICAL SESSION 1 - MULTIPLE USES OF HYDROGRAPHIC DATA:

#### LIGHTNING ROUND:

Management and Analysis of Side Scan Sonar Data with ESR's Raster Moseic Dataset, Jovid Bernstein In 1-1 david bernstein-bernstein-bernstein-ss., ands\_hydro\_2017

The G/Shased user guided world low. Acquisition, Processing Visualization and Sharing of Hydrograph's Based Data, Only Malarnol. 1-1-2-chrismalaons-malaone, unity/cc2017

Educating the Range of Port-Processed Kinematic Positioning for Aldrome Lidar Systems (CZHTL), Johnson Cymhuss and Jan Chrick Ind. 3- johnson\_extending range of ppk\_added\_2007/0003

Ping Once Use Many Times, Starte Robinson In-1-4 startarobinson-ping, wilmington, 2016, short031317

U.S.Arctic Initiatives, Kohino Wyllic Ir-1-5-ketrimovyklie-wyllie et al. usarctic

#### PAPERS:

Steps Towards a True Crowd, Collecting Bethymetry via Electronic Navigetion Systems, Adam Read adamness around sourced-bathymetry

#### http://ushydro2017.thsoa.org/conference-proceedings/



#### Oceanology International 2018

Oit8 is the world's leading event bringing together 8,000 marine professionals from 79 countries

Both visitors and exhibitors gain a unique opportunity to meet, network, negotiate and conduct business under one roof.

Find out more

#### oceanology international

#### Oceanology International Americas 2019

Launched in February 2017, it has now been rebranded for February 2019 and will return to the San Diego Convention Centre.

Showcasing the latest technologies and developments from across the ocean enterprise.

Find out more



#### Oceanology International China 2017

Developed in conjunction with government and industry associations. OI China provides domestic and international suppliers the opportunity to capitalise on China's rapidly developing offshore energy and marine industries.

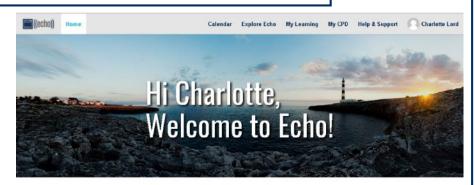
Find out more

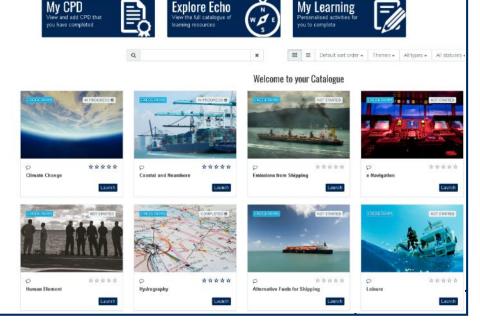




Professional membership organisations and networks

- 1. Offer members CPD opportunities
  - E.g. events, publications, technical working groups, training courses
- 2. Provide a professional network
  - many have local chapters or branches or have technical working groups for members
- Provide external recognition and validation of career development
  - Some offer different membership levels and/or offer professional qualifications or certification depending on your skills and experience







Professional membership organisations and networks

Examples of professional membership organisations:

- The Hydrographic Society of America (THSOA)
- Association Francophone d'Hydrographie (AFHy)
- Royal Institution of Chartered Surveyors (RICs)
- Society for Underwater Technology (SUT)
- World Ocean Council
- Chartered Institution of Civil Engineering Surveyors (ICES)
- The Marine Technology Society (MTS)

And of course ... the IMarEST!

# **Professional recognition**



A membership level to reflect your skills and experience

Example of the different levels of IMarEST membership available

STUDENT SIMAREST

**AFFILIATE** 



Members use post nominals to demonstrate they've achieved this career level.

For example

"Jane Doe, MIMarEST"

# **Professional recognition**



Professional certification and qualifications for individuals

- Professional standards of competence for individuals
- Typically awarded to individuals with 5 years experience plus demonstration of knowledge, skills, abilities and behaviours
- Assessments typically through written application, interviews or written examination
- Individuals must demonstrate ongoing CPD to retain qualifications
- Benefits individuals, organisations & society













www.imarest.org

## Free e-learning bundle



'An introduction to Hydrographic Governance'

## 1. An introduction to Hydrographic Governance



## What is it?



#### Welcome to An Introduction to Hydrographic Governance

In this video, IMarEST Communications Director Charlotte Lord welcomes you to this module and gives a brief explanation of the materials, and why we are delivering them. Charlotte also discusses how the IMarEST and MLA College can develop bespoke training materials for you a...

■ Video Completed Viewed? <u>Yes / No</u> <u>View</u>



#### Hydrographic governance: lecture videos

A selection of lecture videos looking at a number of aspects of hydrographic governance. These lectures are taken from a range of Undergraduate and Postgraduate programmes from the full MLA College suite.



#### Hydrographic governance: transcripts

These transcripts are provided to supplement the lecture videos within this module.

Curriculum Not started

View



#### Example assessment questions

An example of the style of assessment questions that can be created to supplement the lecture videos. These questions allow the student to test their learning, allowing them to ensure that they have understood the key aspects of the lecture. The questions within this assessment relate to...



#### Contact us

Please feel free to email or call if you would like to discuss any aspect of this module with the IMarEST and MLA College teams.

☐ Word ■ Completed

Viewed? Yes / No View



#### Registration form

In order to complete this form electronically, please open it via the web portal: https://mla.lumo-reach.com/Learner/Home

PDF Completed

Viewed? Yes / No View

- We have given you free access to our e-learning platform
- We have created a bundle of learning material to complement the workshop
- Access the platform online or download app for Apple & Android
- Sign up more colleagues for free

## **Topics**



### 6 lecture videos on various topics

Back to 1. An introduction to Hydrographic Governance

### Hydrographic governance: lecture videos



#### Coastal and marine activities

In this lecture, Dr Steve Fletcher introduces you to the range of competing uses that exist in coastal and marine areas whilst also considering the interactions between these activities. Steve then explores the usage of Integrated Coast Management, considering it as a mechanism to manage a...

■ Video Completed

Viewed? Yes | No View



#### Maritime zones and the Law of the Sea (part 1)

Dr Steve Fletcher starts this lecture by introducing you to the basis of the United Nations Convention of the Law of the Sea (UNCLOS). Steve considers the maritime zones as delineated under UNCLOS before looking at the impact of UNCLOS on marine environmental protection and marine...

■ Video Completed

Viewed? Yes | No View



#### Maritime zones and the Law of the Sea (part 2)

Building upon part one, Dr Steve Fletcher identifies the mechanism used to determine maritime boundaries, specifically looking at disputes and how these disputes that can be managed.

■ Video Completed

Viewed? Yes | No View



#### Improvements in navigation

John Hooper uses this lecture to introduce you to the topic of navigation. John starts the lecture by reviewing the information needed by the navigator before examining the changes that have occurred in recent time. The lecture draws to a conclusion by investigating the impact that technological adv...

■ Video Completed

Viewed? Yes I No View



#### SOLAS and the ISM Code

In this lecture, Master Mariner Paul Wright outlines the contents of the Safety of Life at Sea Convention (SOLAS), Paul also examines the objectives and implementation of SOLAS chapter IX, before he discusses the responsibilities of the ship's Master and the shipping company for develop.

■ Video Completed

Viewed? Yes | No View



#### An introduction to data management

In this lecture, Dr Jaimie Cross introduces you to the concept of data before defining what data management is. Finally, Jaimie identifies what is good data and what is bad data, and how this can impact on operations.

■ Video Completed

Viewed? Yes | No View

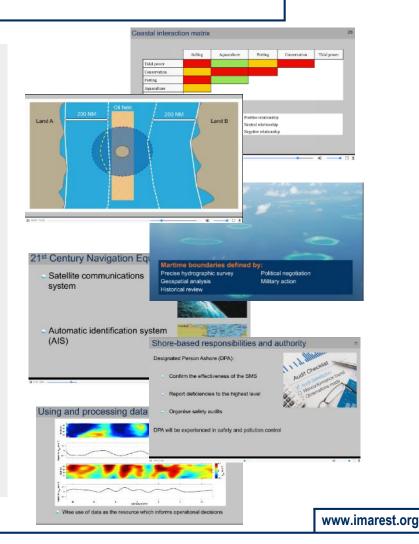
A selection of lecture videos looking at a number of aspects of hydrographic governance. These lectures are taken from a range of Undergraduate and Postgraduate programmes from the full MLA College suite.

Status Completed

Started on 25th October 2017

Completed on 3rd November 2017

Availability
Until further notice.



## **Learning tools**



## Lecture videos, maritime zones quiz and lecture transcripts

Actividades marinas y costeras

#### Pantalla 1 - Actividades marinas y costeras

Esta conferencia se centrará en la gama de actividades que tienen lugar en las zonas costeras y las razones por las cuales ciertos tipos de actividad tienden a enfocarse en áreas costeras específicas.

- Reconocer el rango de usos en competencia que existen en áreas costeras y marinas.
- Comprender las interacciones básicas entre diferentes actividades costeras y marinas.
- · Apreciar las interacciones entre las actividades marinas y costeras y el medio ambiente en el contexto del cambio ambiental.
- Reconocer la Gestión Costera Integrada como un mecanismo para administrar actividades dentro de áreas marinas y costeras ocupadas.

#### Pantalla 3 - Usos costeros y m

Muchas actividades requieren u prefiere una ubicación costera. I actividad (como la necesidad de Les zones maritimes et le droit de la mer 1 en partie : Les lignes de base ventaja comercial o de otro tipo ( ejemplo, necesitan acceso al m nque no necesitan estrictame más alto (por ejemplo, un hotel i Podria decirse que aquellas a funcionales deberían tener acc mundo, la asignación de activida más capaces de pagar ganan planificación costera pueden red articularmente demandas ya qu Tokio, Japón, en el qual los uspuerto comercial y las oficinas i esnacio costero

#### Pantalla 4 - Actividades que re

Ahora es su turno. Tómese dos que pueda. Escriba la lista en un lista, incluya actividades que tier costeras que conozca o utilice la cuando esté listo.

Compare la lista que escribió o medida que avance en estas n pantalla, ibien hecho! Aguí hay u

- Instalaciones de turismo y rec · Puertos pesqueros, mercado
- · Sitios de aterrizaie para cabl
- . Bases de servicio para infrae · Refineria de petróleo y alma
- Centrales eléctricas
- · Enlaces ferroviarios y viales

itime Zones and the Law of the Sea Part 2: Boundaries and Disputes

een 1 - Maritime Zones and the Law of the Sea Part 2: Boundaries and Disputes is the second of two lectures which focus on the Law of the Sea. This lecture will focus naritime boundaries and disputes.

Understand the mechanism for the determination of maritime boundaries. Appreciate that the determination of maritime boundaries can generate disputes.

Recognise the main mechanisms to overcome maritime boundary disputes.

delimitation of maritime boundaries is often a topic of great debate and occasionally flict. This is because the resources found in maritime zones can be very valuable and authority awarded over marine space by the designation of maritime zones is important ne protection and security of coastal states. The Law of the Sea is very clear in most

claim maritime zones, as discussed in our previous lecture. ir challenges related to the application of the Law of the Sea in s than 400nm apart and a median line must be defined. has the potential to be expanded by the existence of islands.

f disputed sovereignty ne each of these situations in turn.

ations in which coastal states are less than 400nm apart. If n 400nm apart, each can claim a full 200nm EEZ. If not, then d to define an agreed boundary. The boundary is called the e is the mid-point between the baselines of each coastal state e becomes the international maritime boundary between coastal sen of the North Sea shows the maritime area associated with istal states. Where each of the maritime zones meet, this is a ates want to maximise their marine resources, the definition of

ly calculating the mid-point of straight lines drawn be int maritime states. When joined together, the mid-p

Il examine is islands. An island is a "naturally forms which is above water at high tide" (UNCLOS Artic



Which of the following statements best describes the Law of the Sea?

A set of informal guidelines that are applied to only certain

A universal set of rules that apply to the use of all marine areas.

Maritime Zones and the Law of the Sea





Dr Steve Fletcher

Coastal and Marine Activities

Download as an offline MP4 file

4éme diapositive - CNUMD

La mission du CNUMD est définie par la Commission Européenne comme chargée d'établir « un ordre légal pour les mers et les océans qui facilitera la communication internationale et promouvra l'utilisation pacifique des mers et des océans. l'utilisation équitable et efficace de leurs ressources, la conservation de leurs ressources vivantes, et l'étude, la protection et la préservation du milieu marin. » Le CNUMD présente des mesures détaillées de législation internationale ayant une importance fondamentale pour la gestion des océans dans le monde.

1" diapositive - Les zones maritimes et le droit de la mer 1" partie ; Les lignes

Voici la première de deux présentations qui se concentre sur le droit de la mer. Cette présentation se penchera sur les caractéristiques des lignes de base et des zones

Comprendre les éléments de base de la Convention des Nations Unies sur le

. Comprendre les réglementations du CNUDM relatives à la protection du milieu

La gestion de la mer a été, pendant un certain temps, assez chaotique. Chaque pays

signifie qu'un bateau passant dans les eaux de différents pays était sujet à différentes

règles et droits dans chaque pays. Ceci mettait les navires en situation de risques et

d'après-querre, les Nations Unies ont pensé à aborder cette question en développant

un ensemble de règles universelles qui s'appliquerait aux eaux maritimes mondiales.

Ceci deviendra le droit de la mer et fut ratifié par la Convention des Nations Unies du

droit de la mer (CNUMD). Le texte de la convention fut accepté en 1982 et est entré

instaurait une grande incertitude dans le système maritime. Pendant la période

avait le droit de déterminer les règles applicables à la mer qui lui était adjacente, et

donc il n'y avait pas de cohérence ni de certitude pour les activités maritimes. Ceci

· Identifier les éléments à prendre en compte dans le cadre de la collecte de

2ème diapositive - Objectifs d'apprentissage

· Reconnaître les zones maritimes définies par le CNUDM

données sur le milieu marin associé au CNUMD.

en force en 1994 suite à sa ratification par le 6000 pays.

Droit de la Mer (CNUDM).

00:00 / 35:49 @-

## Steps to access



# Step 1: Go to mla.lumo-reach.com/Learner/Home and use the login details provided to you

1.



### Step 2: Click on

### 'An Introduction to Hydrographic Governance'



#### 1. An introduction to Hydrographic Governance

This module provides an introduction to hydrographic governance. It is also an example of types of materials produced by the IMarEST, via its education and training organisation, MLA College.



## **Step 3: Click on content to view**

3.

1. An introduction to Hydrographic Governance





#### Welcome to An Introduction to Hydrographic Governance

In this video, IMarEST Communications Director Charlotte Lord welcomes you to this module and gives a brief explanation of the materials, and why we are delivering them. Charlotte also discusses how the IMarEST and MLA College can develop bespoke training materials for you a...

■ Video Completed

Viewed? Yes / No View



#### Hydrographic governance: lecture videos

A selection of lecture videos looking at a number of aspects of hydrographic governance. These lectures are taken from a range of Undergraduate and Postgraduate programmes from the full MLA College suite.

Curriculum In progress @ 33%

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#### Hydrographic governance: transcripts

These transcripts are provided to supplement the lecture videos within this module.



## We need your help...



Tell us what you think

- We have a vast catalogue of marine related e-learning content
- We value your opinion please give us some
   feedback so we can make
   more products like this
   one
- We will email you a quick questionnaire which we would love you to complete!

LEVEL	TITLE
ACCESS to Undergraduate and Postgraduate Programmes	Sustainable Maritime Operations Access Course
	Introductory Module for Hydrography courses
UNDERGRADUATE	BSc Sustainable Maritime Operations
	BSc (Hons) Sustainable Maritime Operations
	DipHE Hydrography for Professionals
POSTGRADUATE	PGCert Sustainable Maritime Operations
	PGDip Sustainable Maritime Operations
	MSc Sustainable Maritime Operations
	PGDip Advanced Hydrography for Professionals
	MSc Advanced Meteorology for Professionals
	MSc Advanced Navigation for Professionals
"Residential practicals are held in Plymouth, UK and/or Otago, NZ. Supplement fee may vary.	MSc Advanced Oceanography for Professionals
	MSc Advanced Hydrography for Professionals

