



Delivering IOC capacity development  
for the ocean we need for the future we want

# OCEANTEACHER GLOBAL ACADEMY: IOC'S CAPACITY DEVELOPMENT TOOL

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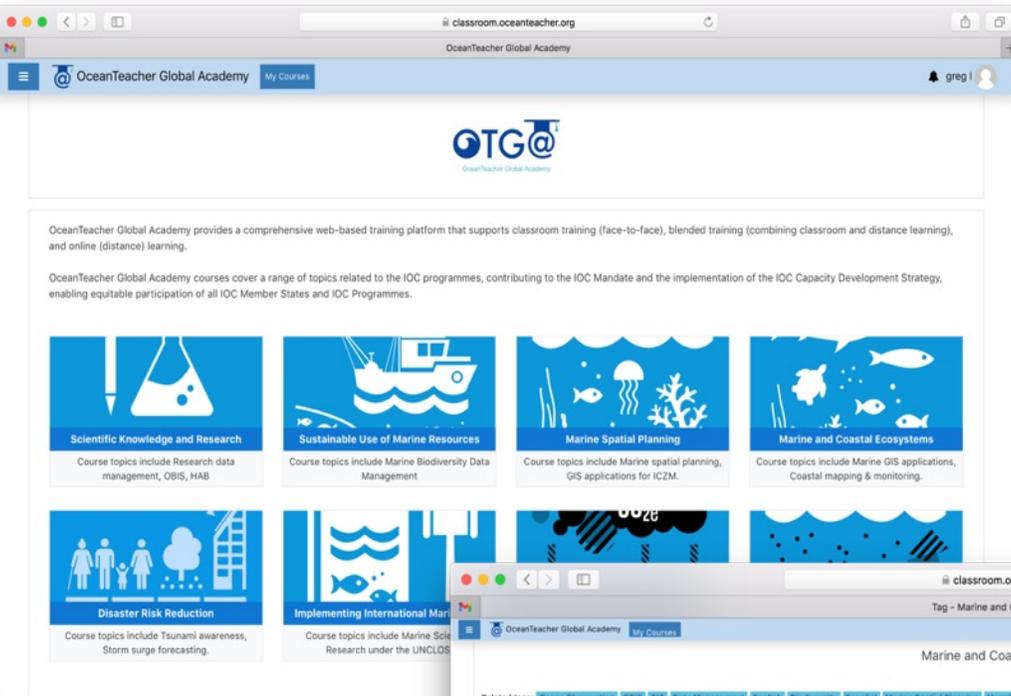


OTGA is an UN OD endorsed activity since October 2021

# Delivering as One

 <p><b>Scientific Knowledge and Research</b></p> <p>Course topics include Research data management, OBIS, HAB</p>	 <p><b>Sustainable Use of Marine Resources</b></p> <p>Course topics include Marine Biodiversity Data Management</p>	 <p><b>Marine Spatial Planning</b></p> <p>Course topics include Marine spatial planning, GIS applications for ICZM.</p>	 <p><b>Marine and Coastal Ecosystems</b></p> <p>Course topics include Marine GIS applications, Coastal mapping &amp; monitoring.</p>
 <p><b>Disaster Risk Reduction</b></p> <p>Course topics include Tsunami awareness, Storm surge forecasting.</p>	 <p><b>Implementing International Marine Law</b></p> <p>Course topics include Marine Scientific Research under the UNCLOS.</p>	 <p><b>Ocean Acidification</b></p> <p>Course topics include Impacts of ocean acidification.</p>	 <p><b>Marine Pollution</b></p> <p>Course topics include Prevention and reduction of marine pollution.</p>

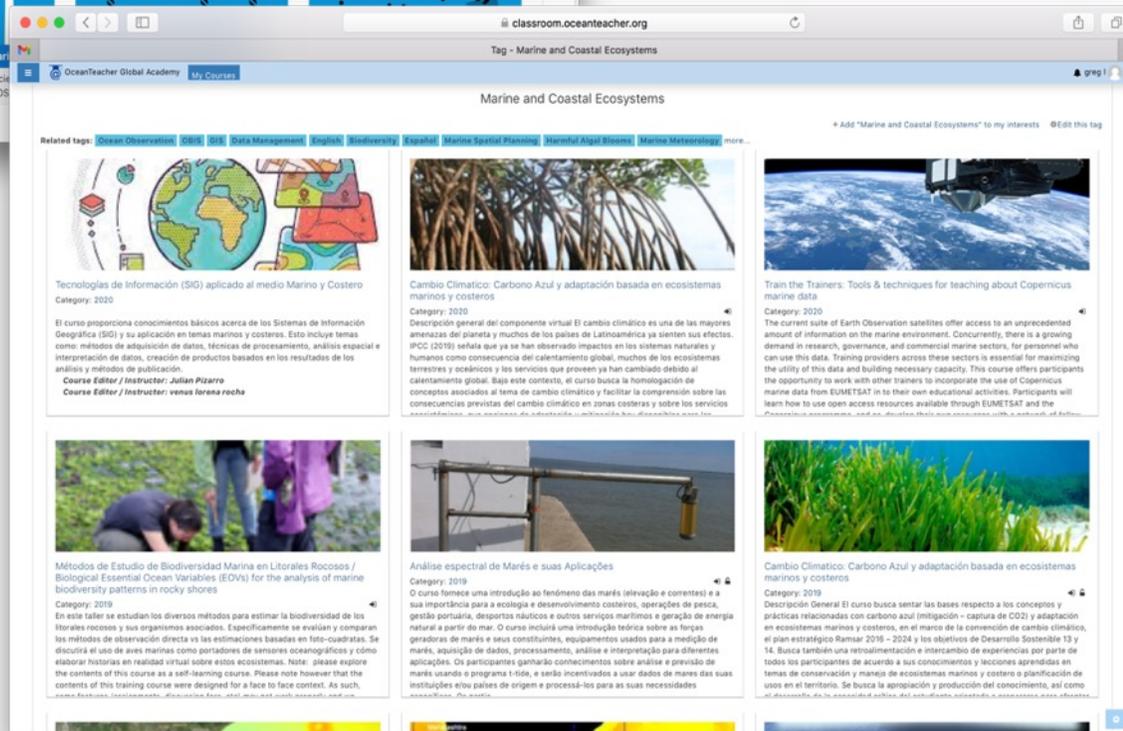




Learn anywhere,  
anytime



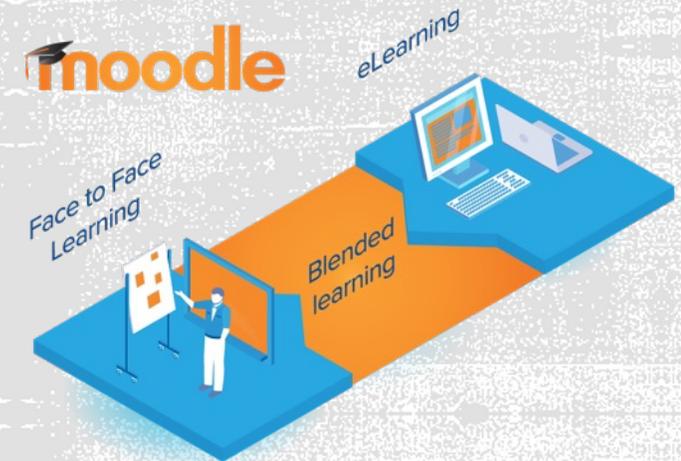
Open Access



Moodle:  
Modular  
Object  
Oriented  
Dynamic  
Learning  
Environment

# OceanTeacher e-Learning Platform

OT eLP (in short)





# OTGA: Global network of Regional and Specialized Training Centres (RTCs & STCs)





# **OTGA 2.0: global network of Regional and Specialised Training Centres (RTCs & STCs)**

Department of Marine and Fisheries Sciences (DMFS), University of Ghana	Institute of Oceanography and Environment (INOS), Universiti Malaysia Terengganu, Malaysia
Indonesia Agency for Meteorology, Climatology and Geophysics (BMKG), Indonesia	Centre for Marine Research and Technology (UEM), Mozambique
UNESCO/IOC Project Office for IODE, Belgium	Marine and Coastal Research Institute in Colombia (INVEMAR), Colombia
International Training Centre for Operational Oceanography (ITCOOcean), India	University of Uruguay (UdelaR)/University of Santa Catarina (UFSC), Uruguay/Brazil
Escuela Superior Politécnica del Litoral (ESPOL), Ecuador	Universidade de Aveiro, Portugal
Escuela de Ciencias del Mar, Argentina	National Marine Data and Information Service (NMDIS)/National Center of Ocean Standards and Metrology (NCOSM), China
Kenya Marine and Fisheries Research Institute (KMFRI), Kenya	International Tsunami Information Center (ITIC), USA
University of Bergen, Norway	Pacific Community (SPC), Fiji
IOC Science and Communication Centre on Harmful Algae, University of Copenhagen, Denmark	





# UNESCO/IOC Project Office for IODE: OTGA Secretariat



OceanTeacher Global Academy



Project  
Coordination



Project Technical  
Support



Overseeing the  
project activities

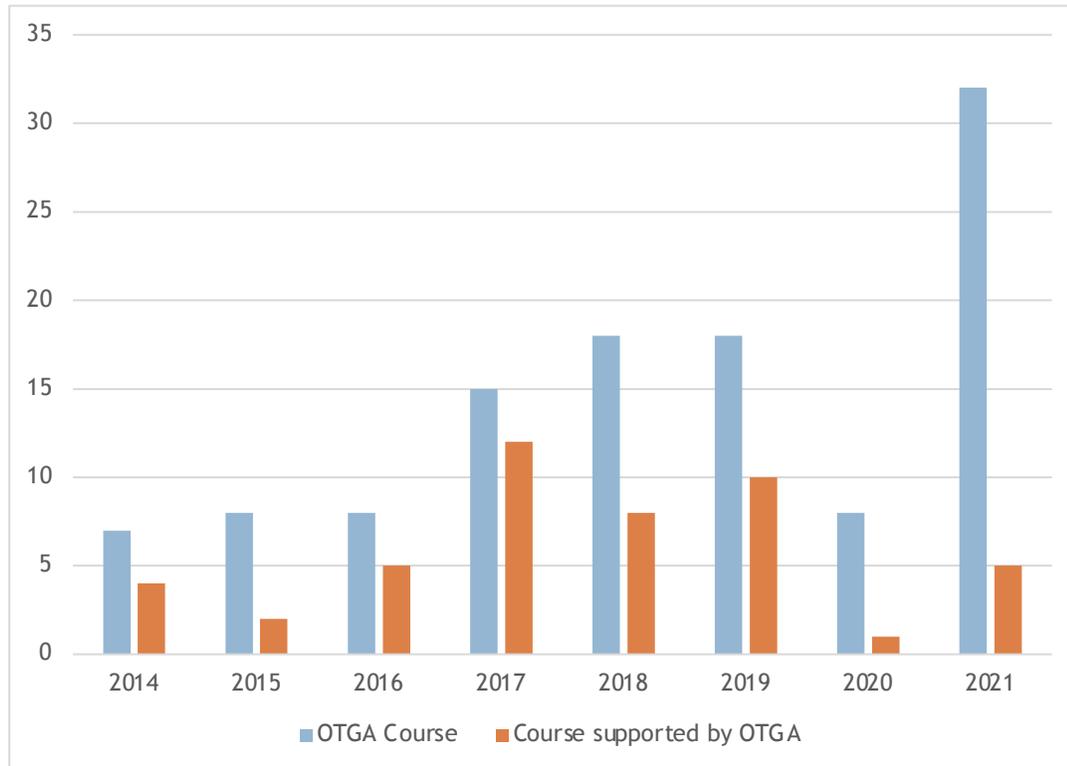


Communication &  
Outreach

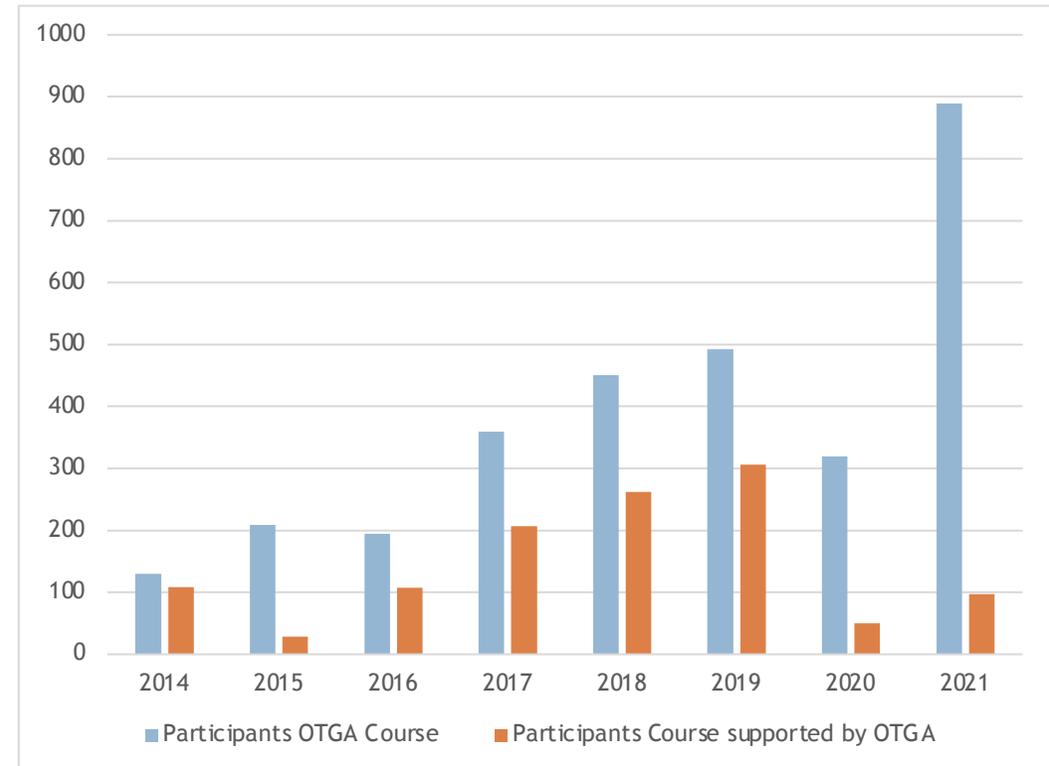


# OTGA Project: activity overview

## Courses 2014-2021

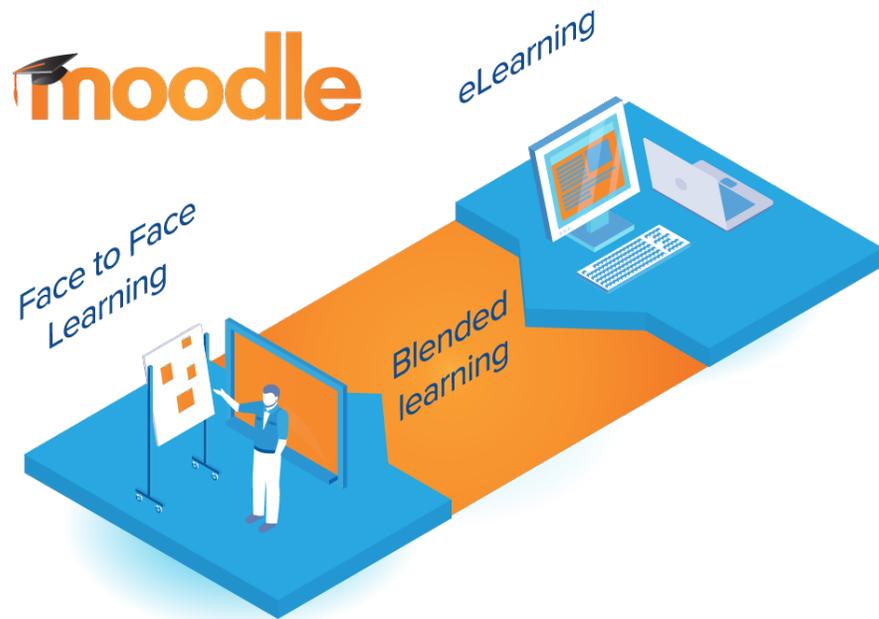


## Course participants 2014-2021





# OTGA courses



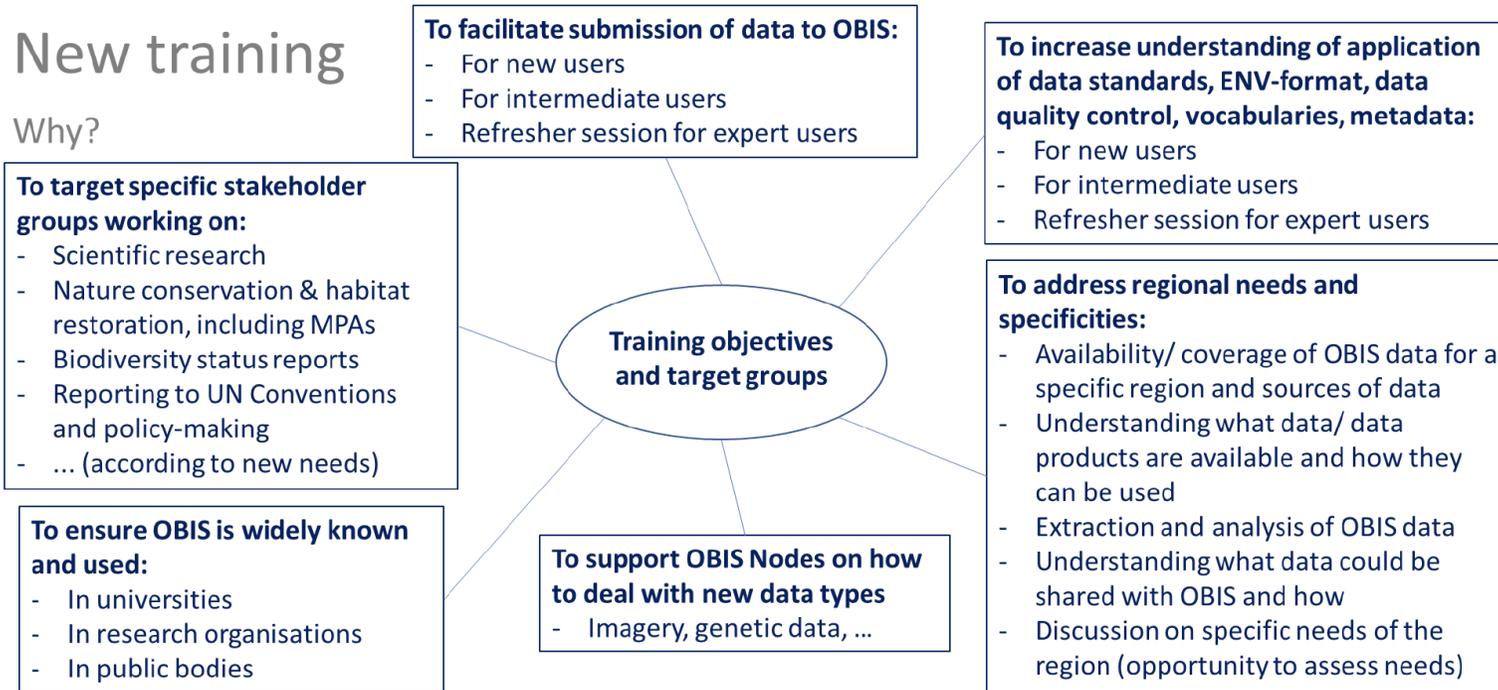
- Onsite (Face to face)
- Blended
- **Online courses**
  - Self paced
    - Limited in time (or not)
  - **Facilitated (i.e. with tutor assistance)**
    - Synchronous activities
    - Asynchronous activities
- Not MOOCs! (Massive Open Online Courses)



# OBIS Training Needs

## New training

Why?



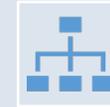
How? Through ...

- Further development of training sessions by OBIS in the OceanTeacher Global Academy; practical exercises
- Development of OBIS training modules that can be integrated into training courses organised by partners
- Assessment of needs for training content in the curriculum of marine biology students (universities)
- Development of video tutorials and material that can be published online and potentially included in MOOCs

Figure 2. Gaps and opportunities for improvement in the field of training



## OTGA Support:



Provide procedures on how to plan and design a course



Provide recommendations on how to use the OceanTeacher Learning Management System



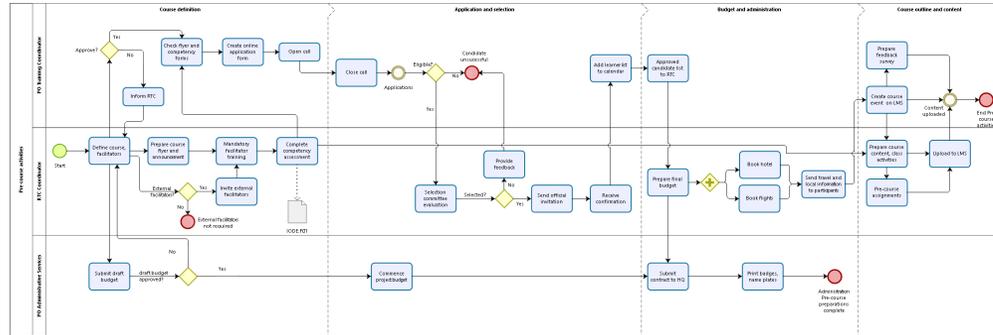
Provide instruction on administrative procedures for organizing OTGA courses



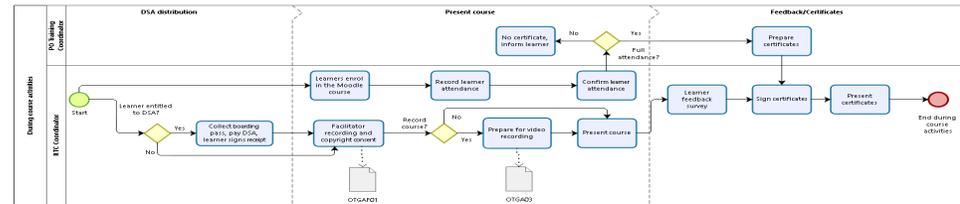
# OTGA Course Management Guidelines



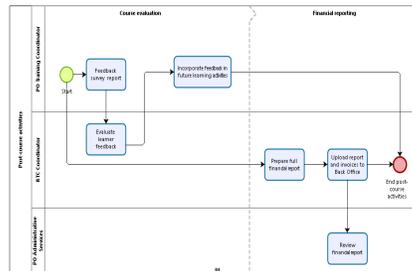
## PRE COURSE



## COURSE ONGOING



## POST COURSE



The UNESCO/IOC Project Office for IODE is certified as a Learning Services Provider



Document No. OTGA01



## OCEANTEACHER GLOBAL ACADEMY COURSE MANAGEMENT GUIDELINES



Flanders  
State of the Art

Version 3.1  
October 2021



# Course organization



Course Planning



Course Design + Managing course content



Course Facilitation



Course Feedback and Evaluation



Course Certificates



Administration Procedures for onsite and online courses



Quality Management





# Course planning timeline

- Course planning should begin 16 weeks before the start of the course





Document No. IODE.F08

### OTGA Training Course Proposal Form

To be completed for all OTGA Training Course proposals.

<b>Title of course</b>			
<b>Date and location of course</b>			
<b>Length of course</b>		hours	
<b>Type of course</b>	Face-to-face <input type="checkbox"/>	On-line <input type="checkbox"/>	Blended <input type="checkbox"/> Other
<b>Course description</b>			
<b>Aims and Objectives</b> ( <i>Why should participants attend this course?</i> )			
<b>Expected learning outcomes</b> ( <i>List the intended outcomes., including skills and knowledge gained</i> )			
<b>Target audience and prerequisites</b> ( <i>Who should attend? What prerequisite knowledge is required</i> )			
<b>Course content</b> ( <i>Topics and activities to be covered.</i> )			
<b>Pre-course Activities or Assessment</b> ( <i>Is there a pre-course phase? Is there a pre-course assessment to determine who will attend?</i> )			
<b>Course Format</b> ( <i>e.g. lectures, case studies, practical exercises, distance learning, other activities</i> )			
<b>Learner Assessment</b> ( <i>How will learning be measured e.g. assignments, tests, etc.? Will a course certificate be issued for successful completion?</i> )			
<b>Language of instruction</b>			
<b>Instructors</b> ( <i>Names and affiliation of instructors</i> )			
<b>Costs</b> ( <i>Is financial support available? What are the criteria for support? Self-sponsorship?</i> )			
<b>Accreditation</b> ( <i>Is this a University accredited course? Provide details</i> )			
<b>Submitted by:</b>		<b>Contact email:</b>	
<b>OTGA use</b>	<b>Date received:</b>		<b>Date approved:</b>
<b>Course code:</b>			

Email the completed form to [ioc.training@unesco.org](mailto:ioc.training@unesco.org)

# Course Proposal form

- The OTGA Training Course Proposal Form (*Document No. IODE.F08*) should be completed for all proposals for new courses.
- This form should also be used for proposals to redevelop or extend existing courses





# Course organization



- Course announcement (OE, social media, etc)
- Call for applications / registration
- Online application form
  - If F2F and financial support needed, endorsement is mandatory
- Selection process
- Selected / not selected notifications
- Course facilitation
  - Attendance
  - Course completion, activity reports, etc
  - Dedicated web conferencing tool
  - Certificates
- Course satisfaction survey and evaluation



On site courses, blended, online courses





# Course Design

- Mode of delivery
- Specific learning paths,
- Modular, badges
- Providing opportunities for collaboration
- Assessment tools
- Certificate

**Learning Outcomes need to be aligned with the course contents**

## **Course Modules (standard structure):**

Module Introduction

Learning Outcomes

Required Reading/Viewing/Listening

Exercises/self assessment

How to Proceed

Module Summary



# Course Design

## The changes we need: Ocean training post COVID-19

### Astronauts are trained on Earth



 Springer Link

[Open Access](#) | [Published: 18 February 2021](#)

#### The changes we need: Education post COVID-19

[Yong Zhao](#)  & [Jim Watterston](#)

*Journal of Educational Change* **22**, 3–12 (2021) | [Cite this article](#)

**30k** Accesses | **9** Citations | **89** Altmetric | [Metrics](#)

#### Abstract

The COVID-19 pandemic has caused both unprecedented disruptions and massive changes to education. However, as schools return, these changes may disappear. Moreover, not all of the changes are necessarily the changes we want in education. In this paper, we argue that the pandemic has created a unique opportunity for educational changes that have been proposed before COVID-19 but were never fully realized. We identify three big changes that education should make post COVID: curriculum that is developmental, personalized, and evolving; pedagogy that is student-centered, inquiry-based, authentic, and purposeful; and delivery of instruction that capitalizes on the strengths of both synchronous and asynchronous learning.

<https://link.springer.com/article/10.1007/s10833-021-09417-3>



# (online) (distance) (remote) e-learning?



E-learning can be defined as the use of computer and Internet technologies to deliver a broad array of solutions to enable learning

Source:

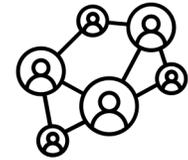
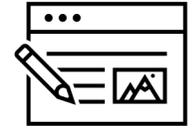
E-learning methodologies: A guide for designing and developing e-learning courses. FAO 2011.



# Course Design

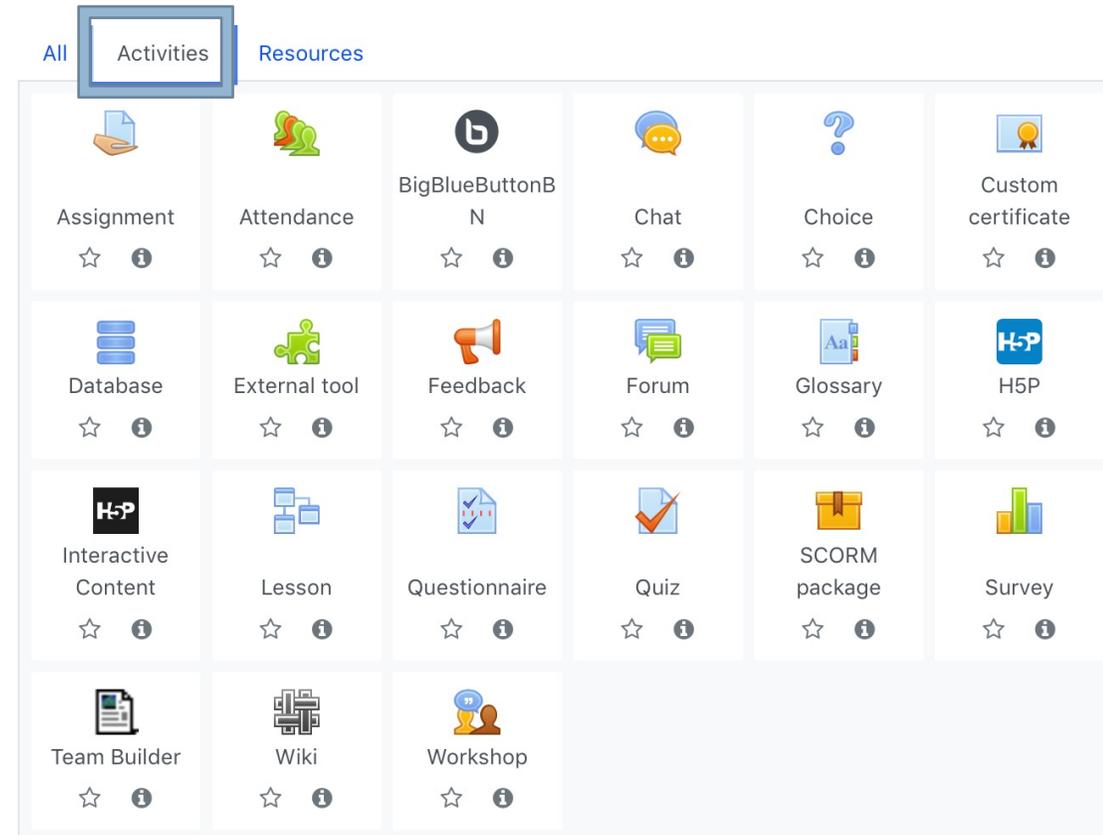
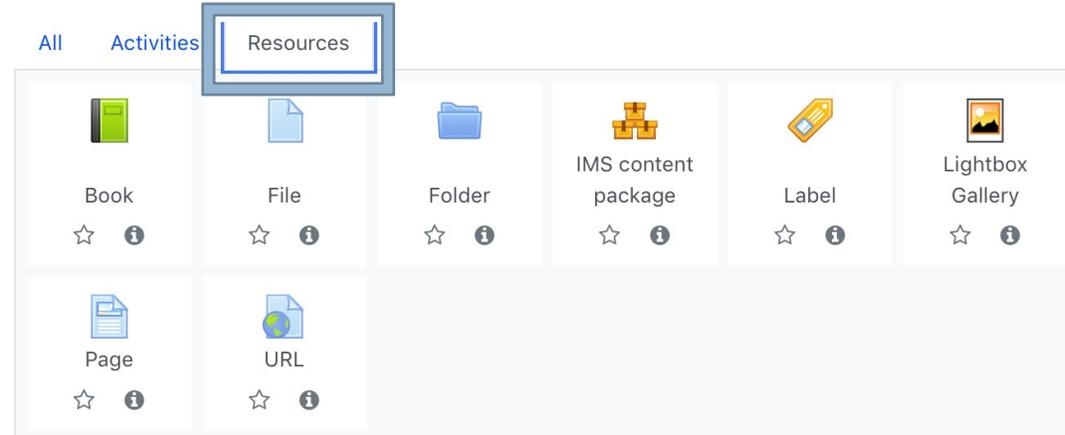
A series of tutorials do not make a course

- Workload vs timeline
- Synchronous / live events
- Opportunities for learner collaboration
  - Chat, forum, BBB
- Assessment tools
  - Formative vs summative
  - Automatic grading
  - Tutor grading + feedback
- Mandatory vs optional content
- Criteria for Certificate
- Internet bandwidth and accessibility





# Course content management: Moodle LMS



External tool



Delivering as  
One



Delivering IOC capacity development  
for the ocean we need for the future we want



2021 United Nations Decade  
2030 of Ocean Science  
for Sustainable Development

[www.ioc-cd.org](http://www.ioc-cd.org)  
[www.oceanteacher.org](http://www.oceanteacher.org)

[ioc.training@unesco.org](mailto:ioc.training@unesco.org)

