
OceanTeacher Global Academy

Tsunami Awareness

Tsunami Ready

TWC Minimum Staff
Competencies



Dr. Laura Kong

Director, International Tsunami Information Centre



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Commission











OceanTeacher Global Academy: Delivering IOC Capacity Development



- Global network of 17 Specialised Training Centres (STC, topic focus) and Regional Training Centres (RTC, regional focus)
- RTCs and STCs play a major role by enabling training relevant to the IOC programmes and regions

ITIC is STC for Tsunamis



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



OceanTeacher Global Academy: Global training hub



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OTGA provides education and training for managers and researchers

OTGA provides open educational resources for online learning

OTGA makes quality training resources openly available

OTGA delivers training in four languages

OTGA offers free online, blended and classroom courses and modules

The UNESOC-IOC Project Office for IODE, host of the OTGA, is an ISO certified learning services provider





OceanTeacher Global Academy: Supporting UN processes



OTGA: delivering Capacity Development for the ocean we need for the future we want

- UN Decade of Ocean Science for Sustainable Development (2021-2030)
- UN Agenda 2030 and its Sustainable Development Goals

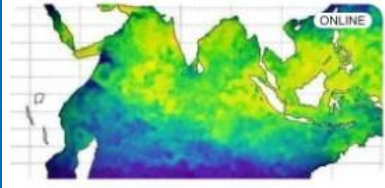




OceanTeacher Global Academy: Training courses



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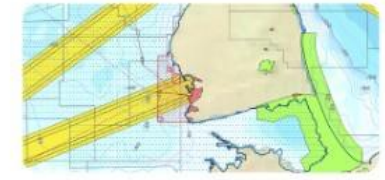
Discovery and Use of Operational Ocean Data Products and Services



Remote Sensing of Coral Reefs



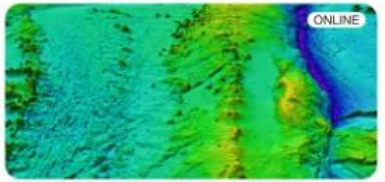
Ocean Data Management



Marine GIS Applications for Integrated Coastal Zone Management



Ocean Acidification



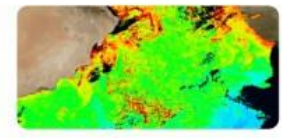
Fundamentals of Ocean Floor Mapping



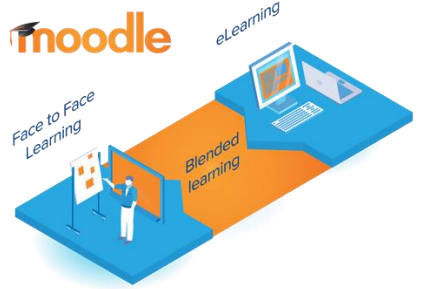
Earth Observation data and techniques for fisheries management



Tsunami Awareness



Ocean Colour Remote Sensing - Data, Processing and Applications



UNESCO-IOC Tsunami Courses

- ITIC STC courses will be collaborative IOC TSR
- Course names start with UNESCO-IOC xxx
- Self-paced, independent, no trainer interaction
 1. Tsunami Awareness (available since 25 June 2024)
 2. Tsunami Ready (soon, October)
- Hybrid and/or In-person
 1. Tsunami Warning Center Operations (SOPs) – Minimum Staff Competencies. (2025)
 2. Tsunami Early Warning Systems (TEWS)
 3. Tsunami Evacuation Maps, Plans, and Procedures (TEMPP)




OceanTeacher Global Academy: Tsunami training courses



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TsunamiAware2024

UNESCO-IOC Tsunami Awareness

11.5 Disaster Risk Reduction

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 English




TsunamiReady2024

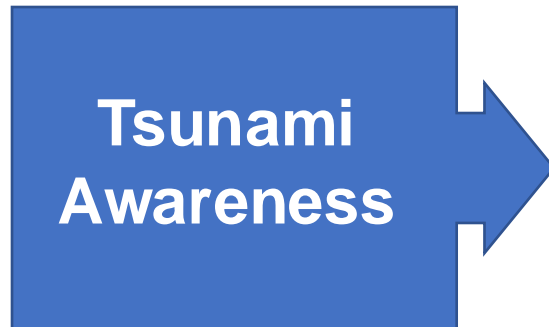
UNESCO-IOC Tsunami Ready

11.5 Disaster Risk Reduction

Itic
Training Center

 English

- OTGA Tsunami Awareness certificate required to enroll in Tsunami Ready
- ITIC and IOC TSR Joint work on OTGA Tsunami Awareness Materials



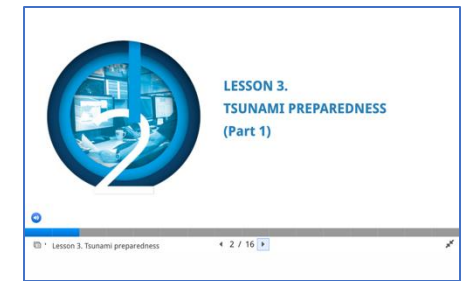
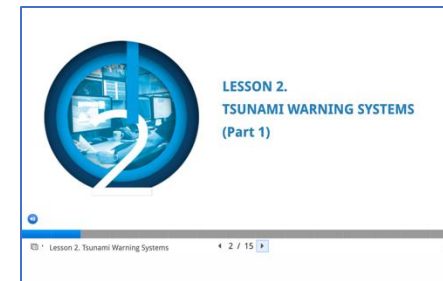
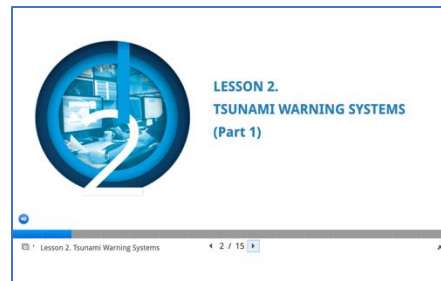
Pre-Quiz

Lesson 1: Tsunami Basics (Parts 1 and 2)

Lesson 2: Tsunami Warning Systems (Parts 1 and 2)

Lesson 3: Tsunami Ready Preparedness (Parts 1 and 2)

Post-Test



- 2 parts (18, 23 Slides)
- 2 parts (14, 18 Slides)
- 2 parts (15, 23 Slides)
- All Lessons have Activities, Knowledge review checks, Narration



OceanTeacher Global Academy: Tsunami Awareness Training course



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Lesson 1. Tsunami Basics



The goal of this lesson is to introduce basic tsunami science, including the hazards produced by tsunamis, the causes and generation mechanisms of tsunamis, the propagation of tsunamis, and the ways tsunamis manifest themselves near or at the shore.

Enter Section →

0% complete

Restricted | Not available unless: The activity **Getting started** is marked complete

Lesson 2. Tsunami Warning Systems



The goal of this lesson is to provide an overview of an end-to-end tsunami warning system with a focus on the operational components of a tsunami warning system and the processes involved in detecting and warning for a tsunami.

Enter Section →

0% complete

Restricted | Not available unless:

- The activity **Activity 1.1. Natural Hazards Image Database** is marked complete
- The activity **Activity 1.2. Natural Hazards Viewer** is marked complete
- The activity **Activity 1.3. Tsunami Travel Times** is marked complete
- The activity **Activity 1.4. Global Historical Tsunami database** is marked complete

Lesson 3. Tsunami Preparedness



The goal of this lesson is to highlight the importance of preparedness, with a focus on community response strategies that will effectively reduce tsunami risk.

Enter Section →

50% complete

Restricted | Not available unless:

- The activity **Activity 2.1. Earthquake monitoring** is marked complete
- The activity **Activity 2.2. Tsunami Monitoring and Detection** is marked complete
- The activity **Activity 2.3. Tsunami Warning Messages** is marked complete



OceanTeacher Global Academy: Tsunami Awareness Training course Lesson:



The goal of this lesson is to introduce basic tsunami science, including the hazards produced by tsunamis, the causes and generation mechanisms of tsunamis, the propagation of tsunamis, and the ways tsunamis manifest themselves near or at the shore.



Lesson 1. Tsunami Basics (Part 1)

[View](#) [Go through the activity to the end](#)



Lesson 1. Tsunami Basics (Part 2)

[View](#) [Go through the activity to the end](#)



Activity 1.1. Natural Hazards Image Database

[View](#) [Make a submission](#)



Activity 1.2. Natural Hazards Viewer

[View](#) [Make a submission](#)



Activity 1.3. Tsunami Travel Times

[View](#) [Make a submission](#)




Activity 1.4. Global Historical Tsunami database


[View](#) [Make a submission](#)



OceanTeacher Global Academy: Tsunami Awareness Training course Activities:

TEST YOUR UNDERSTANDING

What should you do if you feel a big earthquake and you are near the coast? 

Call the Emergency Management Office or the Police to ask what to do 

Drop, Cover, and Hold on during the earthquake shaking. Then, leave the coast quickly since a tsunami might be coming

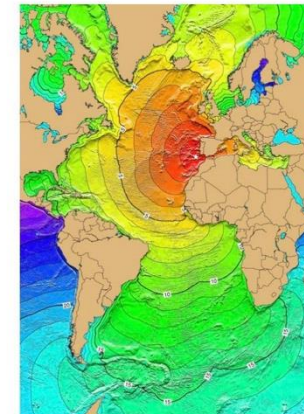
Wait to see if a tsunami warning is issued

Assess the earthquake damage to your home and report the information to local officials

Activity 1.3. Tsunami Travel Times

[View](#) [Make a submission](#)

When a tsunami is generated, we want to know how long it will take to reach us. The speed of the tsunami depends only on the water depth, and we use this information to calculate the tsunami travel time.



- Go to the NOAA NCEI Tsunami Travel Time Maps.
- Choose the ocean you are in, then select a tsunami event.
- From the maps generated using Tsunami Travel Time, estimate the time it will take to reach your location (or a location of choice).
- Add submission then write your answer text box



OceanTeacher Global Academy: Tsunami Awareness Training course Final Test & Certificate of Completion:



UNESCO-IOC Tsunami Awareness

Course home

Post assessment Quiz

← Previous activity Next activity →

Time left 0:58:52

Quiz navigation

1 2 3 4 5 6 7 8 9 10
11 12 13 14 15 16 17 18 19 20

Finish attempt ...
Start a new preview

Question 1
Not yet answered
Marked out of 1.00
Flag question
Edit question

Which of the following can trigger tsunamis

Select one:

- Earthquakes and Hurricanes
- Earthquakes, Landslides, Volcanic Eruptions, Meteors
- Landslides
- Volcanic eruptions

Question 2
Not yet answered
Marked out of 1.00
Flag question
Edit question

Rank the following tsunamis from deadliest (1) to least casualties (4)

26 December 2004 Indian Ocean tsunami	Choose...
22 May 1960 Chile tsunami	Choose...
11 March 2011 Japan tsunami	Choose...
17 July 1998 Papua New Guinea	Choose...

Question 3
Not yet answered
Marked out of 1.00
Flag question
Edit question

The word tsunami comes from the Japanese term ...

- Tidal wave
- Seismic wave
- Harbour wave

Question 4
Not yet answered
Marked out of 1.00
Flag question

Tsunamis are different from wind waves because

Select one:

- the time between two tsunami waves can be many minutes, while wind waves are usually only several seconds apart.
- tsunamis are higher than wind waves

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION OF UNESCO (IOC)

UNESCO
Intergovernmental Oceanographic Commission

2021 United Nations Decade
of Ocean Science
for Sustainable Development

ITIC

NDRR

OTG@
OceanTeacher Global Academy

hereby certifies that

Greg Reed

successfully completed the 6-hour online training course

UNESCO-IOC Tsunami Awareness

organized by the UNESCO/IOC Project Office for IODE

7 June 2024

Certificate No.
iXSY4wXP9

GO GREEN

Course Learning Outcomes

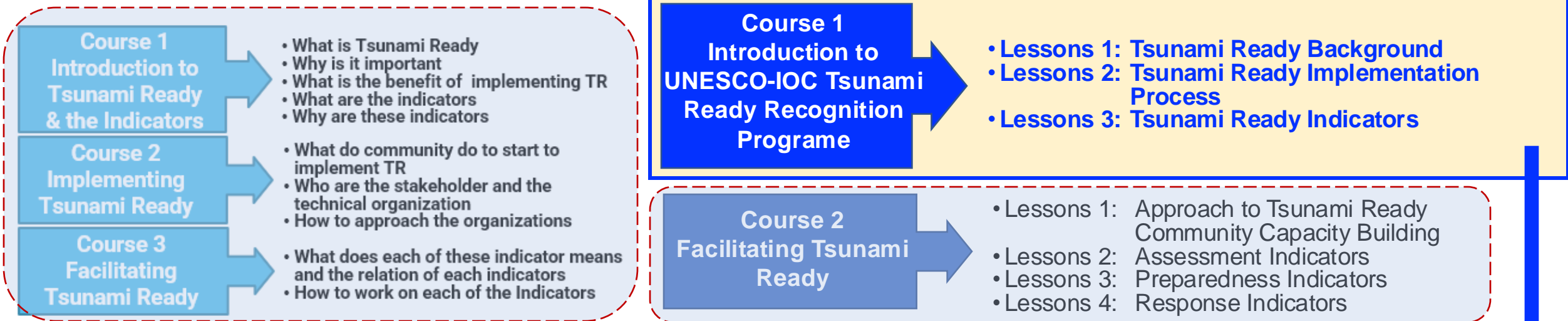
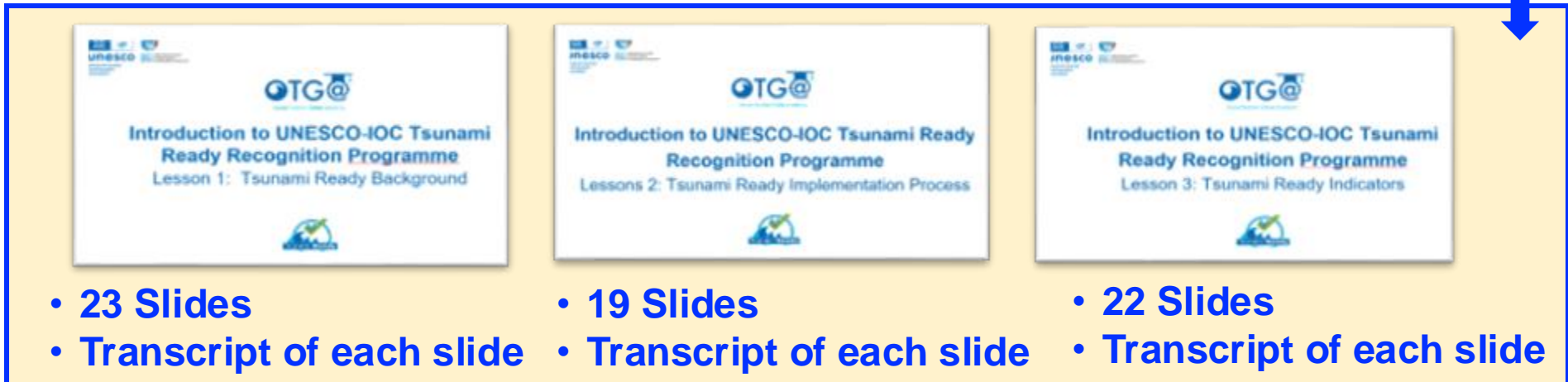
- Describe the tsunami phenomena and identify the causes and generation mechanisms of tsunamis (how these waves are different from other ocean waves), their generation, propagation and inundation.
- Explain the various impacts of tsunami hazards.
- Identify the natural signs of an approaching tsunami and teach others about appropriate actions to take when a tsunami warning message is issued.
- Recognise the Tsunami Ready Community indicators.

Head
IOC Tsunami Resilience Section

Director
International Tsunami Information Centre

IODE Program Coordinator
IOC Capacity Development Coordinator

IOTIC and ITIC Joint work on OTGA Tsunami Ready Training Materials

Three slide thumbnails are shown, each with the OTGA logo and UNESCO/IOC logos. Below each thumbnail are the slide count and transcript availability:

- Slide 1:** Introduction to UNESCO-IOC Tsunami Ready Recognition Programme, Lesson 1: Tsunami Ready Background. **• 23 Slides**, **• Transcript of each slide**
- Slide 2:** Introduction to UNESCO-IOC Tsunami Ready Recognition Programme, Lessons 2: Tsunami Ready Implementation Process. **• 19 Slides**, **• Transcript of each slide**
- Slide 3:** Introduction to UNESCO-IOC Tsunami Ready Recognition Programme, Lesson 3: Tsunami Ready Indicators. **• 22 Slides**, **• Transcript of each slide**



PTWS Tsunami Warning Center Staff Minimum Competencies Training - pilot



- Competency Framework approved ICG/PTWS-XXX (2023)
- ITIC create training, with country partners (USA NOAA-PTWC/PMEL, NZ, Australia, Japan, Chile with Pacific Island Countries (PIC))
- Funding: USAID funding, IOC Ocean Training Intern (Q3 2024)
- Series of courses - from self-paced to in-person housed under OTGA
- In order to take next Lesson, must pass previous Lesson and Course. Start with OTGA Tsunami Awareness and Tsunami Ready
- Finish and pilot in late Dec 2025/early 2026 with 1 small cohort (PIC)
- Modules (to be individual OTGA, or US COMET MetEd courses)
 1. Core and Advanced Knowledge (multiple Lessons)
 2. Core and Advanced Operations (multiple Lessons)
 3. Core Agency (multiple Lessons)

Final training will be in-person (3-4 weeks at ITIC/PTWC)



OceanTeacher Global Academy

