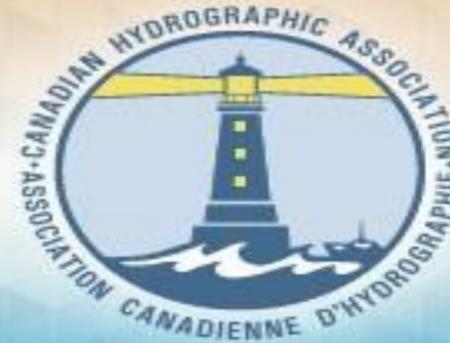


# CHC-NSC 2018

[www.chc-nsc2018.ca](http://www.chc-nsc2018.ca)

Victoria, B.C.  
March 26-29, 2018

Victoria, C.B.  
26 au 29 mars 2018



Land and Sea Shaping the World  
Terre et Mer Façonnant le Monde

# IHO Cat A / B Programs

Shelly Leighton, P. Eng., CLS.

Marine Institute (Memorial University)

Newfoundland and Labrador



#CHCNSC2018

#chcns2018

# In This Presentation



## Importance of Certification

What does certification mean to hydrographers and cartographers in Canada.



## Recognized Programs - Internationally

Where can someone interested in becoming certified get the required education internationally.



## Recognized Programs - In Canada

Where can someone interested in becoming certified get the required education in Canada.

# IHO Guidelines for the Implementation of Standards



## Ensures Continuance of Standards

Minimum degree of knowledge necessary for hydrographic surveyors.



## S-5 A

Content and learning outcomes from an underlying principles level.



## S-5 B

Content and learning outcomes primarily from a practical level.



## Period of Recognition

Program or scheme remains valid for 6 years.



## Level of Knowledge

Bloom's taxonomy applied to describe intended learning outcomes.

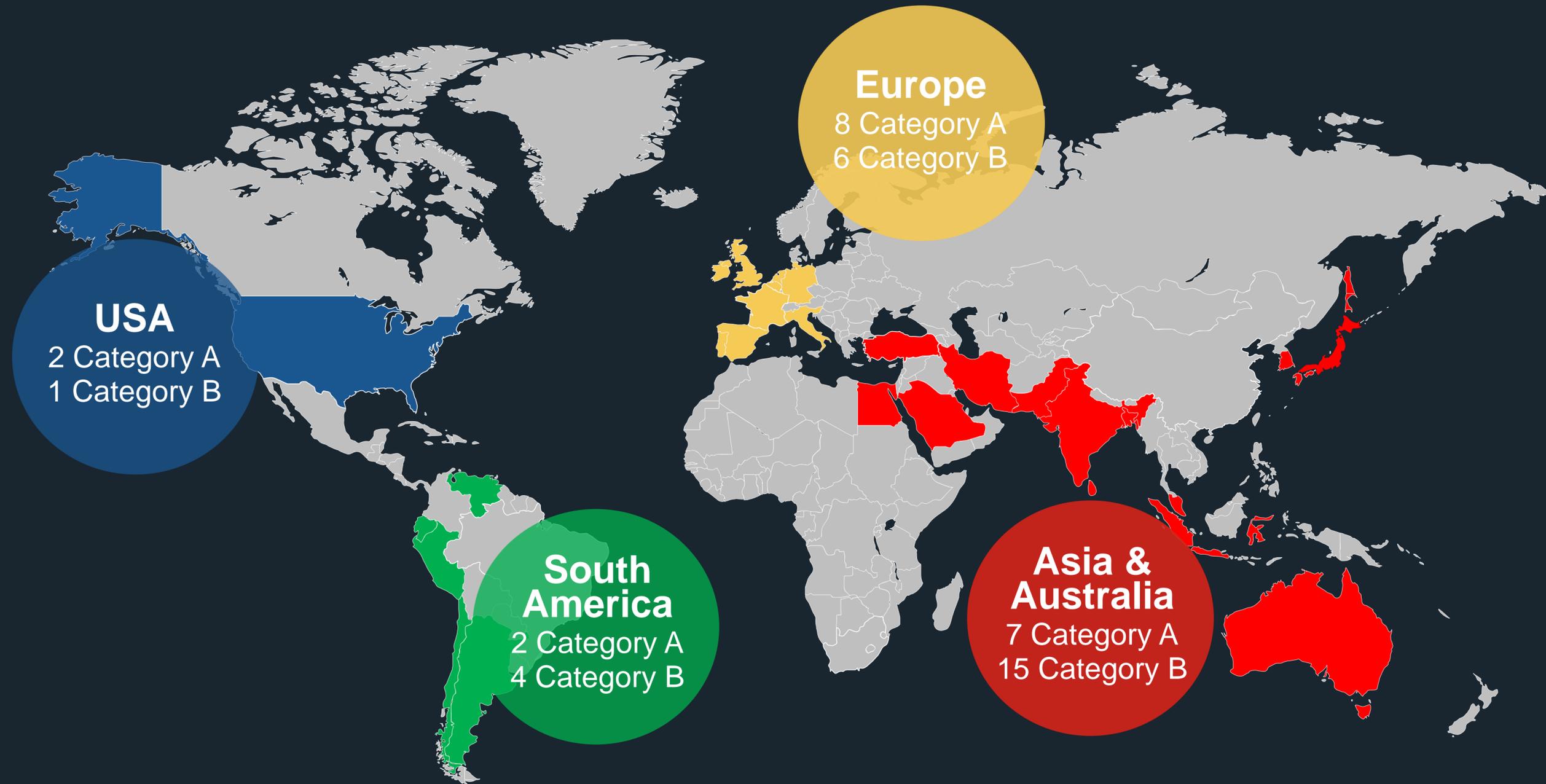


## Individual Recognition

IBSC does not grant recognition to individuals.

# Worldwide

Study Abroad



## LIST OF RECOGNIZED HYDROGRAPHY PROGRAMMES

Year	Edition	Programme	Institution	Country	Cat	HC	Options	Language	Duration (weeks)	Next Rec.
2011	11th	Specialization Course in Hydrography for Navy Officers and Civilian Attendees	Argentinean Navy Sea Sciences Academy	Argentina	B	H	1,5,7	Spanish	42	2018
2016	11.1.0	H2 Hydrographic Surveying Course	Royal Australian Navy	Australia	B	H	1	English	26	2022
2014	11.0.1	Basic Hydrographic Course	Bangladesh Navy Hydrographic School	Bangladesh	B	H	2,6	English	22	2020
2013	11th	Postgraduate Programme Hydrography B	Antwerp Maritime Academy - Institute for	Belgium	B	H		English	52	2019

Year	Edition	Programme	Institution	Country	Cat	HC	Options	Language	Duration (weeks)	Next Rec.
2011	11th	Graduate Program in Ocean Mapping	University of New Hampshire/NOAA Joint Hydrographic Center	USA	A	H	1,5	English	52	2018

2016	11.1.0	Ocean Mapping – Joint Diploma of Technology / Bachelor of Technology	The Fisheries and Marine Institute of Memorial University of Newfoundland (MI)	Canada	B	H	1,2,3,4,5,7	English	208	2022
2017	1.0.0	Course in Hydrography and Oceanography	Hydrographic and Oceanographic Service of the Chilean Navy	Chile	A	H	-	Spanish	88	2023
2012	11th	Programme for Bachelor of Engineering Degree in Hydrography	Dalian Naval Academy (DNA)	China	A	H	1,2,3,4,5,6,7	Chinese English	208	2018
2016	11.1.0	Specialty Course in Hydrography	Oceanographic Institute of the Navy	Ecuador	B	H	1,2,6	Spanish	78	2022
2017	1.0.0	Hydrographic Survey Programme	Egyptian Navy Hydrographic Department and the Arab Academy for Science and Technology	Egypt	B	H	-	Arab	24	2023
2016	11.1.0	Master of Science in Hydrography	ENSTA Bretagne	France	A	H	1,2,5	English French	104	2022
2016	11.1.0	Option Hydrographique et Océanographique	ENSTA Bretagne	France	A	H	1,2,5	English French	76	2022
2016	1.0.0	Advanced Training Course on Hydrography for Petty Officers	SHOM	France	B	H	1	French	78	2022
2017	1.0.0	Master of Science in Geomatics / Specialisation in Hydrography	HafenCity University Hamburg (HCU)	Germany	A	H		English	104	2023



# Center for Coastal and Ocean Mapping – Joint Hydrographic Center NH



**IHO Standard Recognized  
Category A Designation**



**Admission**  
B.Sc. Engineering, Earth  
Sciences, Biology.

Graduate Diploma  
M.S. Earth Science  
M.S. Ocean Engineering  
Ph.D



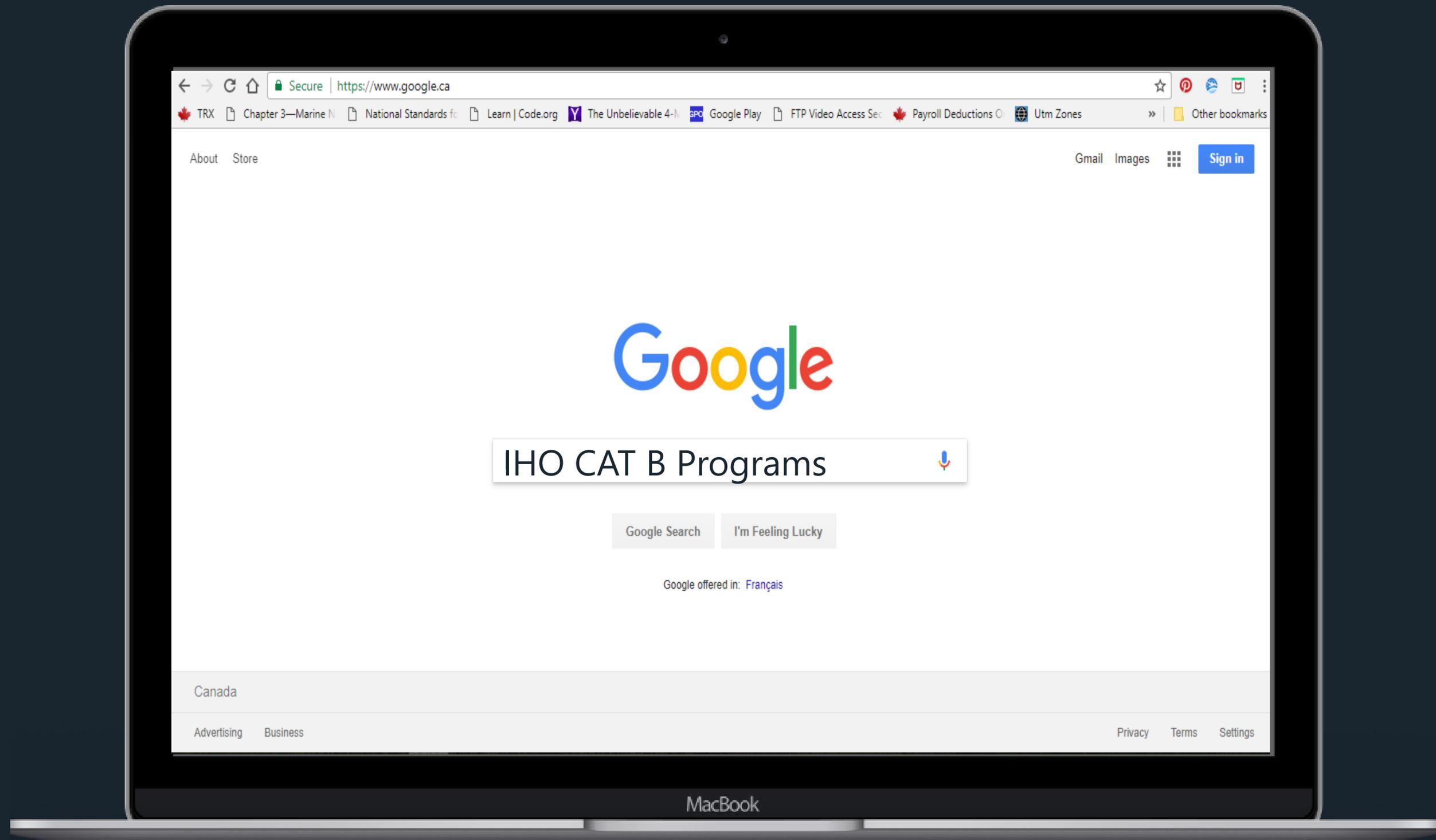
**Time Line**  
Depends on the program.



**Joint Centre**  
JHC is a partnership between the  
Uni. of New Hampshire and  
NOAA

# Online Programs

7



# Online Programs





# Skilltrade B.V.



**IHO Standard Recognized  
Category B Designation**



**Admission**  
Requires completion technical  
education.



**Time Line**  
Various online courses  
Project Course  
Offshore Safety Certs.



**\$\$\$\$\$\$**  
6 Modules ranging from 250€ -  
8100€

2016	11.1.0	Course Programme in Hydrography	Skilltrade – STC	Netherlands	B	H	2,4	English	30	2022
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# Centre Interdisciplinaire de Développement en Cartographie des Océans CIDCO



**IHO Standard Recognized  
Category B Designation**



**Admission**  
Requires completion of 2 year  
tech. dip. OR undergrad in  
geomatics.



**Time Line**  
8 Months e-learning  
5 week Survey Project – in  
Quebec



**Bilingual Support**  
Supported learning in both official  
languages.

2014	11.0.1	Course in hydrographic surveying	Centre interdisciplinaire de développement en cartographie des océans (CIDCO)	Canada	B	H	-	English	20	2020
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# Marine Institute (MUN) Newfoundland



**IHO Standard Recognized  
Category B Designation**



**Admission**  
High School with strong  
mathematics and science.

5-6 Week Technical  
Sessions x3



**Time Line**  
4 years for Bachelor Technology  
3 year exit strategy for Diploma in  
Ocean Mapping



**2019**  
Master's Program  
Course based or Thesis Route  
Graduate Diploma

Research Chair in  
Ocean Mapping

2016	11.1.0	Ocean Mapping – Joint Diploma of Technology / Bachelor of Technology	The Fisheries and Marine Institute of Memorial University of Newfoundland (MI)	Canada	B	H	1,2,3,4,5,7	English	208	2022
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# THANK YOU

*Fair weather to you and snow at your heels*