



**INTERNATIONAL OCEAN INSTITUTE**



**TRAINING PROGRAMME ON  
*OCEAN GOVERNANCE: POLICY, LAW AND MANAGEMENT***

# **SYLLABUS**

**18<sup>th</sup> May – 15<sup>th</sup> July, 2016  
Dalhousie University, Halifax, Canada**

## SUMMARY OF MODULES

<b>MODULE 1:</b>	<i>Orientation and Introduction to the Training Programme</i>
<b>MODULE 2:</b>	<i>Ocean Sciences</i>
<b>MODULE 3:</b>	<i>Integrated Coastal and Ocean Management</i>
<b>MODULE 4:</b>	<i>Fisheries and Aquaculture</i>
<b>MODULE 5:</b>	<i>Law of the Sea and Principled Ocean Governance</i>
<b>MODULE 6:</b>	<i>Communication and Negotiation</i>
<b>MODULE 7:</b>	<i>Maritime Security</i>
<b>MODULE 8:</b>	<i>Marine Transportation</i>
<b>MODULE 9:</b>	<i>Energy</i>
<b>MODULE 10:</b>	<i>International Round Table Conclusion of Training Programme</i>

# SYLLABUS

## MODULE 1

### Orientation and Introduction to the Training Programme

#### Wednesday, 18<sup>th</sup> May

10.00 – 10.30	Introductions & Administrative Matters	Ms Meredith Perich (Module Leader)
10.45 – 12.00	Killam Library Tour	Ms Michelle Paon
1.30 – 2.45	Understanding Canada	Dr Jason Grek-Martin
3.00 – 4.00	What is Ocean Governance?	Mr Mike Butler

#### Thursday, 19<sup>th</sup> May

9.00 – 10.30	Intercultural Awareness	Ms Joanne Fraser
10.45 – 12.00	Managing at University	Dr David Mensink
1.30 – 4.00	Ethical Issues in Ocean Governance	Prof. Ian McAllister

#### Friday, 20<sup>th</sup> May

9.00 – 12.00	Organisation of Course Work, and Introduction to Modules & Module Leaders	Mr Mike Butler Module Leaders IOI staff
1.30 – 2.30	The Sea in Human History	Mr David Griffiths
4.00 – 6.00	Opening Ceremony with Keynote Address: Success Stories in Saving the Seas	Dr Tony Charles All

#### Saturday, 21<sup>st</sup> May

All day Free. Optional morning trip to Farmers Market

#### Sunday, 22<sup>nd</sup> May

All day Free

**MODULE 2**  
Ocean Sciences

**Monday, 23<sup>rd</sup> May**

9.00 – 12.00	Introduction to Ocean Sciences, and Health of the Oceans	Dr Peter Wells (Module Leader)
1.30 – 4.00	Participant Presentations	Participants

**Tuesday, 24<sup>th</sup> May**

9.00 – 12.00	Fundamentals of Oceanography	Dr Anna Metaxas
1.30 – 4.00	Eastern Scotian Shelf: Trophic Dynamics	Dr Mike Sinclair

**Wednesday, 25<sup>th</sup> May**

9.00 – 12.00	Climate Change	Dr John Shaw
1.30 – 2.45	Vulnerability Assessment for Climate Change	Dr Danika van Proosdij
3.00 – 4.00	Policy Development	Ms Kerri Graham

**Thursday, 26<sup>th</sup> May**

9.00 – 12.00	Ocean Acidification and its Implications	Dr Kumiko Azetsu-Scott
1.30 – 4.00	Marine Biodiversity: Census of Marine Life & Ocean Biogeographic Information System	Mr Bob Branton Ms Mary Kennedy Dr Kes Morton

**Friday, 27<sup>th</sup> May**

9.00 – 12.00	Remote Sensing of the Ocean	Mr Dirk Werle
1.30 – 2.45	Simulation Exercise: Introduction	Mr David Griffiths
3.00 – 4.00	Module Debrief and Simulation Integration	Dr Peter Wells Mr David Griffiths Mr Mike Butler

**Saturday, 28<sup>th</sup> May**

All day	Free	
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## Sunday, 29<sup>th</sup> May

All day Free

<p style="text-align: center;"><b>MODULE 3</b> Integrated Coastal and Ocean Management</p>
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## Monday, 30<sup>th</sup> May

9.00 – 12.00 Introduction to Integrated Coastal and Ocean Management (ICOM) Mr Rodrigo Menafra

1.30 – 4.00 GIS / Web Mapping (*GIS lab – Rowe 4001*) Mr James Boxall  
Dr Mélanie Fournier

## Tuesday, 31<sup>st</sup> May

9.00 – 12.00 Marine Spatial Planning Mr Paul Macnab  
Mr Scott Coffen-Smout

1.30 – 4.00 Coastal Information Management Dr Bertrum MacDonald  
Dr Suzuette Soomai  
Ms Sarah Chamberlain  
Mr James Ross  
Mr Lee Wilson

## Wednesday, 1<sup>st</sup> June

9.00 – 12.00 Ecological Economics Dr Peter Tyedmers

1.30 – 2.45 Climate Change Adaptation Dr Robert Fournier

3.00 – 4.00 Ocean Education Ms Anna Naylor

## Thursday, 2<sup>nd</sup> June

9.00 – 12.00 Project Cycle Prof. Ian McAllister

1.30 – 2.45 Information Sharing: COINAtlantic  
(*computer lab: FASS 2019*) Mr Andy Sherin  
Ms Alexi Westcott  
Mr Jeff McKenna

3.00 – 4.00 Module Debrief and Simulation Integration Mr Paul Boudreau (Module Leader)  
Mr David Griffiths  
Mr Mike Butler

**Friday, 3<sup>rd</sup> June**

All day      Field Trip: Bedford Institute of Oceanography

Mr Scott Coffen-Smout  
 Ms Jacinthe Cormier  
 Dr Cesar Fuentes-Yaco  
 Mr Marty King  
 Mr Stephen Locke  
 Dr Youyu Lu  
 Ms Cathy Merriman  
 Dr Hilary Moors-Murphy  
 Capt. Anthony Potts  
 Mr Brian Robinson  
 Dr Alain Vézina  
 Mr Dustin Whalen  
 Ms Meredith Perich

**Saturday, 4<sup>th</sup> June**

All day      Free

**Sunday, 5<sup>th</sup> June**

All day      Free

<b>MODULE 4</b> Fisheries and Aquaculture
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**Monday, 6<sup>th</sup> June**

9.00 – 12.00    Introduction to Fishery Science in the Canadian Context

Dr Kent Smedbol

1.30 – 4.00    Ecosystem-based Fishery Management

Dr Nancy Shackell

**Tuesday, 7<sup>th</sup> June**

9.00 – 10.30    Co-management

Dr Claudio Aporta

10.45 – 12.00    High Seas Fisheries and UNCLOS Implementing Agreement

Dr Susanna Fuller  
(Module Leader)

1.30 – 4.00    Aboriginal Fisheries

Mr Chris Milley

### **Wednesday, 8<sup>th</sup> June (World Ocean Day)**

9.00 – 10.30	Fisheries and Large Marine Ecosystems	Dr Barbara Paterson
10.45 – 12.00	Development of Nova Scotia's Aquaculture Policy and Legislation	Mr Brennan Goreham
1.30 – 4.00	Field Trip: Northwest Atlantic Fisheries Organisation	Mr Fred Kingston
7.00 onwards	Elisabeth Mann Borgese Ocean Lecture and reception - <i>Climate Change in Nova Scotia: Are We Ready?</i>	Mr Richard Zurawski Dr Blair Greenan Dr Georgia Klein Dr Tim Webster Ms Shannon Miedema

### **Thursday, 9<sup>th</sup> June**

9.00 – 12.00	Participant Presentations	Participants
12.15	Class photograph	All
1.30 – 4.00	Ocean Tracking Network and Telemetry Systems	Dr Fred Whoriskey
7.00 onwards	Optional public session of Ocean Literacy Conference: lecture, reception, posters	

### **Friday, 10<sup>th</sup> June**

9.00 – 10.30	Seafood Value Chain	Dr Megan Bailey
10.45 – 12.00	Aquaculture	Mr David Roberts
1.30 – 2.45	Aquaculture (cont.)	Mr David Roberts
3.00 – 4.00	Module Debrief and Simulation Integration	Dr Susanna Fuller Mr David Griffiths Mr Mike Butler

### **Saturday, 11<sup>th</sup> June**

All day      Free

### **Sunday, 12<sup>th</sup> June**

All day      Free

**MODULE 5**  
Law of the Sea and Principled Ocean Governance

**Monday, 13<sup>th</sup> June**

9.00 – 12.00	Introduction to Law of the Sea	Mr Hugh Williamson (Module Leader)
1.30 – 4.00	Climate Change: Legal Aspects and Paris COP 21	Dr Meinhard Doelle

**Tuesday, 14<sup>th</sup> June**

9.00 – 12.00	Introduction to Law of the Sea (cont.)	Mr Hugh Williamson
1.30 – 4.00	Places of Refuge	Dr Aldo Chircop

**Wednesday, 15<sup>th</sup> June**

9.00 – 12.00	Piracy	Mr Hugh Williamson
1.30 – 4.00	Participant Presentations	Participants

**Thursday, 16<sup>th</sup> June**

9.00 – 12.00	Precautionary Principle	Dr David VanderZwaag
1.30 – 2.45	Participant Presentations	Participants
3.00 – 4.00	Module Debrief and Simulation Integration	Mr Hugh Williamson Mr David Griffiths Mr Mike Butler

**Friday, 17<sup>th</sup> June**

9.00 – 12.00	Technical Aspects of Maritime Boundary Delimitation	Mr Galo Carrera
1.30 onwards	Field Trip to Bay of Fundy: Sustainable Blue Fish Farm, Evangeline Beach	Mr David Roberts Dr Graham Daborn Ms Meredith Perich



### **Saturday, 18<sup>th</sup> June**

All day	Field Trip to Bay of Fundy: Annapolis Royal Marsh Nature Trail, Annapolis Tidal Power Station, Fort Anne, Annapolis Royal Market, Habitation	Dr Jon Percy Mr Leslie Smith Ms Meredith Perich
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### **Sunday, 19<sup>th</sup> June**

All day	Field Trip to Bay of Fundy: Fundy Adventures, Port of Digby tour, Stone Bear Tracks and Trails	Ms Wanda VanTassel Mr Edwin Chisholm Mr Frank Meuse Ms Shalan Joudry Ms Meredith Perich
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### **Monday, 20<sup>th</sup> June**

All day	Field Trip to Bay of Fundy: Acadian Seaplants, Innovative Fishery Products	Mr Will Neily Mr Doug Bertram Ms Meredith Perich
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## **MODULE 6**

Communication and Negotiation

### **Tuesday, 21<sup>st</sup> June**

9.00 – 12.00	Recuperation/Study Period	Participants
1.30 – 4.00	Introduction to Module, and Media	Mr Ian Porter (Module Leader) Prof. Kim Kierans

### **Wednesday, 22<sup>nd</sup> June**

All day	Interview and Presentation Skills	Prof. Kim Kierans Mr Ian Porter Mr Tim Tracey
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### **Thursday, 23<sup>rd</sup> June**

9.00 – 12.00	Marine Managers and the News	Mr Ian Porter
1.30 – 4.00	Communications	Mr Peter MacLellan

**Friday, 24<sup>th</sup> June**

9.00 – 12.00	Negotiation Theory and Practice	Mr Hugh Williamson Prof. Diana Ginn
1.30 – 3.30	Legal Aspects of Maritime Boundary Delimitation	Prof. Phillip Saunders, QC
3.30 – 4.30	Module Debrief and Simulation Integration	Mr Ian Porter Mr David Griffiths Mr Mike Butler

**Saturday, 25<sup>th</sup> June**

All day Free

**Sunday, 26<sup>th</sup> June**

All day Free

**MODULE 7**  
Maritime Security

**Monday, 27<sup>th</sup> June**

9.00 – 12.00	Introduction to Module, and Maritime Security	Cdr Bob Edwards (ret'd) (Module Leader)
1.30 – 2.45	Maritime Security (cont.)	Cdr Bob Edwards (ret'd) Ms Leah Beveridge
3.00 – 4.00	Participant Presentations	Participants

**Tuesday, 28<sup>th</sup> June**

All day	Emergency Management in the Coastal Zone	Ms Murielle Provost Dr Mélanie Fournier Ms Joanne Lawlor Mr David Griffiths
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**Wednesday, 29<sup>th</sup> June**

All day	Integrated Maritime Security Policy Exercise	Cdr Bob Edwards (ret'd) Ms Leah Beveridge
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### **Thursday, 30<sup>th</sup> June**

9.00 – 12.00	Integrated Maritime Security Policy Exercise (cont.)	Cdr Bob Edwards (ret'd) Ms Leah Beveridge
1.10 – 1.30	Optional Briefing: Dalhousie's Marine Affairs Program	Ms Becky Field
1.30 – 2.45	Integrated Maritime Security Policy Exercise (concl.)	Cdr Bob Edwards (ret'd) Ms Leah Beveridge
3.00 – 4.00	Module Debrief and Simulation Integration	Cdr Bob Edwards (ret'd) Mr David Griffiths Mr Mike Butler

### **Friday, 1<sup>st</sup> July (Canada Day)**

All day      Free

### **Saturday, 2<sup>nd</sup> July**

All day      Free

### **Sunday, 3<sup>rd</sup> July**

All day      Free

<p style="text-align: center;"><b>MODULE 8</b> Marine Transportation</p>
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### **Monday, 4<sup>th</sup> July**

9.00 – 12.00	Shipping Fundamentals	Capt. Angus McDonald
1.30 – 4.00	Safety of Ships	Capt. Alan Knight

### **Tuesday, 5<sup>th</sup> July**

9.00 – 12.00	The Human Element in International Shipping	Capt. Angus McDonald
1.30 – 4.00	Participant Presentations & Study Period	Participants

**Wednesday, 6<sup>th</sup> July**

9.00 – 12.00	International Maritime Organisation (IMO)	Mr Bud Streeter
1.30 – 2.45	Maritime Search and Rescue	Mr John Dalziel
3.00 – 4.00	Module Debrief and Simulation Integration	Mr David Griffiths Mr Michael Butler

**Thursday, 7<sup>th</sup> July**

9.00 – 10.30	Field Trip: Eastern Canada Response Corporation	Mr Darin Connors Ms Meredith Perich
10.30 – 12.00	Field Trip: Survival Systems Training Ltd	Mr Peter Konings Ms Meredith Perich
1.00 – 4.00	Field Trip: Port of Halifax	Mr Lane Farguson Ms Jessica Martin Mr Kevin White Ms Chelsey Schmuland

**MODULE 9**  
Energy

**Friday, 8<sup>th</sup> July**

9.00 – 12.00	Introduction to Module	Dr Alain Joseph (Module Leader)
1.30 – 4.00	Introduction to Geology and Geophysics	Mr David Brown

**Saturday, 9<sup>th</sup> July**

All day	Simulation Exercise: Preparation of Presentations	Participants
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**Sunday, 10<sup>th</sup> July**

All day	Simulation Exercise: Preparation of Presentations	Participants
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**Monday, 11<sup>th</sup> July**

9.00 – 10.10	Exploration and Risk	Mr Gareth Stuart
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10.10 – 10.30	Sylvia Earle – Protect our Oceans	TED Talk
10.45 – 12.00	Regulation and the Canadian Environmental Assessment Agency (CEAA)	Ms Janice Ray
1.30 – 4.00	Tidal Power: Technical and Biological Aspects	Mr John Woods Ms Darlene Morrison Ms Melissa Oldreive

## **Tuesday, 12<sup>th</sup> July**

9.00 – 10.30	Wind Power	Mr Aaron Long
10.45 – 12.00	Solar Power	Dr Wayne Groszko
1.30 – 4.00	Blue Economy; Areas Beyond National Jurisdiction	Dr Awni Behnam

**MODULE 10**  
International Round Table  
Conclusion of Training Programme

## **Wednesday, 13<sup>th</sup> July**

All day	International Round Table	Dr Awni Behnam Dr Susanna Fuller Dr Dan Lane Dr Tony George Puthucherril Mr David Griffiths Participants
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## **Thursday, 14<sup>th</sup> July**

9.00 – 12.00	International Round Table	Dr Awni Behnam Dr Susanna Fuller Dr Dan Lane Dr Tony George Puthucherril Mr David Griffiths Participants
4.30 – 6.30	Closing Ceremony and Reception	All

## **Friday, 15<sup>th</sup> July**

9.30 – 12.00	Feedback, What Next? and Closing Remarks	IOI Staff/Module Leaders Participants
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