



**INTERNATIONAL OCEAN INSTITUTE**



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

**SYLLABUS**

**22<sup>nd</sup> May – 19<sup>th</sup> July, 2019  
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>Law of the Sea and Principled Ocean Governance</i>
<b>MODULE 3:</b>	<i>Integrated Coastal and Ocean Management</i>
<b>MODULE 4:</b>	<i>Ocean Sciences</i>
<b>MODULE 5:</b>	<i>Communication and Negotiation</i>
<b>MODULE 6:</b>	<i>Fisheries and Aquaculture</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>Round Table Conclusion of Training Programme</i>

## SYLLABUS

### MODULE 1

#### Orientation and Introduction to the Training Programme

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

10.00 – 10.30	Introductions & Administrative Matters	Ms Mallory Ross (Module Leader)
10.45 – 12.00	Killam Library Tour	Ms Michelle Paon
1.30 – 2.45	Understanding Canada	Dr Susan Joudrey
3.00 – 4.00	Introduction to Ocean Governance	Dr Tony George Puthucherril

#### Thursday, 23<sup>rd</sup> May

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

#### Friday, 24<sup>th</sup> May

9.00 – 12.00	Introduction to Training Programme	Mr Mike Butler Mr Hugh Williamson 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: <i>An Ocean of Opportunity</i>	Dr Anya Waite All

#### Saturday, 25<sup>th</sup> May

All day Free. Optional morning trip to Farmers Markets.

#### Sunday, 26<sup>th</sup> May

All day Free

**MODULE 2**  
Law of the Sea and Principled Ocean Governance

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

9.00 – 12.00	Introduction to Law of the Sea: Part 1	Mr Hugh Williamson
1.30 – 4.00	Precautionary Principle	Dr David VanderZwaag

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

9.00 – 12.00	Introduction to Law of the Sea: Part 2	Mr Hugh Williamson
1.30 – 2.45	UN Agencies	Dr Wendy Watson-Wright
3.00 – 4.00	Ecosystem Approach	Ms Olga Koubrak (Module Leader)

**Wednesday, 29<sup>th</sup> May**

9.00 – 12.00	Legal Aspects of Maritime Boundary Delimitation	Prof. Phillip Saunders, QC
1.30 – 2.45	Maritime Boundary Delimitation Exercises	Prof. Phillip Saunders, QC
3.00 – 4.00	Maritime Biosecurity: Legal Issues	Dr Jiayu Bai

**Thursday, 30<sup>th</sup> May**

9.00 – 10.30	The Arctic in International Law – A Canadian Perspective	Mr Wendell Sanford
10.45 – 12.00	The Antarctic – A Unique Place in Fact and Law	Mr Wendell Sanford
1.30 – 2.45	GHG Emissions Strategy to Decarbonise Shipping	Dr Aldo Chircop
3.00 – 4.00	Ocean Governance	Dr Awni Behnam (via Skype)

**Friday, 31<sup>st</sup> May**

9.00 – 12.00	ABNJ and BBNJ	Dr Susanna Fuller
1.30 – 2.45	Simulation Exercise: Introduction	Mr David Griffiths
3.00 – 4.00	Participant Presentations	Participants

## **Saturday, 1<sup>st</sup> June**

All day      Free

## **Sunday, 2<sup>nd</sup> June**

All day      Free

### **MODULE 3**

Integrated Coastal and Ocean Management

## **Monday, 3<sup>rd</sup> June**

9.00 – 9.10	Introduction to Module	Mr Paul Boudreau (Module Leader)
9.10 – 12.00	Introduction to ICOM	Mr Rodrigo Menafra
1.30 – 4.00	Marine Spatial Planning	Mr Scott Coffen-Smout Mr Gary Pardy

## **Tuesday, 4<sup>th</sup> June**

9.00 – 10.30	Coastal Information Management	Dr Suzuette Soomai
10.45 – 12.00	Ocean and Climate Change Action: Opportunities for Economic and Environmental Sustainability	Dr Peter Ricketts
1.30 – 2.45	Traditional Ecological Knowledge	Mr Phillip Prosper
3.00 – 4.00	Blue Economy	Dr Awni Behnam (via Skype)
4.00 – 4.30	Blue Economy and the Ocean Policy Research Institute	Dr Atsushi Watanabe

## **Wednesday, 5<sup>th</sup> June**

9.00 – 12.00	GIS Web Mapping and Simulation ( <i>GIS Lab: Killam 2902</i> )	Mr James Boxall Ms Caitlin Cunningham
1.30 – 2.45	Working with Maps	Mr Bob Branton
3.00 – 4.00	Ocean Tracking Network	Dr Fred Whoriskey

### **Thursday, 6<sup>th</sup> June**

9.00 – 12.00	Project Cycle	Prof. Ian McAllister
1.30 – 2.45	Blue Justice for Coastal Communities	Dr Ratana Chuenpagdee
3.00 – 4.00	Ocean Awareness and Literacy	Ms Kerri McPherson
4.00 – 4.20	Optional Briefing: Dalhousie’s Marine Affairs Program	Ms Becky Field

### **Friday, 7<sup>th</sup> June**

All day	Field Trip: Bedford Institute of Oceanography	Mr Scott Coffen-Smout Mr Stephen Cole Dr César Fuentes-Yaco Mr Jon Griffin Dr Vladimir Kostylev Dr Hilary Moors-Murphy Mr Brian Robinson Mr Gary Sonnichsen Dr Alain Vézina Ms Mallory Ross
7.00 onwards	Elisabeth Mann Borgese Ocean Lecture – The “Blue Revolution”: Challenges and Opportunities	Ms Renée Sauvé Dr Ratana Chuenpagdee Dr Susanna Fuller Ms Sigrid Kuehnemund Dr Sean Brilliant

### **Saturday, 8<sup>th</sup> June – World Oceans Day**

All day Free

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

All day Free

## **MODULE 4**

Ocean Sciences

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

9.00 – 12.00	Introduction to Ocean Sciences, and Health of the Ocean	Dr Peter Wells (Module Leader)
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1.30 – 4.00 Fundamentals of Oceanography Dr Anna Metaxas

**Tuesday, 11<sup>th</sup> June**

9.00 – 12.00 Fundamentals of Climate Change Mr Alexander MacDonald

1.30 – 4.00 Vulnerability Assessment and Adaptation to Climate Change Dr Daniel Lane

**Wednesday, 12<sup>th</sup> June**

9.00 – 10.30 Census of Marine Life, OBIS and Citizen Science  
Mr Bob Branton  
Ms Lenore Bajona  
Mr David Ireland

10.45 – 12.00 LIDAR and Inshore Mapping Dr Tim Webster

12.00 – 1.30 Optional session: QGIS Mapping Lunch & Learn Mr Bob Branton

1.30 – 4.00 Land-Sea Interface Dr Graham Daborn

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

9.00 – 10.30 Ocean Acidification Ms Krysten Rutherford

10.45 – 12.00 Participant Presentations Participants

1.30 – 2.45 Plastics and the Ocean Dr Tony Walker

3.00 – 4.00 Field Trip: the Aquatron Mr John Batt

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

9.00 – 12.00 Remote Sensing of the Ocean Mr Dirk Werle

1.00 onwards Field Trip to Bay of Fundy: Sustainable Blue Fish Farm, Evangeline Beach  
Mr David Roberts  
Dr Graham Daborn  
Ms Mallory Ross

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

All day Field Trip to Bay of Fundy: Annapolis Royal Marsh Nature Trail, Annapolis Tidal Power Station, Fort Anne, Habitation  
Dr Jon Percy  
Mr Leslie Smith  
Ms Mallory Ross

### **Sunday, 16<sup>th</sup> June**

All day	Field Trip to Bay of Fundy: Fundy Adventures, Port of Digby, Clean Annapolis River Project briefing	Ms Wanda van Tassel Mr Edwin Chisholm Mr Levi Cliche Ms Mallory Ross
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### **Monday, 17<sup>th</sup> June**

All day	Field Trip to Bay of Fundy: Acadian Seaplants, Nautical Seafoods, Kejimikujik National Park, Lunenburg Waterfront	Mr Will Neily Ms Charlotte Amero Mr Cory Robar Mr Paul Lalonde Ms Mallory Ross
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### **Tuesday, 18<sup>th</sup> June**

9.00 – 12.00	Recovery / Study Period	All
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<p style="text-align: center;"><b>MODULE 5</b> Communication and Negotiation</p>
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1.30 – 4.00	Introduction to Module, and Media	Mr Ian Porter (Module Leader)
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### **Wednesday, 19<sup>th</sup> June**

All day	Interview and Presentation Skills	Mr Ian Porter Mr Tim Tracey
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### **Thursday, 20<sup>th</sup> June**

9.00 – 12.00	Marine Managers and the News	Mr Ian Porter Mr Paul Withers
1.30 – 2.45	Communication	Mr Peter MacLellan
3.00 – 4.00	Participant Presentations	Participants

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

9.00 – 12.00	Negotiation Theory and Practice	Mr Hugh Williamson Dr Nayha Acharya
1.30 – 4.00	Negotiation Exercise	Mr Hugh Williamson Dr Nayha Acharya



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

All day      Free

## **Sunday, 23<sup>rd</sup> June**

All day      Free

### **MODULE 6** Fisheries and Aquaculture

## **Monday, 24<sup>th</sup> June**

9.00 – 10.30	Introduction to Fisheries Science	Dr Kent Smedbol
10.45 – 12.00	Ecosystem-based Fisheries Management: Part 1	Dr Nancy Shackell
1.30 – 2.45	Ecosystem-based Fisheries Management: Part 2	Dr Noreen Kelly
3.00 – 4.00	Participant Presentations	Participants

## **Tuesday, 25<sup>th</sup> June**

9.00 – 10.30	Ropeless Fishing Gear, Marine Mammals and Closures	Dr Sean Brilliant (Module Leader)
10.45 – 12.00	Certification of Fisheries	Mr Isa Elegbede
1.30 – 2.45	Participant Presentations	Participants
3.00 – 4.00	Fishing Fleet Economics	Dr Rob Parker

## **Wednesday, 26<sup>th</sup> June**

9.00 – 10.30	Policy Development	Ms Kerri Graham
10.45 – 12.00	Community-based Fisheries	Mr Chris Milley
12.10	Class photograph	All
1.30 – 4.00	Field Trip: Northwest Atlantic Fisheries Organisation	Mr Fred Kingston Mr Ricardo Federizon Ms Dayna Bell MacCallum

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

9.00 – 12.00	Seafood Value Chain	Dr Megan Bailey
1.30 – 2.45	Fisheries Management Cycle	Dr Suzuette Soomai
3.00 – 4.00	Role of NGOs in Fisheries Management	Dr Bob Rangeley

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

9.00 – 12.00	Sea-cage Aquaculture	Dr Jon Grant
1.30 – 4.00	Land-based Aquaculture	Mr David Roberts

**Saturday, 29<sup>th</sup> June**

All day Free

**Sunday, 30<sup>th</sup> June**

All day Free

**Monday, 1<sup>st</sup> July - Canada Day**

All day Free – national holiday

**Tuesday, 2<sup>nd</sup> July**

9.00 – 10.30	Ecological Change in the Ocean and the Role of Fisheries and Climate Change	Dr Boris Worm
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**MODULE 7**  
Maritime Security

10.45 – 12.00	Introduction to Maritime Security	Cdr Bob Edwards (ret'd) (Module Leader) Mr Remi-Martin Gionet
1.30 – 4.00	Introduction to Maritime Security (cont.)	Cdr Bob Edwards (ret'd) Mr Remi-Martin Gionet

**Wednesday, 3<sup>rd</sup> July**

9.00 – 12.00	Field Trip: NS Emergency Management Office (EMO)	Ms Erica Fleck Mr Marc Cayouette Ms Maria Nemer-Gonzalez Ms Murielle Provost Mr David Griffiths
1.30 – 4.00	Emergency Management in the Coastal Zone	Ms Murielle Provost Mr David Griffiths

**Thursday, 4<sup>th</sup> July**

All day	Integrated Maritime Security Policy Exercise	Cdr Bob Edwards (ret'd) Mr Remi-Martin Gionet
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**Friday, 5<sup>th</sup> July**

All day	Integrated Maritime Security Policy Exercise:	Cdr Bob Edwards (ret'd) Mr Remi-Martin Gionet Participants
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**Saturday, 6<sup>th</sup> July**

All day	Free	
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**Sunday, 7<sup>th</sup> July**

All day	Free	
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**MODULE 8**  
Marine Transportation

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

9.00 – 12.00	Shipping Fundamentals	Capt. Jack Gallagher
1.30 – 2.45	Human Elements of International Shipping	Capt. Angus McDonald
3.00 – 4.00	Participant Presentations	Participants

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

9.00 – 12.00	Safety of Ships	Capt. Alan Knight
1.30 – 4.00	Port Governance and Reform	Dr Mary Brooks

**Wednesday, 10<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 – 3.30	Alumni Networking	Ms Madeleine Coffen-Smout Ms Anita Coady
3.30 – 4.30	Participant Presentations	Participants

**Thursday, 11<sup>th</sup> July**

9.00 – 10.30	Field Trip: Eastern Canada Response Corporation	Mr Darin Connors Mr Addison Vickerd Ms Mallory Ross
10.45 – 12.00	Field Trip: Survival Systems Training Ltd	Mr Dan Latremouille Ms Trish Gerrits Ms Mallory Ross
1.00 – 4.00	Field Trip: Port of Halifax	Mr Patrick Bohan (Module Leader) Ms Mallory Ross

**MODULE 9**  
Energy

**Friday, 12<sup>th</sup> July**

9.00 – 12.00	Introduction to Module	Dr Wayne Groszko (Module Leader)
1.30 – 2.45	Introduction to Geophysics	Mr Kris Kendell
3.00 – 4.00	Geology, Energy and Fracking	Mr David Brown

**Saturday, 13<sup>th</sup> July**

All day      Integration Exercise: Preparation of Presentations      Participants

**Sunday, 14<sup>th</sup> July**

All day      Integration Exercise: Preparation of Presentations      Participants

**Monday, 15<sup>th</sup> July**

9.00 – 10.30      Exploration and Risk      Ms Jennifer Matthews

10.45 – 12.00      Regulation and the Canadian Environmental Assessment Agency (CEAA)      Ms Janice Ray

1.30 – 2.45      Tidal Power: Global      Dr Sue Molloy

3.00 – 4.00      Tidal Power: Bay of Fundy      Dr Dan Hasselman

**Tuesday, 16<sup>th</sup> July**

9.00 – 10.30      Wind Power      Mr Kevin Doucette

10.45 – 12.00      Solar Power      Dr Wayne Groszko

1.30 – 4.00      Study Period      Participants

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

**Wednesday, 17<sup>th</sup> July**

All day      Round Table: Symposium      Ms Rosemarie Cadogan  
Dr Tony Charles  
Dr Dan Lane  
Dr Suzuette Soomai  
Mr David Griffiths  
Participants

**Thursday, 18<sup>th</sup> July**

9.00 – 12.30 Round Table: Group Sessions

Ms Rosemarie Cadogan  
Dr Tony Charles  
Dr Dan Lane  
Dr Suzuette Soomai  
Mr David Griffiths  
Participants

4.30 – 6.30 Closing Ceremony and Reception

All

**Friday, 19<sup>th</sup> July**

9.30 – 1.00 Feedback, What Next? and Closing Remarks

Mr Hugh Williamson  
IOI Staff  
Module Leaders  
Participants