

CLEAN TECH AT SEA

WHY AND HOW TO CHANGE MARITIME TRANSPORTATION

SUMMER SCHOOL

AUGUST 6 – 17, 2012

MAN PRIMESERV ACADEMY (FREDERIKSHAVN)
CHALMERS UNIVERSITY OF TECHNOLOGY (GOTHENBURG)
AALBORG UNIVERSITY

IF YOU ARE A COMPANY

SEE SEPARATE FOLDER

INTRODUCTION

After decades of non-regulation, the maritime industry is now facing relatively tough environmental requirements mainly from regulators, but also increasingly from the market.

The International Maritime Organization (IMO) has passed annexes to the MARPOL convention which together with EU and US legislation put pressure on shipping. Also

shipping customers and ports are demanding better environmental performance and documentation.

Fortunately, the combination of strict requirements and decades of land-based experiences in Cleantech gives huge business opportunities for those who can and will provide solutions to the ... *(continued on next page)*

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CLEAN TECH AT SEA:

Why and how to change maritime transportation

... problems – some of these solution providers are Danish companies. Some ports and municipalities even see the upcoming legislative pressures as a lever of regional development and employment.

The course's main objective is to engage participants with the ongoing activities, challenges and opportunities arising from the maritime sector evolution toward environmentally friendly activities. To achieve so, the course is structured under the Problem Based Learning (PBL).

PBL is a pedagogy developed at Aalborg University to address real problems in a hands-on way. The course provides theoretical lectures, case-study lectures, site visits and group work during the two-week summer course. In addition, the course will also comprise several social activities in order to facilitate networking and a relaxed environment.

Course audience

The course targets Master and PhD students enrolled in Nordic and European programs. Preferably, the

candidate should have a background in marine technology (including ship construction and operation & management), environmental policy, environmental governance or environmental management.

Additionally, practitioners in industry and public authorities are encouraged to apply.

ECTS and evaluation

The summer school will provide 5 ECTS for MSc and PhD students. Recommended BSc students in their last year of studies are also welcome to apply. All participants will be evaluated with a written examination, a written report produced through the PBL methodology and an oral presentation at the end of the course.

In addition students will be assigned a supervisor to review their manuscript to fit it for publication after the summer course. 2.5 additional ECTS will be granted in this case.

Practical information

Venue

MAN PrimeServ Academy (Frederikshavn)
Chalmers University of Technology (Gothenburg)
Aalborg University (Aalborg)

Accommodation

Each participant is responsible for his/her own accommodation, transportation and morning and evening meals.

For guiding purposes, the following are reasonable alternatives. They can be reserved in advance since the high season comes in August:

Frederikshavn

(3 Nights from August 05 to August 07)
<http://danhostelfrederikshavn.dk/en>

Gothenburg

(4 Nights from August 08 to August 10)
<http://www.kvillehotel.se/prices.htm>

Aalborg

(7 Nights from August 11 to August 17)
<http://www.danhostelaalborg.dk/en>

Social activities

Here is a list of possible social activities during the summer school

- Welcome reception
 - Aalborg by night
 - Trips to beaches
 - Bowling
 - Visits to cultural sites
 - Tour around AAU
 - Guided tour in Aalborg
- and a lot of other things!

Participation fee

A participation fee of 99 EURO will be charged to cover the ferry costs and some social events.

More information

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Registration form - Print or online

Registration and payment deadline:
July 15th, 2012

Send Registration form to:

Roberto Rivas Hermann
rrh@plan.aau.dk

Fill the following form and email it to: **rrh@plan.aau.dk**
with the following documents:

- Proof of enrolment in MSc or PhD Programme

In case of inquiries, please contact:

rrh@plan.aau.dk
tel. +45 9940 3654
mob. +45 5012 1030

Personal details

Name	<input type="text"/>	E-mail address	<input type="text"/>
Date of birth	<input type="text"/>	Telephone	<input type="text"/>
Gender	<input type="text"/>	Current address	<input type="text"/>
Nationality	<input type="text"/>		

Current education

Educational program (Name)	<input type="text"/>	Year of graduation	<input type="text"/>
Level (MSc, PhD)	<input type="text"/>	Supervisor	<input type="text"/>
University	<input type="text"/>	Webpage	<input type="text"/>

Summer Course interest

How does the summer school relate to your current education or PhD programme?

How did you know about the school?

[Goto Online form here](#)

Program - Frederikshavn (week 1)

(subject to minor adjustments)

SUNDAY 5	MONDAY 6	TUESDAY 7	WEDNESDAY 8
MORNING			
Arrival/ registration	WELCOME: introduction and why to focus on sustainable shipping <i>By Henrik Riisgaard, Associate Professor, Department Development and Planning, Aalborg University</i>	LECTURE: How to reduce greenhouse gas emissions from maritime transport - a political perspective <i>By Maria B Skipper, Advisor, Danish Shipowners' Association</i>	LECTURE: Clean shipping as a lever for regional development and job creation - the Frederikshavn case <i>By Christine Lunde, Maritime Consultant, MARCOD;</i> + <i>Gitte Hyttel Nørgård, Development consultant Frederikshavn Kommune</i>
	LECTURE: The need for maritime action - an NGO perspective <i>By Kåre Press-Christensen, spokesperson Danish Eco-Council, NGO</i>	LECTURE: Modelling future scenarios of the shipping industry: what is the potential for ecodesign in shipping and what is its economic viability? <i>By Tristan Smith, Researcher, University College London and Lowcarbon shipping</i>	VISIT & LECTURE: Emission reduction through better engine technology/ Site visit MAN Diesel & Turbo, Frederikshavn
AFTERNOON			
Arrival/ registration	LECTURE (cont.): The need for maritime action - an NGO perspective <i>By Kåre Press-Christensen, spokesperson Danish Eco-Council, NGO</i>	LECTURE (cont.): Modelling future scenarios of the shipping industry: what is the potential for ecodesign in shipping and what is its economic viability? <i>By Tristan Smith, Lecturer in Energy and Transport, University College London</i>	LECTURE: Life cycle assessment in the maritime industry <i>By Annik Magerholm Fet; Department of Industrial Economics and Technology Management, Norwegian University of Science and Technology, NTNU</i>
17:00 Welcome and course introduction <i>By Henrik Riisgaard, Associate Professor, Department Development and Planning, Aalborg University</i>	LECTURE: A closer look into the key socio-technical structures and dynamics that shape a transition in the shipping industry: core implications for maritime cleantech business development <i>By Roberto Rivas Hermann, PhD Fellow Aalborg University/ MARCOD</i>	LECTURE: Handling ballast tank water – a new business opportunity <i>By Rasmus Folso", CEO Desmi Ocean Guard</i>	FERRY Frederikshavn - Gothenburg VISIT Focus: Stena Line's environmental efforts HQ Gothenburg <i>Carsten Kruse, Director, Stena Line Denmark</i>
EVENING			
SOCIAL EVENT Taste the World (bring local snacks from your hometown)	SOCIAL EVENT Dinner in Skagen, Sponsored by Erhvervshus Nord	SOCIAL EVENT Beach visit: Palmestranden	

Program - Gothenburg / Aalborg (week 1-2)

(subject to minor adjustments)

THURSDAY 9	FRIDAY 10	SATURDAY 11	SUNDAY 12	MONDAY 13
MORNING				
<p>LECTURE: EMS in ports. EMS in Gothenburg port</p> <p><i>By Susann Dutt, Environmental Manager, Gothenburg Port</i></p>	<p>LECTURE: Challenges in sustainable shipping</p> <p><i>By Karin Andersson, Professor, Chalmers Technical University</i></p>	<p>SOCIAL ACTIVITY Gothenburg / Paddan boat tour</p>	<p>SOCIAL ACTIVITY Aalborg</p>	<p>PROBLEM BASED LEARNING (PBL): An introduction, group formation;</p> <p><i>By Henrik Riisgaard, Associate Professor, Department Development and Planning, Aalborg University</i></p>
				<p>PBL: Case study research/ methods and definition of research problem</p>
AFTERNOON				
<p>LECTURE: An Introduction to environmental management systems (EMS) - a focus on harbors</p> <p><i>By Henrik Riisgaard, Associate Professor, Department Development and Planning, Aalborg University</i></p>	<p>LECTURE: LCA applied on maritime fuels; a case study</p> <p><i>By Selma Bengtsson; PhD student, Chalmers Technical University</i></p>	<p>FERRY Gothenburg-Frederikshavn and bus to Aalborg</p>	<p>SOCIAL ACTIVITY Aalborg</p>	<p>VISIT & LECTURE: Business development for clean shipping. Desmi (Aalborg based company)</p>
<p>LECTURE: Energy management at sea. How to save energy by datalogging and benchmarking. A case study</p> <p><i>By Soren Thue Pedersen, Maritime Consultant, MARCOD</i></p>				
EVENING				
<p>SOCIAL EVENT Language Café</p>	<p>SOCIAL EVENT Liseberg Amusement Park</p>			<p>EXAM PREPARATION</p>

Program - Aalborg (week 2)

(subject to minor adjustments)

TUESDAY 14	WEDNESDAY 15	THURSDAY 16	FRIDAY 17	SATURDAY 18	SUNDAY 19
MORNING					
<p>EXAM: Week 1 written graded exam.</p> <p>PBL: Collecting empirical evidence (Interviews, surveys)</p>	<p>PBL: Collecting empirical evidence (Interviews, surveys)</p>	<p>PBL: Writing report/ Conclusions and recommendations</p>	<p>Exam preparation</p>	<p>AFTER PARTY Egholm ferry</p>	<p>DEPARTURES</p>
AFTERNOON					
<p>LECTURE: How to promote cleantech supply and demand? A look into Sustainability networks/ Triple Helix/ MARKIS</p> <p><i>(Björn Södahl, Chalmers Technical University)</i></p> <p>PBL: Use of referencing and scientific literature collection software</p> <p><i>(Roberto Rivas Hermann, PhD Fellow, Aalborg University)</i></p>	<p>PBL: Writing report/ Case studies</p>	<p>PBL: Finish report and project submission</p>	<p>Oral presentations</p>	<p>DEPARTURES</p>	<p>DEPARTURES</p>
EVENING					
<p>WORKSHOP: Networks and entrepreneurship in the maritime industry</p>	<p>Writing report/ Case studies</p>	<p>Exam preparation</p>	<p>Summer School evaluation & diploma</p>		

In case of inquiries, please contact:

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