



## **SOI Asia Course "Advanced Marine Science and Technology 2017"**

### **by Tokyo University of Marine Science and Technology**

Science Course: Jan 23 – Jan 31, 2017

Technology and Logistics Course: Feb 1 – Feb 17, 2017

#### **How to join:**

All lectures are available online after the sessions, or you can lively attend the lecture on YouTube. For URL and lecture materials, please access to the "edmodo" page for details. You can send questions on Edmodo anytime and professors will answer them during the session or after the classes.

#### **How to get certificate:**

There 7 lectures for Science course, and 7 lectures for Technology course. Certificates will be issued separately. After listening to the lectures (either realtime or online), submit an assignment for each lecture. All those who submitted assignments for 4 lectures of your interest out of 7 of science course, will get a certificate of science course. All those who submitted assignments fro 4 lectures of your interest out of 7 technology course, will get a certificate of technology course. Certificates will be issued jointly from SOI Asia and Tokyo University of Marine Science and Technology. You can submit assignments through Edmodo too.

#### **How to join edmodo:**

Please see attached instruction.

#### **Student presentation:**

Student session is scheduled on Jan 31, morning. If you are interested in presenting you work to peers, please contact to [secretariat@soi.asia](mailto:secretariat@soi.asia).

#### **Schedule of Marine Science Lectures:**

#1 Jan 23 (Mon) 13:00-14:30

Emiko Okazaki

Title: Utilization of seafood in Japan

Keywords: Human consumption, health awareness, Functional properties, Japanese



traditional seafood products, Surimi and surimi-based products, Extensive utilizatio

#2 Jan 23 (Mon) 14:45-16:15

Naohiro Goto

Title: Trans fatty acid. What is a problem?

Keywords: Fat, Trans fatty acid, Isomer, LDL/HDL, Heart attack

#3 Jan 23 (Mon) 16:30-18:00

Shingo Matsukawa

Title: Physicochemical property of food; From macroscopic aspects to microscopic aspects

Keywords: Food gels, Rheology, DSC, NMR

#4 Jan 30 (Mon) 9:00-10:30

Fumiaki Beppu

Title: Physiological functions of marine-derived lipids

Keywords: Vitamin E, Tocopherol, Carotenoids, Fucoxanthin, DHA/EPA, Obesity, Diabetes

#5 Jan 30 (Mon) 10:45-12:15

Hajime Takahashi

Title: How to extend the shelf life of food

Keywords: Food Microbiology, Food poisoning bacteria, Growth inhibition

#6 Jan 30 (Mon) 13:00-14:30

Kazufumi Osako

Title: Innovative Trial to Develop New Kamaboko Products for Promoting Nutritional Status of Elderly with Dysphagia

Keywords: Kamaboko gel, Seafood, Elderly, Dysphagia

#7 Jan 31 (Tue.) 9:00-10:30

Mario Shibata

TITLE: Smart sensing technique for monitoring food constituents using fluorescence



fingerprint

Keywords: Spectroscopy, Chemometrics, Non-destructive measurement, Freshness

#8 Jan 31 (Tue) 10:45-12:15

Students' Presentations

**Schedule of Marine Technology and Logistics Lectures:**

#1 Feb 1 (Wed) 13:00-14:30

Emiko Okazaki

Lecturer: Tomoji Takamasa / Department of Marine Electronics and Mechanical Engineering

<http://olcr.kaiyodai.ac.jp/db/profile.php?yomi=TAKAMASA,Tomoji>

Title: Collision Avoidance at Sea

Keywords: Sea ship battery rapid charging, Environmental protection

#2 Feb 1 (Wed) 14:45-16:15

Lecturer: Naoto Iwasaka / Department of Maritime Systems Engineering

<http://olcr.kaiyodai.ac.jp/db/profile.php?yomi=IWASAKA,Naoto>

Title: Variations of Sea Surface Temperature

Keywords: Sea surface temperature, Surface waves, Langmuir circulation, Mixed layer, Surface heat flux, Argo float

#3 Feb 2 (Thu) 10:45-12:15

Lecturer: Toshio Iseki / Department of Maritime Systems Engineering

<http://olcr.kaiyodai.ac.jp/db/profile.php?yomi=ISEKI,Toshio>

Title: Ship Stability in Waves

Keywords: Ship, Stability, Restoring moment, Center of buoyancy, Response amplitude operator, Parametric oscillation

#4 Feb 2 (Thu) 13:00-14:30

Lecturer: Daisuke Watanabe / Department of Logistics and Information Engineering

<http://olcr.kaiyodai.ac.jp/db/profile.php?yomi=WATANABE,Daisuke>



Title: Maritime Risk Analysis using Geographic Information System

Keywords: Risk management, Geographic information system, Counter-piracy surveillance system

#5 Feb 2 (Thu) 14:45-16:15

Lecturer: Yasunori Okumura / Department of Logistics and Information Engineering

<http://olcr.kaiyodai.ac.jp/db/profile.php?yomi=OKUMURA,Yasunori>

Title: Introduction to matching theory

Keywords: Matching, Game theory, Economics, Colledge adomissions problem, Marrige problem

#6 Feb 9 (Thu) 13:00-14:30

Lecturer: Etsuro Shimizu / Department of Marine Electronics and Mechanical Engineering

<http://olcr.kaiyodai.ac.jp/db/profile.php?yomi=SHIMIZU,Etsuro>

Title: Autonomous Waterborne People Mover

Keywords: Autonomous, Remote control, Ship

#7 Feb 17 (Fri) 13:00-14:30

Lecturer: Junichiro Tahara / Department of Marine Electronics and Mechanical Engineering

<http://olcr.kaiyodai.ac.jp/db/profile.php?yomi=TAHARA,Junichiro>

Title: Biomimetic Mobile Robots Using Nonlinear Synchronization

Keywords: Biomimetic Mobile Robots Using Nonlinear Synchronization



Edmodo

SOI Asia &  
Tokyo University of Marine Science and Technology  
would like you to join  
**Marine Science and Technology 2017**

Group Code

**rvy5fi**

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