



**SOI Asia Course "Advanced Topics for Fisheries and Marine and Science 2018"
by Tokyo University of Marine Science and Technology**

Course: Nov 21, 2018 – Jan 25, 2019

How to join:

Lectures are available online after the sessions (November 21 and December 5, are Live only), or you can lively attend the lecture on YouTube.

For URL and lecture materials, please access to the following URL for details. You can send questions on YouTube Live Comment, professors will answer them during the session.

Details:

<https://docs.google.com/spreadsheets/d/1DPqjEd6WAYb2O2c4jsYNTThwjh5yGZhl1rmoHJaazi-4/edit?usp=sharing>

Student presentation:

Student session is scheduled on December 26, afternoon (16:20-17:50, GMT+9).

More information will inform participants at first class (November 21).

Schedule of Marine Science Lectures:

#1 Nov 21 (Wed) 16:20-17:50 (GMT+9) (Live Only)

Lecturer: Shigeki Dan

Title: Characteristic life-cycle of the Broadclub cuttlefish *Sepia latimanus* in coastal waters of Ishigaki Island

Keywords: life span, growth, reproduction, mark-recapture, stock enhancement



#2 Nov 28 (Wed) 16:20-17:50 (GMT+9)

Lecturer: Ryosuke Yazawa

Title: Surrogate broodstock technology in marine fish

~Production of bluefin tuna from surrogate mackerel~

Keywords: germ cell transplantation, biotechnology, breeding, aquaculture, bluefin tuna

#3 Dec 5 (Wed) 16:20-17:50 (GMT+9) (Live Only)

Lecturer: Kyousuke Niwa

Title: Cultivation and breeding of the marine crop *Pyropia yezoensis*

Keywords: life cycle, conchocelis, artificial seeding, frozen storage, breeding

#4 Dec 12 (Wed) 16:20-17:50 (GMT+9)

Lecturer: Shigehide Iwata

Title: Introductions of fish stock assessment for sustainable fishery

Keywords: stock assessment, recruitment, growth, uncertainty, production model

#5 Dec 19 (Wed) 16:20-17:50 (GMT+9)

Lecturer: Takeshi Terahara

Title: Microbial analysis of marine samples

Keywords: bacteria, biotechnology, cultivation, molecular techniques

#6 Dec 26 (Wed) 16:20-17:50 (GMT+9)

Students' Presentations



#7 Jan 9 (Wed) 16:20-17:50 (GMT+9)

Lecturer: Goshi Kato

Title: Development of Vaccines against Infectious diseases in Fish

Keywords: DNA vaccine, Th1 & Th2 immunity, mucosal immunity, bacterial disease

#8 Jan 10 (Thu) 16:20-17:50 (GMT+9)

Lecturer: Tomoyuki Takenawa

Title: Implementation of numerical methods for ordinary differential equations

Keywords: Runge-Kutta methods, Excel, Python

#9 Jan 11 (Fri) 13:00-14:30 (GMT+9)

Lecturer: Akiko Uchino

Title: Required Competency for Safe Navigation

Keywords: Safe navigation, Environment, Required competency, Human factor, Team management

#10 Jan 11 (Fri) 14:40-16:10 (GMT+9)

Lecturer: Yohei Matsumoto

Title: An Introduction to Field Programmable Gate Arrays

Keywords: Integrated Circuit, Programmable Logic, Hardware Description Language, Computer Aided Design

#11 Jan 11 (Fri) 16:20-17:50 (GMT+9)

Lecturer: Miho Sekiguchi

Title: Atmospheric radiation and climate change

Keywords: atmospheric radiation, climate change, global warming, radiation budget, radiative forcing



#12 Jan 16 (Wed) 16:20-17:50 (GMT+9)

Lecturer: Yoji Yamamoto

Title: Effects of environmental factors on fish sex determination and differentiation

Keywords: genotypic sex determination, environmental sex determination, environmental stressor, global warming

#13 Jan 25 (Fri) 13:00-14:30 (GMT+9)

Lecturer: Tomomi Nabatame

Title: Communication Style and Politeness in Japanese Conversation

Keywords: communication style, politeness theory, face, positive politeness, negative politeness

#14 Jan 25 (Fri) 14:40-16:10 (GMT+9)

Lecturer: Masakazu Koike

Title: Vibration Control for Pneumatic Isolation Table with Feedforward Control Input

Keywords: Pneumatic isolation table, Discrete-valued input, Feedforward control, Offset

#15 Jan 25 (Fri) 16:20-17:50 (GMT+9)

Lecturer: Satoshi Yoshioka

Title: Computer Simulations in Science and Engineering

Keywords: computer simulation, computational physics, high-performance computing, computational fluid dynamics