

海洋环境与能源领域的国际教育

— 日中韩交流项目 —

东京海洋大学 海洋科学技术研究科

1.JCK项目背景

➤ **2010年6月文部科学省招募该项目**

■ **项目名称：**

“日中韩联合学校之间高级专业人才的培养项目”

■ **援助期间：**

2010年起持续5年（之后以各大学的独立项目持续）

■ **对象领域： 环境及能源领域**

➤ 2010年9月JCK项目受采纳

- 东京海洋大学的“海洋领域的日中韩高级专业人才培养项目”受采纳
- 46所大学应募文部省项目，其中6所大学受采纳

2.海洋领域的日中韩高级专业人才培养项目

—海洋环境与能源领域的国际教育—

■ 关键词：“海洋环境与能源的有效利用”

■ 东京海洋大学研究生院 海洋科学技术研究科

[硕士课程（博士前期课程）]

定员：15名

■ 培养目标

具备相关环境生物资源保护及能源有效利用等方面知识的高级专业人才

■ 交流项目协议

<参加学校>

上海海事大学、上海海洋大学、浙江海洋学院、
大连海事大学、大连海洋大学、中国海洋大学、
釜庆大大学校、韩国海洋大大学校

3. 招生计划

■ 时期：每年**10**月份入学（一部分**4**月份入学）

■ 考试：第一次选拔：各大学推荐

第二次选拔：东京海洋大学项目老师的面试

第三次选拔：指导老师的面试

4. 经济支援

- 入学金：免费
- 学费：第一年免除（**535.800**日元）
第二年可申请减免（与其他留学生相同）
- 奖学金：可申请
- 宿舍：优先入住国际交流会馆或学生宿舍

5. 教育课程

- ▶ 新专业：“海洋环境能源国际人才培养专业”
- ◆ 涉及研究生院海洋科学技术研究科博士前期课程所有专业（定员**15**名）

海洋科学技術研究科(修士課程)

海洋環境・エネルギー専門職育成国際コース(15名)

海洋生命資源科学専

食機能保全科学専攻

海洋資源環境学専攻

海洋管理政策学専攻

海洋システム工学専

海運ロジスティクス

食品流通安全管理専

環境・エネルギー関連研究分野

5. 教育课程

➤ 专业课程：

- ① 各专业必修课程（现有7个专业课程）
- ② 各专业领域相关的环境能源课程
- ③ 企业所要求的发展及环境保护兼顾型经营能力培养课程

④ 选择必修课程

■ 实例演习

环境保全技术实例演习： 2学分

■ 乘船体验

企业实习课程（环境能源体验实习）： 1
学分

实例演习 + 乘船体验 = 总计3学分

➤ 讲义与指导

语言：日语 + 英语

（现在**80%**以上的讲义用英语授课）

➤ 支援：日语补习班（与其他留学生同样）

6. 学习・就职指导

JCK-Coordinator全程指导

➤ 项目辅导

学校之间的相互联系，实习企业的联系，研讨会活动相关业务

➤ 联络辅导

与联合学校沟通，交换情报以及招生事项，留学生生活指导

➤ 留学期间支援内容
制度，宿舍优先入住等

日语教育，辅导员 (**Tutor**)

➤ 就职支援内容

✓ 东京海洋大学就职支援中心提供各方面相关信息

7. 申请及志愿表提出程序

① 在各所属大学的外事处申请

（东京海洋大学不接收个人申请）

✓ 申请材料在所属大学指定的期限日之前提交到申请窗口

（申请专业，指导老师）

② 各所属大学进行第1次选拔

- ✓ 第1次选拔按照各所属大学的标准，选拔时考虑成绩及希望专业的指定老师是否接收
- ✓ 通过第1次审查通过这志愿表等由申请窗口老师转交到东京海洋大学
- ✓ 选拔过程中，会有追加（除上記申请材料以外的）证明材料的可能性。
- ✓ 申请者所提交的申请材料如发现有弄虚作假的情况，会被取消资格。

③第二次选拔以及面试

➤东京海洋大学教师在线进行面试

面试将在**2022年3月份**进行。具体日期待定。

➤面试主要使用英语

◎研究者検索方法

Click

The screenshot shows a web browser window with the URL <https://www.kaiyodai.ac.jp> in the address bar. A red box highlights the address bar and another red box highlights the 'Other languages' dropdown menu in the top right corner. A red arrow points to the dropdown menu with the word 'Click' above it. The website header includes the university logo and navigation links for '大学で学びたい方', '大学院で学びたい方', '企業・研究者の方', '卒業生の方', '在学生の方', '地域・一般の方', and 'よくある質問 お問い合わせ'. The main banner features the text '海洋大から始まる未来を見つけよう。オンライン オープンキャンパス2021秋 OPEN CAMPUS 10月15日(金)~11月15日(月)' and an illustration of two students. A 'SUSTAINABLE DEVELOPMENT' grid is visible on the right. Below the banner are logos for various departments: 品川キャンパス 海洋生命科学部, 越中島キャンパス 海洋工学部, 品川キャンパス 海洋資源環境学部, 大学院 海洋科学技術研究科, and 東京海洋大学 研究者情報. At the bottom, there are three promotional banners: 'Pick up Marine AI', '新型コロナウイルス感染症への対応について', and '魚と人の未来を創る 国立大学法人 東京海洋大学'.





Master's course	Course of Marine Life Sciences	Course of Applied Marine Biosciences
	Course of Food Science and Technology	
	Course of Marine Resources and Environment	
	Course of Marine Policy and Management	
	Course of Marine System Engineering	
	Course of Maritime Technology and Logistics	
	Course of Safety Management in Food Supply Chain	
	Doctoral Course	

Research subject information

HOME > Research subject information > Masters Course > Course



- Masters Course
- Course of Marine Life Sciences
- Course of Food Science and Technology
- Course of Marine Resources and Environment
- Course of Marine Policy and Management
- Course of Marine System Engineering
- Course of Maritime Technology and Logistics
- Course of Safety Management in Food Supply Chain
- Doctoral Course
- Course of Applied Marine Biosciences
- Course of Applied Marine Environmental Studies

Course of Marine Resources and Environment

This course promotes the understanding of various phenomena occurring in the marine environment, explains the evolution mechanisms of the oceans, and aims at efficient utilizations of marine resources, environmental protection and restoration, establishing measures to reduce and remove the load imposed by human activities on the marine environment. To do so, it provides comprehensive and multidisciplinary education and research not only through scientific initiatives in such fields as physics, chemistry, biology, mathematics and information science, but also through engineering for environmental protection, and through making evaluations of phenomena from the viewpoint of social science.

The image of the students we are looking for

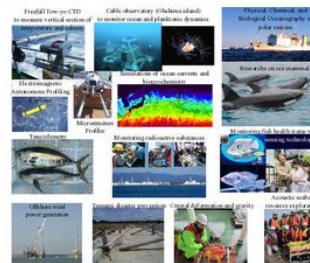
The Course of Marine Resources and Environment welcomes applicants who are highly motivated to clarify variable mechanisms of the marine environment from diverse aspects, to develop efficient utilization technologies of marine resources, to participate actively in discussions concerning conservation and restoration of the marine environment and to explore possibilities for solutions to these problems.

Study Areas

- Marine Biology
- Aquatic Environmental Chemistry
- Environmental System Science
- Ocean Environment Technology

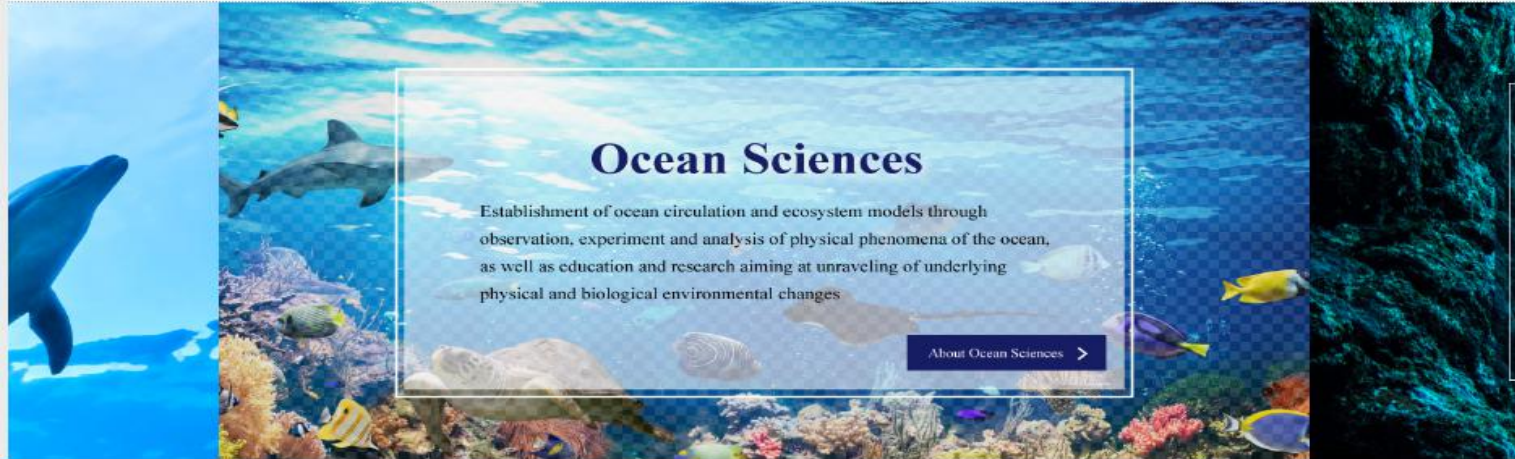
Enrollment quota

65 students



Course of Marine Resources and Environment - HR

Click



Course of Marine Resources and Environment

The Course of Marine Resources and Environment provides students with educational and research opportunities to learn about cutting-edge theories, from physical and engineering perspectives, in connection with issues related to the structure and conservation of the ocean, relationships between marine life and the environment, and development and use of the ocean and ocean-floor resources and energy, as well as to learn about relevant applied technologies, in order to achieve the sustainable use of marine resources while preserving the marine environment.

Specializations

This course consists of the following two specialization study: ocean sciences, and marine resources and energy. Programs are designed to develop specialists who can play leading roles in the fields of marine environmental science and resource engineering.

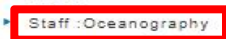
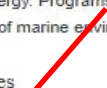
Ocean Sciences

- ▶ [About](#)
- ▶ [Staff :Oceanography](#)
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- ▶ [Curriculum](#)

Marine Resources and Energy

- ▶ [About](#)
- ▶ [Staff](#)
- ▶ [Curriculum](#)

Click





Ocean Sciences

Staff : Oceanography



Professor :
Hisayuki Arakawa

Specializations :
Applied Ocean optics

1. Ocean optical measurement
2. Relation between underwater light variation and response of marine organisms
3. Detection and dynamics of ocean microplastics

[Researcher information](#) ↗



Associate Professor :
Masashi Ohnawa

Specializations :
Fluid Dynamics, Analysis, Numerics

Mathematical and numerical studies on fluid phenomena appearing in the atmosphere, ocean, rivers and the universe mainly focusing on the formation and maintenance mechanisms.

[Researcher information](#) ↗



Associate Professor :
Michiyo Kawai

Specializations :
Chemical Oceanography

- Ocean Acidification in Coastal and Polar Regions
- Chemical Tracers and Biogeochemical Cycles in the Ocean
- Environmental Changes in the Arctic Ocean

[Researcher information](#) ↗

[Web Site](#) ↗

Click



Professor :
Jota Kanda

Specializations :
Biogeochemical Oceanography

- Long-term Biogeochemical Changes in Tokyo Bay
- Dynamics of Radioactive Cesium in Coastal waters off Fukushima
- Metabolic Budget of Carbon and Oxygen in Pelagic Microbial Communities

[Researcher information](#) ↗

[Web Site](#) ↗

- Personnel Information
- » Personnel Information
- » Research Areas
- Research Activity
- » Papers
- » Books
- Education Activity
- » Lesson Subject

Updated on 2021/09/17

YAMAMOTO-KAWAI Michiyo
 Job title: Associate Professor
 Department: Department of Ocean Sciences
 Degree: Doctor
 Major: 地球環境科学

Click

Educational research activities introduction

PDF

※It is a PDF that summarizes educational research activities. It is mainly information for junior high school students, high school students, their parents, general people who wish to take an exam.

Link

[ResearcherID](#)
[産学・地域連携推進機構 研究者総覧データベース](#)
[researchmap](#)

[To the head of this page.](#)

Research Areas

[display / non-display]

Environmental Science/Agriculture Science / Environmental dynamic analysis

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Papers

[display / non-display]

海洋学の10年展望2021：極域
 合美千代・田村岳史・渡邊英嗣・西岡純・野村大樹・真壁電介・溝端浩平・安中さやか, 2021.09
 海の研究

海洋学の10年展望2021：沿岸域
 木田新一郎, 栗原靖子, 大林由美子, 川合美千代, 近藤能子, 西岡純, 2021.09
 海の研究

Ocean acidification state in in the highly eutrophic Tokyo Bay, Japan: controls on seasonal and interannual variability
 Yamamoto-Kawai, M., S. Ito, H. Kurihara, J. Kanda, 2021.03
 Frontiers in Marine Science

Status and trends of Arctic Ocean environmental change and its impacts on marine biogeochemistry: Findings from theme 4 of the ArCS project
 Takashi Kikuchi, Shigeto Nishino, Amane Fujiwara, Jonaotaro Onodera, Michiyo Yamamoto-Kawai, Kohei Mizobata, Yasushi Fukamachi, Eiji Watanabe, 2021.01
 Polar Science

Two decades of ocean acidification in the surface waters of the Beaufort Gyre, Arctic Ocean: Effects of sea ice melt and retreat from 1997–2016
 Y. Zhang, M. Yamamoto-Kawai, and W.J. Williams, 2020.01
 Geophysical Research Letters

[display all >>](#)



Michiyo Yamamoto-Kawai

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F-7611-2013

Faculty - Graduate School of Marine Science and Technology, Tokyo University of Marine Science and Technology

PUBLICATIONS

34

TOTAL TIMES CITED

1,463

H-INDEX

21[®]

Summary

Metrics

Publications

Research Fields

OCEANOGRAPHY

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Most cited publications

TIMES CITED

Aragonite Undersaturation in the Arctic Ocean: Effects of Ocean Acidification and Sea Ice Melt

WEB OF SCIENCE



Published: Nov 2009 in Science
DOI: 10.1126/SCIENCE.1174190

212

Freshwater and its role in the Arctic Marine System: Sources, disposition, storage, export, and physical and biogeochemical consequences in the Arctic and global oceans

WEB OF SCIENCE



Authors: Carmack, E. C.; Yamamoto-Kawai, M.; Haine, T. W. N.; ... Williams, W. J.; see more
Published: 2016 in Journal of Geophysical Research: Biogeosciences
DOI: 10.1002/2015JG003140

175

Surface freshening of the Canada Basin, 2003-2007: River runoff versus sea ice meltwater

WEB OF SCIENCE



Authors: Yamamoto-Kawai, M.; McLaughlin, F. A.; Carmack, E. C.; ... Kurita, N.; see more
Published: Apr 2009 in Journal of Geophysical Research: Oceans
DOI: 10.1029/2008JC005000

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谢谢大家！

ご清聴 ありがとうございます。