

Subjects of Graduate School, 2023 Academic Year [Course of Marine Life Sciences]

Specialization【Aquatic Bioscience】					
Subjects	Instructors	Credits	Web registration	Offered 2023	Remarks
Fish Developmental Biotechnology	Yoshizaki Goro,Yazawa Ryosuke,Ichida Kensuke,Morita Tetsuro	2			
Infectious Diseases of Aquatic Organisms	Sano Motohiko,Kato Goshi	2			
Aquatic Molecular Genetics	Sakamoto Takashi	2			
Aquatic Animal Nutrition	Haga Yutaka,Kabeya Naoki	2			
Aquatic Feed Technology	Haga Yutaka	2			
Aquatic Bioculture	Endo Masato,Sakamoto Takashi	2			
Applied Phycology on Algal Properties	Fujita Daisuke	2			
Applied Phycology on Algal Functions	Niwa Kyosuke	2			
Reproductive Physiology of Fish II	IMAMURA Shintaro	2			Collaborative Graduate School, Japan Fisheries Research and Education Agency
Specialization 【Fisheries Biology】					
Subjects	Instructors	Credits	Web registration	Offered 2023	Remarks
Conservation Ecology	Strussmann Carlos Augusto,Yokota Masashi,Yamamoto Yoji	2			
Population Dynamics	Strussmann Carlos Augusto,Yokota Masashi,Yamamoto Yoji	2			
Stock Enhancement Ecology	Dan Shigeki,Hamasaki Katsuyuki	2			
Bioresources Conservation and Management	Hamasaki Katsuyuki,Dan Shigeki	2			
Fish Behavior Dynamics	Akiyama Seiji	2			
Fishing System Analysis	Shiode Daisuke,Tokai Tadashi	2			
Fishing System Technology	Hu Fuxiang	2			
Population Dynamics and Management	Kitakado Toshihide,Tanaka Eiji	2			
Spatial dynamics of resources	Hori Masakazu	2			Collaborative Graduate School, Japan Fisheries Research and Education Agency
Early Life Ecology of Fishery Resources	Kurita Yutaka,SASSA Chiyuki	2			Collaborative Graduate School, Japan Fisheries Research and Education Agency
Comparative Ecology of Fishery Resources	Kurita Yutaka,ICHINOKAWA Momoko	2			Collaborative Graduate School, Japan Fisheries Research and Education Agency
Deep Sea Biology I	Fujiwara Yoshihiro,Tsuchida Shinji	2			Collaborative Graduate School, Japan Agency for Marine-Earth Science and Technology
Deep Sea Biology II	Yoshida Takao,IKUTA Tetsuro	2			Collaborative Graduate School, Japan Agency for Marine-Earth Science and Technology
specialization 【Marine Bio Engineering】					
Subjects	Instructors	Credits	Web registration	Offered 2023	Remarks
Genetics and Biochemistry	Hirono Ikuo	2			
Genome Science of Fish and Shellfish	Kondo Hidehiro	2			
Functional Biology of Aquatic Organisms	Yamashita Michiaki	2			Collaborative Graduate School, Japan Fisheries Research and Education Agency
Functional Molecular Biology and Genomics	Suzuki Toshiyuki,Yasuike Motoshige	2			Collaborative Graduate School, Japan Fisheries Research and Education Agency
Toxicological Pathology	(To Be Announced)	2	Not available	Not Offered	
Molecular Aqua-toxicology	Katagiri Takayuki	2			
Fish Pathophysiology	Futami Kunihiko	2			
Microbiological Engineering	Kobayashi Takeshi	2			
Chemical Microbiology	Terahara Takeshi	2			

Subjects of Graduate School, 2023 Academic Year 【Course of Food Science and Technology】

specialization 【Food Science】					
Subjects	Instructors	Credits	Web registration	Offered 2023	Remarks
Advanced Physicochemical Properties of Food	Takahashi Kigen	2			
Physical Chemistry in Polymer Solution	Matsukawa Shingo	2			
Advanced Food and Nutrition	Nagasaka Reiko	2			
Food Microbiology	Kuda Takashi	2			
Control of Food Spoilage and Pathogenic Microorganisms	Takahashi Hajime	2			
Food Functional Chemistry	Gotoh Naohiro,Tanaka Seiya	2			
Biochemistry of Marine Resources	Koyama Hiroki	2			
Analytical Chemistry of Biomolecules	Ishizaki Shoichiro	2			
Pharmacology of preventive foods	Koyama Tomoyuki	2			
specialization 【Food Technology】					
Subjects	Instructors	Credits	Web registration	Offered 2023	Remarks
Heat and Mass Transfer in Food Engineering	Fukuoka Mika	2			
Thermal Engineering in Food Industry	Yvan Llave	2			
Food Process Engineering	Shibata Mario	2			
Food System Analysis	Hagiwara Tomoaki	2			
Properties of Foods in Low Temperature	Watanabe Manabu, Lee Younju	2			
Food Refrigeration Engineering	Mark Anthony Redo	2			
Food Processing Technology	Osako Kazufumi	2			
Seafood Processing and Materials	Kou Shoutei	2			

Subjects of Graduate School, 2023 Academic Year 【Course of Marine Resources and Environment】

specialization 【Ocean Sciences】					
Subjects	Instructors	Credits	Web registration	Offered 2023	Remarks
Aquatic Inorganic Chemistry	Takahashi Miho	2			
Marine Environmental Conservation	Kanda Jota	2			
Biogeochemical Processes	Hashihama Fuminori	2			
Biogeochemistry of marine systems	Kawai Michiyo	2			
Seafloor Biogeochemistry	Yamanaka Toshiro	2			
Seafloor Geochemistry	Dekov Vesselin	2			
Dynamical Oceanography	Kitade Yujiro	2			
Coastal Oceanography	Kitade Yujiro,Mizobata Kohei	2			
Ocean Mixing Processes	Nagai Takeyoshi	2			
Global Climate Change	Shimada Koji	2			
Ocean Remote Sensing	Mizobata Kohei	2			
Mathematical Analysis for Ocean Science	Ohnawa Masashi	2			
Mathematical Fluid Dynamics	Mori Naofumi	2			
Oceanic observation cruise	Kanda Jota,Shimada Koji,Hashihama Fuminori,Nagai Takeyoshi	1	Not available		

specialization 【Ocean Sciences】					
Subjects	Instructors	Credits	Web registration	Offered 2023	Remarks
Advanced Fish Biology	Moteki Masato	2			
Advanced Fish Phylogeny	(To Be Announced)	2	Not available	Not Offered	
Systematics of Algae	Kamiya Mitsunobu	2			
Biological Oceanography	Miyazaki Naho	2			
Environmental Ecology	Ishii Haruto	2			
Invertebrates Ecophysiology	Kon Koetsu	2			
Invertebrate Systematics	Tsuchiya Kotaro	2			
Plankton Ecology	Katano Toshiya	2			
Marine Mammalogy	Murase Hiroto,Nakamura Gen	2			
Fish Behavioral Ecology	(To Be Announced)	2	Not available	Not Offered	
Marine Biological Resource Ecology	Suzuki Naoki	2			
Chemical Biology	Nagai Hiroshi	2			
Structural Analysis of Organic Compounds	Kamio Michiya	2			
Molecular Biochemistry	Ishida Masami,Okai Masahiko	2			
Environmental Microbiology	Okai Masahiko,Makita Hiroko	2			
Application of biocatalysis for aquatic environment	Endo Hideaki,WU HAIYUN	2			

Subjects of Graduate School, 2023 Academic Year 【Course of Marine Resources and Environment】

specialization 【Marine Resources and Energy】					
Subjects	Instructors	Credits	Web registration	Offered 2023	Remarks
Environmental Functional Polymer Materials	(To Be Announced)	2	Not available	Not Offered	
Ocean Floor Geoscience	Nakahigashi Kazuo,Tsuru Tetsuro	2			
Marine Meteorological Analysis	Takeyama Yuko	2			
Coastal Hydrodynamics and Processes	Inazu Daisuke,WU LIANHUI	2			
Nearshore Environmental Engineering	WU LIANHUI,Okayasu Akio,Inazu Daisuke	2			
Marine and Fishery Mechanics	Toda Masayoshi	2			
Marine Acoustics	Amakasu Kazuo,Mishima Yuka	2			
Marine Information Measurement Engineering	Miyamoto Yoshinori,Uchida Keiichi	2			
Wave Properties for Coastal and Ocean Structures	Ikeya Tsuyoshi	2			
Marine Geotechnical & Geological Engineering	Tani Kazuo,Nomura Shun	2			
Advanced Energy Engineering	Ida Tetsuya	2			
Marine Sensing Technology	Shitashima Kiminori,Owari Satoko	2			
International Marine Management	Huchida Shigeshi	2			
General View on Subseafloor Explorations	Tsuruga Kayoko,Furuyama Seishiro	2			
Seafloor Environmental Analysis	Aoyama Chiharu	2			

Subjects of Graduate School, 2023 Academic Year **【Course of Marine Policy and Management】**

specialization 【Marine Policy】					
Subjects	Instructors	Credits	Web registration	Offered 2023	Remarks
Theory and Practice of International Law of the Sea	Okochi Mika	2			
International Cooperation	Harada Sachiko, TERASHIMA Hiroaki	2			
Marine Environmental Policy	(To Be Announced)	2			
Ocean Literacy	Sasaki Tsuyoshi	2			
Asian Marine Policy	(To Be Announced)	2			
General View on Marine Policy	Sasaki Tsuyoshi, etc.	2			
General View on Marine Utilization and Management	Suzuki Naoki, etc.	2			
Practical ESD Training	Sasaki Tsuyoshi, Kawabe Midori	1	Not available		
specialization 【Marine Management】					
Subjects	Instructors	Credits	Web registration	Offered 2023	Remarks
Fish Population Dynamics	Kitakado Toshihide, Suzuki Naoki	2			
Marine Ecosystem Management	Suzuki Naoki	2			
Fisheries Stock Management	Tanaka Eiji	2			
Fisheries Stock Assessment	Kitakado Toshihide	2			
Study on Seabed Resources	Tsuruga Kayoko	2			
Coastal Protection and Management	Okayasu Akio	2			
General View on Marine Policy	Sasaki Tsuyoshi, etc.	2			
General View on Marine Utilization and Management	Suzuki Naoki, etc.	2			
Practical ESD Training	Sasaki Tsuyoshi, Kawabe Midori	1	Not available		
specialization 【Marine Environment and Culture】					
Subjects	Instructors	Credits	Web registration	Offered 2023	Remarks
Marine Sport Sciences	Chiashi Koichi	2			
General View on Marine Policy	Sasaki Tsuyoshi, etc.	2			
General View on Marine Utilization and Management	Suzuki Naoki, etc.	2			
Practical ESD Training	Sasaki Tsuyoshi, Kawabe Midori	1	Not available		

※点線部から下の科目は「専攻分野共通科目」であり、どの専攻分野でも加算可能。

*Subjects below the dotted line are "common subjects for specializations" and can be added to any specialization.

Subjects of Graduate School, 2023 Academic Year 【Course of Marine System Engineering】

specialization 【Power System Engineering】					
Subjects	Instructors	Credits	Web registration	Offered 2023	Remarks
Electric Power Conversion	Komeda Shohei	2			
Electric Power Experiment	Kifune Hiroyasu	2			
specialization 【Marine Mechanical Engineering】					
Subjects	Instructors	Credits	Web registration	Offered 2023	Remarks
Engineering MaterialsEngineering	Motoda Shinichi	2			
Strength and Fracture of Materials	Morita Motoaki	2			

Subjects of Graduate School, 2023 Academic Year 【Course of Maritime Technology and Logistics】

specialization 【Information Systems Engineering】					
Subjects	Instructors	Credits	Web registration	Offered 2023	Remarks
Underwater Technology	Kondo Hayato	2			
Experiments on Underwater Technology	Kondo Hayato	2			
Route Planning	Tamaru Hitoi	2			
Language Information Processing	Uchida Yoko	2			
Natural Language and Linguistic Computation	Fuji Masaaki	2			
specialization 【Environment System Engineering】					
Subjects	Instructors	Credits	Web registration	Offered 2023	Remarks
Lecture on Environment Analysis	Kobashi Fumiaki	2			
Lecture on Environmental Predictions	Iwasaka Naoto	2			
specialization 【Marine Technology】					
Subjects	Instructors	Credits	Web registration	Offered 2023	Remarks
Mobile Communication System	Kubo Nobuaki,Fukuda Gen	2			
Analysis of Ship Motions	(To Be Announced)	2	Not available	Not Offered	
Design on Ship-handling System	Uchino Akiko,Ishibashi Atsushi	2			
specialization 【Logistics System Engineering】					
Subjects	Instructors	Credits	Web registration	Offered 2023	Remarks
Security Management of Intermodal Transportation	Watanabe Yutaka	2			
Experiment of Logistics and Cargo Systems	Watanabe Yutaka,Watanabe Daisuke	2			
Advanced Transportation Planning	Hyodo Tetsuro,Sakai Takanori	2			
Spatial Information Engineering	Watanabe Daisuke	2			
Mathematical Informatics	Sekiguchi Yoshiyuki	2			
Discrete Mathematics	Motegi Kohei	2			
specialization 【Logistics Management】					
Subjects	Instructors	Credits	Web registration	Offered 2023	Remarks
Seminar in Industrial Organization	Okumura Yasunori	2			

Subjects of Graduate School, 2023 Academic Year **【Graduate School Common Subjects】**

Courses【All Courses of Master's Course】					
Subjects	Instructors	Credits	Web registration	Offered 2023	Remarks
Marine Science Seminar I	Ogawa Mikako,Endo Nobuaki, etc.	1			
Academic English	Tanabe Akira	2			
Case Workshop on Marine Environmental Protection	Okayasu Akio	2	Not available		
International Summer School of Marine Science and Technology	Hirono Ikuo	2	Not available		
Data Science	Mizobata Kohei	2			
Exercise in Data Science	Furuya Tadasuke	1			
Marine Science Seminar II	Ogawa Mikako,Endo Nobuaki, etc.	1			
Social Implementation of Data Science	Takenawa Tomoyuki	2	Not available		
Advanced Artificial Intelligence and Machine Learning	Sakai Takanori	2	Not available		
Advanced Evaluation of Ship Navigation Safety	Uchino Akiko	2	Not available		