Kuroshio Science

CURRICULUM GUIDE 2025

Graduate School of Integrated Arts and Sciences

Kochi University

Contact Information

Office of Student and Educational Affairs, Kuroshio Science Program, Kochi University Monobe Campus

200 Otsu, Monobe, Nankoku, Kochi 783-8502, JAPAN
TEL：088-864-5217
E-mail：km14@kochi-u.ac.jp

2025 Academic Calendar for Kuroshio Science Program, Graduate School of Integrated Arts and Sciences, Kochi University

Events	Date
Entrance Ceremony in Spring	April 3 (Thu)
Orientation for New Students	April 7 (Mon)
1st (Spring) Semester Begin	April 14 (Mon)
Submission Deadline of Course Registration for 1st Semester	April 11 (Fri)
Medical Checkup in Spring	From April to May
Deadline of Application for Preliminary Review in 1st Semester	April 30 (Wed)
Dissertation Submission Deadline in 1st Semester	June 13 (Fri)
Summer Vacation	From August 8 (Fri) to 31 (Sun)
Special Class Period	From September 1 (Mon) to 30 (Tue)
Announcement of Dissertation Review Result	Early September
Completion Ceremony and Degree Conferral Ceremony in September	September 19 (Fri)
Submission Deadline of Study Progress Report for 1st Semester	Late September
The Establishment Anniversary	October 1 (Wed)
2nd (Autumn) Semester Begin	October 2 (Thu)
Orientation for New Students	Early October
Entrance Ceremony in Autumn	October 10 (Fri)
Submission Deadline of Course Registration for 2nd Semester	Mid October
Deadline of Application for Preliminary Review in 2nd Semester	October 31 (Fri)
Dissertation Submission Deadline in 2nd Semester	December 15 (Mon)
Winter Vacation	From December 25 (Thu) to January 4 (Sun)
Special Class Period	From February 2 (Mon) to 28 (Sat)
End of Academic Year Holiday Period	From March 1 (Sun) to 31 (Tue)
Announcement of Dissertation Review Result	Early March
Completion Ceremony and Degree Conferral Ceremony in September	March 23 (Mon)
Submission Deadline of Study Progress Report for 2nd Semester	Late March

*In order to ensure 15 classes per each semester, the following day will be substituted.
Monday Class - - - - - July 24 (Thu), October 29 (Wed), November 6 (Thu), November 25 (Tue)
Tuesday Class - - - - - April 30 (Wed)

Table of Contents

I. Guidance, Subjects, Grading

I-1. Guidance

(1) Supervisors

For student guidance, one supervisor and two or more co-supervisors are assigned to each student. One of the co-supervisors is from a specialist field different from that of the supervisor. This arrangement helps to provide advice and guidance from an alternative perspective and, after graduation, helps graduates develop the competence to be highly skilled professionals and technologists who possess knowledge and skills which enables them to respond flexibly to a broad range of challenges on a number of fronts, and can participate in interdisciplinary discussions.

(2) Role of Supervisors

Supervisor

- Discuss and set research topics with students
- At the beginning of each semester, design the education research plan with students
- Work with the co-supervisors and guide and evaluate participation in the Kuroshio Seminar and Special Exercise, and dissertation research and writing according to the degree evaluation criteria
- Through this guidance, have the students acquire knowledge and skills whereby they can continuously contribute to research activities and society as highly skilled professionals or technologists after being awarded their degree

Co-supervisor (A): same field as the supervisor or a closely-related field

- Work with the supervisor and provide research guidance related to the dissertation. If the supervisor is not able to provide guidance due to some unforeseen circumstance, co-supervisor (A) will assume responsibility for education research guidance

Co-supervisor (B): field different from both supervisor and co-supervisor (A)

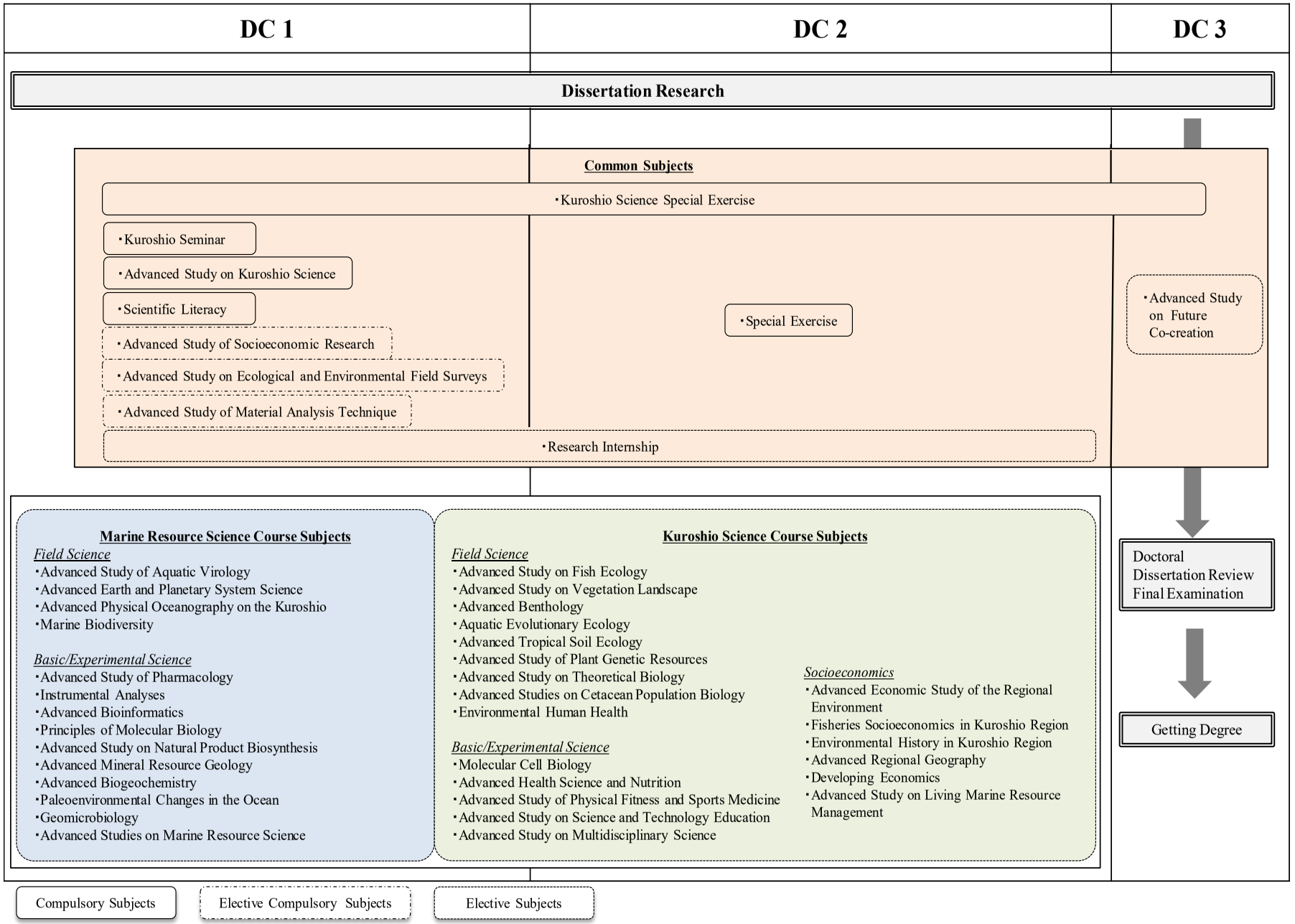
- At the end of each semester, obtain a briefing and report from students on their research results and progress, and guide and advise students from the perspective of a different field so they can objectively evaluate their own research progress
- With the supervisor and co-supervisor (A), review the methods and principles of instruction to determine whether they are sufficient to encourage a wider vision in education research and foster enriched learning

I-2. Subjects

(1) Subjects List

	Code	Title	Instructor	Type	Credit		Year	Semester	Requirement	Remarks	Required for Completion
					Compulsory	Elective					
Common Subjects	19500	Advanced Study on Kuroshio Science	Syun-Ichiro OSHIMA, Mina HORI, Others	Lecture	1		1	1,2		Omnibus	6 credits
	19600	Kuroshio Seminar	Each Supervisors	Esercise	1		1	1,2			
	19700	Special Exercise	Each Supervisors	Esercise	1		2	1,2			
	19410	Kuroshio Science Special Exercise	Each Supervisors	Esercise	2		1(*)	1,2		(*)Three years full year	
	19401	Scientific Literacy	Gyo ITANI, Hirotaka DOHO, Others	Lecture	1		1	2			
	19403	Advanced Study of Socioeconomic Research	Teruyuki SHINBO, Mina HORI, Others	Lecture	1		1	1,2	2 subjects are selected depending on belonging course	Omnibus	2 credits
	19404	Advanced Study on Ecological and Environmental Field Surveys	Sota TANAKA	Lecture	1		1	1,2		Omnibus	
	19405	Advanced Study of Material Analysis Technique	Tetsuya SAKURAI	Lecture	1		1	1,2		Omnibus	
	19406	Advanced Study of Future Co-creation	Syun-Ichiro OSHIMA, Others	Lecture		2	3	2		Omnibus	
	19407	Research Internship	Syun-Ichiro OSHIMA, Others	Practical Training		2	1	1,2			
Elective Subjects	19002	Marine Biodiversity	Osamu MIURA	Lecture		2	1	2	Need to earn 4 credits or more from belonging course		6 credits or more
	19041	Principles of Molecular Biology	Maki TERAMOTO	Lecture		2	1	1			
	19046	Advanced Earth and Planetary System Science	Yoshiro NISHIO	Lecture		2	1	2			
	19047	Advanced Study on Natural Product Biosynthesis	Dana ULANOVA	Lecture		2	1	2			
	19048	Advanced Study of Pharmacology	Takashi NANBA	Lecture		2	1	1			
	19050	Advanced Mineral Resource Geology	Go-Ichiro URAMOTO	Lecture		2	1	2			
	19051	Advanced Biogeochemistry	Tomoyo OKUMURA	Lecture		2	1	1			
	19057	Paleoenvironmental Changes in the Ocean	Masafumi MURAYAMA	Lecture		2	1	1			
	19061	Geomicrobiology	Yuki MORONO	Lecrure		2	1	1			
	19096	Advanced Bioinformatics	Tetsuya SAKURAI	Lecture		2	1	2			
	19097	Advanced Study of Aquatic Virology	Keizo NAGASAKI	Lecture		2	1	2			
	19098	Advanced Physical Oceanography on the Kuroshio	Hiroyuki YORITAKA	Lecture		2	1	1			
	19070	Advanced Studies on Marine Resource Science	Gyo ITANI, Others	Lecture		2	1	1,2		Omnibus	
	19005	Aquatic Evolutionary Ecology	Masanori HIRAOKA	Lecture		2	1	1			
	19006	Advanced Benthology	Gyo ITANI	Lecture		2	1	2			
	19007	Advanced Study on Living Marine Resource Management	Hiroyuki MATSUDA	Lecture		2	1	2			
	19008	Molecular Cell Biology	Syun-Ichiro OSHIMA	Lecture		2	1	1			
	19013	Advanced Studies on Cetacean Population Biology	Toshiya KISHIRO	Lecture		2	1	1,2			
	19019	Advanced Tropical Soil Ecology	Sota TANAKA	Lecture		2	1	2			
	19020	Advanced Economic Study of the Regional Environment	Teruyuki SHINBO	Lecture		2	1	1			
	19022	Developing Economics	Satoshi KUBOTA, Others	Lecture		2	1	1,2		Omnibus	
	19033	Advanced Health Science and Nutrition	Satoshi KUBOTA	Lecture		2	1	1			
	19034	Environmental Human Health	Tsutomu NAMIKAWA	Lecture		2	1	1,2			
	19043	Fisheries Socioeconomics in Kuroshio Region	Mina HORI	Lecture		2	1	1			
	19045	Advanced Study on Vegetation Landscape	Motoki HIGA	Lecture		2	1	1			
	19053	Environmental History in Kuroshio Region	Shingo AKAIKE	Lecture		2	1	2			
	19055	Advanced Regional Geography	Yasukazu SATAKE	Lecture		2	1	1			
	19056	Advanced Study of Physical Fitness and Sports Medicine	Atsumu YUKI	Lecture		2	1	1			
	19060	Advanced Study on Science and Technology Education	Hirotaka DOHO	Lecture		2	1	1			
	19058	Advanced Study on Fish Ecology	Yohei NAKAMURA	Lecture		2	1	2			
	19059	Advanced Study of Plant Genetic Resources	Mitsukazu SAKATA	Lecture		2	1	2			
	19095	Advanced Study on Theoretical Biology	Motomi KATO	Lecture		2	1	2			
	19071	Advanced Study on Multidisciplinary Science	Gyo ITANI, Others	Lecture		2	1	1,2		Omnibus	
									Total		14 credits or more

(2) Curriculum Map



I-3. Class Overview

(1) Credits Required for Completing the Doctoral Course

<table>
<tr><td colspan="3" rowspan="2">Compulsory subjects</td><td>Elective subjects</td><td rowspan="2">Total required</td></tr>
<tr><td>Required</td></tr>
<tr><td colspan="2">Advanced Study on Kuroshio Science</td><td>1 credit</td><td rowspan="9">6 credits more
(At least 4 credits from affiliation course)</td><td rowspan="9">14 credits or more</td></tr>
<tr><td colspan="2">Kuroshio Seminar</td><td>1 credit</td></tr>
<tr><td colspan="2">Special Exercise</td><td>1 credit</td></tr>
<tr><td colspan="2">Kuroshio Science Special Exercise</td><td>2 credits</td></tr>
<tr><td>Scientific Literacy</td><td rowspan="4">Select 2 subjects</td><td>1 credit</td></tr>
<tr><td>Advanced Study of Socioeconomic Research</td><td>1 credit</td></tr>
<tr><td>Advanced Study on Ecological and Environmental Field Surveys</td><td>1 credit</td></tr>
<tr><td>Advanced Study of Material Analysis Technique</td><td>1 credit</td></tr>
<tr><td colspan="2">Subtotal</td><td>8 credits</td></tr>
</table>

(2) Course Common Subjects

1) Compulsory Subjects

Advanced Study on Kuroshio Science (Code: 19500)

The Advanced Study on Kuroshio Science is an omnibus lecture series given by faculty from a number of fields from which students gain broad knowledge and points of view about issues of the Kuroshio Region.

Kuroshio Seminar (Code: 19600)

The Kuroshio Seminar helps students develop presentation and discussion skills through presentations of research during the master's program and dissertation research plans for PhD degree. As well as improving self-expression by trying to get researchers from other fields to understand the content of their own presentations, students enhance their ability to participate in discussions and arguments on research presentations in other fields.

Special Exercise (Code: 19700)

The Special Exercise is the interim presentations of dissertation research. Through presentations and discussion of research progress, students organize their references and bring into focus the direction of research, as well as improve presentation and discussion skills.

Kuroshio Science Special Exercise (Code: 19410)

In order to acquire the manners, methods and skills as a researcher, students will learn a series of thesis creation processes, that is, formulating and presenting research plans, organizing and reporting the progress of study for each semester, and reviewing interim presentations.

Scientific Literacy (Code: 19401)

Learn the ethics and information security, the importance of data analysis using appropriate statistical methods, and the significance of disseminating information to society based on scientific evidence.

2) Elective Compulsory Subjects

Advanced Study of Socioeconomic Research (Code: 19403)

Students will learn the basics of socio-economic science, such as observation of case studies and survey methods of sustainable use of natural and environmental resources by local communities, using the mountainous area in Kochi Prefecture as a subject.

Advanced Study on Ecological and Environmental Field Surveys (Code: 19404)

Acquire basic techniques of field science in the marine and land areas, using the coastal area, farmland and forests of Kochi as fields.

Advanced Study of Material Analysis Techniques (Code: 19405)

Using natural resources and agricultural, forestry and fishery products from Kochi Prefecture as samples, learn the outline of the analysis and analysis process using equipment, and acquire the basics of experimental protocol creation techniques and the basics of experimental science.

3) Elective Subjects

Advanced Study of Future Co-creation (Code: 19406)

This subject is offered as a participatory lecture in cooperation with members of the “Center for Education and Research for Hope-Emergence”. Students will learn the thoughts and needs of society and business and independently explore ways to contribute to the development of local communities and the economy while optimizing the use of resources in the real world and preserving the environment.

Research Internship (Code: 19407)

This program aims to enable students with basic knowledge and skills necessary for conducting research to participate in internships at companies and public organizations, thereby gaining a comprehensive and multifaceted perspective on their own research and identifying their social roles. This course grants credits based on the evaluation of internships that are either part of the “Job-Type Research Internship” program promoted by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) for doctoral students, or internships whose content is deemed equivalent to the “Job-Type Research Internship” by the Academic Affairs Committee of the Kuroshio Region Integrated Science Program.

(3) Marine Resource Science Course Subjects

These subjects will train advanced professionals in the field of "Marine Resource Science in Kuroshio Region," who will explore the unutilized (micro) biological resources and seafloor mineral and energy resources which extend from the Kuroshio Current coastal area to the deep sea floor, and investigate their origins and functions and how to use them effectively. Furthermore, they will be well-versed in environmental preservation and have knowledge of the law.

Marine Biodiversity by Osamu MIURA (Code: 19002)

There are diverse marine species in Kuroshio region. Molecular genetics is an important tool to elucidate the ecology and evolution of these marine species. In this class, you will read three papers on molecular genetics and answer the questions. Prior knowledge on evolutionary ecology and molecular genetics (master level, at least) is required. Students in my lab or in associated fields are welcome to register. Otherwise, please contact me (miurao@kochi-u.ac.jp) before the registration. The class will be conducted by "ONLINE" using Moodle site.

Principles of Molecular Biology by Maki TERAMOTO (Code: 19041)

For research in molecular biology, we can use various techniques without knowing the underlying principles behind the techniques. In this class, students learn such principles involved in commonly used techniques as well as in latest techniques. These techniques contain those for gene cloning, gene expression and gene functional analysis. In each class, students are expected to give presentations for the topics. Afterwards, we will discuss the topics and deepen understanding.

Advanced Earth and Planetary System Science by Yoshiro NISHIO (Code: 19046)

Nature provides us "resources" and "disaster". In this lecture, Earth, Environmental, and Planetary Science will be explained as essential knowledge to utilize the resources (water, mineral, energy, and etc.) and to reduce the damage from disasters (earthquake, volcanic activity, and etc.) in the Kuroshio Current area.

Advanced study on natural product biosynthesis by Dana ULANOVA (Code: 19047)

Natural products are an important source of clinically useful drugs. Detailed knowledge of how producing organisms synthesize these compounds is essential for improvement of their bioactive properties and also for discovery of new natural products. In this lecture the biosynthetic principles of main natural product groups will be explained with a special focus on products of the marine origin. We will also discuss recent approaches for manipulation of biosynthetic genes to yield new bioactive compounds.

Advanced study of Pharmacology by Takushi NANBA (Code: 19048)

The molecular mechanism of the effect of medicines, such as Aspirin, Penicillin, etc. in the cell level and whole body level will be discussed. The methods of development of new medicine and the leading edge of pharmacological research will also be discussed.

Advanced mineral resource geology by Go-Ichiro URAMOTO (Code: 19050)

Ferromanganese minerals are widely distributed in subseafloor sediments and on the seafloor in oceanic abyssal plains. Assessing their formation and preservation is important for understanding the global marine manganese cycle and associated trace elements. In this lecture, principles of earth surface systems for the formation and preservation of deep-sea ferromanganese minerals will be explained with a special focus on biological evolution and climate changes.

Advanced Biogeochemistry by Tomoyo OKUMURA (Code: 19051)

On a life-filled earth, biological activities and the environment interact on various scales. In this lecture, we will focus on the chemical cycles of carbon, oxygen, sulfur, and nitrogen, etc., learn a wide range of biogeochemical processes throughout the history of the earth, and aim for an integrated understanding of the earth system.

Paleoenvironmental changes in the ocean by Masafumi MURAYAMA (Code: 19057)

This course introduces oceanographic processes active at the Earth's surface and their relationships to most aspects of the Earth's overall environment from the past. The paleoceanographic processes including oceanic circulation, biogeochemical cycles and climate dynamics are examined based on the isotope geochemical evidence.

Geomicrobiology by Yuki MORONO (Code: 19061)

This lecture handles microbial life mainly living beneath the seafloor, extreme habitat for life. What is the extent of the biosphere on/in Earth, how the life adapts and evolve to/in their surrounding environments will be reviewed. Also the life itself will be discussed.

Advanced Bioinformatics by Tetsuya SAKURAI (Code: 19096)

Bioinformatics is an interdisciplinary research field used for in silico analyses of biological data using mathematical and statistical techniques. In this lecture, I hope to explain analyses of genome or transcriptome data, as well as an understanding of gene prediction and functional annotation. Prior knowledge on molecular biology (master's level, at a minimum) and some programming expertise (preferably in Perl) are prerequisites.

Advanced study of Aquatic Virology by Keizo NAGASAKI (Code: 19097)

In any aquatic environments, the most abundant biological entites are “viruses”. In the ocean, the number of virus particles are estimated at 10E30. Hence, researchers’ enthusiastic interest is located in their roles in marine environments. At this class, diversity, function, and ecological roles of aquatic viruses are plainly explained. Discussion on the raison d'être for viruses will be conducted.

Advanced Physical Oceanography on the Kuroshio by Hiroyuki YORITAKA (Code: 19098)

The Kuroshio that is a western boundary current of North Pacific Subtropical Gyre is driven by the wind system of the wide area in the North Pacific. I explain the variation of the Kuroshio, and the impact of the Kuroshio on the coastal ocean condition.

(4) Kuroshio Science Course Subjects

The principal objective of the comprehensive, interdisciplinary Kuroshio Science course is the education through integrating and providing an overall perspective of a number of specialist fields. The course focuses on resources, environment and society, medical health science, food and nursing pertaining to the extensive regions and marine areas (hereinafter, Kuroshio Region) extending from the countries and regions of Southeast Asia to East Asia. Kuroshio Science aspires to promote education and capable people in the following ways:

- To train researchers and educators to possess a high level of expertise in various fields related to coastal ecosystems, including both marine and terrestrial ecosystems, local communities and regional development as well as knowledge of and perspective on different fields
- To train new types of researchers and educators who gain an understanding of the new concept that is Kuroshio Science and possess a broad global perspective
- To provide capable people who lay a foundation based on Kuroshio Science with a broad global perspective, as well as who can play an active part in regional industry and the business community

Aquatic Evolutionary Ecology by Masanori HIRAOKA (Code: 19005)

This lecture introduces the latest phylogenetic and ecological studies for algae being important producers in tidal flat or rocky shore along the seashore. Algae include multifarious taxa which have evolved by symbiosis of photosynthetic bacteria and ameba like organisms. We learn the life diversity from morphology, physiology and life histories in various algal taxa. The discussion about relationships of each alga to environments would lead us to understand fishery and environmental managements more deeply.

Advanced Benthology by Gyo ITANI (Code: 19006)

We will study biodiversity and ecological role of marine benthos. Topics include taxonomy and systematics of marine benthos, adaptation to benthic environment, species interactions, and community ecology of tidal flats.

Advanced Study on Living Marine Resource Management by Hiroyuki MATSUDA (Code: 19007)

I explain ecosystem management, sustainable use, risk assessment, adaptive management, definition of threatened species, fisheries impact assessment, ecological footprint, and mathematical models for these issues. I also explain several case studies, extinction risk and stock recovery plan on southern bluefin tuna, hypotheses of sardine-anchovy-mackerel stock fluctuation.

Molecular Cell Biology by Syun-Ichirou OSHIMA (Code: 19008)

Knowledge about virus-cell interactions has been obtained through studies with various models for virus infection, and contributes to molecular cellbiology. The focus of this subject is the understanding of the mechanisms by which viral gene products manipulate key host cell molecules involved in signal transduction to virus replication and pathogenicity.

Advanced Studies on Cetacean Population Biology by Toshiya KISHIRO (Code: 19013)

The present lecture proceeds step by step, the first phase giving a general outline of cetacean (whales, dolphins and porpoises) population biology such as their taxonomy, distribution, life history, and stock management, then the second phase focusing on the case studies of specific cetaceans in Kuroshio and its surrounding regions.

Advanced Tropical Soil Ecology by Sota TANAKA (Code: 19019)

Tropical soils, which are a key factor for environmental conservation and sustainable agriculture in the tropics, are discussed from the viewpoint of pedogenetic process, nutrient dynamics, and biological process. The relationship and problems between the life of local people and the conservation and management of soil environment are further discussed.

Advanced Economic Study of the Regional Environment by Teruyuki SHINBO (Code: 19020)

We will study regional environmental problems in the Kuroshio Sphere using economics, theoretically and empirically. We regard approaches from micro economics, public economics, and econometrics as important. In particular, we will take up the following topics: (1) the theory of environmental economics, (2) the economic valuation of environmental and natural resources, (3) environmental policy analyses.

Advanced Health Science and Nutrition by Satoshi KUBOTA (Code: 19033)

Lecture on basic mechanisms of nutrient metabolism, energy exchange, and body formation and public nutrition for keeping and promoting the health of populations.

Environmental Human Health by Tsutomu NAMIKAWA (Code:19034)

New diagnostic techniques based on photodynamic medicine, such as near-infrared fluorescence using indocyanine green (NIR-ICG) and 5-aminolevulinic acid-mediated photodynamic diagnosis (ALA-PDD), are aiding navigation tasks across various fields of surgery. The ability to overlay fluorescent imaging with conventional color images in real time using ALA-PDD and NIR with ICG would be of immense benefit to surgeons, providing good visualization and detection of target lesions not seen with the naked eye. Such imaging capability will be discussed in the broad potential across cancer and vascular surgery.

Fisheries socioeconomics in Kuroshio Region by Mina HORI (Code: 19043)

Towards sustainable fisheries in the Kuroshio region, socioeconomic issues in fisheries such as resource management, fisheries management, fish distribution and tourism in both inland and marine fisheries will be explained using case studies from the region. Considering the world trend in management and conservation, appropriate approach and system for the region will be discussed.

Advance study on Vegetation Landscape by Motoki HIGA (Code: 19045)

Plant species distributions at broader scale are mainly determined by climatic factors, and those at finer scale are affected by other non-climatic factors including topography, geology, and human-activities. This class focuses on distribution and dynamics of vegetation, and changes in the structure of vegetation landscapes caused by human-activities in the Kuroshio area. Finally, effective conservation planning of vegetation landscape under the developing and declining societies are also discussed.

Environmental History in Kuroshio Region by Shingo AKAIKE (Code: 19053)

The rate of Japanese forest is approximately 67% compared to 30% on average of the world. Of all the prefectures in Japan, Kochi has the highest forest rate at 84%. How has this come about? In this lecture, we will clarify this question from historical perspective. Specifically, Students are expected to be able to explain the historical development of “conservation” and “utilization” of the environment in relation to laws, institutions, and technologies. To deepen mutual understanding by discussing between international students.

Advanced Regional Geography by Yasukazu SATAKE (Code: 19055)

In regional geography, regions are considered to be formed by the interaction of nature and humans and to be constantly changing according to this relationship. The purpose of this class is to systematically study the concept of region and its components and to examine the changes in regions based on them. Specifically, we will study the elements that make up a region, such as nature, economy, and transportation, and deepen our understanding of the interaction of these elements, mainly using the example of regions located in the “Kuroshio Region”.

Advanced study of Physical Fitness and Sports Medicine by Atsumu YUKI (Code: 19056)

Physical fitness is an important factor in the prevention of lifestyle-related diseases and nursing care. In this lecture, we will deepen our understanding of the history of research in physical fitness science, the definition of physical fitness, the effects of physical activity, and health problems of children and the older people.

Advanced Study on Science and Technology Education by Hirotaka DOHO (Code: 19060)

In modern society, technology based on science plays an important role in supporting and enriching our lives. In this lecture, we will extract the specific contents of electrical engineering, information science, and manufacturing, and consider the relationship between science and technology and the significance of education that fuses both from the perspective of academic contents and development of teaching materials.

Advanced Study on Fish Ecology by Yohei NAKAMURA (Code: 19058)

In this class, I will explain the factors that determine the distribution patterns of fishes on coral reefs and their surrounding ecosystems. I also explain the current status of fish resource decline and various management problems in these ecosystems.

Advanced Study of Plant Genetic Resources by Mitsukazu SAKATA (Code: 19059)

Effective use of bioactive natural products is important for promoting human health. It has many rich resources including marine biological resources in the Kuroshio region. In this lecture, we will discuss the current situation and problems of the environmental resources, especially plant genetic resources in the Kuroshio region. In addition, we will explain methods for genetic analysis of these resources and introduce specific examples with the latest and applied research.

Advanced Study on Theoretical Biology by Motomi KATO (Code: 19095)

The Kuroshio region includes mountain, river and marine ecosystems. This class focuses on theoretical studies on animal ecology and life science in these ecosystems. It further deals with applied studies on interactions between the ecosystems and ecosystem conservation.

(5) Dissertation Research

Dissertation Research is a related series of studies for writing the dissertation and is conducted under the guidance of the supervisor and co-supervisors. Students acquire advanced knowledge and skills in specialist fields and develop into strong inquisitive researchers. Publication of papers in academic journals and presentations at international conferences are required to have a doctoral dissertation accepted for review. (Refer to the implementation guidelines and additional notes regarding the doctoral dissertation review in “III. Getting Degree”.) In addition, because the doctoral dissertation is reviewed based on the policy governing the conferral of degrees in III-2. (2) and the evaluation criteria in III-2. (3) below, students should read those sections carefully to make sure they understand them fully.

I-4. Grading, etc

(1) Grading

Course grades are given on a 100-point scale, with a score of 60 or higher being considered a passing grade. The grading standards are shown in the table below. The grading method varies depending on the class, so please check the "Grading Method" in the syllabus.

All registered courses are subject to grading and will be graded unless the student cancels the course registration within the designated period.

Pass/fail	Grade	Points	Criteria
Pass	Outstanding	90 to 100 points	Student judged to have understood and grasped the knowledge, skills, and ideas indicated in the achievement goals, and performed far exceeding the standard level of achievement
	Excellent	80 to 89 points	Student judged to have understood and grasped the knowledge, skills, and ideas indicated in the achievement goals, and performed exceeding the standard level of achievement
	Good	70 to 79 points	Student judged to have understood and grasped the knowledge, skills, and ideas indicated in the achievement goals, to have applied them to the prescribed tasks, and performed at about the standard level of achievement
	Passing	60 to 69 points	Although performance is below the standard level of achievement, student judged to have understood and grasped the knowledge, skills, and ideas indicated in the achievement goals
Fail	Fail	59 points or less	Student judged to have not understood and grasped the knowledge, skills, and ideas indicated in the achievement goals, and is not appropriate for credit acquisition

(2) Grade Appeal System of Kuroshio Integrated Science Program

November 27, 2019
Decision by the Kuroshio Science Program Meeting
Partially Amended on December 7, 2021

Appeal System to grades for course subjects offered in the Kuroshio Science Program will be handled as follows.

1. If a student disagrees with their grade or believes that the grading deviates from the achievement objectives and grading criteria as communicated through information from the syllabus and the classes, the student may file an appeal by filling out the form designated by the Program.

   With regard to filing appeals, the following points, in particular, should be noted.
   No appeals may be made against the achievement objectives and grading criteria set by course instructors.

2. Submit the form to the administrative staff in Kuroshio Science Office (hereinafter, the administrative staff). In principle, the form must be submitted within five (5) days after grades are announced (excluding Saturdays, Sundays, and holidays; the same shall apply hereinafter).

3. If a student raises an objection, an investigation committee consisting of the following three members shall be established.
   Chairperson: Chairperson of the Academic Affairs Committee
   (If the chairperson of the Academic Affairs Committee is the course instructor, the chairperson shall be appointed by the head of the program)
   Committee members: 2 members of the Academic Affairs Committee
   (Note that the committee members shall be teachers other than the course instructor and shall be appointed by the chairperson of the Academic Affairs Committee. If the chairperson of the Academic Affairs Committee is the course instructor, the committee members shall be appointed by the head of the program.)

4. The investigation committee will conduct an investigation, etc. and prepare a written response. After the response is prepared, it will be reported to and confirmed by the head of the department, and the response will be finalized.

5. The content of the written response shall be communicated to the course instructor, and the student shall be notified with the written response. Notification shall be made within seven days of the filing of the objection, in principle.

6. If a grade correction occurs as a result of the response, the course instructor shall immediately submit a grade correction request to the administrative staff.

7. If the objection is related to the completion of the course and cannot be handled based on the above schedule due to the schedule of completion judgment, a separate schedule will be set and the student will be notified.

8. Other matters related to grade appeals will be discussed by the Academic Affairs Committee.

II. Course Objectives, Policy

II-1. Course Objectives

The principal objective of the comprehensive, interdisciplinary Kuroshio Science course is the education through integrating and providing an overall perspective of a number of specialist fields. The course focuses on resources, environment and society, medical health science, food and nursing pertaining to the extensive regions and marine areas (hereinafter, Kuroshio Region) extending from the countries and regions of Southeast Asia to East Asia. Kuroshio Science aspires to promote education and capable people in the following ways:

- To train researchers and educators to possess a high level of expertise in their respective fields as well as knowledge of and perspective on different fields
- To train new types of researchers and educators who gain an understanding of the new concept that is Kuroshio Science and possess a broad global perspective
- To provide capable people who lay a foundation based on Kuroshio Science with a broad global perspective, as well as who can play an active part in regional industry and the business community

II-2. Education Policy

(1) Curriculum Policy

Education Content

The curriculum consists of a group of elective subjects for students to acquire specialist knowledge and skills, as well as a group of courses for students to develop a broad interdisciplinary and international perspective, an attitude toward science, and an approach to creating the future.

[Knowledge and Understanding]

(Kuroshio Science Program)

Through elective subjects, students will acquire advanced, cutting-edge knowledge in Multidisciplinary Science and Marine Resource Science.

(Marine Resource Science Course)

Through elective subjects, students will acquire advanced, cutting-edge knowledge in the humanities, social sciences, and natural sciences.

(Kuroshio Science Course)

Through elective subjects, students will acquire advanced, cutting-edge knowledge in ocean floor resource science and marine life sciences.

[Thinking and Judgement]

The Kuroshio Science Special Exercise is situated as a common special subject which is compulsory, and students aim to improve their thinking and judgment skills through their PhD research by formulating and presenting their research plans, organizing and reporting on their learning progress each semester, and reflecting on their mid-term presentations, among other activities.

[Interest and Ambition]

The Advanced Study on Kuroshio Science and Advanced Study of Future Co-creation are situated as common special subjects which are compulsory. Students are encouraged to have an interest in interdisciplinary cooperation and creative thinking and a willingness to apply themselves to solving problems in their area of expertise.

[Attitude]

Students will develop a researcher's attitude toward science by taking the required course, Scientific Literacy.

[Technical Skill and Expression]

The Kuroshio Seminar which is a presentation of research plans, and the Special Exercise which is a mid-term presentation, are compulsory. Students will develop the ability to communicate with others, including researchers in other fields, through presentations that are related to their own research.

Education Method

[Course Completion]

In order for students to acquire advanced specialist knowledge and to cultivate logical thinking and expressive skills, the program provides lecture courses and seminar-style classes.

[Research Guidance]

For student guidance, one supervisor and two or more co-supervisors are assigned to each students. One of the co-supervisors is from a specialist field different from that of the supervisor. Supervisors monitor the progress of each semester based on a one-year research plan and provide research guidance.

Education Evaluation

[Evaluation of Learning Achievement]

In the evaluation of study, the evaluation will be based on the grading standards set by the University. Learning outcomes for each subject are evaluated through written examinations, reports, presentations, class participation, and the results of seminars and experiments, according to the evaluation methods as described in the syllabus, for the degree to which the attainment objectives of the course subjects are achieved.

Assessments of doctoral dissertations are based on the Doctoral Dissertation Evaluation Criteria of this program. A Doctor of Philosophy (PhD) degree will be awarded to those who have earned the prescribed credits, submitted a doctoral dissertation and passed its review (evaluation from the perspectives of problem setting, examination of previous research, appropriate research methods, originality, and fulfillment of research ethics), and examination (in written or oral format).

[Curriculum Evaluation]

Conduct curriculum evaluations and make improvements while referring to student learning outcomes, research trends in specialized fields, progress reports for each semester, evaluations and opinions from outside the university.

(2) Diploma Policy

The principal objective of the comprehensive, interdisciplinary Kuroshio Science course is the education through integrating and providing an overall perspective of a number of specialist fields. The course focuses on resources, environment and society, medical health science, food and nursing pertaining to the extensive regions and marine areas (hereinafter, Kuroshio Region) extending from the countries and regions of Southeast Asia to East Asia. Kuroshio Science aspires to promote education and capable people in the following ways:

- To train researchers and educators to possess a high level of expertise in their respective fields as well as knowledge of and perspective on different fields
- To train new types of researchers and educators who gain an understanding of the new concept that is Kuroshio Science and possess a broad global perspective
- To provide capable people who lay a foundation based on Kuroshio Science with a broad global perspective, as well as who can play an active part in regional industry and the business community

[Knowledge and Understanding]

(Kuroshio Science Program)

Has highly specialized knowledge and technical skills in the specialized field that is the subject of degree research, as well as knowledge and perspectives from different academic disciplines.

(Marine Resource Science Course)

Has acquired advanced and cutting-edge knowledge and skills in each specialized area of marine resource science related to seafloor resources and marine life. Has also obtained knowledge and perspectives from academic disciplines in other fields.

(Kuroshio Science Course)

Has a high level of specialized knowledge and skills in each area of expertise related to their dissertation - humanities, social sciences, and natural sciences - as well as knowledge and perspectives from other fields.

[Thinking and Judgement]

(Kuroshio Science Program)

Has the ability to tackle issues related to the sustainable development of society, as well as the sustainable use and conservation of resources and the environment, on either a global or local scale, and can deduce effective countermeasures and conclusions through logical consideration.

(Marine Resource Science Course)

Has the ability to tackle issues from an interdisciplinary and international perspective, with a primary focus on contributing to the sustainable use and conservation of seafloor resources and the environment, and can deduce effective countermeasures and conclusions through logical consideration.

(Kuroshio Science Course)

Has the ability to tackle issues from an interdisciplinary and international perspective, with a primary focus on contributing to the sustainable development of society, and can deduce effective countermeasures and conclusions through logical consideration.

[Interest and Ambition]

(Kuroshio Science Program)

Demonstrates an interest in solving issues in their area of expertise, as well as a willingness to use their own knowledge and skills through a strong spirit of inquiry, and acts autonomously and continuously, with a high level of cooperation and ethics.

(Marine Resource Science Course)

Possesses a strong spirit of inquiry, and has the willingness to perform research and technology development when solving issues related to marine resource science. In addition, is capable of contributing to society with their interest in the environment and law from a comprehensive resource management perspective.

(Kuroshio Science Course)

Uses their own knowledge and skills to establish a sustainable society in harmony with the natural environment, and acts autonomously and continuously, with a high level of cooperation and ethics.

[Attitude]

Has an attitude of voluntarily and proactively applying the advanced specialist knowledge they have acquired for the benefit of society, based on a high awareness of ethics.

[Technical Skill and Expression]

Possess high-level presentation and communication skills to explain logical thinking, the decision making process and results.

[Assimilation and Approach]

By integrating advanced professional knowledge, skills, and ideas acquired and creating a dissertation, the results can be widely transmitted to society.

III. Getting Degree

III-1. Submission of Reports on Dissertation Research

(1) Submission of Study Progress Report by Students

Each semester, students review the progress of their research, submit a report to their supervisor and co-supervisors and receive appropriate advice and guidance. Research progress is summarized in the Study Research Progress Report which is submitted to the Academic Affairs Committee through the Academic Affairs Office (submitted directly to the office and not through a supervisor).

(2) Submission of Research Guidance Report by Supervisors

Each semester, the supervisor works with the co-supervisors on the instruction given to students and reviews the method and principles of instruction. The supervisor records the details in the Research Guidance Report and submits it to the Academic Affairs Committee through the Academic Affairs Office. The Academic Affairs Committee then checks whether the guidance and instruction are appropriate

III-2. Completion Prerequisites and Degree Assessment and Conferral

(1) Outline of Completion Prerequisites and Degree Assessment and Conferral

1. Students Completing the Doctoral Program (PhD by Coursework)

Students in the Kuroshio Science doctoral program enroll for a minimum of three years and must gain 14 or more credits. After receiving the required research guidance, students then submit a dissertation and the required documents to the Head of Kuroshio Science (hereinafter, the Head). A degree is conferred after a student passes a review by the Dissertation Review Committee and a final examination.

2. Students Submitting a Dissertation (PhD by Research)

A doctoral degree can also be conferred on students who have submitted a dissertation and the required documents to the Head, passed a review by the Dissertation Review Committee and a final examination, and have been deemed to possess an academic ability equivalent to a student who has completed the graduate school doctoral program.

3. Outline of Degree Assessment and Conferral

The degree conferred is a Doctor of Philosophy (PhD). The Dissertation Review Committee reviews the submitted dissertation based on sections (2) Degree Conferral Policy and (3) Degree Evaluation Criteria below, and a pass or fail assessment for the dissertation is determined in a faculty meeting. Accordingly, at the time of the dissertation presentation and writing the dissertation, students should carefully read and fully understand the **Degree Conferral Policy** and **Degree Evaluation Criteria**, and then proceed with the work as they discuss progress in detail with their supervisor.

For the specific details of the procedures for submitting the dissertation and revisions to the dissertation after submission, refer to the implementation guidelines and additional notes regarding the doctoral dissertation review in “IV. Regulations”.

(2) Degree Conferral Policy

1. PhD by Coursework

A PhD will be conferred on students who complete this course. The completion requirements include enrolment for the period determined by the Graduate School of Integrated Arts and Sciences, Kochi University, gaining the prescribed credits from the subject groups set in the curriculum policy of Kuroshio Science, receiving research guidance that meets the principles and goals of Kuroshio Science, and passing the doctoral dissertation review and examination within the specified period. Students must also show they have acquired skills and knowledge that meet the degree policy of Kuroshio Science, through the dissertation review and examination.

2. PhD by Research

A doctoral degree will be conferred on students who satisfy the eligibility requirements for submitting a dissertation as determined by Kuroshio Science, who undertake research activities in line with the principles and goals of the school, and who pass the doctoral dissertation review and examination. As outlined in the degree policy of Kuroshio Science, students must also show they have acquired the necessary skills and underlying knowledge to engage in advanced technical projects as

a graduate of this school.

3. Ensuring Transparency, Fairness and Rigor of the Doctoral Dissertation Review

To ensure the transparency, fairness and rigor of the doctoral dissertation review and ensure the level and quality of the dissertation is recognized both in Japan and internationally, the doctoral dissertation review is conducted by the supervisor as the chief examiner, and two or more co-supervisors as the co-examiners. If necessary, faculty from other courses, graduate schools, or other research institutes may be appointed as co-examiners. The review is conducted based on the following criteria.

(3) Doctoral Dissertation Evaluation Criteria

Doctoral dissertations for Kuroshio Science are comprehensively reviewed according to the following thirteen criteria.

1. Research Project, Objectives, and Significance

- The research project and objectives must follow the principles and goals of Kuroshio Science
- Innovation is recognized in comparison with previous research in related fields and must be able to contribute to the development of the research field concerned
- From an interdisciplinary and international point of view, the dissertation must be able to provide knowledge that can contribute to the formulation of a harmonious sustainable society with the natural environment in the areas of the Kuroshio Region and provide knowledge that can contribute to the development of Kuroshio Science

2. Main Papers

- The doctoral dissertation must be organized around one or more main papers for the PhD by Coursework and three or more main papers for the PhD by Research. The main papers are the important papers written in the conduct of the doctoral dissertation research as specified in the Additional Notes on the Implementation Guidelines for the Doctoral Dissertation Review of Kuroshio Science, Graduate School of Arts and Sciences, Kochi University, or the papers related to the main part of the doctoral dissertation

3. Title of Dissertation

- The title of the dissertation must include the keywords that adequately reflect the research project, objectives and content of the dissertation as a whole

4. Abstract

- The background and research objectives of the research project of the doctoral dissertation as a whole, and the research plan and methods must be described concisely
- Key knowledge must be adequately described
- The conclusions drawn from the research project must be concisely shown

5. Organization of Sections and Chapters

- The dissertation must be appropriately organized into sections and chapters so that it flows logically

6. Introduction

- The background, issues and/or hypotheses of the research project must conform to the required style for articles in the academic field concerned, and be discussed clearly
- The research objectives must be logically derived and clearly shown. The research objectives must also correspond to the research plan and methods, and the acquired knowledge and conclusions
- Where the study stands, its significance, its distinctions and its innovation must be clearly shown through comparison with previous research
- The literature and statistical information must be appropriately and adequately cited

7. Materials and Methods

- The research plan must be drawn up so that it can meet the research objectives
- The materials or data and analytical methods must be accurately described and academic validity must be shown
- Verification by other researchers of the described materials or data and the analytical methods must be possible
- Appropriate analytical methods must be used
- The literature related to the materials or data and analytical methods must be appropriately cited

8. Analysis, Interpretation and Discussion of Results

- The required analysis must be provided to meet the research objectives
- Data and results must be appropriately and adequately analyzed, logically interpreted and discussed through required techniques of the academic field concerned such as statistical methods
- Figures and photographs must be appropriately positioned. The style of the figures and photographs must accurately and concisely explain the content. The figures and photographs must also be clear and distinct when printed
- The necessary literature to interpret the results and develop the discussion must be appropriately cited

9. Conclusion

- Answers to the research project and objectives should be discussed as a conclusion by giving comprehensive consideration to the interpretation and discussion of the results
- The extent to which the research objectives were met should be discussed
- Outstanding issues and future challenges should be discussed as unresolved
- Acquired knowledge should be discussed in terms of how it can contribute to the academic field concerned
- If there are fields that can contribute through noteworthy outcomes and acquired knowledge, these must be described

10. In-text Citations and Reference List

- When references are cited, the author(s), year of publication, and other relevant information should be shown
- The format should be consistent
- There should be no errors or omissions

11. List of Main Papers

- A list of the main papers used in creating the dissertation and related conference presentations should be shown

12. Sentence Format, Expression, and Phrasing

- A consistent style should be used throughout the dissertation
- Numbers for pages, chapters, sections, figures and photographs should be consistently applied, without any errors
- There should be no mistakes in spelling or grammar. Even after submitting the dissertation, you may be asked to have the dissertation proofread by a native speaker of English

13. Dissertation Presentation

- The dissertation research should be clearly presented within the scope of the abstract
- Use appropriate presentation slides and other materials. Explanations should be clear and accurate
- Answers to questions should be accurate
- The presentation time must be observed

III-3. Response to Improper Conduct

- Any improper conduct during the coursework or in writing the dissertation such as falsifying, fabricating or plagiarizing data (or other acts of plagiarism) will not be tolerated. If improper conduct is identified, prompt and severe measures will be taken in line with university regulations

- If a degree was conferred as a result of illegal or improper conduct, or if there was conduct that besmirches the reputation of the university, the degree can be revoked according to Article 19 of the Degree Requirements of Kochi University

III-4. Implementation Guidelines for the Doctoral Dissertation Review of Kuroshio Science, Graduate School of Arts and Sciences, Kochi University (Extract)

Section 1 General Regulations

Article 2 The degree conferred for the course is a Doctor of Philosophy (PhD).

Section 2 Doctoral dissertation review and final examination for conferral of a degree through completing a course (PhD by coursework)

(Preliminary Review)

Article 4 Applicants for the PhD by coursework who have not passed a preliminary review conducted beforehand in a graduate school faculty meeting, may not submit their doctoral dissertation.

2. The preliminary review is a review of the doctoral dissertation submission eligibility (ten or more credits acquired), specialist learning, published papers, and presentations at international conferences.

(Preliminary Review Procedures)

Article 5 The preliminary review is conducted twice a year in the first and second semesters and the application deadline for each is written below.

(1) First semester deadline : April 30
(if a national holiday, the previous working day)

(2) Second semester deadline: October 31
(if a national holiday, the previous working day)

2. Applicants for the doctoral degree by coursework must submit their application as follows to the Head of Kuroshio Science (hereinafter, the Head) through their supervisor by the aforementioned application deadline. However, (7) and (8) shall refer to Article 5 in Additional Notes on the Implementation Guidelines for the Doctoral Dissertation Review of Kuroshio Science, Graduate School of Arts and Sciences, Kochi University.

(1)	Application for Dissertation Review	1 copy
(2)	Outline of Dissertation	4 copies
(3)	List of Publications and Other Works	4 copies
(4)	Presentations at International Conferences	1 copy
(5)	Main papers	4 copies
(6)	Curriculum Vitae	1 copy
(7)	Letter(s) of Consent	1 copy
(8)	Letter(s) of Scheduled Publication (only if required)	1 copy

(Preliminary Review Committee)

Article 6 The Head, upon receiving the Article 5 documents, must immediately form a preliminary review committee comprising three or more people including the applicant's supervisor.

(Preliminary Review Results)

Article 7 The preliminary review committee chairperson must report the results of the preliminary review to the Head.

2. The Head must inform the applicant for the doctoral degree by coursework in writing of the result of

the preliminary review based on the decision of the graduate school faculty meeting.

3. The result of the preliminary review shall be valid only for the application for the doctoral dissertation review for the applicable period directly after the preliminary review.

(Submission of Dissertation)

Article 8 The applicant for the doctoral degree by coursework who passes the preliminary review must submit the following documents to the Head through their supervisor by June 15 (if a national holiday, the previous working day) for first semester applicants or December 15 (if a national holiday, the previous working day) for second semester applicants.

(1)	Doctoral dissertation (original)	1 copy
(2)	Doctoral dissertation (copy)	3 copies
(3)	Abstract of doctoral dissertation	4 copies

(Review Committee)

Article 9 The Head, upon receiving the Article 8 documents, shall refer them for review in a graduate school faculty committee meeting.

2. The graduate school faculty committee shall form a review committee comprising a chief examiner and two or more co-examiners.
3. The chief examiner is the supervisor and the co-examiners include two or more co-supervisors. In addition, faculty from other courses, graduate schools, or other research institutes as can be appointed as external examiners.
4. There shall be a chairperson of the review committee and that chairperson shall be the chief examiner.

(Dissertation Presentation Committee)

Article 10 The review committee shall hold an open review meeting (hereinafter, the doctoral dissertation presentation) as one part of the doctoral dissertation review.

2. The review committee must inform the applicant for the doctoral degree by coursework of the date of the doctoral dissertation presentation by, in principle, one week before the date of the presentation.

(Dissertation Review and Final Examination)

Article 11 The review committee must review the doctoral dissertation, conduct a final examination and report the results to the Head.

2. The final examination focuses on the submitted dissertation with questions on knowledge of the basics and specialized subjects as well as foreign language proficiency.

(Decision on Conferral of Degree)

Article 12 The graduate school faculty committee meeting determines whether to confer a degree based on the information in Article 1.

2. In making the decision in the previous paragraph, at least two-thirds of the graduate school faculty committee meeting members must be present and two-thirds or more of the present members must agree.
3. The Head must report the results of the decision of Article 1 in writing to the Dean of the Graduate School of Integrated Arts and Sciences.

(Presentation of Doctoral Dissertation)

Article 13 The conferee must submit to the Head the dissertation saved in PDF format and the entire dissertation must be made public in the Kochi University Digital Repository for Academic Resources within one year of the date of conferral.

2. Notwithstanding the provisions of the previous paragraph, in the event of unavoidable circumstances, with the approval of the Dean through a decision of the review committee, a summary of the dissertation may be published in place of the full dissertation. However, once the reason for not publishing the full dissertation has been resolved, the full dissertation must be published after reporting to the Head.

Section 3 The Doctoral Dissertation Review and Confirmation of Academic Ability for Conferral of Degree by Submitting a Dissertation Only

(Eligibility Requirements for Submission of Dissertation)

Article 14 Applicants submitting a dissertation to receive a degree (hereinafter, applicants for PhD by research) must qualify under the following requirements:

(1) Those who have attended a minimum of three years in the graduate school (for long-term study program students, the number of years for which the scheduled course is allowed exceeds the standard term of study), gained the prescribed credits, and withdrew after receiving the required research guidance.

(2) Those who possess a minimum eight (8) years of research experience after graduating from university.

(3) Those who possess a minimum five (5) years of research experience after completing a masters program at a graduate school.

(4) Those who possess, after withdrawing from a doctoral program, a minimum period of research experience calculated as follows:

[(standard term of study−time enrolled) × 2].

(5) Those who have been deemed in a graduate school faculty committee meeting to possess the same or higher level of research experience as those stipulated above.

2. Research experience is deemed to be the following:

(1) Time engaged in research as a faculty member at a university or junior college

(2) Time engaged in research as a researcher at a university or junior college

(3) Time enrolled as a student at a graduate school

(4) Time engaged in research in the civil service or private industry

(5) Other: Time engaged in research deemed in a graduate school faculty committee meeting to be at the same or higher level as that above

(Preliminary Review)

Article 15 Applicants for the PhD by degree by submitting a dissertation only who have not passed a preliminary review conducted beforehand in a graduate school faculty meeting, may not submit their doctoral dissertation.

2. The preliminary review is a review of the doctoral dissertation submission eligibility (ten or more credits acquired), specialist learning, published papers, and presentations at international conferences.

(Procedures for Preliminary Review)

Article 16 Applicants for PhD by research must select beforehand a faculty member, as a recommended faculty member, from an academic area closely related to the content of the dissertation, from the list of supervisors.

2. Applicants for PhD by research must submit the following documents through the recommended faculty member. However, (9) and (10) shall refer to Article 5 in Additional Notes on the Implementation Guidelines for the Doctoral Dissertation Review of Kuroshio Science, Graduate School of Arts and Sciences, Kochi University.

(1)	Application for Dissertation Review (Form No. 11)	1 copy
(2)	Outline of Dissertation (Form No. 12)	4 copies
(3)	List of Publications and Other Works (Form No. 3)	4 copies
(4)	Presentations at International Conferences (Form No. 13)	1 copy
(5)	Main Papers	4 copies each
(6)	Curriculum Vitae (Form No. 5)	1 copy
(7)	Diploma or Certificate of Completion from last school attended	1 copy
(8)	Statement of Research Experience (Form No. 20) Excluding those prescribed in Article 14 Paragraph 1 Number (1)	1 copy each
(9)	Letter(s) of Consent (Form No. 19)	1 copy each
(10)	Letter of Scheduled Publication (no prescribed form)	1 copy each

3. The above documents shall be accepted at any time.

(Preliminary Review Committee)

Article 17 The Head, upon receiving the Article 16 documents, must immediately form a preliminary review committee comprising three or more people including the recommended faculty member.

(Preliminary Review Results)

Article 18 The preliminary review committee chairperson must report the results of the preliminary review to the Head.

2. The Head must inform the applicant for the doctoral degree by coursework in writing of the result of the preliminary review based on the decision of the graduate school faculty meeting.

(Submission of Dissertation)

Article 19 The applicant for PhD by research, who has passed the preliminary review prescribed in Article 15, must submit the dissertation to the Head along with the dissertation review fee prescribed in the following document. However, those who qualify under Article 14 Paragraph 1 Number (1), if the dissertation is submitted within one (1) year of the date of withdrawal, are exempt from paying the dissertation review fee according to Article 4 Paragraph 2 of the Degree Requirements.

(Review Committee)

Article 20 The Head, upon receiving the Article 8 documents, shall refer them for review in a graduate school faculty committee meeting.

2. The graduate school faculty committee shall form a review committee comprising a chief examiner and two or more co-examiners.

3. The chief examiner is the supervisor and the co-examiners include two or more co-supervisors. In addition, faculty from other courses, graduate schools, or other research institutes as can be appointed

as external examiners.

4. There shall be a chairperson of the review committee and that chairperson shall be the chief examiner.

(Dissertation Presentation Committee)

Article 21 The review committee shall hold an open review meeting (hereinafter, the doctoral dissertation presentation) as one part of the doctoral dissertation review.

2. The review committee must inform the applicant for the doctoral degree by coursework of the date of the doctoral dissertation presentation by, in principle, one week before the date of the presentation.

(Review of Dissertation and Confirmation of Academic Ability)

Article 22 The review committee reviews the dissertation and confirms academic ability and must report the results to the Head using the Dissertation Review Results Report (Form No. 16), Dissertation Review Results Summary (Form No. 17), and the Academic Ability Confirmation Result Summary (Form No. 18).

2. Other than a final examination as prescribed in Article 11, confirming academic ability is conducted either orally or in writing with questions on knowledge of the basics and specialized subjects as well as foreign language proficiency to confirm whether the applicant has an academic ability equivalent to or higher than a graduate from this course.
3. Those who qualify under Article 14 Paragraph 1 Number (1), if the doctoral dissertation is submitted within three (3) years of withdrawing, may be exempt from taking the final examination in the confirmation of academic ability in the previous paragraph.
4. Those who withdrew part way through the doctoral program and those who have completed the program, may omit part of the written or oral questioning, but not the final examination.
5. The review committee must inform applicants for PhD by research beforehand of the required items related to confirming academic ability.

(Decision on Conferral of Degree)

Article 23 The graduate school faculty committee meeting determines whether to confer a degree based on the information in Article 22.

2. In making the decision in the previous paragraph, at least two-thirds of the graduate school faculty committee meeting members must be present and two-thirds or more of the present members must agree.
3. The Head must report the results of the decision of this article Paragraph 1 in writing to the Dean of the Graduate School of Integrated Arts and Sciences.

(Presentation of Doctoral Dissertation)

Article 24 The conferee must submit to the Head the dissertation saved in PDF format and the entire dissertation must be made public in the Kochi University Digital Repository for Academic Resources within one year of the date of conferral.

2. Notwithstanding the provisions of the previous paragraph, in the event of unavoidable circumstances, with the approval of the Dean through a decision of the review committee, a summary of the dissertation may be published in place of the full dissertation. However, once the reason for not publishing the full dissertation has been resolved, the full dissertation must be published after reporting to the Head.

III-5. Additional Notes on the Implementation Guidelines for the Doctoral Dissertation Review of Kuroshio Science, Graduate School of Arts and Sciences, Kochi University (Extract)

Article 3 (Period of Doctoral Dissertation Submission)

1. To be eligible to submit a dissertation, an applicant must earn a minimum of 10 of the 14 required credits.

Article 5 (Preliminary Review Procedures)

2. A preliminary review will not be conducted unless all the following requirements are satisfied.
   (1) An eligible applicant must have attended this graduate school for a minimum of two (2) years and earned a minimum of 10 of the 14 required credits (the graduate school office will advise the review committee of the number of earned credits).
   (2) Must have a minimum of one (1) main paper.
   (3) Must have presented at least once at an international conference (including academic meetings) or a conference in Japan (including academic meetings) of equivalent status.
3. Main Papers
   (1) The main papers are the important papers written in the conduct of the doctoral dissertation research, or the papers related to the main part of the doctoral dissertation.

   However, if a paper is in press, and the applicant possesses a Letter of Scheduled Publication (no specified format) issued by the editorial board of the said journal, the in-press paper will be considered a published paper.

   If the Letter of Scheduled Publication cannot be provided by the time of the preliminary review, then the preliminary review will proceed as a provisional review until the letter is issued. However, the deadline for submitting the Letter of Scheduled Publication is the day before the dissertation presentation.
   (2) The main papers must show high quality research results, have the applicant as first author, and be published (or accepted for publication). High quality research results refer to the following:
      a) Is published in a peer-reviewed scientific journal that uses several reviewers
      b) Is a scientific paper
      c) Is considered equivalent to the standard of a) and b) above
   (3) The main papers, in principle, should be written in Japanese or English. If there is a specific reason related to the field of research, then writing a paper in another language may be permitted.
   (4) The main papers must not have previously been used as part of or form the entire dissertation of a person other than the applicant.
   (5) If a main paper is co-authored, to submit the dissertation so the applicant can obtain a degree, the applicant must obtain a letter of consent from each co-author (Form 19). However, if the co-author is the examiner in the preliminary review and/or review committee, he or she are excluded from issuing the letter of consent. In case that the letter of consent cannot be obtained (for example, a case that a contact cannot be made with a co-author), the applicant must submit a statement of reasons (free format, but it should be signed or sealed by the applicant).

Article 11 (Dissertation Review and Final Examination)

1. The final examination is either an oral examination or a written examination.
2. Changes or substitutions to the submitted dissertation are not permitted. However, the applicant may make minor revisions to the dissertation as stipulated below:
   (1) Revisions instructed by the review committee:
      a) The review committee reports the revisions to the Head of Kuroshio Science (hereinafter, the Head), decides a revision deadline in consultation with the Head, and then promptly advises the applicant. The revision deadline is set to fall between the start of the review and until the graduate school faculty committee meeting votes on the dissertation.
      b) After the revision of the dissertation by the applicant, the review committee confirms the appropriateness of the revisions, and reports to the graduate school faculty committee prior to the decision.
      c) If the revisions have not been completed by the deadline, the review committee may, in consolation with the Head and the academic affairs committee, take measures such as extend the deadline (the revised dissertation must be submitted in PDF format by the dissertation submission deadline at the latest), or suspend or postpone the decision. The consent of the graduate school faculty committee must be obtained with respect to the measures.
   (2) For the revisions (wording, misspelled or missing words, etc.) determined by the applicant, the applicant applies to the Head and obtains permission, and submits the revisions in PDF format by the dissertation submission deadline.

Article 14 (Eligibility Requirements for Submission of Dissertation)

1. Proof of having the required research guidance is not required.
2. The period of enrolment in the calculation [(standard term of study−time enrolled) × 2] is in units of six months and fractions of a month are rounded off.

Article 16 (Preliminary Review Procedures)

1. The recommending professor should be the professor responsible for research guidance from among the full-time instructors at the graduate school (including visiting professors from associated graduate schools).
2. A preliminary review will not be conducted for those who do not meet all the following requirements.
   (1) Applicants must have a minimum of three (3) main papers. However, applicants who are eligible under Article 21 Paragraph 3 need only a minimum of one (1) main paper.
   (2) Must have presented at least once at an international conference (including academic meetings) or a conference in Japan (including academic meetings) of equivalent status.
3. Main Papers

   The main papers are the important papers written in the conduct of the doctoral dissertation research, or the papers related to the main part of the doctoral dissertation.

   However, if a paper is in press, and the applicant possesses a Letter of Scheduled Publication (no specified format) issued by the editorial board of the said journal, the in-press paper will be considered a published paper.

   If the Letter of Scheduled Publication cannot be provided by the time of the preliminary review, then the preliminary review will proceed as a provisional review until the letter is issued. However, the deadline for submitting the Letter of Scheduled Publication is the day before the dissertation

presentation.

(1) The main papers must show high quality research results, have the applicant as first author, and be published (or accepted for publication). High quality research results refer to the following:
   a) Is published in a peer-reviewed scientific journal that uses several reviewers
   b) Is a scientific paper
   c) Is considered equivalent to the standard of a) and b) above

(2) The main papers, in principle, should be written in Japanese or English. If there is a specific reason related to the field of research, then writing a paper in another language may be permitted.

(3) The main papers must not have previously been used as part of or form the entire dissertation of a person other than the applicant.

(4) If a main paper is co-authored, to submit the dissertation so the applicant can obtain a degree, the applicant must obtain a letter of consent from each co-author, other than the applicant (Form 19).

Article 22 (Dissertation Review and Final Examination)

1. The final examination is either an oral examination or a written examination.
2. Changes or substitutions to the submitted dissertation are not permitted. However, the applicant may make minor revisions to the dissertation as stipulated below:
   (1) Revisions instructed by the review committee:
      a) The review committee reports the revisions to the Head of Kuroshio Science (hereinafter, the Head), decides a revision deadline in consultation with the Head, and then promptly advises the applicant. The revision deadline is set to fall between the start of the review and until the graduate school faculty committee meeting votes on the dissertation.
      b) After the revision of the dissertation by the applicant, the review committee confirms the appropriateness of the revisions, and reports to the graduate school faculty committee prior to the decision.
      c) If the revisions have not been completed by the deadline, the review committee may, in consolation with the Head and the academic affairs committee, take measures such as extend the deadline (the revised dissertation must be submitted in PDF format by the dissertation submission deadline at the latest), or suspend or postpone the decision. The consent of the graduate school faculty committee must be obtained with respect to the measures.
   (2) For the revisions (wording, misspelled or missing words, etc.) determined by the applicant, the applicant applies to the Head and obtains permission, and submits the revisions in PDF format by the dissertation submission deadline.

Appendix

Notes on the cover page of the Doctoral Dissertation

The cover page of the Doctoral Dissertation

Doctoral Dissertation

Title of the Dissertation
(Japanese Title of Dissertation)

by

Name

Kuroshio Science Program
Graduate School of Integrated Arts and Sciences
Kochi University

Month(September or March) Year

1. Provide a Japanese translation in parentheses below the title of the Dissertation.
2. Abbreviations should not be used in the title except for generalized ones.
3. If a subtitle is included, it should be as brief as possible.

III-6. About Online Publication After Receiving a Degree

In line with the partial revision of the Degree Regulations (Ministry of Education Ordinance #9, 1953) in April 2013, the Kochi University Degree Regulations were also revised. Those who were awarded a Doctor of Philosophy (PhD) degree in April 2013 or later are now required to publish the full text of their Doctoral Dissertation online, within one year of the date they received their PhD degree, instead of in a traditional print publication.

When submitting the data of your Doctoral Dissertation to the administrative staff in Kuroshio Science Office (hereinafter, the administrative staff), please also submit “the Confirmation of Online Publication of Doctoral Dissertation (in the Kochi University Academic Information Repository)” form.

Please contact the administrative staff in advance if you are unable to submit your Doctoral Dissertation and “the Confirmation of Online Publication of Doctoral Dissertation (in the Kochi University Academic Information Repository)” form.

IV. Regulations, etc.

IV-1. The Doctoral Course in Studies in Kuroshio Science Program, Graduate School of Integrated Arts and Sciences, Kochi University Regulations

(March 26, 2008
Regulations No.125)

Final revision: Regulations No.110, March 27, 2025

(Purpose)

Article 1 Matters concerning the Doctoral Course in Studies in Kuroshio Science Program, Graduate School of Integrated Arts and Sciences, Kochi University (hereinafter, the Doctoral Course) shall be governed by the provisions of the School Regulations of Kochi University (hereinafter, the School Regulations) and these Regulations.

(Course Objectives)

Article 2 The principal objective of the comprehensive, interdisciplinary Kuroshio Science course is the education through integrating and providing an overall perspective of a number of specialist fields. The course focuses on resources, environment and society, medical health science, food and nursing pertaining to the extensive regions and marine areas (hereinafter, Kuroshio Region) extending from the countries and regions of Southeast Asia to East Asia. Kuroshio Science aspires to promote education and capable people in the following ways:

(1) To train researchers and educators to possess a high level of expertise in their respective fields as well as knowledge of and perspective on different fields

(2) To train new types of researchers and educators who gain an understanding of the new concept that is Kuroshio Science and possess a broad global perspective

(3) To provide capable people who lay a foundation based on Kuroshio Science with a broad global perspective, as well as who can play an active part in regional industry and the business community

(Courses)

Article 3 Marine Resource Science Course and Kuroshio Science Course have been established in the Doctoral Course.

(Special Program)

Article 3-2 Leader Nurturing Program to Contribute to the Glocal Growth Strategy in Kuroshio Region (hereinafter, Special Program) shall be established in the Doctoral Course as a special educational program which aims to train human resources who will possess a high level of expertise in their respective fields and lead the construction and development of sustainable local communities in harmony with human society and the environment.

(Self-Assessment)

Article 4 In order to improve the level of education and achieve the objectives stipulated in Article 1, Paragraph 2 of the School Regulations and Article 2 of these Regulations, the Doctoral Course shall conduct its own evaluations and assessments of its educational activities (hereinafter, the self-assessment).

2 A Self-Assessment Committee shall be established in the Doctoral Course to conduct self-assessment, as described in the previous Paragraph.
3 Details regarding the Self-Assessment Committee shall be established separately.

(Vice-Head of Kuroshio Science)
Article 5 A Vice-Head of Kuroshio Science (hereinafter, the Vice-Head) shall be appointed for the Doctoral Course.
2 The Vice-Head shall be appointed by the Head of Kuroshio Science (hereinafter, the Head).

(Supervisors)
Article 6 Supervisors shall be appointed to provide students with research guidance.
2 Supervisors shall consist of a Supervisor, who is generally in charge of research guidance for students, and Co-Supervisors, who provide research guidance together with the Supervisor. Each student must have one Supervisor and at least two Co-Supervisors. One of the Co-Supervisors must be a faculty member in a different field from that of the Supervisor.
3 The Supervisor shall be a professor qualified to take charge of research guidance. However, an associate professor, lecturer, or assistant professor who is qualified to take charge of research guidance may be assigned as Supervisor in special circumstances.
4 The Head shall determine Supervisors and Co-Supervisors after deliberations at the Kuroshio Science Program Meeting.

(Educational Methods)
Article 7 Education in the Doctoral Course shall be conducted through course subjects and guidance in the preparation of Doctoral Dissertations (hereinafter, the research guidance).
2 The Doctoral Course may conduct classes or research guidance in cooperation with other graduate schools or research institutes other than this University only when it is deemed educationally beneficial.

(Special Exceptions for Educational Methods)
Article 8 In cases where it has been recognized that there is a special educational need in the Doctoral Course, education may be provided by appropriate methods such as conducting classes or research guidance at night, or at other specific times or periods.

(Course Subjects and Number of Credits)
Article 9 The course subjects and number of credits for the Doctoral Course shall be as shown in Appendix 1.

(Method for Taking Course Subjects)
Article 10 Under the guidance of their Supervisor, students must acquire at least 14 credits, including five (5) compulsory subjects and six (6) credits from the course subjects listed in Appendix 1. Students must also acquire at least four (4) credits from course subjects in the Course to which they belong. The same applies to students enrolled in the Leader Nurturing Program.

(Method for Calculating Credits)
Article 10-2 The number of credits for a subject shall be calculated according to the following criteria.

(1) One credit for lectures and seminars shall consist of 15 class hours. However, when necessary, 30 class hours may be counted as one (1) credit.

(2) One credit for experiments, practical training, and skills training shall consist of 30 class hours. However, when necessary, 45 class hours may be counted as one credit.

(3) In the case where one course subject is taught by a combination of two or more methods of lectures, seminars, experiments, or skills training, one credit shall consist of the class hours stipulated in the two preceding items, depending on the combination of those methods.

(Notification of Course Subjects to be Studied)

Article 11 Students must provide advance notice of the course subjects they intend to take to the course instructors, and obtain approval from them within the prescribed period of time.

(Taking Course Subjects in Other Doctoral Courses or at Other Graduate Schools)

Article 12 Students may take course subjects in other doctoral courses with the permission of the Heads of those courses, if deemed necessary by their Supervisor.

2 Students may take course subjects at other graduate schools or overseas graduate schools, in accordance with Article 65 of the School Regulations, if deemed to be particularly necessary by the Doctoral Course.

3 Credits obtained under the preceding two Paragraphs may be accepted as credits as stipulated in Article 10, up to a maximum of four (4) credits.

(Credits Obtained Prior to Admission)

Article 13 If a student wishes to obtain approval for credits earned at a graduate school (including credits earned as a non-degree student) before enrolling in the Doctoral Course, the student must submit a request for approval to the Head.

(Grading)

Article 14 Grades for the course subjects taken will be expressed as Outstanding, Excellent, Good, Pass, and Fail. Outstanding, Excellent, Good, and Pass are passing grades, and Fail is a failing grade.

(Credit Acquisition)

Article 15 Credit acquisition of the course subjects taken shall be certified by the faculty members in charge through examinations or research reports.

2 Notwithstanding the provisions of the preceding Paragraph, credits may be granted for seminars and other specific course subjects based on the student's usual performance.

(Submission of the Doctoral Dissertation)

Article 16 Information about submission of the Doctoral Dissertation shall be prescribed separately by the Doctoral Course, in addition to the requirements of the Kochi University Degree Regulations.

(Office Work)

Article 17 Office work related to the Doctoral Course shall be handled by the General Affairs Division, Kochi University Monobe Campus.

(Miscellaneous Regulations)

Article 18　In addition to the provisions of these Regulations, matters necessary for the administration of the Doctoral Course shall be decided by the Head, based on the deliberations of the Kuroshio Science Program Meeting.

Appendix 1

Category		Title	Credits	Remarks
Common Subjects		Advanced Study on Kuroshio Science	◎1	
		Kuroshio Seminar	◎1	
		Special Exercise	◎1	
		Kuroshio Science Special Exercise	◎2	
		Scientific Literacy	◎1	
		Advanced Study of Socioeconomic Research	1	Select 2 subjects
		Advanced Study on Ecological and Environmental Field Surveys	1	
		Advanced Study of Material Analysis Technique	1	
		Advanced Study of Future Co-creation	2	
		Research Internship	2	
Elective Subjects	Marine Resource Science Course	Marine Biodiversity	2	
		Principles of Molecular Biology	2	
		Advanced Earth and Planetary System Science	2	
		Advanced Study on Natural Product Biosynthesis	2	
		Advanced Study of Pharmacology	2	
		Advanced Mineral Resource Geology	2	
		Advanced Biogeochemistry	2	
		Paleoenvironmental Changes in the Ocean	2	
		Geomicrobiology	2	
		Advanced Bioinformatics	2	
		Advanced Study of Aquatic Virology	2	
		Advanced Physical Oceanography on the Kuroshio	2	
		Advanced Studies on Marine Resource Science	2	
	Kuroshio Science Program	Aquatic Evolutionary Ecology	2	
		Advanced Benthology	2	
		Advanced Study on Living Marine Resource Management	2	
		Molecular Cell Biology	2	
		Advanced Studies on Cetacean Population Biology	2	
		Advanced Tropical Soil Ecology	2	
		Advanced Economic Study of the Regional Environment	2	
		Developing Economics	2	
		Advanced Health Science and Nutrition	2	
		Environmental Human Health	2	
		Fisheries Socioeconomics in Kuroshio Region	2	
		Advanced Study on Vegetation Landscape	2	
		Environmental History in Kuroshio Region	2	
		Advanced Regional Geography	2	
		Advanced Study of Physical Fitness and Sports Medicine	2	
		Advanced Study on Science and Technology Education	2	

		Advanced Study on Fish Ecology	2	
		Advanced Study of Plant Genetic Resources	2	
		Advanced Study on Theoretical Biology	2	
		Advanced Study on Multidisciplinary Science	2	
Subjects marked with ◎ in the credit column are compulsory subjects				

IV-2. About “Long-term Study Program”

The Long-term Study Program is a system in which a student undertakes a structured course of study within a specified period of time exceeding the standard term of study. In Kuroshio Science, an extended period of study up to three (3) years is possible. During the long-term study period, payment of tuition is not required. Those who wish to undertake this program, after consulting with their supervisor, should complete the required procedures for the Long-term Study Program at the same time as the enrolment procedures.

IV-3. About Early Completion

In the Kuroshio Science Program, those who wish to complete the program early may apply to do so by fulfilling the following requirements.

(Requirements for early completion)

(1) At least one first-author paper related to a Doctoral Dissertation based on the results of research conducted during the student's enrollment must have been published (including those scheduled for publication).

(2) The Screening Committee must find that the student’s research achievements far exceed the level of someone with a doctorate degree in the relevant research field.

For students who wish to complete their first year of study within one year of enrollment, the application must be made within one week of enrollment, and for other students who wish to complete less than three years of study, in principle, the application must be made at least one year before the desired completion date. If you wish to apply for early completion of the program, consult with your Supervisor and contact the administrative staff in the Kuroshio Science Office.

IV-4. Handling of Personal Information of Students, etc.

Personal information is information about a living individual that can be used to identify the specific individual through their name, date of birth, or other descriptions.

Kochi University safeguards personal information held by the University under appropriate management in accordance with the "Act on the Protection of Personal Information Held by Incorporated Administrative Agencies, etc. (which came into effect on April 1, 2005)". As a university, Kochi University receives a great deal of personal information from students. We would like to inform you of our handling of the main types of personal information on students held by the University, as follows.

Personal Information of Students and Purposes of Use

The main types of personal information held by the University on students are information obtained through entrance examinations, information submitted at the time of admission procedures, and information created or provided by students as necessary for the university to support and guide their studies, assist and provide direction for their student life, and manage and guide their health after admission.

*Collection and Use of Personal Information

The University will collect only personal information deemed necessary for education and research, student support, and university administration, and for the following purposes of use. In addition, the University will contact students based on the collected personal information when necessary.

- Education and improving classes
- Confirmation of safety in disaster situations
- Student registration management, student status change management, health management, scholarship management
- Confirmation of course registration, course management, course guidance, grade management, class implementation, and student roster preparation
- Study guidance, study support
- Management of information related to advancement, transfers, and post-graduation career paths at universities, graduate schools, etc.
- Issuance of student ID cards, degree certificates, and various certificates
- Management of tuition fee information, account information management
- Support for student life and extracurricular activities
- Creation and management of employment-related information
- Management of use of on-campus facilities and equipment, and management of video information through installation of security cameras
- Management of library use information
- Sending grade reports and course status to parents, etc. Target: Undergraduate students only
- Counseling about grades and coursework with parents, etc.
- Sending various post-graduation information
- Providing information to partner universities through academic exchange agreements, etc.
- Employment management of on-campus work-study, etc., and payment of salaries, etc.

- Improvement of education, research, entrance examinations, and student recruitment
- Requests for cooperation in university public relations activities
- Support for education and research activities and activities that contribute to the development of the University

IV-5. What will happen to classroom teaching and regular examinations when a weather warning, an evacuation advisory, etc. is issued?

Kochi University has the following rule in place to protect its students that applies to classroom teaching, regular examinations, etc. (“Classes”) in the event that typhoons or other natural disasters are likely to occur:

1. What will happen to Classes when a weather warning is issued? Decisions to cancel Classes or take other measures will be made at the discretion of each campus. The Asakura Campus should follow weather warnings issued by Kochi City while the Oko Campus should follow weather warnings issued by Kochi City or Nankoku City and the Monobe Campus should follow weather warnings issued by Nankoku City or Konan City.
   (1) What will happen to Classes when a storm warning is issued? When a storm warning is issued by the Kochi Local Meteorological Observatory, Classes will be canceled as follows:
      a) If a storm warning has been issued by 7:00am, morning Classes will be canceled.
      b) If a storm warning has been issued between 7:00am and 11:00am, subsequent morning Classes will be canceled.
      c) If the storm warning has been lifted by 11:00am, afternoon Classes will be conducted, but otherwise, they will be canceled.
      d) If a storm warning has been issued after 11:00am, subsequent afternoon Classes will be canceled.
   (2) What will happen to Classes when a severe weather warning is issued? When a severe weather warning for heavy rain, a storm, heavy snow, or a blizzard is issued by the Kochi Local Meteorological Observatory, decisions shall be made about Classes scheduled for that day as follows:
      a) If a severe weather warning has been issued by 7:00am, all Classes will be canceled.
      b) If a severe weather warning has been issued after the start of Classes, all Classes scheduled for that day on the affected campus(es) will be immediately suspended.
      c) Even if the severe weather warning has been lifted, no Classes will be conducted for the rest of the day.
   (3) What will happen to Classes when any other warning is issued? When any other warning is issued, Classes will not generally be canceled. However, Classes may be canceled depending on the weather conditions after discussion between the head of the Institute for Education in Liberal Arts and Sciences and the deans of relevant faculties.

2. What will happen to Classes when an evacuation advisory, etc.* is issued? When an evacuation advisory, etc. is issued by the local authorities for any of the areas where Kochi University's campuses are located, decisions shall be made about Classes scheduled for that day as follows:
   (1) What will happen to Classes when an evacuation order is issued? When an evacuation order is issued by the local authorities, Classes will be canceled as follows:
      a) If an evacuation order has been issued by 7:00am, all Classes will be canceled.
      b) If an evacuation order has been issued after the start of Classes, all Classes scheduled for that day on the affected campus(es) will be immediately suspended.

c) Even if the evacuation order has been lifted, no Classes will be conducted for the rest of the day.

(2) What will happen to Classes when an evacuation alert, an evacuation advisory, etc. is issued? When an evacuation alert, other than an evacuation order, is issued by the local authorities, the head of the International Student Affairs Section and the deans of relevant faculties will discuss and determine what measures should be taken.

*Evacuation advisories, etc.

Evacuation alerts, evaluation advisories, and evaluation orders

In the event that a natural disaster has occurred or is likely to occur, evacuation alerts, evaluation advisories, and/or evaluation orders will be issued by local authorities based on observational data of the Japan Meteorological Agency and the Ministry of Land, Infrastructure, Transport and Tourism and according to the degree of damage that has been caused or is likely to be caused. These alerts, advisories, and/or orders will be issued in addition to weather warnings, weather alerts, and/or severe weather warnings issued by the Japan Meteorological Agency.

Landslide warnings

Landslide warnings will be jointly issued by local authorities and the Japan Meteorological Agency if there are increased landslide hazards while warnings for heavy rain are in force.

Excerpted from the “Guidelines on How to Develop a Manual for Issuing and Communicating Evacuation Advisories, etc.” (amended by the Disaster Management Department of the Cabinet Office in August, 2015)

“If a natural disaster is likely to occur, the mayors of local authorities should issue evaluation advisories, etc. to the local residents who are at greater risk. The mayors of local authorities are responsible for providing knowledge and information to help each and every local resident to make an informed decision to evacuate. Based on such knowledge and information, the local residents will then be able to decide whether to evacuate.”

3. What will happen to Classes when a weather warning, an evacuation advisory, etc. is issued in your area? Put your safety first if you are concerned about your safety when a weather warning, an evacuation advisory, etc. is issued where you live or on your way home to or from the University. If you miss your class under these circumstances or are unable to travel to campus due to delays or disruptions in public transportation, your absence will be dealt with in accordance with the University's policy for students' absence under exceptional circumstances at your request. If you are unable to take a regular examination (or are more than 30 minutes' late for a regular examination), your absence will be dealt with in accordance with the University's make-up examination policy at your request.

4. How to check and communicate class cancellations Class cancellations should be checked and communicated as follows:

(1) Each faculty should ensure that its students and staff are fully aware of how class cancellations will be communicated.

(2) Students and faculty staff should check if weather warnings, evacuation advisories, etc. have

been issued by checking weather forecasts provided by the Kochi Local Meteorological Observatory and/or reported on the media.

(3) The University will communicate class cancellations on the Kochi University Learners' Application System (KULAS) and its website.

(4) If it is not safe for students to go home immediately after a decision to cancel Classes has been made, students will be required to remain on campus or other necessary measures will be taken at the discretion of the head of the Institute for Education in Liberal Arts and Sciences.

5. Provision of supplementary classes

(1) If Classes are canceled as described in Section 1) and 2) above, supplementary classes will be provided or other appropriate measures will be taken. The class instructors will decide how to provide supplementary classes and communicate it to the students.

(2) If a regular examination is canceled, an alternative examination date will generally be the day after the final examination date (which may be a Saturday or a Sunday).