

Diploma Policy of School of Marine Life Science

The School of Marine Life Science awards a Bachelor of Marine Science degree to individuals who are interested in the sustainable use of diverse aquatic organisms (including those inhabiting the ocean) as resources, as well as in marine policy and culture rooted in the symbiotic relationship between the ocean and humanity. This degree is conferred upon those who develop the necessary knowledge and skills to independently analyze and address issues related to these fields from a broad perspective, including a global outlook. The qualities and abilities that students are expected to acquire are as follows:

(1) Expert knowledge

A foundation in both scientific and cultural knowledge of aquatic environments, including the ocean, along with expert knowledge in the use and conservation of biological resources, theories and technologies for food production, and strategies for the sustainable development of marine industries and cultures

(2) Rich internationality and wide-ranging education

Communication and presentation skills, including proficiency in languages, as well as a high level of international and cultural literacy

(3) Ability to think and judge by oneself

The capacity to logically analyze information and knowledge from various sources, make sound judgments, and act with social responsibility

(4) Practical skills that can be applied in the field

The ability to integrate the knowledge and skills outlined in (1) through (3), explore and understand issues in the field—including from a global perspective—and proactively develop and implement solutions

Undergraduate Course of Marine Biosciences	Undergraduate Course of Food Science and Technology	Undergraduate Course of Marine Policy and Culture
<p>1. Graduation and degree conferment policy The Undergraduate Course of Marine Biosciences awards a Bachelor of Marine Science degree to individuals who not only possess specialized knowledge in elucidating the biological functions and production mechanisms of diverse organisms inhabiting oceans, lakes, and rivers, but also in developing technologies and engaging in resource management for the sustainable use of biological resources. Additionally, recipients of this degree must demonstrate an active interest in issues related to food, life, and the environment, as well as the ability to think independently and address societal challenges.</p> <p>2. Learning outcomes and achievement objectives</p> <p>(1) Expert knowledge Building on a broad foundation of mathematics and natural sciences, students will cultivate a deep scientific and cultural understanding of aquatic environments, including the ocean. They will also develop the ability to apply this knowledge in the practical utilization and conservation of biological resources.</p> <p>(2) Rich internationality and wide-ranging education Students will acquire strong communication and presentation skills, including proficiency in foreign languages, along with a high level of international and cultural literacy.</p> <p>(3) Ability to think and judge by oneself Students will develop the ability to think logically about strategies for addressing challenges related to the use and conservation of biological resources. They will also cultivate sound judgment and a strong sense of social responsibility to effectively apply and implement these strategies in practice.</p> <p>4) Practical skills that can be applied in the field Through experiments, practical training, and graduation research, students will integrate their specialized knowledge, information technology skills, and practical abilities. They will develop the capability to independently and proactively explore, address, and act on various challenges in the field, including those with global implications.</p>	<p>1. Graduation and degree conferment policy The Undergraduate Course of Food Science and Technology awards a Bachelor of Marine Science degree to individuals who have a strong interest in food production and have acquired broad engineering and scientific knowledge and skills related to food safety, functionality, and food processing. Additionally, degree recipients must demonstrate the ability to think independently and solve problems based on this knowledge.</p> <p>2. Learning outcomes and achievement objectives</p> <p>(1) Expert knowledge Students will acquire expertise and technical skills to analyze and resolve challenges related to food production from biological, chemical, and engineering perspectives, covering all stages from raw material production to processing, distribution, and consumption.</p> <p>(2) Rich internationality and wide-ranging education Students will acquire strong communication and presentation skills, including proficiency in foreign languages, along with a high level of international and cultural literacy.</p> <p>(3) Ability to think and judge by oneself Students will cultivate the ability to critically assess diverse knowledge and information, think logically, and make sound judgments with a strong ethical foundation.</p> <p>(4) Practical skills that can be applied in the field Students will cultivate the ability to proactively and practically explore, address, and take action on various issues in food production, including from a global perspective, by integrating specialized knowledge, technical skills, experience, and problem-solving abilities acquired through experiments, hands-on training, and graduation research.</p>	<p>1. Graduation and degree conferment policy The Undergraduate Course of Marine Policy and Culture awards a Bachelor of Marine Science degree to individuals who demonstrate strong motivation and expertise in developing marine industries and culture, as well as in formulating marine policies to create more sustainable relationships between the ocean and humanity. Graduates will have acquired the foundational knowledge and abilities necessary to become highly skilled professionals capable of structurally analyzing and addressing ocean-related challenges while possessing the global perspective and adaptability needed to respond effectively.</p> <p>2. Learning outcomes and achievement objectives</p> <p>(1) Expert knowledge Students acquire the ability to structurally analyze various ocean-related issues—including those concerning food, resources, the environment, international affairs, and regional challenges—based on specialized knowledge in the social sciences, humanities, and natural sciences.</p> <p>(2) Rich internationality and wide-ranging education Students cultivate an international perspective and communication skills essential for becoming highly specialized professionals in marine industry development, cultural advancement, and policy formulation. They also develop a well-rounded education, an understanding of diverse societies and cultures, and comprehensive decision-making abilities that serve as the foundation for their expertise.</p> <p>(3) Ability to think and judge by oneself Students develop the ability to independently identify and investigate issues, make sound judgments based on logical thinking and a strong ethical foundation, and take decisive action to implement solutions.</p> <p>(4) Practical skills that can be applied in the field Students acquire practical skills that enable them to apply knowledge and experience gained in the field to address contemporary regional and international challenges. They develop the ability to assess issues from a broad, multidimensional perspective and take the initiative in formulating marine policies—incorporating a global outlook—for the sustainable development of marine industries and culture within the framework of coexistence between humans and the oceans.</p>

Curriculum Policy of School of Marine Life Science

1. Policy for curriculum organization

The School of Marine Life Science systematically organizes courses into the following categories to equip students with the four essential competencies and skills outlined in section 2 below: "General Courses," "Introductory Specialized Courses," "Specialized Courses" (comprising Core and Advanced Curricula), and "Global Career-related Courses."

2. Policy on educational content and implementation methods

Courses are categorized as "General Courses," "Introductory Specialized Courses," "Specialized Courses (Core Curriculum)," "Specialized Courses (Advanced Curriculum)," and "Global Career-related Courses." These courses are delivered through lectures, exercises, experiments, and practical training.

(1) Expert knowledge

Students acquire expert knowledge in the use and conservation of biological resources, food production theory and technology, and strategies for the sustainable development of marine industries and culture. This is grounded in scientific and cultural understanding of the aquatic environment, including the ocean. To build a foundational knowledge base across all disciplines within the faculty, all students take "Specialized Courses (Core and Advanced Curricula)" from their first to third years. In the third year, more specialized courses are provided within each department to cultivate expertise in marine biological resources, food production science, and marine policy and culture. Additionally, to develop students' ability to grasp situations from a broad perspective and to analyze and evaluate complex issues comprehensively, the curriculum includes experiments, practical training, and exercises.

(2) Rich internationality and wide-ranging education

To foster communication and presentation skills, including proficiency in foreign languages, as well as a deep international and cultural awareness, the school offers "General Courses." Furthermore, "Global Career-related Courses" support students in acquiring English language qualifications, participating in study abroad programs, and developing their careers. To provide students with foundational knowledge necessary for specialized subjects, such as natural and mathematical sciences, humanities, social sciences, and fundamental information technology, "Introductory Specialized Courses" and "Specialized Courses (Core Curriculum)" are primarily offered in the first and second years.

(3) Ability to think and judge by oneself

To enable students to analyze information and knowledge logically and make sound judgments with a sense of social responsibility, the school offers "Introductory Specialized Courses" and "Specialized Courses (Core and Advanced Curricula)," which include exercises, experiments, practical training, fourth-year seminars, and a graduation thesis. Additionally, to foster the ability to make ethical decisions, researcher ethics education is incorporated into some of the fourth-year seminar courses.

(4) Practical skills that can be applied in the field

In order to give students opportunities to develop the ability to identify issues that need to be addressed, plan a path toward resolution, and implement and evaluate the plan, the school integrates the competencies and skills outlined in (1) to (3) above. Through the graduation research course, students will cultivate the applied and practical skills necessary to proactively explore, understand, and solve various issues in the field, including those from a global perspective. Additionally, to facilitate smooth integration into international society and industry, we offer "Global Career-Related Courses" that are linked to English proficiency exams, study abroad programs, and career development, all of which are required for academic advancement.

3. Policy regarding evaluation method of learning outcomes

In all courses, students' learning outcomes and achievement of educational goals are rigorously assessed through examinations, reports, presentations, and other evaluative measures.

Undergraduate Course of Marine Biosciences	Undergraduate Course of Food Science and Technology	Undergraduate Course of Marine Policy and Culture
<p>1. Policy for curriculum organization The Undergraduate Course of Marine Biosciences systematically organizes courses into the following categories to equip students with the four fundamental competencies and skills listed in section 2 below: "General Courses," "Introductory Specialized Courses," "Specialized Courses (Core Curriculum)," and "Specialized Courses (Advanced Curriculum)." To foster broad-based knowledge and language proficiency, we offer "General Courses." Additionally, "Introductory Specialized Courses" and "Specialized Courses (Core Curriculum)" provide a foundation in basic sciences, ensuring students acquire the fundamental knowledge necessary to comprehend the increasing diversity and advancement of specialized fields. Building on this foundation, students further their expertise through "Specialized Courses (Advanced Curriculum)." The "Advanced Curriculum in Specialized Subjects" framework begins with the "Advanced Curriculum (Foundational Subjects)," which provide foundational knowledge across all fields in the department. Students then progress to "Advanced Curriculum in Life Sciences" and "Advanced Curriculum in Biological Resource Sciences," where they deepen their academic understanding and develop specialized skills. This structured approach also serves as a bridge to graduate-level education. Furthermore, "Global Career-Related Courses" help students smoothly transition into the international community and industry.</p> <p>2. Policy on educational content and implementation methods The curriculum is categorized into the following course divisions: "General Courses," "Introductory Specialized Courses," "Specialized Courses (Core Curriculum)," "Specialized Courses (Advanced Curriculum (Foundational</p>	<p>1. Policy for curriculum organization The Undergraduate Course of Food Science and Technology systematically organizes courses into the following categories to equip students with the four fundamental competencies and skills listed in section 2 below: "General Courses," "Introductory Specialized Courses," "Specialized Courses (Core Curriculum)," and "Specialized Courses (Advanced Curriculum)." "General Courses" are designed to cultivate broad cultural knowledge and language proficiency. "Introductory Specialized Courses" and "Specialized Courses (Core Curriculum)" are structured to strengthen the foundational skills necessary for understanding an increasingly diverse range of specialized fields. Building on this foundation, "Specialized Courses (Advanced Curriculum)" consist of a broad selection of specialized subjects rooted in biology, chemistry, physics, and engineering. These courses are designed to develop the multifaceted analytical skills essential for working with food products and serve as a bridge to graduate-level education. Furthermore, "Global Career-Related Courses" help students smoothly transition into the international community and industry.</p> <p>2. Policy on educational content and implementation methods The curriculum is categorized into the following course divisions: "General Courses," "Introductory Specialized Courses," "Specialized Courses (Core Curriculum)," "Specialized Courses (Advanced Curriculum (Foundational</p>	<p>1. Policy for curriculum organization The Undergraduate Course of Marine Policy and Culture systematically organizes courses into the following categories to equip students with the four fundamental competencies and skills listed in section 2 below: "General Courses," "Introductory Specialized Courses," "Specialized Courses (Core Curriculum)," and "Specialized Courses (Advanced Curriculum)." In "General Courses," students will acquire broad and deep knowledge and language skills, while in "Introductory Specialized Courses," they will learn a wide range of foundational sciences necessary to understand increasingly diverse and sophisticated specialized fields. The "General Courses" provide students with broad and in-depth cultural and linguistic knowledge. The "Introductory Specialized Courses" equip students with a wide range of foundational scientific knowledge necessary for understanding the increasingly complex and specialized fields within the discipline. Additionally, the curriculum includes "Qualification-Related Courses" and "Global Career-Related Courses." These courses are interlinked within a structured curriculum that integrates lectures, seminars, experiments, and practical training. The program is designed to prepare students for careers in international society and industry as well as further study at the graduate level.</p> <p>2. Policy on educational content and implementation methods The curriculum is categorized into the following course divisions: "General Courses," "Introductory Specialized Courses," "Specialized Courses (Core Curriculum)," "Specialized Courses (Advanced Curriculum),"</p>

Education)), "Advanced Specialty Curriculum (Life Sciences)," "Advanced Specialty Curriculum (Biological Resource Sciences)," and "Global Career-Related Courses." These courses incorporate lectures, exercises, experiments, and practical training to provide a comprehensive educational experience.

(1) Expert knowledge

To ensure that all students in the department acquire the specialized knowledge fundamental to all areas of study, "Specialized Courses (Advanced Curriculum (Foundational Education))" are offered from the first to the third year. Additionally, applied scientific knowledge and methods are systematically integrated into the curriculum. Laboratory science methods are used to analyze life phenomena at the genome, cell, and individual organism levels, while field science methods help understand the relationship between the environment, living organisms, and ecosystems. These courses, primarily offered in the third year, include "Specialized Courses (Advanced Curriculum - Life Sciences)" and "Specialized Courses (Advanced Curriculum - Biological Resource Sciences)." Through experiments, practical training, and exercises, students gain firsthand experience in identifying problems, observing and analyzing target organisms, and engaging in logical reasoning. They also develop collaboration and leadership skills.

(2) Rich internationality and wide-ranging education

To cultivate a well-rounded education, logical thinking, cultural literacy, an international outlook, communication skills, and presentation abilities, "Comprehensive Subjects" are offered. Additionally, "Global and Career-Related Subjects" support students in obtaining English qualifications, studying abroad, and career development. To build a foundation for specialized study, students acquire fundamental knowledge in natural sciences, mathematical sciences, humanities, and social sciences, as well as foundational information technology. This is achieved through "Introductory Specialized Courses" and "Specialized Courses (Core Curriculum)" in the first and second years.

(3) Ability to think and judge by oneself

To develop the ability to logically analyze information and make sound judgments, students engage in exercises, experiments, practical training, and, in the fourth year, seminars and a graduation thesis as part of "Introductory Specialized Courses" and "Specialized Courses." Additionally, to foster the ability to make ethical decisions, researcher ethics education is incorporated into some of the fourth-year seminar courses.

(4) Practical skills that can be applied in the field

In the fourth year, students further enhance their ability to effectively utilize knowledge, data, and information technology in diverse situations. They learn to integrate these skills and apply them in the marine field. Seminars and the graduation thesis focus on identifying issues, planning solutions, executing plans, and verifying results, fostering problem-solving and practical application skills. Furthermore, "Global and Career-Related Courses" are offered to facilitate smooth integration into the international community, industry, and broader society.

3. Policy regarding evaluation method of learning outcomes

In all courses, students' learning outcomes and achievement of educational goals are rigorously assessed through examinations, reports, presentations, and other evaluative measures.

Education)), "Advanced Specialty Curriculum (Practical Education)," and "Global Career-Related Courses." These courses incorporate lectures, exercises, experiments, and practical training to provide a comprehensive educational experience.

(1) Expert knowledge

To ensure that all students in the department acquire the specialized knowledge fundamental to all areas of study, "Specialized Courses (Core Curriculum)," and "Specialized Courses (Advanced Curriculum (Foundational Education))" are offered from the first to the third year. Additionally, in the third year, students take "Specialized Courses (Advanced Curriculum (Practical Education))" to develop expertise across all stages of food production, including production, processing, distribution, and consumption. These courses equip students with the knowledge and technical skills to analyze and resolve various issues related to these stages. Through lectures, experiments, and practical training in "Specialized Courses (Advanced Curriculum (Practical Education))," students gain hands-on experience in identifying and addressing problems using logical thinking, technical skills, and methodologies. They also develop collaboration and leadership abilities.

(2) Rich internationality and wide-ranging education

To cultivate a well-rounded education, logical thinking, cultural literacy, an international outlook, communication skills, and presentation abilities, "Comprehensive Subjects" are offered. Additionally, "Global and Career-Related Subjects" support students in obtaining English qualifications, studying abroad, and career development. To build a foundation for specialized study, students acquire fundamental knowledge in natural sciences, mathematical sciences, humanities, and social sciences, as well as foundational information technology. This is achieved through "Introductory Specialized Courses" and "Specialized Courses (Core Curriculum)" mainly in the first and second years.

(3) Ability to think and judge by oneself

To develop the ability to logically analyze information and make sound judgments, students engage in exercises, experiments, practical training, and, in the fourth year, seminars and a graduation thesis as part of "Introductory Specialized Courses" and "Specialized Courses." Additionally, to foster the ability to make ethical decisions, researcher ethics education is incorporated into some of the fourth-year seminar courses.

(4) Practical skills that can be applied in the field

By integrating the knowledge and skills acquired in the areas outlined in (1) to (3) above, students develop the ability to apply and implement their learning in marine-related fields. During their fourth year, they undertake seminars and a graduation thesis, refining their ability to identify issues, plan solutions, execute their plans, and validate their findings. Furthermore, "Global and Career-Related Courses" are offered to facilitate smooth integration into the international community, industry, and broader society.

3. Policy regarding evaluation method of learning outcomes

In all courses, students' learning outcomes and achievement of educational goals are rigorously assessed through examinations, reports, presentations, and other evaluative measures.

"Qualification-Related Courses," and "Global Career-Related Courses." These courses incorporate lectures, exercises, experiments, and practical training to provide a comprehensive educational experience.

(1) Expert knowledge

To ensure that all students acquire the foundational knowledge and research methods essential to the department's various fields of specialization, compulsory courses are primarily offered in the first year. Subsequently, "Specialized Courses (Core Curriculum)" are provided to develop specialized knowledge in three subject groups: marine industry and marine policy, marine environmental education and marine sports, and international and scientific culture. Furthermore, "Specialized Courses (Advanced Curriculum)" are structured to deepen students' expertise in each subject group while fostering the ability to comprehensively understand and assess various issues from a broad perspective. These courses are systematically organized and delivered through lectures, exercises, experiments, and practical training. Depending on the nature of each specialized field, active learning and other interactive methods are incorporated to encourage student engagement in learning.

(2) Rich internationality and wide-ranging education

To cultivate communication and presentation skills, including language proficiency, as well as a high level of international awareness and cultural understanding, "General Courses" are offered alongside "Global Career Courses," which focus on English proficiency tests, study abroad, and career development. Additionally, "Introductory Specialized Courses" are provided to equip students with fundamental knowledge in natural sciences, mathematical sciences, humanities, social sciences, and foundational information technology. The department also offers "Specialized Courses" designed to foster a rich international perspective.

(3) Ability to think and judge by oneself

In order to cultivate logical thinking, sound judgment, and a strong sense of social responsibility, the program provides an education that organically integrates each subject group. In particular, the program places central importance on the systematic implementation of "Specialized Courses (Core Curriculum)" in the second year, specifically "Marine Policy and Culture Research Methods I and II." Additionally, as part of graduation research, third-year students take "Marine Policy and Culture Seminar I and II," followed by a fourth-year seminar and the completion of a graduation thesis. Furthermore, to develop students' ability to make ethical judgments, a portion of the seminar is dedicated to education on researcher ethics.

(4) Practical skills that can be applied in the field

To help students understand and engage with the global challenges of modern society while developing the practical skills to take initiative, the curriculum includes practical training, exercises, and experiments. These activities are essential for fostering a concrete understanding of the various social issues related to the ocean and for exploring field-specific solutions. Additionally, seminars and the graduation thesis, positioned as the culmination of undergraduate studies, are conducted. Furthermore, "Global and Career-Related Courses" are offered to facilitate smooth integration into the international community, industry, and broader society.

3. Policy regarding evaluation method of learning outcomes

For all courses, evaluation criteria are clearly stated in the syllabus for each subject, and students' achievement of learning outcomes and attainment goals is rigorously assessed through examinations, reports, presentations, and other methods.