



Guide for **Tokyo NODAI** Graduate School

Fostering global citizens who will devote one's life in solving problems related to "Food", "Environment", "Health", and "Natural Resources and Energy"

<https://www.nodai.ac.jp/english/>



Atsugi Campus

1737 Funako, Atsugi, Kanagawa, 243-0034
tel: 81-46-270-6225

[Section of Student and Academic Affairs]

Graduate School of Agriculture

Agricultural Science
Animal Science
Human and Animal-Plant Relationships

Setagaya Campus

1-1-1 Sakuragaoka, Setagaya, Tokyo 156-8502
tel: 81-3-5477-2240

[Academic Affairs Section of Graduate School]

Graduate School of Agriculture

Bioscience
Forest Science
Agricultural Engineering
Landscape Architecture
International Agricultural Development
Agricultural Economics
Agribusiness Management
Ecological Symbiotic Science

Graduate School of Applied Bioscience

(Expected to open in 2020)
Agricultural Chemistry
Fermentation Science and Technology
Nutritional Science and Food Safety
Food and Nutritional Science



Hokkaido-Okhotsk

196 Yasaka, Abashiri, Hokkaido 099-2493
tel: 81-152-48-3813

[Section of Student and Academic Affairs]

Graduate School of Bioindustry

Bioproduction
Aquatic Bioscience
Food and Cosmetic Science
Business Science
Bioindustry

TOKYO UNIVERSITY OF AGRICULTURE 1891

Message from the President



TAKANO Katsumi, Ph.D.
President

Tokyo University of Agriculture was founded in 1891 by Viscount Enomoto Takeaki, an international figure and scientist in modern Japan during the Meiji period (1868–1912), who held successive posts as Minister of Post and Telecommunications, Education, Foreign Affairs, and Agriculture. The university was originally established as the Department of Agriculture at the Ikueiko School, a subsidiary of the Tokugawa Ikuei-kai Foundation, and this year it celebrates its 128th anniversary.

Before the year 1945, Japanese institutions that awarded doctorate degrees were generally limited to the former imperial universities. However, in 1934, alongside The University of Tokyo, Kyoto University, Kyushu University, and Hokkaido University, Tokyo University of Agriculture was recognized as an institution that offered the "Doctor of Agriculture" degree, and gained leader status in the field of agriculture.

Our university's Graduate School of Agriculture master's program was set up in 1953 in accordance with the Japanese Rules for Degrees established in the same year. In 1959, after beginning to offer doctoral courses, the university increased the number of specialty courses, establishing the Graduate School of Bioindustry in line with the opening of the Hokkaido Okhotsk campus in 1993. The university has also established a Department of Nutritional Science and Food Safety in 2018.

Based on our educational principle "Return Man to the Farm," and our approach to teaching and research, "Practical Science," our graduate school teaches advanced expertise and techniques in specialized fields with foundations in agriculture or bioindustry, and fosters human resources with intellectual capacity, insight, practical ability, and imagination.

Going forward, our university will continue to challenge the evolution of agriculture, contributing to the world ethically for the happiness of humankind.



Utilize advanced research capabilities in diverse agricultural fields and support "IKIRU: living" for the future



UEHARA Mariko, Ph. D.
Dean, Graduate School of Agriculture

The Graduate School of Agriculture, Tokyo University of Agriculture (Tokyo NODAI), was established in 1953, 62 years after the university was founded.

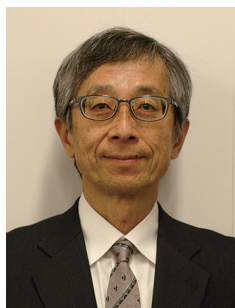
Agriculture continues to expand its presence in academia as a comprehensive science of the future, and involves biological resource science, life science, environmental science, health science, management, economics, social science, and so on.

The Graduate School initially conducted two major courses of agriculture and agricultural economics, but with the growing significance of studying agriculture in academia, we have now set up 15 majors, and reinforced our identity as a private graduate school of agriculture, the largest graduate school there is.

In educational research, we provide graduate students with rich insights and global perspectives in domestic and international agricultural fields based on the spirit of construction, "Return man to the farm," and the philosophy of educational research, "Practical Science". In each specialty, we aim to train human resources who will become active and independent in the field and who will be researchers, educators, and highly specialized technicians demonstrating well-balanced and cooperative temperament.

Tokyo NODAI supports "IKIRU: living." This graduate school will also contribute to various "IKIRU" projects aiming at world-class research in natural science and social science.

The Only Bioindustrial Research Center in Japan, Combining Production and Utilization of Biological Resources in Okhotsk with Industrial Management



SHIOMOTO Akihiro, Ph. D.
Dean, Graduate School of Bioindustry

The Okhotsk area is blessed with terrestrial and aquatic biological resources. Our graduate school, the only center for bioindustrial research and education in Japan, is located in such area. Our school has four major fields of study in the Master's program, Bioproduction, Aquatic Bioscience, Food and Cosmetic Science, and Business Science; in the Doctoral program we have a major in Bioindustry. The nature in Okhotsk area gives us abundant biological resources. This area includes Shiretoko Peninsula, which has been inscribed on the World Heritage List. This area is also a major food production base in Japan, as well as a sanctuary that offers an ecosystem of wild fauna and flora. You must study and know the mechanisms supporting the abundant biological production system for sustainable use. In addition, even if much production that advantages to abundance is given, you must use the production well for getting richness. By providing many people with the products, the richness of Okhotsk is returned to society.

Our graduate students learn and study the biological production system, the application to use and process products, and the management in the distribution of products deeply; the students also take multidisciplinary programs. We pursue the development of human resources who can contribute to the international and local communities through their broad knowledge and global perspective, based on the wide range of insights gained in the Okhotsk area.

Entrance Examination Data

Graduate School of Agriculture

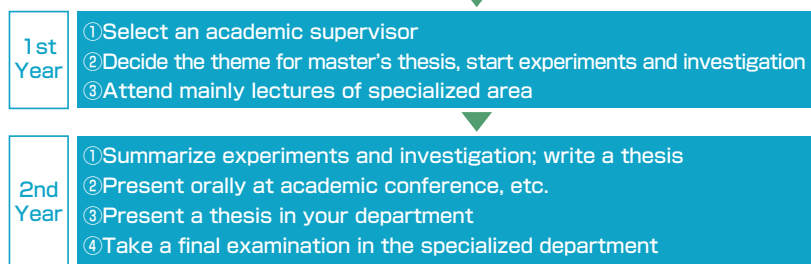
	Major	2019					
		Applicants			Accepted		
		Tokyo NODAI	Others	Total	Tokyo NODAI	Others	Total
Masters / Graduate Program	Agricultural Science	23	1	24	13	1	14
	Animal Science	15	1	16	15	1	16
	Human and Animal-Plant Relationships	7	0	7	5	0	5
	Bioscience	43	0	43	37	0	37
	Agricultural Chemistry	32	1	33	24	0	24
	Fermentation Science and Technology	31	1	32	23	1	24
	Nutritional Science and Food Safety	22	1	23	20	0	20
	Food and Nutritional Science	7	2	9	4	0	4
	Forest Science	10	1	11	9	1	10
	Agricultural Engineering	8	3	11	7	3	10
	Landscape Architecture	9	6	15	8	3	11
	International Agricultural Development	12	10	22	12	10	22
	Agricultural Economics	6	0	6	6	0	6
	Agribusiness Management	7	3	10	5	3	8
	Total	232	30	262	188	23	211
Doctoral Program	Agricultural Science	0	0	0	0	0	0
	Animal Science	2	0	2	2	0	2
	Human and Animal-Plant Relationships	3	0	3	3	0	3
	Bioscience	1	1	2	1	1	2
	Agricultural Chemistry	0	0	0	0	0	0
	Fermentation Science and Technology	3	1	4	3	1	4
	Food and Nutritional Science	2	0	2	2	0	2
	Forest Science	1	0	1	1	0	1
	Agricultural Engineering	1	0	1	1	0	1
	Landscape Architecture	0	0	0	0	0	0
	International Agricultural Development	2	1	3	2	1	3
	Agricultural Economics	2	0	2	2	0	2
	Agribusiness Management	2	1	3	2	1	3
	Ecological Symbiotic Science	2	3	5	2	3	5
	Total	21	7	28	21	7	28
Grand Total		253	37	290	209	30	239

Graduate School of Bioindustry

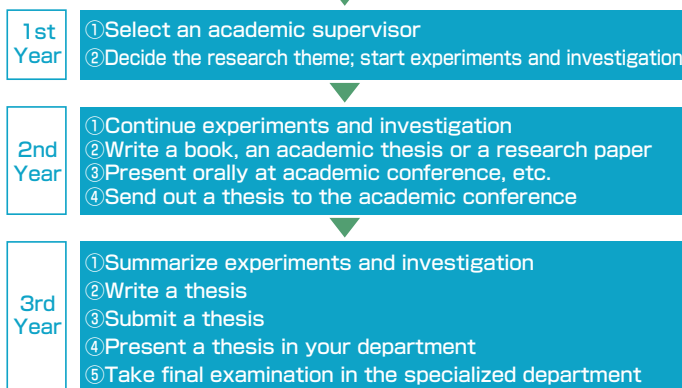
	Major	2019					
		Applicants			Accepted		
		Tokyo NODAI	Others	Total	Tokyo NODAI	Others	Total
Master's / Graduate Programs	Bioproduction	7	0	7	4	0	4
	Aquatic Bioscience	8	0	8	7	0	7
	Food and Cosmetic Science	7	0	7	7	0	7
	Business Science	0	1	1	0	1	1
	Total	22	1	23	18	1	19
Doctoral Program	Bioindustry	9	1	10	9	1	10
	Total	9	1	10	9	1	10
Grand Total		31	2	33	27	2	29

Flow Chart for Graduate Degrees Completion

Master's Program



Proceeding to the Doctoral Program



Approval by Committee of Graduate School's Department

Completion (Commencement)

Qualifications

Teacher's licenses available at the Graduate School

Major	Course	Junior High License	High School License
Agricultural Science	Master's Program		Agriculture
Animal Science	Master's Program		Agriculture
Human and Animal-Plant Relationships	Master's Program		Agriculture
Bioscience	Master's Program	Science	Science
Agricultural Chemistry	Master's Program	Science	Science
Fermentation Science and Technology	Master's Program	Science	Science
Nutritional Science and Food Safety	Master's Program		
Food and Nutritional Science	Master's Program	Science	Science
Forest Science	Master's Program		Agriculture
Agricultural Engineering	Master's Program		Agriculture
Landscape Architecture	Master's Program		Agriculture
International Agricultural Development	Master's Program		Agriculture
Agricultural Economics	Master's Program		Agriculture
Agribusiness Management	Master's Program		Agriculture
Bioproduction	Master's Program		Agriculture
Aquatic Bioscience	Master's Program	Science	Science
Food and Cosmetic Science	Master's Program	Science	Science
Business Science	Master's Program	Social studies	Civics

- ※ All of the following conditions must be satisfied to acquire a specialized license for junior high or high school.
1. The primary license for junior high or high school for the relevant subject has been acquired.
 2. At least 24 credits of the relevant major at the Graduate School have been acquired. (Some classes of the major and credits acquired at other majors are excluded.)
 3. The master's degree is certified.

Graduate School of Agriculture

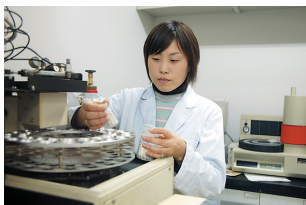
Atsugi Campus

Pursuing Environmentally-Friendly Crop Production for Food and Satisfaction

Agricultural science

<Master's and Doctoral Programs>

This department seeks to establish technology for the stable production and distribution of safe, high-quality crops while taking steps for the preservation and protection of the environment. Our purpose is to nurture educators, researchers, high-level professional technologists, and other such human resources who possess outstanding thinking and problem-solving abilities, as well as a strong sense of mission, and who, working from a practical scientific perspective, wish to pursue education and research in specialized scholarly principles related to crops as well as the microorganisms and insects that are involved with them.



Professors and research themes

AMAKI Wakanori	Micropropagation system of horticultural crops. Environmental regulation and physiology of growth and flowering of horticultural crops
ISHIKAWA Tadashi	Systematics of true bugs (Heteroptera) and elucidation of insect diversity in various ecosystems
KAWAI Yoshitaka	Studies on growth and physiology of fruit trees and production of high quality fruits
KOJIMA Hiroaki	Taxonomy and ecology of the phytophagous beetles and applied insect systematics
SHINOHARA Hirotsugu	Research for the systematics and identification of the microorganism that inhabits on plants and biological control
NAGASHIMA Takayuki	Insect technology
NISHIO Zenta	Studies on the improvement of disease resistance and quality in crops
BABA Tadashi	Studies on biological and environmental factors affecting postharvest life of fruits, vegetables and flowers
MINE Yoko	Physiological studies on vegetables for growth control technology in production systems
YOSHIMATSU Shin-ichi	Taxonomy of Lepidoptera, mainly Noctuidae
KAMIJI Yoshiaki	Studies on the nitrogen control in sustainable rice production
IWANAMI Toru	Taxonomy, identification and detection of plant pathogens and diagnosis of plant diseases
KAWASE Makoto	Plant genetics and breeding by characterizing and evaluating plant genetic resources

Science of Animal Life and Production

Animal Science

<Master's and Doctoral Programs>



This department conducts education and research at various levels, with approaches from both the life sciences and production science fields, so as to cover the entire breadth of animal science, taking environmental protection into account, and spanning the range from ecologies to molecules. Our purpose is to foster human resources who have both the advanced knowledge and the technology required to pursue active careers and to respond always to the demands of the times in every animal science specialization as well as in interdisciplinary fields.

Professors and research themes

NOMURA Koh	Studies on useful genes of indigenous livestock and wild animals
KUWAYAMA Takehito	Studies on the avian reproductive endocrinology
IWATA Hisataka	Molecular mechanism underlying age-related abnormalities in germ cells
SHIRASUNA Koumei	Physiological and pathophysiological molecular mechanisms of pregnancy
HANZAWA Kei	Adaptation physiological genetics on domestic animals and poultry
HIRANO Takashi	Studies on quantitative traits and defective phenotype of domestic animals
KURAMOTO Takashi	Gene-nutrient interaction in domestic and laboratory animals
TADA Kotaro	Utilization of animal by-products to food materials
TORII Yasushi	Studies on treatment of disease using bacterial toxin molecular
KOBAYASHI Eiji	Studies on animal genomics and breeding

Creating Meaningful Lives and Heart-warming Communities

Human and Animal-Plant Relationships

<Master's and Doctoral Programs>

This department pursues environmental agricultural science, which aims to harmonize the preservation and protection of the natural environment with people's lives, and welfare agriculture, which aims to enhance and improve the quality of people's lives as well as their physical, mental, and emotional health. Our purpose is to foster human resources who have expansive sensibilities and problem-solving abilities, who acquire and conduct research on advanced specialized knowledge, and who have the capability to disseminate and develop new interdisciplinary fields that fuse natural science and social science.



Professors and research themes

MIYAMOTO Futoshi	Systematic and conservational studies of Sino-Himalaya and Japanese plants
ASANO Fusayo	Relationship between thanatology and landscape. Methods and evaluation of plant assisted therapy for children
MASUDA Koji	Relationship between companion animal and owner
MATSUBAYASHI Hisashi	Wildlife ecology, conservation and management in Japan and Borneo
MITSUI Yuki	Conservation and effective utilization of wild plant resources
OGAWA Hiroshi	Avian reproduction and conservation
OHTA Mitsuki	Effects of horseback riding on human health
SASAKI Takeshi	Molecular genetic approach toward a comprehensive understanding of population of wild animal
TSUCHIHASHI Yutaka	Effects of gardening on QOL.

Setagaya Campus

Applying the Power of Advanced Bioscience to Various Fields

Bioscience

<Master's and Doctoral Programs>

This department provides advanced education by promoting creative and original research that takes full advantage of leading-edge knowledge and technologies in life sciences, and cultivates the capability to present and discuss the research contents, thereby aiming at nurturing the human resources who share a rich sense of humanity and contribute to the development of research and industry, either domestic or overseas.



Professors and research themes

SAKATA Yoichi	ABA signaling in plants
NIIMURA Youichi	Biochemistry and Molecular Biology of oxygen and its metabolism to Application
YAJIMA Shunsuke	Cellular functions based on structural and chemical biology
CHIBAZAKURA Taku	Mechanism of mammalian cell proliferation control
KAWASAKI Shinji	Isolation of novel organisms and identification of their useful metabolic systems
OGAWA Hidehiko	Mechanism of cell differentiation in mammalian cells
OBATA Yayoi	Development of mammalian gametes
TAJI Teruaki	Dissecting genetic control of natural variation in abiotic stress tolerance of plants
ASAI Kei	Bacterial life and death and development of microbial cell factory
MATSUMOTO Takashi	Development of crop breeding based on next-generation genome technology
NAKAMURA Shin-ichi	Analysis of heavy metal behavior in plants and its application to crop breeding
UMEZAWA Akihiro	Stem Cell Biology
TANAKA Yoshiaki	Studies on regulatory mechanisms of insect growth and development using genome information
HATA Kenichiro	Epigenetic analysis of mammalian reproductive system
AKUTSU Hidenori	Research for epigenetic reprogramming and pluripotent stem cells
MIYADO Kenji	Studies on transition systems from gametes to zygotes

Graduate School of Applied Bioscience

Please note that the information contained in this Graduate School description is subject to change.

Chemistry and Biotechnology – Frontier Technology of Practical Science – Agricultural Chemistry

<Master's and Doctoral Programs>



The purpose of research in the Department of Agricultural Chemistry is to employ an agricultural chemistry approach to resolving the issues involved in human life, working on the basis of practical scientific principle and from the perspectives of food, the environment, and health. To address these research issues in a system for education and research, our purpose is to foster human resources, especially researchers and advanced professionals, who have the following capabilities; the highly specialized scientific skills and knowledge on the basis of Agricultural Chemistry and also flexibility to cope with internationalized and diversified society circumstances with great accuracy.

Professors and research themes

IGIMI Shizunobu	Research on lactic acid bacteria and their applications
OHYAMA Takuji※	Nitrogen nutrition and metabolism of plants
TSUJII Yoshimasa	Research on mechanisms that affect flavor and palatability of food
NOGUCHI Tomohiro	Effect of protein disulfide isomerase on characteristic of foods
HIGUCHI Kyoko	Mineral nutrition of plants
MAEDA Yoshiyuki	Ecophysiological studies on salt tolerance of plants
MATSUSHIMA Yoshitaka	Organic synthesis of biologically active compounds
YAMAMOTO Yuji	Studies on tumor suppresser mechanism and life style related disease

※Professor in charge of Master's program only

Developing the Future with the Power of Fermentation Science

Fermentation Science and Technology

<Master's and Doctoral Programs>



This department aims to develop individuals who will scientifically explore Japanese unique fermentation technologies and fermented foods in order to contribute to the industries utilizing the microorganisms that will sustain the next generation. On that basis, this department prepares individuals to become fully versed in basic scientific knowledge about the brewing industry and other industries using microorganisms so that they can perform research in microbiology, chemistry, and bioengineering. We also seek to foster researchers and advanced specialists who are thoroughly familiar with fermentation technology and who will support the development of industries using microorganisms.

Professors and research themes

HOSAKA Masaru	Isolating yeast from natural environment and utilization for alcoholic beverages
MAEHASHI Kenji	Sensory and physiological function of fermented food
TOKUDA Hiroharu	Bioprocess engineering
FUJIMOTO Naoshi	Microorganism-related problems in drinking water treatment
ISHIKAWA Morio	Biochemical and taxonomic studies on food microorganisms
SHINDO Hitoshi	Studies on fermentation mechanisms in sake mash
TOKUOKA Masafumi	Chemical and molecular biological studies on the sake brewing
NAKAYAMA Shunichi	Metabolic engineering of fermentation microorganism
OHNISHI Akihiro	Hydrogen fuel production by fermentation
KADOKURA Toshimori	Taxonomic study of sake yeast

Establishing scientific evidences for safety and biofunction of food-related chemicals

Nutritional Science and Food Safety

<Master's Program>

The goal of this department is to define biofunction and toxicity/safety of food-related chemicals, thereby ultimately contributing to human health and welfare. The department consists of seven core fields: i.e., chemical toxicology; analytical biotechnology; risk assessment science; food processing technology; bioactive substance science; physiology and metabolism; molecular bioregulation. This program is devoted to produce outstanding scientists with adequate knowledge and advanced research skills in the related fields.



Professors and research themes

ABE Naoki	Bioregulatory function of bioactive natural products
AKUZAWA Sayuri	Texture and rheological properties of foods and their materials
IWATSUKI Ken	Characterization of gastrointestinal and taste stem cells using 3D cell culture systems
IJIMA Masumi	Development of technologies for highly sensitive detection of biomolecular interactions by biosensing
MIYAJIMA Katsuhiro	Molecular pathology for the effects of environmental factors, including food toxicity, in endocrine and metabolic disorders
NAKAE Dai	The control of aging and carcinogenesis, and the safety assessment of (food-related) chemicals
NAKAYAMA Tsutomu	Analytical study on biomolecular interactions of food components
OISHI Yu-Ichi	Molecular biological study on food function in skin
TAKAHASHI Nobuyuki	Molecular and physiological analysis of the metabolic information network in multiple organ and tissue
TOMIZAWA Motohiro※	Defining drug-binding surfaces through chemical biology approach
UEHARA Mariko	Effects of functional phytochemicals and minerals on bone and lipid metabolisms

※Professor in charge of Doctoral program only

Featuring Food and the Nutrition Functionality leading to Health

Food and Nutritional Science

<Master's and Doctoral Programs>

The purpose of this department is to foster human resources who will become high-level specialists capable of holding leadership positions in research and industrial development, who can conduct specialized research in such areas as the development of food products, on the assurance of their safety, and on the therapeutic use of diet, and who have abundant specialized knowledge, techniques, and research ability in the fields of food science and nutrition science.



Professors and research themes

KONISHI Yoshiko	Research on Food composition with Detoxifying Effects on Food Contaminant
HATTORI Kazuo	Study on food components that prevent lifestyle-related diseases
HIDA Azumi	Nutritional epidemiology on athletes, health promotion and prevention of lifestyle-related diseases
HOMMA Kazuhiro	Nutrition of breast milk
KATSUMATA Shinichi	Studies on the relationships between dietary mineral intake and lifestyle diseases
MATSUZAKI Hiroshi	Nutritional physiological studies on regulation of mineral metabolism and dietary minerals intake
SUZUNO Hiroko	Effect of various cooking conditions on the physical properties and composition of food
TAKAHASHI Kosaku	Search and analysis of food-derived anti-microbial substances and biofunctional substances

Graduate School of Agriculture

Research/Education Connecting Forest, Tree, wood and humankind

Forest Science

<Master's and Doctoral Programs>



Our Forest Science Department has a mission to survey the various elements, functions, and ecosystems of the forest. Forest science is the interdisciplinary and applied science that researches forest itself and its connection to human life. This Forest Science major deals with every matters concerned with the forest. Our research scope and target are extremely wide; from micro scope to global forest zone. Forest Science has big possibility to develop new scientific paradigm and new relationship between nature and human beings. We welcome problem solvers who want to know and study about all creation of the forest!

Professors and research themes

IMATOMI Yuki	Forest engineering
UEHARA Iwao	Silviculture, Forest therapy
EGUCHI Fumio	Forest product chemistry, Mushroom science
SUGAWARA Izumi	Silviculture
OHBAYASHI Hiroya	Wood Science and technology
SATO Takayoshi	Forest management
TAKYU Masaaki	Forest ecology
YAGUCHI Yukio	Forest pathology, forest microbial ecology
FUKUNAGA Kenji	Revegetation technology
SEKIOKA Haruo	Forest policy, Forest education
YAMAZAKI Koji	Ecology and management of large wild mammals

Environment Engineering Approach toward Agriculture/Rural Villages/Food Problems

Agricultural Engineering

<Master's and Doctoral Programs>



The purpose of this department is to develop human resources who take as their principles the effective use of local resources with consideration for the environment and the construction of a recycling society. They will seek to realize these principles technologically in concrete form by engaging in practical education and research in the principal scholarly areas of irrigation, drainage, and rural engineering and of agricultural machinery, and they will have the ability to achieve a balance between scholarly research and advanced technology development and problem-solving in the field.

Professors and research themes

MIHARA Machito	Rehabilitation and conservation of soil and water environment and sustainable use of regional resources
NAKAMURA Takahiko	Material cycle and mass transfer around rural areas
FUJIKAWA Tomonori	Techniques and policies for farm land conservation in rural and urban areas
SHIMADA Sawahiko	Environmental monitoring using Remote Sensing data and GIS
WATANABE Fumio	Effective water usage methods in arid and semi-arid areas
SUZUKI Shinji	The impact of climate change on hydrothermal region of arable land
KOYANAGAWA Masashi	Reliability of concrete pavement
KAWANA Futoshi	Non-destructive testing method for agricultural facilities
TAKEUCHI Yasushi	Maintenance and rehabilitation method for agricultural facilities
OKAZAWA Hiromu	Developing environmental models of coupled hydrological and biochemical (N, P) cycling at catchment-scale
HONDA Naomasa	Prediction and countermeasure of natural disaster based on numerical simulation
TAJIMA Kiyoshi	Development of tillage system for farm work robot
SASAKI Yutaka	System development for agricultural informatics and bio-robotics
SAKAGUCHI Eiichiro	Studies on rice processing technology
MURAMATSU Yoshiaki	Transport phenomenon in processing and transportation of agricultural products

Consider from "術 jutsu (Technique)" of Analysis to "芸 gei (Art)" of Integration

Landscape Architecture

<Master's and Doctoral Programs>

The purpose of this department is to develop human resources to improve the planning and design concepts and technological capabilities needed to realize comfortable environments ranging from cities to natural areas, in addition to gardens, parks, and other such basic landscaped spaces. They will advance the knowledge and practical capabilities related to biological resources, including plants that are components of the environment, scenic landscape planning, and construction engineering, and they will contribute to the formation of prosperous local communities and social capital by means of their educational and research activities.



Professors and research themes

HATTORI Tsutomu	The composition and meaning of Japanese garden
KANEKO Tadakazu	Urban Landscape Planning and Park Management
KUNII Yoichi	Application of Spatial Information Techniques for Landscape Construction
MIZUNIWA Chizuko	Interaction of environment and plants
SUZUKI Kojiro	Life history and application of Landscape plants
SUZUKI Makoto	History of Landscape Design
TAKAHASHI Shinpei	Growth Characteristic and application of Lawn and Groundcover plants
YAMASAKI Motoya	3D ROAD Landscape Architecture using Geographic Information system and Virtual Reality

International Development Cooperation to Farmers/Agriculture/Environment

International Agricultural Development

<Master's and Doctoral Programs>



The purpose of this department is to foster high-level specialists and researchers who are capable of making contributions in such fields as agricultural development and international cooperation as well as to the growth of the global community. They will do this by means of work in education and research that is founded on practical, international perspectives as well as in comprehensive approaches that integrate scholarly disciplines in agricultural science across the range from natural sciences to social sciences.

Professors and research themes

TAKANE Tsutomu	Agricultural and Rural Development in Africa
SHIWACHI Hironobu	Study on Morphology and Physiology in Tropical Crops
SUGIHARA Tamae	Rural Development and Traditional Customs
NATSUAKI Keiko, T.	Identification and Diversity Analysis of Plant Pathogens
ADATI Tarô	Integrated Pest Management
IRIE Kenji	Genetic diversity of tropical crops
TANAKA Nobuyuki	Rehabilitation of degraded lands in tropics, restoration of natural forest ecosystems, and climate change impact on vegetation
YAMADA Ryuichi	Farm management in Asia
NAKANISHI Yasuhiro	Nutrients Dynamic and Impact in Tropical Environment
KOSHIO Kaihei	Chemical Control of Tropical Horticultural Crops
MOTOHASHI Keiichi	Taxonomy, identification and phylogeny of fungal plant pathogen
ISHIKAWA Masayuki	Studies on the Mechanisms of Plant Virus Multiplication
MAOKA Tetsuo	Studies on Identification, Diagnosis and Characterization of Plant Virus Diseases
UGA Yusaku	Molecular Breeding for Climate-Resilient Crops
ITAGAKI Keishiro	Agricultural and Rural Development in Asia

Approach to World Agriculture/Food/Environment/Rural Problems

Agricultural Economics

<Master's and Doctoral Programs>



This department is to foster the development of researchers and high-level professionals who possess multi-faceted knowledge in economics, business administration, sociology, geography, history, and other social sciences in the fields of agriculture, food, and the environment, and who have the analytical capability and logical reasoning ability to respond precisely to changing social and economic circumstances.

Professors and research themes

HARA Juri	Sociological Study on Rural Life and Gender
HOTTA Kazuhiko	Study on Rural Revitalization by the Agriculture, Commerce and Industry Network
KAMIOKA Miho	Economic Study on Food Consumption Structure and Food and Nutrition Education (Shokuiku)
KANADA Norikazu	Econometric Study on Agricultural Trade
KITADA Kikuo	Study on Business Administration and Information of Farm Management
OURA Yuji	Study on Food Marketing and Consumer Behavior
SUGANUMA Keisuke	Study on the Problems of Agriculture and Rural Development in Asia.
TAKAYANAGI Nagatada	Economic Geographical Study on Global Food Systems
TANAKA Hiroto	Study on Environmental Valuation
TERAUCHI Mitsuhiro	Econometric study on food demand and supply.
YOSHINO Keiko	Study on Resource management and Local Community in Japan and Third World

Experts in Agribusiness Management

Agribusiness Management

<Master's and Doctoral Programs>

The department aims to develop agribusiness experts who are well-equipped with specialized knowledge and skills to engage in production, processing, distribution, and other aspects of food, agriculture and the environment. Students will be able to enhance their global perspective, ethical sense and communication skills. Graduates are expected to contribute to sustainable development of agribusinesses in Japan and other countries.



Professors and research themes

NIBE Akio	Modeling of Food Production Using System Dynamics
TSUCHIDA Shiro	Study on Business Administration in Agribusiness
HATANAKA Katsumori	Study on the Database and Analysis of Primary Industries and Resource Information
INAIZUMI Hiroki	Study on Agricultural Knowledge and Information Systems (AKIS) in the Community of Practice (CoP)
SHIBUYA Yukio	Corporate Management and Marketing Strategy
UCHIYAMA Tomohiro	Study on the Farm Business Management
SUZUMURA Gentaro	Research on the Competency of Agribusiness Executives
MIYAURA Rie	Agroecological Research for Sustainable Agriculture
SATO Kazunori	Study on Distribution and Marketing of Agricultural Products

Research to Realize the Ecological Symbiotic Society

Ecological Symbiotic Science

<Doctoral Program>



This department provides a Doctoral Program (Second Stage) to promote research to maintain the balanced, sustained symbiotic relationships that exist among all bioorganisms in the global environment, including the human race. Our purpose is to foster human resources with advanced research capabilities and comprehensive perspectives that will enable them to conduct research in integrated science.

Professors and research themes

ITAGAKI Keishiro	Agricultural development and the possibility of increased export for food and agricultural products in Asia
KASHIMURA Osamu	Exercise physiology, high altitude medicine, circulation, functional food factors in sports
KAMIOKA Hiroharu	Systematic review on complementary and alternative medicine, research methodology of interventional and observational studies
TAKEDA Kouji	Studies on scientific educational materials utilizing the characteristics of agricultural sciences
TANAKA Naoto	Application of microbial resources
FURUSHO Tadasu	Study in the functional foods / Study in the metabolism on Vitamin A / Study in the food and nutrition education / promotion (shokuiku)
KAMEYAMA Yoshiaki	Ecology and evolution of plant species
KUMAZAWA Eriko	Study on the Modernization of Education in Japan / The history of Establishment of the Agricultural Education

Graduate School of Bioindustry

Hokkaido-Okhotsk Campus

Seeking Greater Depth and Sophistication in Approaches to Plant and Animal Resources Production

Bioproduction

<Master's Program>

This department engages in advanced research and education related to resource development, environmental symbiosis, and other such matters related to bioproduction and the protection of biodiversity in agricultural science, forest science, and animal science to which the category of natural ecology is added. Our purpose is to develop human resources who will work based on those principles to take up a variety of issues from the perspectives of resource utilization and development, ecology, biotechnology, and related fields, and who are capable of fulfilling highly professional leadership roles in those areas.



Professors and research themes

OGURI Suguru	Study on the sugar chain-protein interactions in plants
YOSHIDA Hozumi	The development of the integrated crop production management technology on the cold latitudes area
KAMEYAMA Yuichi	Developmental engineering in mammalian sperm and egg
SOUMA Kousaku	A nutritional study of Yeso sika deer (<i>Cervus nippon yesoensis</i>) under farming
NAKAMURA Takatoshi	Ecophysiology of wetland plants
HIRAYAMA Hiroki	Molecular biological study on improvement and increased production of livestock
TERAZAWA Kazuhiko	Ecology and management of cool-temperate and boreal forests
ITOH Hirotake	Study on the cultivation technic based on the root system in field crops
NAKAMARU M. Yasuo	Biogeochemistry of agricultural soils for sustainable land management

Advancing Science through the Riches of Okhotsk Sea

Aquatic Bioscience

<Master's Program>



The objective of this department is to foster human resources capable of actual, practical action to protect the marine ecosystem and environment that enable sustainable supplies of aquatic resources in the Okhotsk Sea and marginal seas and lagoons. To that end, our purpose is to foster human resources with the capability to fulfill highly professional leadership roles and with knowledge and techniques that are focused on sea areas subject to freezing. As these areas are not covered by conventional fisheries science, they call for backing from Okhotsk marine biology and environmental studies of the Okhotsk hydrosphere.

Professors and research themes

WATANABE Kenichi	How do we prevent the fish diseases with reliable and secure methods?
KOBAYASHI Mari	Investigation on ecology of marine mammals and its conservation management
CHIBA Susumu	Application of evolutionary ecology to fisheries management
NISHINO Yasuto	Marine ecosystems of lower trophic levels in the ice-covered sea and seagrass bed
NAKAGAWA Yoshizumi	Zooplankton ecology in the ice-covered sea

Mastering Cutting-Edge Science for Food and Cosmetic Applications

Food and Cosmetic Science

<Master's Program>

This department conducts research on the manufacture and quality control of food and cosmetic products from the perspective of chemistry, and also pursues research on the functions of food and cosmetic products using the methods of molecular biology and chemistry. Our purpose in these activities is to develop human resources with the advanced research capabilities to perform actively in fields related to diet and health promotion, ranging from resource utilization and product development to preservation, safety management, and functional analysis.



Professors and research themes

NIWA Koichi	Cellular physiology on gastrointestinal tract and skin with cultured cells
SATO Hiroaki	Objective evaluation of the taste using the sensor
YAMAZAKI Masao	Development of browning control technique on food processing to improve the value of foods
SAGANE Yoshimasa	Study on structure and function of food-related proteins
MYODA Takao	Analytical chemistry of plants and food aroma Analysis of interactions between aroma compounds and taste
NOJIMA Satoshi	Search for new fragrance and functional food ingredient
HORI Yoji	Studies on the synthesis of aroma chemical using a catalyst
MINAMI Kazuhiro	Study on effects of functional foods on human blood vessel
ENDO Akihito	Ecology of fructophilic lactic acid bacteria, Prebiotic impacts in oligosaccharides fermentation

Business Science

<Master's Program>



The purpose of this department is to foster researcher of business administration, highly skilled experts, management consultants, and the other human resources with a high level of specialization. This major offers programs in the theory and leading-edge methods of management and economics that support the development of local bioindustries. These will be people who engage in research based on practical science that contributes to sustainable development and problem-solving for backbone enterprises in local bioindustries that are achieving diverse growth and utilizing local resources by means of social scientific disciplines.

Professors and research themes

MATSUMURA Kanichiro	Agricultural meteorology Unmanned aerial vehicle, UAV for agriculture and drifting ice
KUROTAKI Hidehisa	Study on Reproduction Structure of Japanese Agriculture and Forestry
SASAKI Jun	Economic Valuation of Ecosystem Services
SHIOMOTO Akihiro	The influence of fluctuation of aquatic environment on the fishery industry
SHIRAI Shigeru	Fisheries biology of fishes and shellfishes for conservation of resources

A Comprehensive Exploration of the Production, Processing and Distribution of Biological Resources

Bioindustry

<Doctoral Program>

This department provides a Doctoral Program (Second Stage) that integrates the four first-stage doctoral programs of the Department of Bioproduction, the Department of Aquatic Bioscience, the Department of Food and Cosmetic Science, and the Department of Business Science in a professional educational framework combining humanistic and scientific studies. The purpose of this department is to foster leaders who have acquired practical scholarly theory and skills in bioindustry from a comprehensive perspective while also delving deeply into a single aspect, whether it be ecosystem protection, agricultural and marine products, processing and development, or management and distribution.

*Professors of Master's Program also teach
Doctoral Program



Tokyo NODAI Graduate Schools

Graduate School	Department	Program	Capacity	Campus
Agriculture	Agricultural Science	Master Doctoral	14 5	Atsugi
	Animal Science	Master Doctoral	12 4	
	Human and Animal-Plant Relationships	Master Doctoral	10 3	
	Bioscience	Master Doctoral	30 6	Setagaya
	Forest Science	Master Doctoral	12 4	
	Agricultural Engineering	Master Doctoral	8 2	
	Landscape Architecture	Master Doctoral	12 3	
	International Agricultural Development	Master Doctoral	12 2	
	Agricultural Economics	Master Doctoral	10 5	
	Agribusiness Management	Master Doctoral	12 5	
Applied Bioscience*	Agricultural Chemistry	Master Doctoral	30 5	Setagaya
	Fermentation Science and Technology	Master Doctoral	20 2	
	Nutritional Science and Food Safety	Master Doctoral	20 3	
	Food and Nutritional Science	Master Doctoral	20 2	
Bioindustry	Bioproduction	Master	7	Hokkaido Okhotsk
	Aquatic Bioscience	Master	5	
	Food and Cosmetic Science	Master	5	
	Business Science	Master	3	
	Bioindustry	Doctoral	8	

*Tokyo University of Agriculture has applied to MEXT to establish the Graduate School of Applied Bioscience with existing departments.

The application is expected to be approved by 2020. Details are subject to change.

Tokyo University of Agriculture Educational Corporation

Tokyo University of Agriculture

Tokyo University of Information Sciences

Tokyo University of Agriculture First High School

Tokyo University of Agriculture Second High School

Tokyo University of Agriculture Third High School

Tokyo University of Agriculture First Junior High School

Tokyo University of Agriculture Third Junior High School

Tokyo University of Agriculture Toka Elementary school

