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: 81-152-48-3913
[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
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.

TAKANO Katsumi, Ph.D.
President
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.
## Graduate School of Agriculture

<table>
<thead>
<tr>
<th>Major</th>
<th>2019 Applicants</th>
<th>2019 Accepted</th>
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<td>Tokyo NODAI</td>
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## Graduate School of Bioindustry

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<th>Major</th>
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<td>Tokyo NODAI</td>
<td>Others</td>
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<tr>
<td><strong>Grand Total</strong></td>
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</table>
Flow Chart for Graduate Degrees Completion

Master's Program

1st Year
1. Select an academic supervisor
2. Decide the theme for master's thesis, start experiments and investigation
3. Attend mainly lectures of specialized area

2nd Year
1. Summarize experiments and investigation; write a thesis
2. Present orally at academic conference, etc.
3. Present a thesis in your department
4. Take a final examination in the specialized department

Proceeding to the Doctoral Program

1st Year
1. Select an academic supervisor
2. Decide the research theme; start experiments and investigation

2nd Year
1. Continue experiments and investigation
2. Write a book, an academic thesis or a research paper
3. Present orally at academic conference, etc.
4. Send out a thesis to the academic conference

3rd Year
1. Summarize experiments and investigation
2. Write a thesis
3. Submit a thesis
4. Present a thesis in your department
5. Take final examination in the specialized department

Approval by Committee of Graduate School's Department

Completion (Commencement)

Qualifications
Teacher's licenses available at the Graduate School

<table>
<thead>
<tr>
<th>Major</th>
<th>Course</th>
<th>Junior High License</th>
<th>High School License</th>
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<tr>
<td>Human and Animal-Plant Relationships</td>
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<tr>
<td>Business Science</td>
<td>Master's Program</td>
<td>Social studies</td>
<td>Civics</td>
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* 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.
Atsugi Campus

Pursuing Environmentally-Friendly Crop Production for Food and Satisfaction

Agricultural science

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. Environmenta 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 Hirose: 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
KAMIJU 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

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
IWASA 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 Takeshi: 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

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 human
- 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 Mitsuaki: 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

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
- NIMURA 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 Tenuaki: 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
Agricultural Chemistry

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

<table>
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<td>IGIMI Shizunobu</td>
<td>Research on lactic acid bacteria and their applications</td>
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<tr>
<td>OHYAMA Takuji</td>
<td>Nitrogen nutrition and metabolism of plants</td>
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<tr>
<td>TSUJI Yoshimasa</td>
<td>Research on mechanisms that affect flavor and palatability of food</td>
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<td>NOGUCHI Tomohiro</td>
<td>Effect of protein disulfide isomerase on characteristic of foods</td>
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<td>HIGUCHI Kyoko</td>
<td>Mineral nutrition of plants</td>
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<td>MAEDA Yoshiyuki</td>
<td>Ecophysiological studies on salt tolerance of plants</td>
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<td>MATSUSHIMA Yoshitaka</td>
<td>Organic synthesis of biologically active compounds</td>
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<td>YAMAMOTO Yuji</td>
<td>Studies on tumor suppresser mechanism and life style related disease</td>
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※Professor in charge of Master’s program only

Developing the Future with the Power of Fermentation Science

Fermentation Science and Technology

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

<table>
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<td>MAEHASHI Kenji</td>
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<td>TDKUDA Hiroharu</td>
<td>Bioprocess engineering</td>
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<td>FUJIMOTO Naoshi</td>
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<td>ISHIKAWA Morio</td>
<td>Biochemical and taxonomic studies on food microorganisms</td>
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<td>SHINDO Hitoshi</td>
<td>Studies on fermentation mechanisms in sake mash</td>
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<td>TOKUOKA Masafumi</td>
<td>Chemical and molecular biological studies on the sake brewing</td>
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<td>NAKAYAMA Shunichi</td>
<td>Metabolic engineering of fermentation microorganism</td>
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<td>OHNISHI Akihiro</td>
<td>Hydrogen fuel production by fermentation</td>
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<tr>
<td>KADOKURA Toshimori</td>
<td>Taxonomic study of sake yeast</td>
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</tbody>
</table>
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
IIJIMA 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
IIJIMA Nobuyuki  Molecular and physiological analysis of the metabolic information network in multiple organ and tissue
OMAZAWA 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 of 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
MATSUI ZAKI 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
Environment Engineering Approach toward Agriculture/Rural Villages/Food Problems

Agricultural Engineering  

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
KOYANAGA Masaki  Reliability of concrete pavement
KAWANA Fujio  Non-destructive testing method for agricultural facilities
TAKEUCHI Yasushi  Developing environmental models of coupled hydrological and biochemical [N, P] cycling at catchment-scale
OKAZAWA Hiromu  Prediction and countermeasure of natural disaster based on numerical simulation
HONDA Naomasa  Development of tillage system for farm work robot
SASAKI Yutaka  System development for agricultural informatics and bio-robotics
SAGAUCHI Eiichiro  Studies on rice processing technology
MURAMATSU Yoshihi  Transport phenomenon in processing and transportation of agricultural products
Landscape Architecture

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

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
SHIWA CHIHIRO  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 Kamei  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 Yutaka  Molecular Breeding for Climate-Resilient Crops
ITAGAKI Keishiro  Agricultural and Rural Development in Asia
Experts in Agribusiness Management

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
MIYAKURA 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

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

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

Graduate School of Bioindustry

Hokkaido-Okhotsk Campus

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

Bioproduction

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 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

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

Aquatic Bioscience

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 it’s 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

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
NOJIMA Satoshi  Analysis of interactions between aroma compounds and taste
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

ENDO Akihito  Ecology of fructophilic lactic acid bacteria, Prebiotic impacts in oligosaccharides fermentation
Revitalization of Biological Resources Industry Management within the Global Economy

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

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

<table>
<thead>
<tr>
<th>Graduate School</th>
<th>Department</th>
<th>Program</th>
<th>Capacity</th>
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<td><strong>Agriculture</strong></td>
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<td>Atsugi</td>
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<td><strong>Animal Science</strong></td>
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<td><strong>Applied Bioscience</strong></td>
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<td><strong>Nutritional Science and Food Safety</strong></td>
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<td><strong>Bioindustry</strong></td>
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<td>Hokkaido Okhotsk</td>
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<tr>
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<td><strong>Bioindustry</strong></td>
<td>Doctoral</td>
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*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