Building Vibrant Collaboration

Tamotsu Tabata (DAg)

Dean, School of Agriculture

Profile
Born in 1945 in Sakhalin and graduated from the Faculty of Agriculture, Hokkaido University in 1967. Obtained his doctoral degree in agriculture from the Graduate School of Agriculture, Hokkaido University in 1972, and then joined the National Research Institute of Agricultural Economics of the Ministry of Agriculture, Forestry and Fisheries. Assumed position as the director of Agricultural Structure Division in 1995. Appointed as the Dean of School of Agriculture, Meiji University in 1998. He wrote several books including “Agricultural Communities in Hokkaido,” “Settlement Conditions in the Intermediate & Mountainous Areas and Regional Policies” (written and edited), “History of Agricultural Communities” (jointly written and edited).

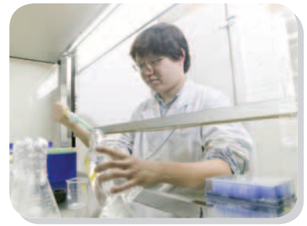
In the last century, science and technology created tremendous growth in productivity, but it also had a variety of negative aspects, including destruction of nature and environmental pollution. A prime example is global warming, which has become an unavoidable challenge that humankind must address. We now must fundamentally rethink the relationship between humankind and nature, and search for ways to coexist in harmony with nature, including changes to our own lifestyles. I believe that these efforts tie into a commitment to the sustainable society demanded of us today.

One of our major challenges for this century will be ensuring our food supply amidst global population growth. Today, the field of agricultural science is working to overcome these challenges. The objectives of agricultural science include sustainable food production (something essential for the existence of the human race), as well as environmental conservation and creation. The 21st century has been called the age of biology. The biological sciences, including agricultural and life sciences, are expanding their frontiers as they continue to grow at a remarkable pace.

Established in 1946, the Meiji University School of Agriculture today has four departments: Agriculture, Agri-food and Environmental Policy, Agricultural Chemistry, and Life Sciences. We advance education and research based on three key concepts for the 21st century: food, environment, and life. We are committed to resolving our environmental and food challenges, through collaboration between the natural sciences, social sciences, and humanities.

School of Agriculture Website

http://www.meiji.ac.jp/agri/



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What is the School of Agriculture Like?

History and Organization of the School of Agriculture

The Meiji University School of Agriculture was established in 1946, as an expansion of the Meiji Agricultural Vocational School. Over the years, the School has reorganized and grown in response to changes in society and the times. In 1949, Japan created a new university system, and as part of this reorganization, two departments were established in the School of Agriculture: the Department of Agriculture and the Department of Agricultural Economics. In 1953, the Department of Agricultural Production was added (renamed the Department of Agricultural Chemistry in 1968). Then in 2000, the Department of Life Sciences was created, resulting in the current organization of four departments. In 2008, the Department of Agricultural Economics was renamed the Department of Agri-food and Environmental Policy. Our undergraduate educational programs fuse science and the humanities, through collaboration between educators from the fields of science, math, and engineering, the social sciences, and the humanities.

The School of Agriculture provides a comprehensive education, with the goal of instilling in our students the fundamental skills, and the ability to apply and develop them, necessary to help solve general problems in the life sciences, and global food and environmental issues. These skills will help to achieve harmony between humankind and nature based on the key concepts of food, the environment, and life. Our curriculum organically integrates each of our Departments while maintaining the independence of each, enabling our students to learn about a wide range of topics in addition to their specialist field. The School's facilities include an experimental farm on our Ikuta Campus, as well as the Honda Farm in Chiba City, and a new farm under construction in the Kurokawa area of Kawasaki City. These fully equipped facilities enable us to offer great opportunities for experimental research and practical training.

School of Agriculture
Meiji University

- Department of Agriculture
- Department of Agri-food and Environmental Policy
- Department of Agricultural Chemistry
- Department of Life Sciences

History and Organization of the Graduate School of Agriculture

The Graduate School of Agriculture was established in 1959 on the Ikuta Campus, together with the Major in Agricultural Production. In 1978, the program was reorganized; the Major in Agricultural Production was renamed the Agricultural Chemistry Major, and two new majors were also established: the Agriculture Major and Agricultural Economics Major. Then in 2003, we created the Life Sciences Major, arriving at our current system of four majors. Each major also has a Masters Degree Program and Doctorate Degree Program, and further research is being conducted in each field.

Please see the Meiji University Graduate School Guide Book for more information.

Meiji University Graduate School of Agriculture
Masters Degree Program
Doctorate Degree Program

- **Agricultural Chemistry Major** — Masters Degree Program, Doctorate Degree Program
- **Agriculture Major** — Masters Degree Program, Doctorate Degree Program
- **Agricultural Economics Major** — Masters Degree Program, Doctorate Degree Program
- **Life Sciences Major** — Masters Degree Program, Doctorate Degree Program

Map of Ikuta Campus

1 Central School Building

The Central School Building houses many of the School of Agriculture's offices and other facilities, including administrative offices, a health clinic, student counseling office, classrooms, computer labs, and the Media Hall.

2 Library

Our library has a collection of 400,000 items, mainly in the natural sciences. The library is open until 10:00 pm on weekdays, and is also open on weekends and holidays. The library is an essential part of study and research each day, and helps to enrich campus life.

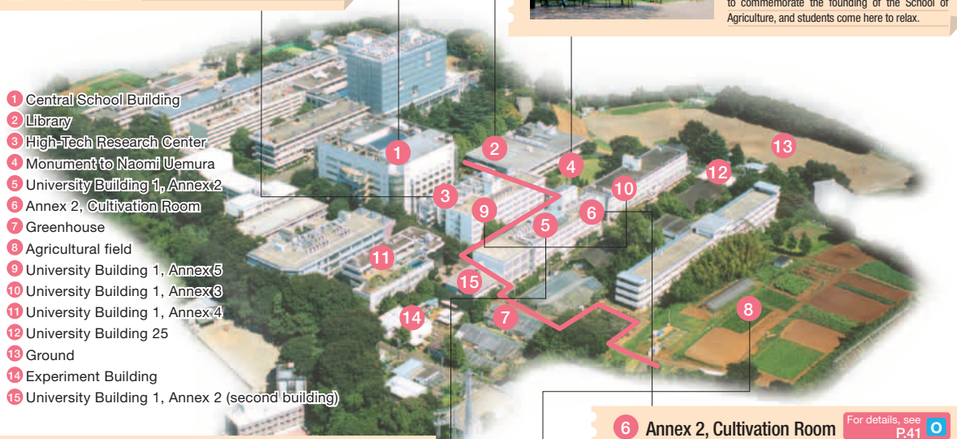
3 High-Tech Research Center

For details, see P. 40–41 A C E G J

This facility is available jointly to the School of Science and Technology and School of Agriculture. The center has research equipment ranging in value from tens of millions of yen to some that are valued at over 100 million yen.

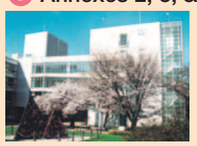
4 Monument to Naomi Uemura

This is a monument to Naomi Uemura, a world explorer who graduated from the School of Agriculture in 1964. On February 12, 1984, Uemura became the first person in the world to successfully make a solo winter ascent of Mt. McKinley, but unfortunately he died in the attempt. This towering figure is located in the center of a garden created to commemorate the founding of the School of Agriculture, and students come here to relax.



1 Central School Building
2 Library
3 High-Tech Research Center
4 Monument to Naomi Uemura
5 University Building 1, Annex2
6 Annex 2, Cultivation Room
7 Greenhouse
8 Agricultural field
9 University Building 1, Annex5
10 University Building 1, Annex3
11 University Building 1, Annex4
12 University Building 25
13 Ground
14 Experiment Building
15 University Building 1, Annex 2 (second building)

5 Annexes 2, 3, & 5



For details, see P. 40–41 B D F H I K

These buildings contain classrooms, seminar rooms, student labs, and staff labs. The third and fourth floors are connected by walkways.

6 Annex 2, Cultivation Room

For details, see P.41 O

At our closed greenhouse for transgenic plant studies, we cultivate and research genetically modified plants. International law (the Cartagena Protocol) requires transgenic plants to be cultivated in an environment that is completely sealed from the outside world, in order to prevent pollen or soil from getting outside the facility, and we therefore perform our research here under extremely strict controls.

7 Greenhouse

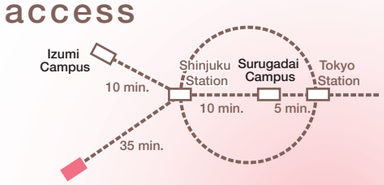
For details, see P.41 Q

This greenhouse is mainly used for experimental purposes, such as creating improved plant varieties. The labs using this greenhouse include a lab that cultivates flowers, melons, and fruit trees, and one that cultivates subtropical crops as a response to global warming.

8 Agricultural Field

This field is mainly used for practical training in bio-production, but it has a wide range of other uses as well, including research into soil analysis and crop cultivation.

access



Ikuta Campus

- 10 minutes' walk from Ikuta Station on Odakyu Line
  * From Shinjuku, take the Kyuko (Express) for about 20 minutes, then transfer to a local train at Mukogaoka-Yuen Station and get off at the next stop, Ikuta Station
  * Alternatively, get off at Mukogaoka-Yuen Station, leave via the North exit, and take the bus for Meidai Seimon for about 15 minutes, getting off at the last stop.

* The sites numbered ① to ⑧ are our recommended tour route for visitors (the route will take about 30 minutes).
If you are interested in a tour of the campus, please come ahead of time to the Ikuta Campus Office on the first floor of the Central School Building (public office hours: 8:30 am to 4:30 pm Mon. through Fri.; 8:30 am to 12:00 pm Sat.).

Life and Study during Four Years in the School of Agriculture

1 → 2 → 3 → 4

1st Year

Think about your overall goals for learning over the four years of the program. Although required courses, which focus on general subjects, foreign languages, and health and physical education, will take precedence in the first year, the differences between departments, and the specialized field that you wish to study, will gradually become clear, so you should consider these things as well.

What Students Learn in Their First Year

They say that programs in the Department of Agriculture have fewer required courses than other departments. This means that you have more freedom to choose a schedule of classes that interest you, and that match your personal goals. As a first-year student basic subjects make up the bulk of your classes, but as you progress in the program, your classes will have more specialized content. The things that you can learn as a first-year student include subjects unique to the Department of Agriculture, like soil science and animal production (the study of animal husbandry), as well as subjects from other fields, like Japanese expression, history, and basic education theory. We can also take classes from the teacher training course. If you're still not sure what you want to do in the future, you can spend your first year trying lots of different subjects, and thinking about what interests you.

Satoshi Ono
2nd-year undergraduate, Department of Agriculture

2nd Year

The Life of a Second-year Student

This is the year when you begin to understand the university system. You will have made lots of friends by now, and your days are fun and full. Some people start getting involved in clubs and school activities, while others focus on their studies. At the same time, you begin to have more time to re-examine yourself, and think about what you want to do in the future. This year, you'll start taking concrete actions or creating plans with an awareness of the future, even if it's something small.

In terms of studying, this year you'll do a "farm stay," where you stay in a farming household and experience farm work first-hand, and you'll begin to take "pre-seminars" in preparation for the seminars that start in the third year.

No matter what you focus on in your second year, make it a year that you can be proud of, and look back on with no regrets.

Ayumi Toyota
3rd-year undergraduate,
Department of Agricultural Economics

This year's coursework focuses on general subjects, while gradually adding basic subjects and subjects from your major. As you go beyond the bounds of the department, and gain broader knowledge, you will come to realize how agriculture depends on a foundation built by nature, society, and humanity, as well as the results built upon this foundation.

3rd Year

This year's course of study emphasizes subjects from your major. Each student creates a course plan that focuses on his or her department, and courses (lecture subjects by the thesis advisor) most closely related to the student's specialized field of research (seminar topics). Because subjects related to your graduation thesis are also added, this is a critical and full year.

University Life and Moving Beyond the Basics

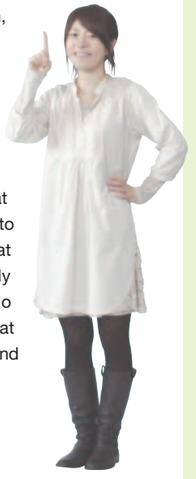
If you divide your four years at university into two phases, then the third year is the beginning of the second half. If the first and second years are the foundation years, then when you become a third-year student, you need to start becoming more independent. In the third year, you have fewer classes, and you can make more time for yourself. For this reason, making good use of your time is the most important point for having a full student life in your third year. Students who are already devoted to clubs or school activities can continue giving these their all, and students who haven't yet found something to get passionate about can pour their energy into seminar activities or non-school activities. Acting on your own volition, without being influenced by those around you, is true independence, and from this you gain your own unique and strong identity. Live a full student life in your third year, with the attitude of improving and tackling new challenges in everything you do.

Sayuru Iwasawa
4th-year undergraduate,
Department of
Agricultural Chemistry

4th Year

Four Years Will Be a Lifelong Memory

When you become a university student you get more free time, but in your fourth year you have even fewer classes and need to use your free time wisely. I joined the Laboratory of Environmentally Responsive Botany, and devoted my time to plant experiments. I summarized the things that I learned over my four years at university into a graduation thesis, with the advice of my professors. During this time I also prepared for my job search, got a part time job, and travelled, so I think that I lived my fourth year to the fullest.



Having completed my university career, I feel that whether you have a full life at university is completely up to you. Find lots of things that interest you, and continually challenge yourself. If you do this, then your four years at university will be a valuable and unforgettable experience.

Saki Ito
2009 graduate, Department of Life Sciences

If you work hard during your first three years, you can complete nearly all the classes required for graduation by the time you reach fourth year, and you can then focus on research for your graduation thesis. You can also supplement courses you could not take until the previous year, in order to expand your horizons. This is the year when you put the final finish on your education. Live your life as a student so you can look back on it with no regrets, as you prepare for a job search or graduate school.

Career Paths After Graduation

Employ-ment

Civil Servant

Emiko Kasuya
2006 graduate, Department of Agriculture
Agriculture Major,
Graduate School of Agriculture
Completed Masters Degree Program in 2008

Streetscape Maintenance Division
Ota North District Administrative Center
Ota Ward Office

My Job Is to Take Care of Parks

I currently work in park maintenance. I feel like it must be fate, because I work in Ota Ward, which is just across the Tama River from Kawasaki Ward, where the Meiji University Ikuta Campus is located.

I never thought that I would have a job designing and maintaining parks (such as pruning park trees), instead of using the knowledge that I learned in my seminars directly. Since I found employment in a specialized job (landscaping), the departments that I can be assigned to are somewhat limited, but my work itself is actually quite varied. It's really fun to be involved with new things, and I find every day fulfilling. When you're in university, you have a lot of free time. Use it to interact with lots of people, and take on new challenges.

I'm positive that when you join the workforce, those experiences will serve you greatly.

My career path

High School	I got interested in environmental issues, and applied to the School of Agriculture to try to approach them from the field of biology.
Entering University	I took courses in my major and a teacher training course. After classes I was involved with the Big Band Club.
Seminars	I joined the Laboratory of Applied Plant Ecology. I researched nature, and learned about having fun in nature as well.
Job Search	My goal was to become a civil servant working in local government, in a job working with people.
Now	I work in park maintenance. I learn every day in order to make better parks.

Employ-ment

Food Company

Ryunosuke Horita
2003 graduate, Department of Agricultural Chemistry
Agricultural Chemistry Major,
Graduate School of Agriculture
Completed Masters Degree Program in 2005

Business Division, Europe Office
Kaneka Foods Co Ltd.

Aiming for the Global Stage

I went to work for a manufacturer of intermediate food ingredients. My job is to add value to food ingredients using sophisticated processing technologies. I do valuable work that helps bring delicious food to people's tables, indirectly by way of confectionary and bread manufacturers.

For the first two and a half years after coming to work here, I worked in research developing new technologies, but I am currently stationed in Belgium, where I am responsible for doing purchasing, development, and marketing on my own. Of course, eating is also part of my job, and I travel all around Europe searching for delicious foods. My goal is to communicate Japan's wonderful food culture internationally. I think that the approaches and procedures that I learned in my seminars have made my current career possible. My six years at Meiji University were a valuable experience that changed my life.

My career path

High School	I fell in love with the subtlety and depth of chemistry, and decided to study in a technical field.
Entering University	I studied subjects relating to food, and became interested in food. I was lucky to make a lot of friends in the Food Engineering club.
Seminars	I joined the Laboratory of Food Engineering, and studied food processing and physical properties.
Job Search	I searched for a job as a researcher at a food manufacturer, with the goal of bringing delicious food to people's tables.
Now	My job is to send information about delicious food in Europe to Japan.

Employ-ment

IT Firm

Rei Kurokawa
2004 graduate, Department of Life Sciences

System Development Division No.2
Hitachi High-Tech Solutions Corporation

The Challenge of the Unknown!

I work at an IT firm that builds systems for high-tech industries. It might seem surprising that a graduate of the School of Agriculture is working in IT, but IT has permeated every industry, and there is demand for people from a wide range of fields. I chose the IT industry because it would allow me to be involved both with the life sciences and the wider world. After coming to work here, my knowledge of the life sciences were useful to me, but there was something else that was even more useful: the research process. Research is tackling the challenge of the unknown. Nobody knows the answers, or how to find them. You approach the answer as you iteratively plan, execute, and solve problems. This is exactly the same as system development. The processes that I learned in research are the foundation of my work now. Meiji University has created an environment for tackling the challenge of the unknown. The professors and members of the research labs also offer strong support. I'm eternally grateful to them for the help they gave me.

My career path

High School	In my biology class, I was astounded to learn that DNA carries information using just four bases.
Entering University	I became fascinated with DNA, and applied to the Department of Life Sciences. I participated in a language study program in England, and also became fascinated by how big the world is.
Seminars	I joined the Laboratory of Genetic Information Controls in order to learn about the relationship between DNA and proteins. My days and nights were filled by research and drinking.
Job Search	I decided that I wanted to enter the IT industry, because I thought that while the life sciences are interesting, I also wanted to see the wider world.
Now	I'm now exploring the world of the unknown while using the processes I learned in research!

Farm Work

Farm Management

Issei Ochi
2006 graduate, Department of Agricultural Economics

Keiko Ochi
2005 graduate, Department of Agricultural Economics

Ochi Farm
Kunneppu-cho, Tokoro-gun, Hokkaido

Making Dairy Farming Fun!

I currently run a dairy farm in a small town called Kunneppu, in Tokoro-gun, Hokkaido. We raise dairy cattle and grow wheat. I started farming three years ago, but in my work each day I still recall when I took over the farm from my parents, while learning about farm work, dairy-cattle raising and breeding management, and other subjects under the tutelage of my father. I met my wife in one of my seminars. She was born in and raised in Yokohama, and never had the opportunity to be involved in farming until entering university. But she learned about the current state of farming through the farm practice and her "farm stay" in Taiwan, and became more interested in farming. She was always good with computers, and she's currently improving her computer skills in order to support the business by handling our finances. The university gave a lot of opportunities for us to broaden our horizons, including reviews with other schools and departments, practical training, and overseas internships.

I'm still in touch with the friends I met in clubs and seminars as well. They came all the way to Hokkaido for my wedding. The knowledge and friends that I gained at university are a huge part of my life, and they're still a huge asset now that I've graduated and started my career. My four years at university were one of the most fulfilling and happy times of my life.

My career path

High School	Issei: I was on the rugby team. It made me mentally tough, teaching me perseverance and willpower. Keiko: A short home stay in America made me want to learn more about the unknown world.
Entering University	Issei: I joined the Dairy Chemistry Research club, and did practical training on a ranch in Gunma prefecture. I gained a lot of connections from this. Keiko: I got to experience digging wells in Sri Lanka with people from an NGO.
Seminars	Issei: I did practical training on a lot of farms. I met my wife in a seminar. Keiko: Through my practical training, I learned the importance of Japanese farming, and that it is in a state of crisis.
Job Search	Issei: I didn't do a job search, and went to work on the family farm instead. Keiko: I was interested in chemistry, and concentrated my job search on companies in the chemical industry.
Now	We married after dating for four years. We are running a dairy farm.

Department of Agriculture

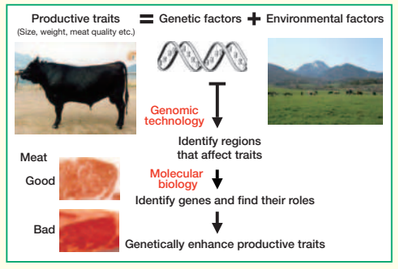
http://www.meiji.ac.jp/agri/department/agriculture/cr_no2004.html Web

Food Production and Environmental Conservation

The mission of the Department of Agriculture is to make significant contributions to the fields of food and the environment, in order to achieve an advanced civilization while maintaining harmony with nature. Our department has created a systematic and broad curriculum and research program. The goals are to teach students the ability to observe with a panoramic and long-term perspective by building a solid sense of ethics and world-views on a foundation of knowledge backed by general education, and to find and resolve problems in agricultural science in general. Our ultimate goal is to foster the latest agricultural science and technologies in students that will enable them to contribute to local communities and international societies in the future. These include areas such as stable food production, based on the development of new agricultural resources and the sustainable use of water and soil resources, as well as environmental conservation in rural communities and cities, and also the preservation and creation of a green environment.

Department of Agriculture **Topics**

Contributing to the Field of Animal Production through Animal Genomic Technology (Laboratory of Animal Genetics)



An animal's productive traits, such as weight, milk volume, meat quality, reproductive ability, and disease resistance, are vital for animal production. Two kinds of factors influence productive traits: genetic factors and environmental factors. Genetic factors are information that is passed on from parent to child via DNA. Most genetic factors in productive traits are controlled by multiple genes. Recent progress in animal genomic technology has been remarkable, and it is now possible to utilize this information to identify the genes that influence productive traits, and investigate the mechanisms by which these genes act using a molecular biological approach. I have been researching the genes involved in the production of the marbled beef that is prized in wagyu (Japanese beef), and analyzing the functioning of these genes. The objective of our laboratory's research is to contribute to the field of animal production, with a focus on the genetic factors in key animal productive traits. Join us in thinking about the genetic mechanisms of animals, with a sense of gratitude for the great bounty that they give us. (Yasushi Mizoguchi, Full-time Lecturer)

Syllabus Model for Department of Agriculture

1st Year

Basic Subjects

First Semester	Second Semester	First Semester	Second Semester	First Semester	Second Semester
(Basic Science Subjects)		(Basic Agriculture Subjects)		(Introductory Subjects)	
Principles of Mathematics (2) Introduction to Geoscience (2) Experiments in Geology (1) Fundamentals of Information Science I (2)	Principles of Chemistry (2) Experiments in Chemistry (1) Principles of Physics (2) Fundamentals of Information Science II (2)	Basic Biological Statistics (2) Principles of Genetics (2) Animal Physiology & Anatomy (2)	Applied Biological Statistics (2) Basic Molecular Biology (2) Drafting (2) Basic Biochemistry (2) Introduction to Soil Science (2) Agri Science (2)	Principles of Plant Cultivation Science (2) Introduction to Landscape Architecture (2) Principles of Ecoenvironment (2) Farming Practice I (1)	Basic Animal Science & Industry (2)

Major Subjects: Professional Practice and Cooperative Education (1)

2nd Year

First Semester	Second Semester	First Semester	Second Semester	First Semester	Second Semester
Experiments in Physics (1)		Plant Physiological Ecology (2) Plant Taxonomy and Morphology (2) Animal Genetics (2)	Plant Genetic Resources (2) Basic Genetic Engineering (2)		

Major Subjects (Common Core Subjects)

First Semester			Second Semester		
Principles of Plant Breeding (2) Water Resources Engineering (2) Experiments in Agricultural Science III (1)	Practice in Agricultural Production (1) General Plant Pathology (2)	Experiments in Agricultural Science I (1) Experiments in Agricultural Science V (1)	General Crop Science (2) Advanced Animal Science & Industry (2) Plant Material and Landscape Planting (2)	Experiments in Agricultural Science II (1) Experiments in Agricultural Science IV (1) General Horticulture (2)	General Applied Entomology (2) Crop Meteorology (2) Experiments in Agricultural Science VI (1)

Major Subjects (Subjects by Area)

Food Production Related / Environment Related

First Semester	Second Semester	First Semester	Second Semester	First Semester	Second Semester
Plant Resources (2) Animal Reproduction (2) Tropical Agriculture (2) Plant Growth Regurators (2)	Principles of Agricultural Production System (2) Studies in Animal Behavior (2) Laboratory Animal Science (2) Plant Prophlaxis (2)	Applied Mechanics (2) Principles of Surveying I (2) Field Practice and Surveying I (1)	Hydraulics (2) Structural Mechanics (2) Soil Mechanics (2) Principles of Surveying II (2) Field Practice and Surveying II (1)	Animal Conservation Ecology (2) Green Conservation and Environmental Planning (2) Landscape Planning (2)	Natural Park Planning (2)

3rd Year

Major Subjects (Subjects by Area)

Food Production Related / Environment Related

First Semester	Second Semester	First Semester	Second Semester	First Semester	Second Semester	First Semester	Second Semester
Animal Breeding (2) Animal Production Management (2) Applied Animal Nutrition (2)	Utilization of Animal Resources & Products (2) Animal Environment Science (2) Infectious Diseases of Animals (2)	Food Crop Science (2) Pomology (2) Plant Propagation (2) Protected Cultivation (2) Fertilizer Science (2) Plant Pathology (2) Applied Entomology (2) Plant Nematology (2)	Industrial Crop Science (2) Olerocultural Science (2) Floricultural Science (2) Plant Cell Breeding (2) Agricultural Production System (2) Plant Virology (2) Disease Management for Plant Protection (2) Insect Management for Plant Protection (2) Nematode Management for Plant Protection (2) Applied Zoology (2)	Micrometeorology (2) Applied Hydraulics (2) Land Resource Science (2) Materials and Construction (2)	Regional Environmental Planning (2)	Plant Conservation Ecology (2) Environmental Greening (2) Landscape Engineering (2) Amenity Green Science (2) Landscape Design (2)	Restoration Ecology (2) Weed Science (2) Landscape Horticulture (2) Green Management (2) Landscape and Open Space (2)

Basic Subjects

First Semester		Second Semester	
Ethics for Engineers (2) Theory of Information Processing I (2)	Agriculture by English I (2)	Agriculture by English II (2) Theory of Information Processing III (2)	Theory of Information Processing II (2)

3rd & 4th Years

Graduation Related Subjects

Linked Subjects for 3rd and 4th Years (Food Production, Environment Course: Compulsory) (General Agriculture Course: Option)
Literature Search Work & Specific Research (Graduation Thesis) (8)

The above syllabus is subject to change.

1st Year — From a Broad Field with a Broad Perspective

Yumi Takai
2nd year, Department of Agriculture

In the Department of Agriculture, you can learn about animals, plants, and landscaping as specific subjects. As a university student, you can choose any field that interests you, but you have to think carefully because this will define your future career path. Though, if you're like me and still haven't figured out what you want to do, I suggest you decide after taking some classes. Also, the farm practice in the summer of your first year gives you a deeper understanding of agriculture, because you get to work with actual crops. I think that it's important to take classes with consideration for your career path.

Example of Class Schedule 1st Year
Upper: First Semester/Lower: Second Semester/Middle: Full Year

	Mon	Tue	Wed	Thu	Fri	Sat
1	German II a German II b	Introduction to Animal Production	Introduction to Agronomy	Basic Biostatistics Applied Biostatistics		
2	Basic Animal Physiology Introduction to Soil Science	English I a English I b	Sports Practice I	Introduction to Landscape Architecture	German I a German I b	
3		Experimental Study of Geography	The Japanese Constitution Experimental Study of Chemistry	Basic Biochemistry	Science English Science English	
4		Experimental Study of Geography Kinesiology	Experimental Study of Chemistry		Fundamentals of Information Science I Fundamentals of Information Science II	
5	Introduction to Agricultural Economics	Japanese Expression A Japanese Expression B				

The above class schedule is subject to change.

2nd Year — Leading a Fulfilling Student Life

Shinsuke Aoki
3rd year, Department of Agriculture

The Department of Agriculture has courses covering a wide range of fields, including animals, plants and landscape environment. You can also choose experiments coordinated with your lecture topics. I came to Meiji University with the desire to study global-scale environmental issues, which are gaining a lot of interest now. Today, with my university career halfway finished, I really feel like your time in university is over before you know it. I hope that you will all choose each of your courses with an eye to your vision for your future, and that will allow you to look back at university without regrets.

Example of Class Schedule 2nd Year
Upper: First Semester/Lower: Second Semester/Middle: Full Year

	Mon	Tue	Wed	Thu	Fri	Sat
1	Resource Botany	Introduction to Applied Entomology	Introduction to Hydraulics	Plant Taxonomy and Morphology Plant Science for Environment and Landscape Architecture	English II a English II b	
2	Natural Park System	Applied Hydraulics	Surveying I Surveying II	Tropical Agriculture Landscape Planning and Design	General Plant Pathology Soil Mechanics	Environmental Science and Landscape Architecture Introduction to Chemistry
3	Agriculture Experiment I		Agriculture Experiment III	Plant Physiological Ecology Introduction to Production System	Agriculture Experiment V	Surveying Practice I
4	Agriculture Experiment IV		Agriculture Experiment II		Agriculture Experiment VI	Surveying Practice II
5				Basic Education Theory	Climate Resources Introduction to Crop Science	

The above class schedule is subject to change.

3rd Year — Features of the Department of Agriculture Curriculum

Yuta Yagome
4th year, Department of Agriculture

In the Department of Agriculture, you can study a wide range of subjects that are needed in the world today, from fields relating to food (such as crops and animals), to fields relating to nature (such as landscaping and conservation of ecosystems). Starting in the third year, each student begins to research a wide range of topics independently as part of the lab activities. I joined the Laboratory of Landscape Architecture Surrounding Amenity, where I research the design of comfortable green spaces. Lab activities are an important part of university life, so I recommend that you join a lab as well.

Example of Class Schedule 3rd Year
Upper: First Semester/Lower: Second Semester/Middle: Full Year

	Mon	Tue	Wed	Thu	Fri	Sat
1	Materials Engineering	Landscape Planning and Horticulture	Landscape Engineering Regional Environment Planning	Study on Environmental Afforestation Landscape Management	Plant Nutrition and Fertilizers Ornamental Plant Science	
2	Landscape Architecture Surrounding Amenity Green Space Architecture		Surveying I Surveying II	Tropical Agriculture Micrometeorology	General Plant Pathology	Aesthetic Landscape Architecture
3	Plant Conservation Ecology Restoration Ecology				Sociology	
4	Seminar	Engineering Ethics		Weed Science		
5						

The above class schedule is subject to change.

4th Year — Graduation Research

Yoko Okamoto
2009 graduate, Department of Agriculture

When you hear the word "university," what image does it conjure for you? From advanced course studies, to club activities, to living on your own, during these four years your range of knowledge and activity will expand astoundingly. These four years at university then culminate with your graduation research project. This project will become the center of your life in your fourth year. Writing a graduation thesis not only gives a concrete form to your efforts; you also gain a great deal in the process of writing it. I highly recommend writing a graduation thesis as a compilation of your life at university.

Example of Class Schedule 4th Year
Upper: First Semester/Lower: Second Semester/Middle: Full Year

	Mon	Tue	Wed	Thu	Fri	Sat
1						
2						
3	Literature Search Graduation Research	Literature Search Graduation Research	Literature Search Graduation Research	Literature Search Graduation Research	Literature Search Graduation Research	Literature Search Graduation Research
4						
5						

The above class schedule is subject to change.

Course Report 1 — Agri Science Theory

Harmony with the Ecosystem

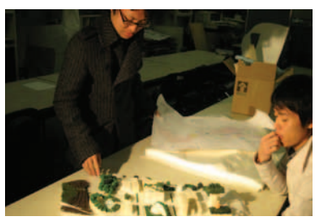
If you are studying agricultural science for the first time, I recommend that you start with Agri Science Theory. The course covers methods of cultivating agricultural products, fertilizer constituents, soil properties, and farm sites. The course focuses on the basics, so it is very easy to understand. I don't think you will find a more useful course than this, because it will give you knowledge that you can also use at home. Why don't you take Agri Science Theory, and go for a Doctorate of Agriculture with me? (Tomohiro Goto, current student)

From Supervisor Moving forward, we need to achieve harmony with the ecosystem, and establish sustainable agricultural technologies that do not impact the global environment. This course presents a wide range of case studies on the contact between the environment and agriculture, and I would be very pleased if it can show you future possibilities in agriculture. (Professor Masahiko Tamaki)

Course Report 2 — Landscape Architecture Surrounding Amenity

What Is a Comfortable Living Environment?

Have you ever thought about the green spaces in the neighborhood where you live? Have you ever thought that you would like to design these spaces yourself? But in order to design these spaces, just thinking about the landscaping is not enough. You must think about many other elements as well, including the surrounding homes, roads, and topography. The study of landscape architecture surrounding amenity considers each of these elements in turn, providing students with the knowledge necessary to plan comfortable and beautiful living spaces. (Koshi Kamata, current student)

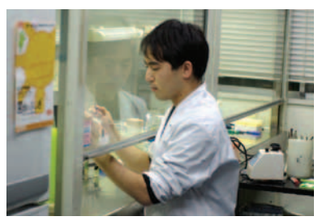


From Supervisor This course uses a variety of case studies to study how the spaces around us should be, from the familiar green spaces around us, to community planning spanning the gamut from cities to rural villages. I believe that it is vital to step outside the classroom actively, and experience a wide range of spaces first-hand. (Associate Professor Hirotsugu Kanno)

Lab Report 1 — Laboratory of Plant Pathology

Learn and Fight Plant Diseases

The Laboratory of Plant Pathology conducts its research under three themes, aiming to protect plants from disease: i.e., to clarify the mechanism of how plant pathogens cause diseases; to search for antimicrobial substances and genes that can effectively prevent disease; and to create plants with high levels of resistance to diseases by introducing these effective genes. Each student at our lab writes a graduation thesis based on his or her research topic. Although this is not easy, we are confident that this experience is irreplaceable. (Kazuyuki Maeda, Masters Degree student)



From Supervisor Our lab develops new methods to prevent plant diseases, in order to ensure stable food production. Our research uses leading-edge technologies, including the elucidation of the pathogenic mechanisms of pathogenic bacteria, development of biological control materials, and the molecular breeding of plants. (Professor Katsuyoshi Yoneyama)

Lab Report 2 — Laboratory of Applied Plant Ecology

Researching Plant Diversity

More than 15,000 varieties of plants are currently endangered worldwide, and over 4,000 in Japan. Our lab researches endangered organisms and their environments, with a focus on rivers, community-tended forests, and islands. The field of conservation ecology studies ways to preserve biodiversity. At our lab, you will be able to study conservation ecology with like-minded people interested in nature and living things, and create a vision for nature 20, 50, or 100 years down the road, as well as a vision for society today. (Keisuke Nagao, Masters Degree student)

From Supervisor This has been called the era of biodiversity, but we still do not fully understand how to ensure biodiversity. Our lab researches the conservation of biodiversity, with consideration for the relationship between humans and nature, and with a focus on natural environments tended by people. (Professor Noboru Kuramoto)

Message from the Teaching Staff

Study and Research Uniting Agricultural and Environmental Science

At the Department of Agriculture, you can study a fusion of basic science and the latest technology, relating to growing grains, vegetables, flowers, and fruit trees; raising livestock; controlling pests and diseases; effectively utilizing soil and water resources; protecting the environments of rural and urban communities; creating landscapes; and more. You can then apply what you have learned to conducting independent research from a broad perspective. We have great expectations for our students. We are confident that their efforts in the field of agriculture will help us solve problems with forms of production that make massive use of limited resources, and problems with urban environments filled with artifacts, in order to create a sustainable society.

Laboratory of Plant Nematology
Professor Nobuo Ogura

Message from a Department Graduate

University Is a Place to Prepare for Joining Society

I was particularly interested in pests and diseases that threaten stable crop production, so I chose nematodes as the subject of my graduation thesis research. I received direct guidance from my professor and researchers at labs in relevant fields, and in this process I was able to learn the specialized knowledge and technologies that form my foundation. I currently work in product development at a company that manufactures and sells agricultural chemicals for the forest industry, animals, and household gardens. Being in an environment that enables me to use what I learned at university gives me a great sense of motivation.

Explaining Yashima's products at the exhibition (left)

Masatsugu Oko
2007 graduate, Department of Agriculture
Masters Degree Program in 2008 (incomplete) in Agriculture Major
Currently working for Yashima-Sangyo Co., Ltd.

FACTBOOK: Department of Agriculture

Number of Students

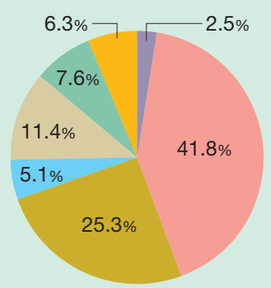
Year			
1st Year	111 (66.9%)	55 (33.1%)	166
2nd Year	111 (75.0%)	37 (25.0%)	148
3rd Year	94 (64.8%)	51 (35.2%)	145
4th Year	106 (68.8%)	48 (31.2%)	154
Total	422 (68.8%)	191 (31.2%)	613

Number of Students Studying at Laboratories

Number of Laboratories	Average No. of Students per Laboratory	Persistence Rate
19	14.3	91.0%

Career Options

2009 Graduate Employment



- Construction & Property
- Manufacturing
- Commercial, Wholesale, & Retail Businesses
- Banking
- Newspaper, Publishing, Broadcasting, Information & Communication
- Transport, Advertisement, & Service Businesses
- Education & Public Services

Major Employers

- Sumitomo Forestry Landscaping Co., Ltd.
- Itoham Foods Inc.
- Q.P. Corporation
- Tamanoi Vinegar Co., Ltd.
- The Nisshin OilliO Group, Ltd.
- Fuji Oil Co., Ltd.
- Fuji Baking Group Co., Ltd.
- Meiji Dairies Corporation
- Morinaga Milk Industry Co., Ltd.
- Yamazaki-Nabisco Co., Ltd.
- Yotsuba Co., Ltd.
- Asahi Kasei Pharma Corporation
- Noevir Co., Ltd.
- Hisamitsu Pharmaceutical Co., Inc.
- Sakata Seed Corporation
- Tokyo Seika Co., Ltd.
- Marubeni Egg Corporation
- Mitsui Foods Co., Ltd.
- Odakyu Landflora Co., Ltd.
- National Federation of Agricultural Cooperative Associations

Staff Members in Department of Agriculture

Laboratory of Crop Science

Basic Research Supporting Sustainable Agriculture
Professor Katsu Imai (DAg)

The environment is in a period of major change, but our research focuses on photosynthesis and matter production, in order to contribute to sound and rational crop (food) production.

Laboratory of Pomology

Establishing Methods to Create Reliable Supplies of a Variety of Fruits
Professor Naoto Iwasaki (DAg)

We are committed to analyzing the impact of changes to the global environment on fruit-tree productivity, and establishing sustainable new systems of production.

Laboratory of Plant Nematology

Controlling and Utilizing Nematodes
Professor Nobuo Ogura (DAg)

Our main areas of development are methods for controlling plant parasitic nematodes with low environmental impact, and utilizing insect parasitic nematodes to control insect pests.

Laboratory of Applied Plant Ecology

Saving Endangered Organisms
Professor Noboru Kuramoto (DAg)

The declines of the farming and forest industries are placing the species in Satoyama in danger of extinction. We are investigating ecology and traditional management methods in order to conserve these species.

Laboratory of Animal Production

The Fun of Thinking about Animals
Professor Yuzo Koketsu (PhD)

There is something mysterious about animals that fascinates people. Here, you will become proficient in the science of raising animals. We also do field experiments at large-scale farms.

Laboratory of Landscape Engineering

Restoring Urban Greenery
Professor Hajime Koshimizu (DAg)

We do not have to give up to have greenery in the city. We research and develop technologies, systems, and plans for multistory green zones in order to create comfortable, richly livable cities.

Laboratory of Environmental Animal Management

Commitment to Harmony between Humans, Animals, and the Environment
Professor Shigeki Kobayashi (DAg)

Livestock must be raised in harmony with the environment. Our lab searches for ways to reduce environmental impact, while taking into account the welfare of livestock and companion animals.

Laboratory of Land Resource Science

It's Not Research if You're Not Passionate about It!
Professor Kosuke Noborio (PhD)

Our goal is to educate students to make a contribution to maintaining the environment and food production by conducting research on water, carbon, nitrogen and energy cycle in the soil and the surface boundary layer.

Laboratory of Vegetable Science

The Odors of Fruits and Vegetables Have Interesting Functions
Professor Yasuyoshi Hayata (DAg)

Many plant odors are indicators of physiological activity. This is a research field in which even the practical aspects are fascinating. We focus on identifying odor constituents and analyzing their functioning.

Laboratory of Regional Environment Planning

Community Planning Based on Aesthetics
Professor Kazu Fujisawa

We are researching the creation of community spaces while protecting, developing, and respecting natural materials, based on a rediscovery of the beauty of agricultural spaces, municipal spaces, rivers, forests, and other spaces.

Laboratory of Plant Breeding

Researching Plant Life from Cell Death
Professor Wataru Marubashi (DAg)

Our goal is to develop technologies useful for plant breeding, by researching programmed cell death that plays a vital role in maintaining valuable plant life.

Laboratory of Plant Pathology

How to Protect Plants from Pathogen Attack
Professor Katsuyoshi Yoneyama (DAg)

By diagnosing plant diseases, we investigate what kinds of diseases plants have, what the causes of the diseases are, and how to protect plants from these diseases.

Laboratory of Production System

Researching Technologies and Information Useful in the Field
Professor Takashi Ikeda (DAg)

Our research links technology development and basic research, with the aim of resolving a wide range of issues that occur at production sites.

Laboratory of Environment Designing

Quest for Ideal Living Spaces
Associate professor Hirotsugu Kanno (DE)

After World War II, the economy was always given priority in the creation of urban and rural spaces in Japan. We are researching ways to bring about qualitative transformations to these spaces in the future.

Laboratory of Ornamental Plant Science

Bringing out the Attraction of Flowers
Associate Professor Takashi Handa (DAg)

We research the varieties of plants of unknown provenance and their origins, with consideration for the use of new genetic resources and traits (e.g. flower fragrance).

Laboratory of Applied Entomology

Pest Management that is Friendly to People and the Environment
Full-time Lecturer Kyo Itoyama (DAg)

Our goal is to develop efficient and effective pest-control technology that does not rely solely on agricultural chemicals, through the multifaceted analysis of the physiology and ecological traits of insect pests and insects that are their natural enemies.

Laboratory of Water Resources Engineering

Living in the Water Century
Full-time Lecturer Michihiko Kojima (DAg)

Our goals are to develop easy-to-manage, energy-efficient, adaptable-to-environment irrigation facilities, and to build up sustainable water utilization systems.

Laboratory of Animal Genetics

Contributions by Genomic Science to Animal Production
Full-time Lecturer Yasushi Mizoguchi (DAg)

Join us in researching the genetic mechanisms of animals, with a sense of gratitude for the great bounty that they give us.

Laboratory of Plant Pathology

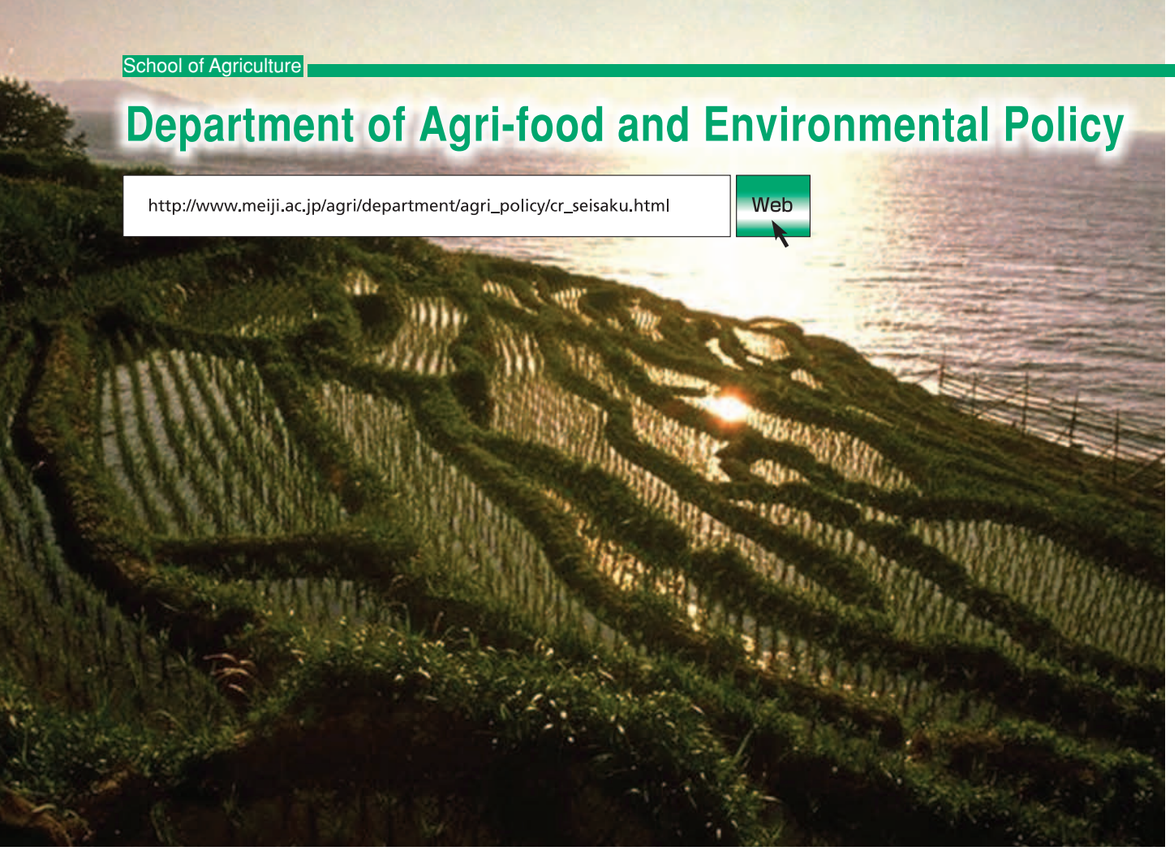
Creating Disease Resistant Plants
Special Lecturer Shuichi Osato (DAg)

We conduct basic research in order to create disease-resistant plants by analyzing plant diseases at the molecular level, and making use of leading-edge biotechnologic technique.

Laboratory of Agri Science (for all departments)

Let's Give Farming a Bright Future
Professor Masahiko Tamaki (DAg)

Our goal is to create new, environmentally friendly crop-production systems for the 21st century, which fuse agriculture with engineering technologies to create an environment where young people can follow their dreams.



Department of Agri-food and Environmental Policy

http://www.meiji.ac.jp/agri/department/agri_policy/cr_seisaku.html Web

Finding out the Mechanism between Life Creating Industries and Society, and Thinking about Ways for the People on Earth to Coexist

Progress in agricultural science has increased our food-production capabilities enormously. On a worldwide level, however, it is a fact that many people still suffer from hunger. Not only that: we are also facing a string of new problems relating to destruction of the environment and food security. Issues involving food and the environment are the most fundamental and critical issues for our survival in the 21st century. The Department of Agri-food and Environmental Policy researches these issues with a holistic social-science approach that includes political science, economics, accounting, sociology, and international development theory.

Department of Agri-food and Environmental Policy

Topics

Farm Stay Training

I was born in a city and lived in cities all my life, so my objective was to actually experience farm work first hand through farm stay training. Until then, I had only known about farm work from books and television. The farmers whom I stayed with taught me about how hard farm work is, as well as things that I take for granted in my ordinary life, but that I had forgotten about, such as relationship with people in the community, my role as a member of my family, and the importance of nature. (Yuri Yoshida, current student)

Basic Seminar

Along with the Pre-seminar for 2nd-year students, and the Field Study Practice and Library Work & Graduation Thesis Seminar for 3rd- and 4th-year students, the Basic Seminar is one of the trademarks of our department. It is taught by all members of the teaching staff, in small classes. A university is a place for teaching and research. At university, you will discover problems based on an awareness that you develop within yourself about the issues of modern society, and think about and publish solutions that are novel, interesting, and useful. The objective of this course is to provide students with a place for finding ways of intellectual and logical thinking, the fundamentals for studying at university.
(Full-time Lecturer Yasuhiro Honjo)

Syllabus Model for Department of Agri-food and Environmental Policy

[Build a Foundation]

		Lecture Subjects: Compulsory Subjects	Lecture Subjects: Optional Subjects	Optional Subjects	Seminar Subjects: Optional Subjects	Practice Subjects: Optional Subjects
1st Year	First Semester	[Basic Subjects] Study on "Food and Agriculture" (2) Microeconomics (2) Introduction to Agri-food and Environmental Policy I (2)	[Basic Subjects] Fundamentals of Information Science I (2)	Optional Subjects Introduction to Policy Science (2) Introduction to Accounting (2) Introduction to Statistics (2) Introduction to Sociology (2) [Major Subjects II] Introduction to Agriculture (2) Introduction to Environmental Studies (2)	[Basic Subjects] Basic Seminar (2)	[Major Subjects II] Farm Practice (1)
	Second Semester	Study on "Food and Agriculture" (2) Macroeconomics (2) Political Economics (2) Introduction to Agri-food and Environmental Policy II (2)	[Related Basic Subjects] Agri Science Theory (2) [Related Basic Subjects] Fundamentals of Information Science I (2)			
2nd Year	First Semester					Farm Stay Training (2)
	Second Semester				[Basic Subjects] Pre-Seminar (2)	
3rd Year	First Semester		Theory of Information Processing I (2)			
	Second Semester		Theory of Information Processing II (2) Theory of Information Processing III (2)			

[Further raise your interest]

		Food and Agriculture Related	Environment and Resources Related
2nd & 3rd Years		Optional Subjects	
	First Semester	[Major Subjects I] Food Trade Theory (2) Food System Theory (2) Food Agricultural Sociology (2) Agricultural Policy (2) Agricultural Management Theory (2) International Agricultural Economics (2) International Development Theory (2)	[Major Subjects I] Environmental Economics Theory (2) Resources Economics Theory (2) Environmental Resources Accounting Theory (2) Environmental Sociology (2) Regional Governance (2) Socio-Economic History (2) Convivial Society Theory (2)
	Second Semester	[Special Lecture Subjects] Lecture on Food Trade Theory (2) Lecture on Food System Theory (2) Lecture on Food Agricultural Sociology (2) Lecture on Agricultural Policy (2) Lecture on Agricultural Management Theory (2) Lecture on International Agricultural Economics (2) Lecture on International Development Theory (2)	[Special Lecture Subjects] Lecture on Environmental Economics Theory (2) Lecture on Resources Economics Theory (2) Lecture on Environmental Resources Accounting Theory (2) Lecture on Environmental Sociology (2) Lecture on Regional Governance (2) Lecture on Socio-Economic History (2) Lecture on Convivial Society Theory (2)

[Broaden your vision]

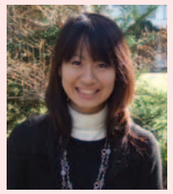
		[Major Subjects II]
2nd, 3rd, & 4th Years	First Semester	<Biennial Lectures> Food Culture Theory (2), Food Life Theory (2) Overseas Food and Environment A (2), Overseas Food and Environment B (2) Overseas Food and Environment C (2), Overseas Food and Environment D (2) Trade Policy (2), Comparative Study on Agriculture Policy (2) Japanese Agriculture Theory (2), History of Agricultural Technologies (2) Theory on Environmentally Conservative Agriculture (2), Forest and Fishery Policy (2) Application of Regional Resources (2), Spontaneous Development Theory (2) Japanese Society (2), Current Financial Situation (2)
	Second Semester	<Annual Lectures> Overseas Agriculture Activity (2) (* for 2nd-year students) Internship (1) (* for 2nd-, 3rd-, and 4th-year students)
3rd & 4th Years	First Semester	Study on Cooperative Association (2) Agriculture and Environment Laws (2) Agriculture Mass Communication (2) Food Safety and Risk (2) Comprehensive Course on Agri-food and Environmental Policy (2) Agriculture in English I (2)
	Second Semester	International Cooperation Theory (2) Landscape of Agricultural Areas (2) Lecture on Agriculture Mass Communication (2) Food Marketing (2) Agriculture in English II (2)

[Improve your ability to find and solve problems = communication skills]

3rd & 4th Years	Graduation Thesis Related Subjects	Linked Subjects for 3rd and 4th Years Field Study Practice (2), Library Work & Graduation Thesis Seminar (8)

* Some of major subjects may be held biyearly.

1st Year — Opening the Doors of Curiosity



Natsuki Oi
2nd year, Department of Agri-food and Environmental Policy

I chose this department because I am interested in environmental and other issues. What makes this department unique is that even people without knowledge of agriculture can study the subject in depth starting from the basics; you are very close to your professors; and you are constantly stimulated by the friends you study with. In the summer, I stayed on an actual farm in Nagano prefecture as part of my club activities, and got to experience farm work first hand. This gave me a real sense of what farm work is like. In the "Common Comprehensive Course II," professionals from the environmental and agricultural fields are invited to each class as guest lecturers. This was one of my favorite courses, because it made me think seriously about the environmental and agricultural issues flooding modern society.

Example of Class Schedule 1st Year
Upper: First Semester/Lower: Second Semester/Middle: Full Year

	Mon	Tue	Wed	Thu	Fri	Sat
1				Chinese II Chinese II		
2	Chinese I Chinese I	Fundamentals of Information Science I	Microeconomics Macroeconomics	Basic Seminar	Japanese Expression A	
3	Basic Biology Introduction to Agri-food and Environmental Policy II	English I English I	Introduction to Biological Production	Introduction to Policy Science	Sports Practice I Japanese Expression B	
4	Introduction to Agriculture Introduction to Environmental Studies	Health Science		Common Comprehensive Course II	Political Economics	
5	Study on "Food and Agriculture" Study on "Environment and Resources"					

The above class schedule is subject to change.

2nd Year — Learning with Mind and Body

Takayuki Nishibe
3rd year, Department of Agricultural Economics

Recently, humankind's excessive pursuit of wealth is causing wanton destruction in terms of food and the environment. We discuss these issues in our second-year Pre-seminar, in order to gain a broad understanding of them. Agriculture is also the starting point of industry. Whether agriculture and nature (things like forests and soil) are preserved or destroyed is up to the actions of humankind. The most important challenge in studying this field is learning to sense nature at a visceral level. I believe that this sense will also enable you to increase the depth of your environmental education. One of the unique things about our department is that it combines debate and first-hand experience—in other words, learning with both mind and body—in order to increase the level of our education.

Example of Class Schedule 2nd Year
Upper: First Semester/Lower: Second Semester/Middle: Full Year

	Mon	Tue	Wed	Thu	Fri	Sat
1				English II a English II b		
2	Agricultural Policy Regional Symbiotic System	Theory on Fiscal and Monetary System Economic Development Financing	Regional Resources Management Overseas Agriculture Conditions I	Agriculture Economics Practice		
3	Global Environmental Resources Theory on Resources Recycling Economy		Theory on International Development Economy History of Agricultural Technologies	Environmental Economics Theory Theory on Environmentally Conservative Agriculture	Agriculture and Food Policy Theory on Agricultural Cooperative Association	
4	Theory on International Regional Society		Agricultural Products Logistics	Common Comprehensive Course II	Regional Planning International Demand and Supply of Food	
5						

The above class schedule is subject to change.

3rd Year — Thinking about Japan's Place in the World

Miho Yoshino
4th year, Department of Agricultural Economics

I came to Meiji University without knowing what "agricultural economics" was. But in my first year, I found out what kind of field it was; in my second year, I came to understand it; and in my third year, I could gain a deeper understanding of it and developed my approach in the context of the relationship between the issue of Japan's food self-sufficiency ratio and worldwide population growth/food crises, as well as the issues of bio-ethanol and skyrocketing wheat prices. I learned how to enhance my ability to find new perspectives and develop my understandings on topics of my interest, not just thinking about agriculture and the environment.

Example of Class Schedule 3rd Year
Upper: First Semester/Lower: Second Semester/Middle: Full Year

	Mon	Tue	Wed	Thu	Fri	Sat
1						
2	Agriculture Mass Communication Regional Symbiotic System	Land Valuation Theory Sports Practice	Folkloristics			
3	Sports Practice	History of Ideas on Cooperative Association Pricing of Agricultural Products	Comparative Study on Rural Culture Trends in Literary Theory B	International Agri Business Theory Theory on Environmentally Conservative Agriculture		
4	Urban Agriculture Theory Comparative Sociology	Japanese Expression A	Study on Regional Culture A Voluntary Economics	Psychology A Comprehensive Course II		
5			Seminar			

The above class schedule is subject to change.

4th Year — Setting Your Future Path

Kiichiro Ogino
2009 graduate, Department of Agricultural Economics

In your fourth year, your class schedule is not so tight, instead you will have to spend more time searching for a job and thinking about your future. But the things that you learn in this department will give you a big boost in your job search, letting you do a search that you can be satisfied with. In the second half of the year, you will get to writing your graduation thesis. This is the culmination of your years of study. Your fourth year will pass more quickly than any other. Enjoying the remainder of your life at university might be the most important thing for a fourth-year student.

Example of Class Schedule 4th Year
Upper: First Semester/Lower: Second Semester/Middle: Full Year

	Mon	Tue	Wed	Thu	Fri	Sat
1						
2		Civil Code	Folkloristics		Sports Practice II	
3		Basic Physics			Sports Practice II	
4					International Demand and Supply of Food	
5			Seminar			

The above class schedule is subject to change.

Course Report 1 — Environmental Economics Theory

Perspectives Ranging from Familiar to Global

There are a wide range of environmental issues, from issues that hit close to home, such as garbage, to issues like global warming. The goal of Environmental Economics Theory is to elucidate and seek to understand these issues from the perspective of economics. In the lectures, we use microeconomics to understand how corporate activities and the actions of consumers create environmental issues, and the economic categories of environmental issues. We also discuss and consider what policies can be put into place in order to resolve these issues. I believe that this course has given me the ability to discuss environmental issues from a wide variety of perspectives, ranging from the familiar to the global. (Katsuya Ito, current student)

From Supervisor The goal of this course is to think about environmental issues from an economic perspective. Although basic knowledge of microeconomics is of course necessary, the most important thing is to understand that environmental issues are deeply rooted in people themselves. We think logically and rationally about how economic activities cause a wide range of environmental issues, and why actions to resolve these issues are not easy. (Professor Yukio Hiromasa)

Course Report 2 — Regional Planning

Thinking from the Community's Perspective

We hear the word "community" every day: community planning, community development, community brand, local community, etc. In recent years, the diversity of issues surrounding communities has rapidly increased, in some cases making life feel suffocating to modern people. There is a massive difference in the availability of jobs between the big cities and the towns and rural areas. We learned how in rural communities in particular, the flight of labor has become a serious problem. Urban functions are breaking down, while shopping districts in smaller towns are turning into shuttered boulevards. We see these kinds of situations every day but it is hard to really understand and deal with them. This course takes up these sorts of issues, and discusses them from a sociological perspective. Take this class and think about how you can live a stable and comfortable life, through discussions of community revitalization and community policy. (Ai Aoki, current student)

From Supervisor What is a society with large disparities like? What is a society with a shrinking population like? Is this situation due to Japan's post-war policies, such as Comprehensive National Development? Is it due to an approach that prioritizes cities over the country? Is it due to individuals or society? I have also grappled with these unanswerable questions. (Associate Professor Tomoko Ichida)

Lab Report 1 — Laboratory of Agricultural Policy

Interacting with People in the Field

This lab mainly studies agricultural policy trends in Japan, with a basis in comparison with other countries. One of the unique features of agriculture in Japan is that farms must be run in regions with unfavorable conditions, such as hilly or mountainous areas and isolated islands. The main activity of the third-year seminar is a visit to a remote island in Okinawa in November each year for practical training in rural-community surveys. This gives the students the chance to learn about the unique characteristics of remote islands, such as the differences in environment, culture, and economic background from mainland Japan. Students learn how people there overcome the handicap of being separated by an ocean. The seminar also places great importance on interaction between our students and the local community. One of the attractions of seminars is activities like this one, which reduce the distance between classmates and the teaching staff. (Kyosuke Murakami, current student)

From Supervisor The most important thing for seminars and practical training is the students' motivation. If the students are motivated, then even if they fail a few times, the new discoveries, surprises, and other experiences will make their student lives many times more fulfilling. It is no overstatement to say that the significance of your life as a student depends on how fulfilling your seminar activities are. (Full-time Lecturer Takuya Hashiguchi)

Lab Report 2 — Laboratory of Global Environmental Resources

Learning Diverse Values

Modern society has rapid development on the one hand, and faces issues relating to food and the environment on the other. I think that this is because we have focused solely on monetary profit, and have lost sight of what is truly important. I believe that the time has come for society to rethink what true profit is. Our lab thus studies a "convivial society" as a prescription for the many ills of modern society. I am enjoying my days as a student, with confidence that universities are not merely a training ground for superficial corporate warriors. (Wakana Ichihara, current student)

From Supervisor In fiscal 2010, we will change the name of our lab to "Convivial Society Theory." In a modern society that has pursued isolation and loneliness, the values of harmonious coexistence between people, and between people and nature, have become difficult to understand. Before our students go out into society, I hope that they can experience first-hand how difficult and how wonderful it is to coexist in harmony. (Full-time Lecturer Michitaro Oka)

Message from the Teaching Staff

A Humanities Department in a School of Science

The Department of Agri-food and Environmental Policy focuses on three points of contact. The first is the contact between the natural and social sciences. We teach and research the topics of food and farming, and the environment and resources, using our unique position of being a humanities department in a School of Agriculture. The second point of contact is between the field and the university. Our Farm Practice (1st year), Farm Stay Training (2nd year), and Field Study Practice (3rd year) are vital courses in our program. The third point of contact is between the students and teaching staff. There are seminar rooms next to the teaching staff's labs that are freely available to students, and we make a close relationship a regular part of our program. Our department enables students to grow broadly and significantly through these various points of contact.

Professor Masatoshi Ouchi
Laboratory of Food Agricultural Sociology

Message from a Department Graduate

Unforgettable memories of my university life encourage me at work

When I was at university, I was a true "university student." Each day of my four years at Meiji University was filled by studying, seminars, club activities, and a part-time job. I am currently assigned to my company's HR Group, where my job is to create a work-friendly environment for our employees. My job is specialized, and I have a lot to learn, but when I think about the teamwork I did with my classmates at university, it gives me motivation to keep trying my best. Thinking about the hard work I did as a student always stimulates me to work hard. If you are applying to colleges now, after you become a university student, I recommend that you pick at least one thing, and give it your all. That will allow you to have a fulfilling four years.

Sayaka Chiba
2008 graduate, Department of Agricultural Economics
Currently working for Bushu Gas Co., Ltd.

FACTBOOK: Department of Agri-food and Environmental Policy

Number of Students

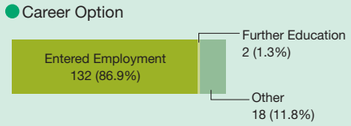
Year			
1st Year	91 (61.9%)	56 (38.1%)	147
2nd Year	126 (70.0%)	54 (30.0%)	180
3rd Year	106 (72.1%)	41 (27.9%)	147
4th Year	129 (77.7%)	37 (22.3%)	166
Total	452 (70.6%)	188 (29.4%)	640

*For the 3rd- and 4th-year students, the department name was previously the Department of Agricultural Economics.

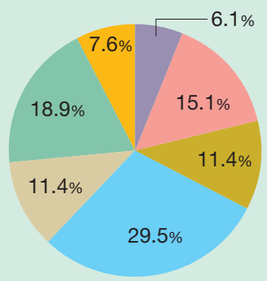
Number of Students Studying at Laboratories

Number of Laboratories	Average No. of Students per Laboratory	Persistence Rate
14	19.8	88.5%

Career Option



2009 Graduate Employment



- Construction & Property
- Manufacturing
- Commercial, Wholesale, & Retail Businesses
- Banking
- Newspaper, Publishing, Broadcasting, Information & Communication
- Transport, Advertisement, & Service Businesses
- Education & Public Services

Major Employers

- Ezaki Glico Co., Ltd.
- Meiji Seika Kaisha, Ltd.
- Morinaga Milk Industry Co., Ltd.
- Yamazaki Baking Co., Ltd.
- Showa Shell Sekiyu K.K.
- East Japan Railway Company
- Toyota Tsusho Corporation
- Mitsui Foods Co., Ltd.
- Ito-Yokado Co., Ltd.
- The Sumitomo Trust and Banking Co., Ltd.
- Mizuho Financial Group, Inc.
- Sumitomo Mitsui Banking Corporation
- The Bank of Tokyo-Mitsubishi UFJ, Ltd.
- Resona Holdings, Inc.
- Shinkin Central Bank
- Nomura Securities Co., Ltd.
- Japan Post Insurance Co., Ltd.
- National Federation of Agricultural Cooperative Associations
- National Federation of Dairy Cooperative Associations
- Metropolitan Police Department

Staff Members in Department of Agri-food and Environmental Policy

Laboratory of Food Agricultural Sociology

Considering Food and Eating as Social Phenomena

Professor Masatoshi Ouchi (DAg)

We consider food from start to finish, from the perspective of sociology. Some examples are: who makes food? How is it made? Who eats it? What do they eat? How do they eat it?

Laboratory of Regional Governance

Making Responses to Community Challenges More Sustainable

Professor Tokumi Odagiri (DAg)

New efforts at community renewal are underway in both rural and urban communities. We consider what we can do in order to make these efforts more sustainable.

Laboratory of Food Trade Theory

How Can Food Trade Contribute to the Peaceful and Sustainable Development of Global Society?

Professor Yoshiaki Kase (DAg)

Our goal is to analyze the mechanisms, current status, and issues of global trade in food and agricultural products, from a historical and theoretical perspective, and create a vision for this trade.

Laboratory of Agricultural Management Theory

Become a Supporter of Farming and Rural Communities!

Professor Tamotsu Takemoto (DAg)

We discuss revitalization of farming communities using the key concepts of diversifying farm business and businesses relating to farming and rural communities, while valuing direct interaction with farmers.

Laboratory of Resources Economics Theory

Approaches to Creating a Closed Loop Economy through Farming and Rural Communities

Professor Tamotsu Tabata (DAg)

What should farming and rural communities be in order to create a sustainable, closed-loop economy in the 21st century? The goal of our lab is to consider these questions.

Laboratory of Socio-Economic History

Examining Japan's Society and Economy from a Historical Perspective

Professor Sadaaki Nitta

We consider such modern social issues as reduced bio-resources and environmental pollution from the history of land regulation and agricultural-product distribution since Japan's Edo Period.

Laboratory of Environmental Economics Theory

Considering Environmental Issues from the Perspectives of Food and Farming

Professor Yukio Hiromasa (DAg)

There are a wide range of environmental issues, from local to global. We teach our students the analytical skills and insight to find issues and discuss solutions, from the perspective of human economic activities.

Laboratory of International Development Theory

Approaches to Hunger and Poverty in Developing Countries

Associate professor Akihide Ikegami

In the world there are both rich and poor countries, and both hunger and overeating. The goal of our lab is to teach a wide range of knowledge and perspectives relating to developing countries.

Laboratory of International Agricultural Economics

Comparative Research of Farming and Farming Policy in Japan and Other Developed Capitalist Countries

Associate professor Yoshinori Ishizuki

We learn about farming, farming communities, and the development of agribusiness in developed Western countries, and search for an approach for farming and farming communities in Japan based on comparative study.

Laboratory of Environmental Sociology

Sociological Analysis of Farming, the Environment, and the Underlying Structure of Environmental Issues

Associate Professor Tomoko Ichida (DAg)

Our lab studies agricultural policy with consideration for the environment, and analyzes the relationships of local communities, local governments, and the like relating to environmental issues, from a sociological perspective.

Laboratory of Food System Theory

Approaches to Global Agriculture and Food

Associate professor Tetsuo Oe (DEc)

At our lab, we discuss how the prices of agricultural products and food are determined, and how they are distributed in a global market, regional disparities, and our own lifestyles.

Laboratory of Convivial Society Theory

Examining Competition and Symbiosis from the Wisdom of the Global Village

Full-time Lecturer Michitaro Oka (Doctor of Regional Research)

Why is it difficult to balance the needs of the economy and nature? What is prosperity? We consider a variety of lifestyles around the world in order to find our own path forward.

Laboratory of Agricultural Policy

Considering the Situation of Japanese Farming Today and the Perspective of Agricultural Policy

Full-time Lecturer Takuya Hashiguchi (DAg)

While studying Japan's major postwar agricultural policy trends, we discuss the various stances that policy has taken with respect to the situation of agriculture over the years, as well as the background of these stances.

Laboratory of Environmental Resources Accounting Theory

Environmental, Economic, and Social Accountability

Full-time Lecturer Yasuhiro Honjo

Accounting has the power to make commitments to environmental and resource issues visible, and communicate the relationship between the environment and the economy to society in an easy-to-understand way. Come to our lab to learn better ways of living.

Department of Agri-food and Environmental Policy **Topics**

Special University Entrance Exams for Local Agricultural Development (AO System)

The Department of Agri-food and Environmental Policy has long thought about concrete ways in which it could help resolve the issues facing agriculture and rural communities today. We have consequently determined that it is vital to educate people who can contribute to the development of local agriculture and rural communities. In 2002, we thus created the Special University Entrance Exams for Local Agricultural Development (AO System), for individuals with a strong desire to work in local family businesses or provide guidance to local communities. In 2006, we eliminated the restrictions on eligible regions, expanding the program nationwide.

The selection criterion for this entrance exam is a strong interest in agriculture and local communities, which cannot be measured by ordinary paper tests. After entering university, students are expected to grow into people capable of discussing agriculture at a comprehensive level, and becoming active in their local communities, by studying the major subjects of the Department of Agri-food and Environmental Policy, as well as by taking maximum advantage of an environment allowing registration for courses of interest from the other three departments.

*See page 52 for details about applying under this program for 2010 admission.

Department of Agricultural Chemistry

http://www.meiji.ac.jp/agri/department/agri_chemi/cr_nobake.html Web

Bioscience Closely Tied to Human Lives

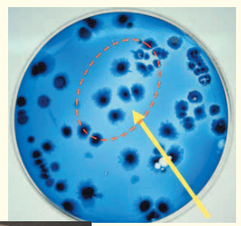
The goal of the Department of Agricultural Chemistry is to overcome the challenges in the fields of food and the environment closely related to our lives through biotechnology and the latest science. The field of agricultural chemistry has many vitally important research topics, including: developing environmentally friendly technologies using microorganisms; researching the structure, functioning, and safety of food constituents; researching soil, which is a resource for the environment and plant production; and searching for physiologically active substances produced by plants, animals, and microorganism. In order to educate people who are able to contribute to this field, the Department of Agricultural Chemistry's curriculum focuses on providing a wealth of experience with student experimental research (1st and 2nd years), and a two-year graduation research program (3rd and 4th years). Graduates of our department have specialized knowledge of bioscience and research techniques. They are active in such industries as foods, pharmaceuticals, and chemicals.

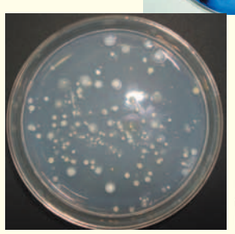
Department of Agricultural Chemistry

Topics Searching for Yet Undiscovered Effective Microorganisms

In the natural world, a wide range of microorganisms live in environments that they are adapted for. The goal of our research is to isolate microorganisms with new functions from among the many that are found in nature, and use these functions effectively. One example is cyclodextrin (a cyclic oligosaccharide formed by the linkage of glucose molecules in a ring), which is produced by certain bacterial enzyme reactions. Cyclodextrin is used as a food additive in wasabi sold in tubes. Cyclodextrin has a function of retaining other chemicals in its molecules, and it is used as a food additive for such purposes as preventing volatilization of odor constituents. The size of the substance that can be retained by cyclodextrin, however, is determined by the size of the cyclodextrin ring. If we could isolate a microorganism from the natural world that produces cyclodextrin with a new size different from the ones we already use, this new type of cyclodextrin could be used in a wide range of fields, including the food industry as well as for maintaining the stability of pharmaceuticals. There are still many more effective microorganisms in the natural world with fantastic capabilities. Come join us on the journey to discover them. (Associate Professor Shuichiro Murakami)

Blue pigment may have been retained! Could a new type of cyclodextrin have been produced around these microorganisms (the white areas)?





Microorganisms with fantastic capabilities may be hiding in this sample.

Syllabus Model for Department of Agricultural Chemistry

1st Year

Basic Subjects

Basic Subjects	Experiment/Practice	Compulsory Subjects
First Semester	First Semester	First Semester
Agricultural Chemistry (2) Introduction to Geography (2)	Farm Practice (1) Experimental Study of Chemistry (1)	Organic Chemistry I (2) Biochemistry I (2) Microbiology I (2)
Second Semester		Second Semester
Introduction to Chemistry (2) Agri Science Theory (2)		Organic Chemistry II (2) Biochemistry II (2) Microbiology II (2) Basic Molecular Biology (2)

Major Subjects

Experiment/Practice
First Semester
Experimental Study of Microbiology (1)
Second Semester
Experimental Study of Biochemistry and Physical Chemistry (2) Experimental Study of Environmental Chemistry (1)

2nd Year

Basic Subjects	Experiment/Practice	Optional Compulsory Subjects	Experiment/Practice
First Semester	First Semester	First Semester	First Semester
Microbial Physiology (2) Basic Biostatistics (2) Introduction to Mathematics (2) Physics (Mechanics & Thermal Mechanics) (2)	Experimental Study of Physics (1)	Physical Chemistry (2) Nutritional Science (2) Analytical Chemistry (2) Molecular Biology (2)	Organic Chemistry & Organic Analytical Experiment (2) Experimental Study on Environmental Analyses (1)
Second Semester		Second Semester	Second Semester
Quantum Chemistry (2) Cellular Biology (2) Introduction to Biotechnology (2) Physics (Electromagnetism & Photology) (2)		Organic Analytical Chemistry (2) Food Chemistry (2) Soil Chemistry (2) Environmental Science (2)	Food Chemistry & Food Analyses Experiment (1) Experimental Study on Biotechnology (1)

3rd Year

Major Subjects

First Semester	Second Semester
Agriculture in English I (2)	Agriculture in English II (2)

Major Subjects

Food Related	Biofunction Related	Environment Related
First Semester	First Semester	First Semester
Food Biochemistry (2) Food Hygienics (2) Food Functional Chemistry (2)	Natural Products Organic Chemistry (2) Enzyme Chemistry (2) Animal Nutrition and Physiology (2)	Pedosphere Science (2) Microbial Ecology (2) Microbial Genetics (2)
Second Semester	Second Semester	Second Semester
Nutritional Biochemistry (2) Physical Properties of Food (2) Food Engineering (2) Applied Microbiology (2)	Biofunction Chemistry (2) Biophysics (2) Chemical Biology (2)	Environmental Analytical Chemistry (2) Environmental Control for Plant (2) Microbial Chemistry (2)

3rd & 4th Years

Food Related	Biofunction Related	Environment Related
First Semester	First Semester	First Semester
Plant Resources Chemistry (2) Food Refrigeration and Cold Storage (2) Food Immunology (2) Study on Fermented Food (2)	Pesticide Chemistry (2) Synthetic Organic Chemistry (2) Plant Nutrition (2)	Application of Microscopic Organism (2) Recycling System of Biomass Resources (2) Environmental Safety (2)
Second Semester	Second Semester	Second Semester
Animal Resources Chemistry (2) Fishery Resources Chemistry (2) Food Safety Science (2)	High Polymer Chemistry (2) Animal Nutrition Chemistry (2)	Environmental Microbiology (2) Soil Environment Conservation (2) Environmental Hygienics (2)

Graduation Related Subjects

Linked Subjects for 3rd and 4th Years Library Work (4) & Specific Research (Graduation Thesis) (4)

1st Year

A Place of Learning that Also Makes You a Better Person

Shinya Seki
2nd year, Department of Agricultural Chemistry

In your first-year lectures, you learn the basics that will serve as the foundation for more advanced studies in your field later. Unlike classes in high school, university lectures give you autonomy in your studies. You can then use what you've learned in your lectures to perform experiments, and the actual experience you gain from that will increase your understanding. To me, one of the attractions of the Department of Agricultural Chemistry is that you can gain first-hand experience with what you have learned in lectures through experiments. Doing experiments also lets you make a lot of unique friends, because you discuss them and do them collaboratively with your partners. I think that this creates the best possible environment, because you and your partners stimulate each other, and grow together.

Example of Class Schedule 1st Year
Upper: First Semester/Lower: Second Semester/Middle: Full Year

	Mon	Tue	Wed	Thu	Fri	Sat
1	Basic Biology	German I a German I b	Organic Chemistry I Organic Chemistry II	Biochemistry I Biochemistry II		
2	Sports Practice I Kinesiology		English I a English I b	German II a German II b	Basic Molecular Biology	
3	Experimental Study of Biochemistry and Physical Chemistry	Experimental Study of Microbiology Experimental Study of Biochemistry and Physical Chemistry	Fundamentals of Information Science I Fundamentals of Information Science II	Microbiology I Microbiology II	Experimental Study of Chemistry	
4			The Japanese Constitution	Psychology A Psychology B	Experimental Study of Environmental Chemistry	
5	Introduction to Agricultural Economics		Agricultural Chemistry			

The above class schedule is subject to change.

2nd Year

Science Holds Many Hidden Possibilities

Kanae Takeuchi
3rd year, Department of Agricultural Chemistry

The most attractive thing about the Department of Agricultural Chemistry is the ability to obtain knowledge about a wide range of fields. By the time you've finished your second year, you will have studied the basics, including food, microorganisms, genetics, plants, organic chemistry, and soil science. I think that you have a lot of choices for thinking about your future. The many experimental studies are also attractive. We do experimental studies three times per week, and these give you basic experimental skills, improve your thinking, and let you make friends with the same interests. Assignments such as writing essays are sometimes burdensome, but I truly enjoy my student life, keeping myself busy with club activities, my part-time job, etc.

Example of Class Schedule 2nd Year
Upper: First Semester/Lower: Second Semester/Middle: Full Year

	Mon	Tue	Wed	Thu	Fri	Sat
1	Physical Chemistry I	Bioinorganic Chemistry Nutritional Physiology		Plant Nutrition	Soil Science and Pedology I Soil Science and Pedology II	
2	Food Chemistry I Food Chemistry II		Analytical Chemistry I	English II a English II b	Microbial Chemistry Microbial Chemistry	Introduction to Chemistry
3	Organic Chemistry Experiment	Experimental Study of Microbiology II	Experimental Study of Environmental Chemistry II	English III Introduction to Nutritional Science	Food Chemistry Experiment	
4				Common Comprehensive Course II		
5						

The above class schedule is subject to change.

3rd Year

Start Doing Real Lab Work!

Koki Tanabe
4th year, Department of Agricultural Chemistry

At the Department of Agricultural Chemistry, you can study a wide range of fields, including food, microbiology, genetics, organic chemistry, soil science, and botany. I originally entered the Department of Agricultural Chemistry with the desire to research food-related topics, but in my second year I became interested in microbiology, and joined a lab that researches microorganisms. I think that when you're in high school, it's hard to make decisions about your future. If you have a vague idea that you'd like to study food, or you're kind of interested in microbiology, or if you're interested in environmental issues, or even if you're just interested in science, then you can have a fulfilling student and research career at the Department of Agricultural Chemistry.

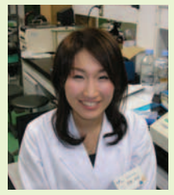
Example of Class Schedule 3rd Year
Upper: First Semester/Lower: Second Semester/Middle: Full Year

	Mon	Tue	Wed	Thu	Fri	Sat
1	Pesticide Chemistry Library Work & Graduation Research	Food Preservation Science Library Work & Graduation Research	Food Hygienics I Food Hygienics II		Food Engineering	High Polymer Chemistry
2	Nutritional Biochemistry Library Work & Graduation	Microbial Ecology Library Work & Graduation Research	Food Functional Chemistry Library Work & Graduation Research	Library Work Library Work	Microbial Genetics Environmental Microbiology	Study on Fermented Food
3		Library Work & Graduation Research	Library Work Graduation Research	Biochemistry III	English III	Applied Microbiology Library Work & Graduation Research
4	Library Work Graduation Research	Health Science Library Work & Graduation Research			Application of Microscopic Organism Recycling System of Biomass Resources	Library Work Graduation Research
5		Library Work & Graduation Research	Library Work & Graduation Research			

The above class schedule is subject to change.

4th Year

Tackling Graduation Research!



Sanae Miyajima
2009 Graduate, Department of Agricultural Chemistry

One of the unique things about the Department of Agricultural Chemistry is that you can study a wide range of fields in your first and second years, including microbiology, food, soil science, botany, and genetics. Starting in the third year, your classes start getting more specialized, and you also join a lab, which enables you to choose the field of study that interests you. In my graduation research, I studied the antioxidant properties of apple polyphenols. It's quite difficult, because not all of your experiments succeed, but there are always professors to advise you, and you can spend extremely fulfilling time with your classmates. I hope that you can also have a fulfilling career at university by going after your own interests and goals.

Example of Class Schedule 4th Year
Upper: First Semester/Lower: Second Semester/Middle: Full Year

	Mon	Tue	Wed	Thu	Fri	Sat
1						
2						
3	Library Work Graduation Research	Library Work Graduation Research	Library Work Graduation Research	Library Work Graduation Research	Library Work Graduation Research	Library Work Graduation Research
4						
5						

The above class schedule is subject to change.

Course Report 1 — Experimental Study of Environmental Chemistry

Viewing the Power of Nature from the Perspective of Chemistry

Experimental Study of Environmental Chemistry is one of the experimental courses that students take starting in their first year. One of the unique features of Experimental Study of Environmental Chemistry is that you get to come in actual contact with nature. Instead of just using chemicals, we also do experiments with familiar substances like water and soil, do experiments while raising plants, and so on. This course is really fun for people who like living things. This course is a fun way to learn about the incredible things that nature does all around us through experiments, from the perspective of agricultural chemistry. It's wonderful to be able to do experiments that let you actually come into contact with nature. (Daisuke Sasaki, current student)

From Supervisor We study what kinds of nutritional environments enable plants to grow the most. We then chemically analyze the nutrients absorbed by the plants, and think about the reasons for this. Next, we use statistical methods to verify the reliability of our findings. In other words, this course teaches the basics of biology, chemistry, and mathematics in a hands-on way. (Associate Professor Kazushige Nakabayashi)

Course Report 2 — Food Hygienics

Thinking about the Safety of Food

The first thing that I learned in this course was that food hygienics is a field of applied science closely linked to our lives. Most recently, there have been increasing concerns over food safety, we now need to be able to gather objective information and make independent decisions. Food safety is essential for our lives, and this course will let you study food safety from a wide range of perspectives, including those of chemistry, physics, and microbiology. This course will give you a wide range of knowledge, starting with familiar topics like food poisoning, all the way to learning the names of weird parasites, and this knowledge will let you think for yourself about the food-safety issues I mentioned. (Saki Fujita, current student)

From Supervisor Thinking back on recent food-safety issues, I think we can say that food hygienics is a field both old and new, which is intimately connected to our daily lives. I hope that our students can begin learning the basics of keeping food safe with this course.
(Associate Professor Kyoichi Osada)

Lab Report 1 — Laboratory of Animal Nutrition and Physiology

Effectively Utilizing and Controlling Rumen Microorganisms

Did you know that ruminants, like cows, sheep, and goats, have four stomachs? Our lab researches ways to improve the nutrition and utility of animals by controlling and effectively utilizing the bacteria, protozoa, fungi, and other microorganisms inhabiting the ruminant stomachs (rumens) of goats. Specifically, we research ways to produce feed protein efficiently by supplying goats with a combination of fungus derived from wild Yezo shika deer and alternate protein feed (NPN), in order to promote the digestion of cellulose in pasturage, and increase the yield and quality of milk. The world of ruminants is a mysterious universe in miniature. Won't you come and explore this universe with us? (Naoko Hirose, current student)

From Supervisor Despite the fact that rumen microorganisms are involved in the majority of ruminant digestion, the metabolisms of these microorganism and their interrelationships are complex and hardly any of them are understood. We work every day, using the latest technology to achieve our goal of solving these problems in order to improve Japan's food self-sufficiency. (Associate Professor Masayuki Goto)

Lab Report 2 — Laboratory of Microbial Genetics

Discovering the Power of Microorganisms!

Microorganisms are little creatures that are too small to see. Even these tiny creatures, however, have many different mechanisms for adapting to their environment. The goal of our lab is to explain the capabilities of microorganisms at the genetic level. My group mainly conducts research on how to break down PCB, an environmental pollutant, by using bacteria. Our research includes finding the genetic mechanisms needed for bacteria to eat PCB and turn it into energy, and the evolutionary history behind the acquisition of these genes. (Saki Sudo, current student)

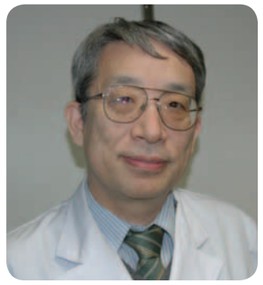
From Supervisor Our lab is developing environmentally friendly technologies using the power of microorganisms. In order to do this, we are investigating the origins and mechanisms of microorganism properties, and how best to use these properties to develop new environmental functions. (Associate Professor Michihisa Maeda)

Message from the Teaching Staff

Agricultural Chemistry Provides a Broad Education and Practical Learning

Graduates of the Department of Agricultural Chemistry are active in a wide range of specialized fields, including food, pharmaceutical and chemical companies, and research at universities and other institutions. This is the result of four years of wide-ranging study in the fields of food, the environment, and organic function based on basic experimental and lecture courses, and entering labs from the third year, where students do detailed research. Every year, undergraduate and graduate students publish the results of their research actively, including conference presentations. Join us in department to enjoy a career of research into science tied closely to our lives.

Joint Graduation Thesis Presentation Conference held upon completion of 4th year



Professor Fumitaka Hayase
Laboratory of Food Functional Chemistry

Department of Agricultural Chemistry URL http://www.isc.meiji.ac.jp/~noubake/index.html

Message from a Department Graduate

Have a Fulfilling Life at University While Preparing for Your Future

In the Department of Agricultural Chemistry, I learned knowledge and experimental methodology for a wide range of fields, including food, microbiology, and the environment. In my third year, I joined a lab that I was interested in, and did graduation research. At my lab, I was able to learn more specialized knowledge, learn the basics of being a researcher, and meet professors, senior students, and friends whom I could respect. Since graduation, I have been working at a job that uses the wide range of knowledge I learned at Meiji University. I hope that you also will come to the Department of Agricultural Chemistry and study hard, make lots of friends, have a fulfilling university career, and succeed in your life after university.

Yusuke Fukuoka
Completed Masters Degree Program in 2006, Agricultural Chemistry Major
Currently working for Ajinomoto Co., Inc.

FACTBOOK: Department of Agricultural Chemistry

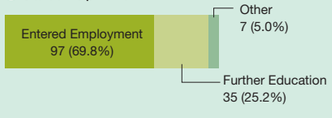
Number of Students

Year			
1st Year	69 (50.7%)	67 (49.3%)	136
2nd Year	95 (59.0%)	66 (41.0%)	161
3rd Year	93 (58.1%)	67 (41.9%)	160
4th Year	68 (52.7%)	61 (47.3%)	129
Total	325 (55.5%)	261 (44.5%)	586

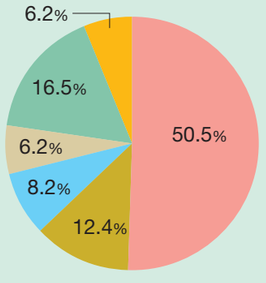
Number of Students Studying at Laboratories

Number of Laboratories	Average No. of Students per Laboratory	Persistence Rate
18	14.2	88.2%

Career Options



2009 Graduate Employment



- Manufacturing
- Commercial, Wholesale, & Retail Businesses
- Banking
- Newspaper, Publishing, Broadcasting, Information & Communication
- Transport, Advertisement, & Service Businesses
- Education & Public Services

Major Employers

- Asahi Breweries, Ltd.
- Ajinomoto Co., Inc.
- Itoham Foods Inc.
- Kagome Co., Ltd.
- Kewpie Jyozo Co., Ltd.
- Kyodo Milk Industry Co., Ltd.
- Showa Sangyo Co., Ltd.
- Nagatanien Co., Ltd.
- Nippon Flour Mills Co., Ltd.
- Nippon Meat Packers, Inc.
- Fujicco Co., Ltd.
- Meiji Seika Kaisha, Ltd.
- Morinaga Milk Industry Co., Ltd.
- Yamazaki Baking Co., Ltd.
- Hitachi Chemical Co., Ltd.
- Fancl Corporation
- Sakata Seed Corporation
- Japan Inspection Association of Food and Food Industry Environment
- Japan Food Research Laboratories
- National public servants (Level 2)

Staff Members in Department of Agricultural Chemistry

Laboratory of Physical Properties of Food

Making Safe and Delicious Food with Kansei Engineering

Professor Noriaki Ikawa (DAg)

Kansei is the Japanese word for "aesthetic sense." The feelings of safety, security, and delicious taste give people satisfaction. Kansei engineering is a methodology for creating sensations of safety, security, and deliciousness. This new field of engineering fuses the humanities and sciences based on human knowledge and feelings.

Laboratory of Biofunction Chemistry

Viewing Biological Phenomena from the Perspective of Chemistry

Professor Tamiji Sugiyama (DAg)

We do research into bioorganic chemistry relating to cytokinin, a kind of plant hormone that is closely involved with the growth and differentiation of plants.

Laboratory of Pedosphere Science

The Pedosphere Supports Life and Cleans the Environment

Professor Hiroshi Takesako (DAg)

The pedosphere (soil) is a requirement for the ecosystem. The functioning of the soil makes human life and civilization sustainable. We research the world's soils, as a resource for production and cleansing the environment.

Laboratory of Environmental Analytical Chemistry

Measuring Minute Amounts: Tiny Quantities Are Critical

Professor Masamichi Tsukada (DAg)

We work to develop new spectroscopic methods using solution reactions and devices, and improve on existing methods, in order to accurately analyze minute levels of substances that are tied intimately to living things and the environment.

Laboratory of Microbial Ecology

Japan's "National Microbe": Koji Mold Is Essential for Fermented Foods

Professor Harushi Nakajima (DAg)

Koji is a hard-working mold that is safe to eat. Our goal is to figure out the workings of mysterious water-shedding proteins on the surface of koji cells, and develop new materials.

Laboratory of Food Functional Chemistry

Pursuing Life by Researching Food and Organisms

Professor Fumitaka Hayase (DAg)

Our goal is to improve food quality and flavor, and prevent lifestyle diseases, by analyzing Maillard reactions in food and organisms.

Laboratory of Food Hygiene

Research for New Functions of Food Constituents

Associate Professor Kyoichi Osada (DAg)

We research the functions of polyphenols and other food constituents to improve and maintain health, with a particular focus on regulation of lipid metabolism.

Laboratory of Nutritional Biochemistry

Health Starts with a Good Diet

Associate Professor Hiroaki Kawabata (DAg)

A proper diet is the foundation of living a healthy life. Our lab researches mechanisms of changes in metabolism in response to over and under-nutrition.

Laboratory of Enzyme Chemistry

Uncovering the Mysteries of Enzymes

Associate Professor Siro Kawamura (DAg)

We hear about enzymes all the time. Enzymes have mysterious powers, and hide many secrets. Come and join us, and open the door to the secrets of enzymes yourself.

Laboratory of Animal Nutrition and Physiology

Going after the Puzzle of Gut Flora

Associate Professor Masayuki Goto

We research effective uses for the bacteria, ciliates, eumycetes, and other microorganisms in the first stomach of goats, as well as ways to control them and add value to their use.

Laboratory of Biophysics

The Challenging of Deciphering Biological Cryptographs

Associate Professor Hiromi Suzuki (DSci)

Using computers, we analyze amino acid sequences and their relationships with protein structure and function.

Laboratory of Food Biochemistry

New Food Capabilities

Associate Professor Asako Takenaka (DAg)

Changing the substances ingested from food causes a variety of changes in the body. We research these mechanisms, and search for new food functions.

Laboratory of Environmental Control for Plant

Human Life is Founded on Plants

Associate Professor Kazushige Nakabayashi (DAg)

We research methods of hydroponics to provide the right nutrition to plants at the right times, and obtain high-quality harvests.

Laboratory of Food Engineering

Combining Proteins, Fats, and Starches

Associate Professor Takashi Nakamura (DAg)

Our goal is to establish the field of food structure engineering, designing "delicious" textures through food structure. We research food ingredients and processing methods.

Laboratory of Microbial Genetics

Faith in the Limitless Potential of Microbes

Associate Professor Michihisa Maeda (DAg)

Microbes have wonderful powers. We research the roots and mechanisms of these powers, and work to develop environmentally friendly technologies.

Laboratory of Microbial Chemistry

Finding Super-microbes

Associate Professor Shuichiro Murakami (DAg)

Our lab works continuously to isolate the "supermen" in the microbial world from nature, and research uses for them in a wide range of fields.

Laboratory of Natural Products Organic Chemistry

Identifying Substances Interacting between Organisms

Full-time Lecturer Hiroshi Araya (DAg)

Organisms release a wide range of biosynthesized compounds into their surroundings, which have various effects on other organisms. Finding these substances is like a treasure hunt.

Laboratory of Applied Microbiology

Opening New Chapters on Traditional Foods!

Full-time Lecturer Eihachiro Kato

We develop manufacturing methods for traditional fermented-soybean foods, and products with new flavors. Our research also includes verification of the health benefits of these foods.

Recycling System of Biomass Resources

Biomass Produces Unlimited Resources

Visiting Professor Shunrokuro Fujiwara (DAg)

Biomass is a renewable resource. We research ways to use biomass, and ways to compost biomass waste to recycle it in biomass production.

Department of Life Sciences

http://www.meiji.ac.jp/agri/department/life_science/cr_life.html Web

Discover the Mechanisms of Life, and Think about the Future of Humankind and Other Living Things!

The goal of the Department of Life Sciences is to understand the life activities of plants, animals, and microorganisms at the molecular and genetic levels, and build on this foundation to solve the issues facing humankind, including environmental and food issues. Our department produces people who can work as experts in the field of life science, as well as people with basic knowledge on the life sciences combined with a broad perspective and ability to make holistic decisions. In order to achieve these goals, our curriculum combines lectures with experimental courses enabling our students to study everything from the basics to advanced topics in a systematic way. Starting in their third year, students join a lab, where they use advanced equipment and technology to perform graduation research. We welcome everyone with curiosity about life's puzzles, and with the motivation to make the capabilities of microbes serve humankind.

Department of Life Sciences **Topics**

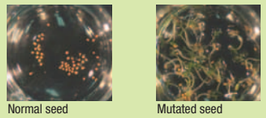
When Spring Comes…

(Laboratory of Plant Molecule Physiology)

The ambient temperature, which changes annually, is a signal for plant growth and development such as flowering and seed germination. Winter annual plants like shepherd's purse make flowers and shed seeds in spring, but the seeds germinate in autumn since high temperatures suppress their germination during summer. This suppression allows the seeds to germinate in suitable season to grow. Such nature of germination, however, sometimes leads crop seeds, such as lettuce and spinach, to germination defects that reduce production efficiency seriously. Recent global warming has had a variety of effects on plants; making cherry blossoms bloom earlier than the previous years, and slowing the bud break process of deciduous trees in spring. By analyzing genes and mutations, we have found that seeds keep themselves from germination under high-temperature conditions by synthesizing a plant hormone called abscisic acid. The next question is how these seeds sense high temperatures, and how they promote the synthesis of the hormone. As depicted in a Disney film (Wall E), we cannot live without plants. I hope our research on the mechanism of germination inhibition by high temperatures will help us find the way to cope with climate changes and make this planet sustainable. (Professor Naoto Kawakami)

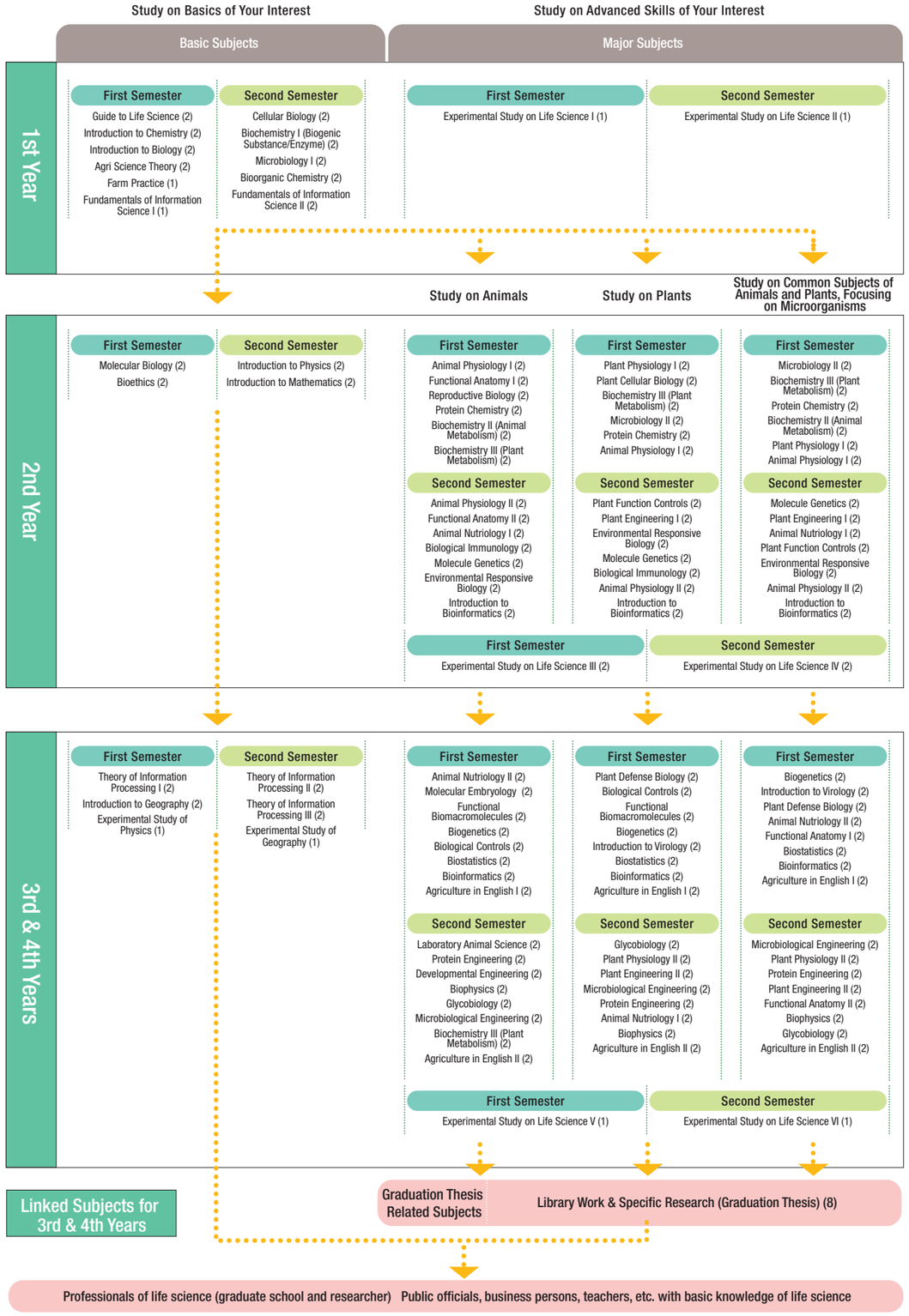
In average years, this deciduous tree (Japanese zelkova) will sprout out in mid-April, but in 2007, the warm winter could not break dormancy of the winter buds completely, thus delaying the shoot growth.

Wild type (normal) thale-cress seeds (left), and its mutant seeds (right) imbibed at a high temperature (32°C). It is believed that this type of mutation eliminates a gene that suppresses germination at high temperatures (such as a gene related to the sensing of high temperatures or the synthesis of abscisic acid).



Normal seed Mutated seed

Syllabus Model for Department of Life Sciences



1st Year

Pursue Your Interests

Chisato Honda
2nd year, Department of Life Sciences

One of the great things about the Department of Life Sciences is that you can join a research lab sooner than at other universities. We join a lab in our third year, which gives us plenty of time to do research. In the first year, a course called Guide to Life Science teaches you what kind of research each lab does. This course inspired me to search again for something that interested me, and I started thinking about what I wanted to do in the future. I hope that you can also study things that interest you in the Department of Life Sciences.

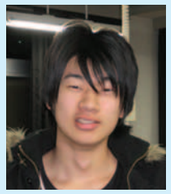
Example of Class Schedule 1st Year
Upper: First Semester/Lower: Second Semester/Middle: Full Year

	Mon	Tue	Wed	Thu	Fri	Sat
1		Fundamentals of Information Science I Fundamentals of Information Science II	Sports Practice I	English III English III	French I a French I b	
2	Introduction to Biology	French II a French II b	Microbiology I	Cellular Biology	English I a English I b	
3	Basic Biology Japanese Literature			Introduction to Life Science Bioorganic Chemistry	Experimental Study on Life Science I	
4	Japanese Expression B	Health Science	Introduction to Chemistry	Psychology A Psychology B	Experimental Study on Life Science II	
5	Biochemistry I				Guide to Life Science	

The above class schedule is subject to change.

2nd Year

The Life Sciences Turn Anxiety into Anticipation and Fun



Yuji Sekiguchi
3rd year, Department of Life Sciences

When I first came to Meiji University, I was often anxious about studying the life sciences. I was worried about whether I could keep up, because my studies before had focused on physical chemistry. But two years of lectures and experimental courses in the department increased my knowledge, turning my anxiety into anticipation and fun. One of the attractions is that I can start really working on my graduation research, including the course in basic experimentation starting in February of my second year. I think that your four years at university are a time when you are most able to do what you want. Why don't you join us, and enjoy your four years to the fullest at the Department of Life Sciences?

Example of Class Schedule 2nd Year
Upper: First Semester/Lower: Second Semester/Middle: Full Year

	Mon	Tue	Wed	Thu	Fri	Sat
1	Molecular Biology II		English II a English II b	Plant Molecule Genetics	Biochemistry V Plant Engineering I	
2	Plant Physiology I	Biological Immunology Biological Controls	Microbiology II Biochemistry II	Reproductive Biology II		Research on Ethical Education
3	Protein Chemistry Experimental Study of Physics	Experimental Study on Life Science III Experimental Study on Life Science IV	Experimental Study on Life Science III Experimental Study on Life Science IV	English III	Sociology Animal Nutriology I	
4	German III Experimental Study of Physics			Psychology B	Environmental Responsive Biology	
5	Biochemistry III	Biochemistry IV	Reproductive Biology I Education Method			

The above class schedule is subject to change.

3rd Year

Finding the Life Phenomena That Lead to Our Futures

Rieko Kanehara
4th year, Department of Life Sciences

When I was in high school, I was inspired by what I learned in a class on the mechanisms of life phenomena, and I decided to study at the Department of Life Sciences from my desire to learn more deeply about this field. In this department, you can study an extremely broad range of fields, from the mechanisms of life activities at the molecular and genetic levels, to plants, animals and microbes at the level of the entire organism. In your third year, you get to join a lab, where you can gain more specialized knowledge, and get involved in leading-edge research first-hand in a top-notch environment. I'm looking forward to a fulfilling university career with you here at the Department of Life Sciences.

Example of Class Schedule 3rd Year
Upper: First Semester/Lower: Second Semester/Middle: Full Year

	Mon	Tue	Wed	Thu	Fri	Sat
1		Molecular Embryology Glycobiology		Biochemistry VI	Plant Engineering I	
2	Biogenetics Protein Engineering	Introduction to Japanese History	Plant Defence Biology Microbiological Engineering	Introduction to Virology Functional Biomacromolecules	Environmental Microbiology	
3		Sports Practice	Biophysics	Graduation Research	Agri Science Theory Plant Engineering II	
4	Graduation Research	Graduation Research	Graduation Research		Plant Function Controls Common Comprehensive Course II	
5		Seminar	Seminar	Life Science Course I	Graduation Research	

The above class schedule is subject to change.

4th Year

Life Science Stream

Yuki Kobayashi
2009 Graduate, Department of Life Sciences

In the Department of Life Sciences, we study a wide range of life phenomena from the genetic, molecular and cellular to whole-organism levels. When you first come to Meiji University, most people probably aren't sure which field they want to study among the wide range of subjects offered by the department. But, as you take a wide range of lecture and experimental courses in your first and second years, you will definitely be able to find the field that you want to advance in. In your third year, you'll get involved in research in a well equipped environment, and you'll have two years for very thorough graduation research. To me, this is one of the attractions of the department. I hope that you will come to our department for a fulfilling university career, where you can see for yourself how interesting the life sciences are.

Example of Class Schedule 4th Year
Upper: First Semester/Lower: Second Semester/Middle: Full Year

	Mon	Tue	Wed	Thu	Fri	Sat
1						
2	Graduation Research Kinesiology		Trends in Literary Theory A			
3	Graduation Research	Graduation Thesis Research		Graduation Thesis Research	Graduation Thesis Research	Graduation Thesis Research
4	Japanese Literature Graduation Research		Graduation Thesis Research			
5						

The above class schedule is subject to change.

Course Report 1 Bioinformatics

Making Effective Use of Massive Volumes of Biological Information

A huge amount of biological information is being published, including DNA and amino acid sequences. This information is truly a mountain of treasure. Using computers, we can make new discoveries by performing large-scale analyses. In this course, each student is assigned a computer, for studying biological-information retrieval and analysis methods. As an example, we use a wide range of programs to analyze genetic information in a given DNA sequence. This is an invaluable opportunity to learn information-processing skills, which are essential in any field. (Ayako Suzuki, current student)

From Supervisor Bioinformatics is a new field that tries to reveal biological information using computers. Although bioinformatics is gaining a great deal of attention, there are not many universities in Japan that teach courses in it. Taking this course will expand the breadth of your research activities. (Full-time Lecturer Kentaro Yano)

Course Report 2 Plant Defence Biology

Plants are Amazing!

Our lives would be unthinkable without plants, from roadside trees and flowers in parks, to the food that is essential for us to live. But these plants cannot move. How, then, do plants survive their environments: cold, heat, damage, drought, and so on? In this course, you can study how plants adapt to a wide range of environments. You'll also get a feel for how amazing plants are, by understanding these mysterious mechanisms. (Masahiro Hayafune, current student)

From Supervisor Plants have chosen an "immobile" way of life. Nevertheless, plants have the wisdom to survive the stresses caused by any environment. In this course, I want my students to recognize the mystery and wonderment of living things, through the attitude that plants take towards life. (Associate Professor Hanae Kaku)

Lab Report 1 Laboratory of Metabolic Controls

Using the Power of Microbes

I research the breeding of microbes with enhanced ability to break down plant fibers. I do this because in order to solve the food crisis and global warming, we need to produce bioethanol (a promising alternative to fossil fuels as an energy source) using cellulose as a resource, which does not compete with food. My lab also develops things like pharmaceuticals and beauty creams. Although I have a hard time maintaining both my research and my part-time job, I'm having great fun doing research in an atmosphere of friendly rivalry with my classmates (and we sometimes go out drinking and to karaoke too)! (Kazuma Suzuki, current student)

Kazuma is the one in the back row on the left

From Supervisor We are surrounded by microorganisms that are invisible to the naked eye. We elucidate the various life phenomena associated with microorganisms, and conduct research based on the philosophy of using those results to create a better future for living things and the environment. (Full-time Lecturer Narito Asanuma)

Lab Report 2 Laboratory of Molecular Embryology

Closing in On the Mystery of the Cell

We are made up of about 60 trillion cells, but we all originate from a single egg cell. This process of cell multiplication is called the cell cycle, and all of it is controlled by genes. If this control is broken, it causes the cell to become cancerous. Our lab conducts a variety of experiments using cancer cells, in order to understand the cell cycle at the genetic level. Won't you join us at the Laboratory of Molecular Embryology in our quest to gain an overall understanding of the cell cycle? (Rieko Yamauchi, current student)

Rieko is the one in front on the left

From Supervisor Organic molecules, like proteins and DNA (and other nucleic acids) closely control the proliferation of living organisms. We are working to learn the proliferation mechanisms of multicellular organisms, and mammals in particular, at the genetic and molecular levels. (Associate Professor Kenichi Yoshida)

Message from the Teaching Staff

Life Science for All Living Things

The rampancy and destruction of the fictional financial economy did great damage to the lives of people around the world. The field of life science exists to benefit and bring prosperity to humankind. Our goal is to utilize plants, animals, microbes, and other living things through the understanding of all life on Earth. The life sciences serve as the foundation for a wide range of sciences and technologies, including agriculture, leading-edge medicine, and environmental engineering. I hope to think about our path to the future together with motivated students, through education and research into the life sciences.

Embryo transplants performed on pigs

Professor Hiroshi Nagashima
Laboratory of Developmental Engineering

Message from a Department Graduate

The Power to Live in Society

At the Department of Life Science, I learned widely about the foundations of life, from a scientific perspective. In my studies, I became interested in the actions and functional mechanisms of hormones inside of organisms, and starting in my third year, I delved more deeply into research topics by doing experiments in my lab and presenting papers. My current job is microbial testing on products and raw materials. In order to make sure that people have safe and secure food to eat, testing alone isn't enough. You have also got to ask why, how, and what we should do. Many of the things that I gained from doing research at university are helping me greatly in my work now. This of course includes my grounding in scientific knowledge, but also includes things like the ability to think systematically and logically, and the attitude of questioning things. I hope that you also will gain your own unique abilities in the Department of Life Science, and achieve your dream.

Yayoi Ikeda
2008 Graduate, Department of Life Science
Currently working for Product Quality Control Department
Kibun Foods, Inc., at Yokohama Plant

FACTBOOK: Department of Life Science

Number of Students

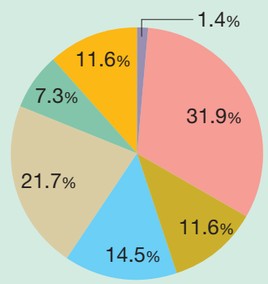
Year			
1st Year	114 (65.9%)	59 (34.1%)	173
2nd Year	100 (65.4%)	53 (34.6%)	153
3rd Year	85 (65.9%)	44 (34.1%)	129
4th Year	92 (62.6%)	55 (37.4%)	147
Total	391 (65.0%)	211 (35.0%)	602

Number of Students Studying at Laboratories

Number of Laboratories	Average No. of Students per Laboratory	Persistence Rate
17	14.4	88.4%

Career Options

2009 Graduate Employment



- Construction & Property
- Manufacturing
- Commercial, Wholesale, & Retail Businesses
- Banking
- Newspaper, Publishing, Broadcasting, Information & Communication
- Transport, Advertisement, & Service Businesses
- Education & Public Services

Major Employers

- S&B Foods Inc.
- Sapporo Breweries Ltd.
- San-Ei Gen F.F.I., Inc.
- Suntory Foods, Limited
- Nippon Meat Packers, Inc.
- Yukiguni Maitake Co., Ltd.
- Asahi Kasei Pharma Corporation
- Eisai Co., Ltd.
- Ono Pharmaceutical Co., Ltd.
- Kaken Pharmaceutical Co., Ltd.
- Kissei Pharmaceutical Co., Ltd.
- Daiichi Sankyo Co., Ltd.
- Taiho Pharmaceutical Co., Ltd.
- Pfizer Japan Inc.
- Kyoritsu Seiyaku Corporation
- Suzuken Co., Ltd.
- Yokohama City Board of Education (as teachers)
- National Federation of Agricultural Cooperative Associations
- Kanagawa Prefectural Government
- National public servants (Level 2)

Staff Members in Department of Life Sciences

Laboratory of Genetic Information Controls

Let's Solve the Puzzle of Genes with a Great Deal of Curiosity

Professor Yukio Kato (DMSc)

The pituitary gland secretes many hormones that maintain the homeostasis of animals. Our goal is to understand the molecular mechanisms of pituitary organogenesis and hormone gene expression regulated by a temporal and spatial network of transcription factors.

Laboratory of Plant Molecular Physiology

Temperature is a Signal for Plant Growth

Professor Naoto Kawakami (DAg)

Ambient temperature determines the timing of plant growth and development, such as seed germination and flowering. Our research interests lie in understanding how seeds sense temperature and regulate germination.

Laboratory of Plant Cellular Engineering

Making Plants Stronger

Professor Shigeru Kuwata (DAg)

Plant viruses are one of the pathogens that afflict plants. We research the creation of virus-resistant crops through genetic analysis and recombination of plant viruses.

Laboratory of Plant Signaling

Studying Plant Immune Systems

Professor Naoto Shibuya (Ph.D)

Our goal is to gain an understanding of the mechanisms by which plants recognize pathogenic bacteria and initiate defensive responses, by analyzing receptors and signal transduction factors.

Laboratory of Developmental Engineering

Reproductive and Regenerative Medicine Are Linked by Developmental Engineering

Professor Hiroshi Nagashima (DAg)

We create, maintain and make use of biological resources such as genetically engineered or cloned pigs, that will contribute to the development of next-generation medical technology.

Laboratory of Functional Anatomy

Study Hard, Play Hard

Professor Toshio Harigaya (DAg)

The structures and functions in the body are extremely complex and mysterious subjects. We are strongly committed to solve many valuable problems in this field.

Laboratory of Animal Nutriology

Developing New Probiotics

Professor Tsuneo Hino (DAg)

We research the use of new microorganisms with the aim of promoting health, and the production of functional foods through the effective use of gut flora.

Laboratory of Biological Controls

From Animal Genomes to Designer Animals

Professor Kimiaki Maruyama (Ph.D)

Our goal is to create animals with high economic value (specifically, to create chickens that can be used to produce rare pharmaceuticals) through understanding of genetic structure and cell-differentiation mechanisms.

Laboratory of Animal Physiology

The Why & How of Life's Continuity

Associate Professor Akihiko Ohta (Ph.D)

We aim to promote improvements in animal productivity by analyzing the reproductive functions of transgenic animals, as well as to contribute to the promotion of the breeding of species, which are in danger of extinction, by examining their mating systems through a DNA analysis.

Laboratory of Protein Engineering

Proteins Are the Building Blocks of Life

Associate Professor Hiroshi Ozaki (DSci)

We research the functioning of the proteins that are essential for life phenomena, and how to make effective use of this functioning.

Laboratory of Cell Function

Exploring Plants' Wisdom for Living

Associate Professor Hanae Kaku (Ph.D)

We research the recognition and signaling mechanism of defense response events in plants, which contribute to basic research for increasing the yield of crops production under consideration to the global environment.

Laboratory of Microbial Biotechnology

Investigation of Novel Biological Functions of Various Microorganisms

Associate Professor Makiko Hamamoto (DAg)

Our goal is to harness the potentials of marine yeasts for health improvement and bioremediation, and to unravel biological functions of unidentified genes of fission yeast for a discovery of novel phenomena and their underlying mechanisms.

Laboratory of Molecular Embryology

Learning about Genesis from DNA and Cancer

Associate Professor Kenichi Yoshida (DMSc)

We research the impact of organic molecules (nucleic acids and proteins) on the formation of organisms, with a focus on cancer and the cell cycle.

Laboratory of Functional Biomacromolecules

Disease-causing Chemical Reactions inside Organisms

Associate Professor Hirohito Watanabe (DAg)

We research the physiological effects of aminocarbonyl reaction products accumulated in organisms, with the goal of understanding some of the mechanisms that cause complications from diabetes.

Laboratory of Metabolic Controls

Health and Beauty through the Power of Microbes

Full-time Lecturer Narito Asanuma (DAg)

We are researching ways to (1) benefit health and beauty; (2) solve environmental issues; and (3) help food production, by creating useful microbes using biotechnology.

Laboratory of Proteomics

Investigating Life Science through Proteomics

Full-time Lecturer Keiji Kitou (DSci)

We employ unique analysis methods using mass spectrometry to research proteomics, which is the systematic analysis of proteins for the exploration of life phenomena.

Laboratory of Bioinformatics

Making Maximum Use of Large Scale 'Omic' Information

Full-time Lecturer Kentaro Yano (DAg)

We perform computer analyses on "omic" information, including genomics, gene expression, metabolism, and phenotypes, in order to search for useful genes and compounds.

Laboratory of Functional Anatomy

The Classical Hormones Strike Back

Special Lecturer Michiyo Ishida (DAg)

Together with my students, I'm working to discover the mysteries of our changing the location of expression and shape of hormones relating to lactation completely changes their functions.

General Subjects

http://www.meiji.ac.jp/agri/department/general_subject/cr_sogo.html Web

What Are General Subjects?

General subjects are courses for all students in the School of Agriculture, which go beyond the bounds of specialized fields. General subjects are paired with the major subjects offered by each department. They serve as the core foundation for each field of study. General subjects are divided into three areas: common subjects (comprising four main fields of study), which cover a wide range of teaching, including arts and sciences, social sciences, and natural sciences; foreign languages, which provide skills in living languages; and health and physical subjects, in which students practice sports and study the scientific theory of health and exercise. Although the general subjects include some designated courses that must be taken in certain years of the university program, most of them can be taken any time between the first and fourth years. One of the unique features of the School of Agriculture is this fusion between major subjects relating to agricultural science, and general subjects on a wide range of topics that serve as a foundation for the major subjects.

Common Comprehensive Courses in Departments

Food, Agriculture, and Environment from the Field

These courses focus on instilling a broad scholarly perspective, ability to spot problems, and ability to make decisions through scholarly lectures that go beyond the boundaries of departments and fields, and are based on the educational philosophy of Meiji University to nurture highly independent people who respect and value individuality. Many of our courses are held at the Ikuta Campus, one of which is "Food, Agriculture, and Environment from the Field," which is given by the Department of Agri-food and Environmental Policy.

Many of the graduates of this department, formerly called the Department of Agricultural Economics, are active around the world in such fields as food, agriculture, the environment, and international cooperation. Having these graduates of the Department of Agricultural Economics speak about their experiences and thoughts from the field stimulates students of the department, as well as students from other departments and schools, to think about their educational goals and their careers after graduation. Specifically, each week features a different guest speaker; these speakers include farm managers, officers from agricultural cooperatives and forestry associations, buyers for major supermarket chains, officials from the Ministry of Agriculture, Forestry, and Fisheries, officials from local government agencies, officials from the Japan International Cooperation Agency (JICA), and officers from shochu distillers. The extremely interesting talks by these guest speakers stimulate many students.
(Professor Tamotsu Takemoto)

General Subjects

Common Subjects

First Field		Second Field	Third Field	Fourth Field
Arts and Sciences		Social Sciences	Natural Sciences	Compound Subjects
Philosophy I	Japanese Expression A	Basic Economics	Basic Biology	Common Comprehensive Course I
Philosophy II	Japanese Expression B	Sociology	Basic Physics	Common Comprehensive Course II
Ethics I	Trends in Literary Theory	Folkloristics	Basic Chemistry	Seminar
Ethics II	Study on Regional Culture	Laws	Basic Mathematics	Seminar Essays
Logic I	History A	Introduction to Agricultural Economics	Introduction to Biochemistry	
Logic II	History B	The Japanese Constitution	Introduction to Life Science	
Psychology A	Topics on Japan I		Introduction to Biological Production	
Psychology B	Topics on Japan II			
Japanese Literature	Topics on Japan III			
Foreign Literature	Topics on Japan IV			

Foreign Languages

First Foreign Languages		Second Foreign Languages		Other Languages	
				Common Foreign Languages in Departments	
English I a & I b	Japanese I a & I b	German I a & I b	Spanish I a & I b	English Certification Course	Korean
English II a & II b	Japanese II a & II b	German II a & II b	Spanish II a & II b	German Certification Course	Greek
English III	Japanese III	German III	Spanish III	French Certification Course	Latin
Science English		French I a & I b	Chinese I a & I b	Chinese	Italian
		French II a & II b	Chinese II a & II b	Russian	Arabic
		French III	Chinese III	Spanish	

(* Japanese subjects are for foreign students only.)

Health and Physical Subjects

Lecture Subjects	Practice Subjects
Kinesiology	Sports Practice I
Health Science	Sports Practice II
	Sports Practice III

General Subjects

Topics Sports Practice III

Skiing Practice Is Fun for Everyone from Beginners to Advanced Skiers

I had never skied before, so I was very nervous before the course started. When we went to the slopes, however, we were divided into groups by skill level, so I was able to participate without anxiety. We beginners started with learning how to put on our skis, but as we practiced, we learned to align our skis and turn, and in the end we progressed to the point where we could ski together with the advanced group. We stayed on the mountain for several days, and this allowed me to hang out with people in other departments, which motivated me to expand the possibilities of my life at university. This was an extremely valuable practice course for me, because I got to experience the joy of becoming a better skier with my friends, and I got to hang out with people who I would not be able to meet in my ordinary student routine. (Takuya Ueno, current student)

From Supervisor This is an intensive training course that teaches skiing at Sugadaira, Nagano. The three-night, four-day course allows the students to enjoy the great outdoors while having fun skiing. They also get to experience communal living beyond the boundaries of departments and class year. I think that it is a valuable experience that can only be obtained during one's time at university. (Associate Professor Akihiko Kano)

Message from the Teaching Staff

The Starting Point is Intellectual Curiosity The World is Still Wide

University is a place where you study what you want, and with your own goals. In your study of foreign languages, don't be satisfied with only preparing for and reviewing your lessons: take the initiative in your studies. When you first held an English textbook in your hands, didn't you dream about one day being able to talk with people around the world? If you only study due to the pressure of tests, that day will never come. Throw out the way of studying that only consists of solving problems. We welcome students who can link fresh surprises to their academic interest, and make the most of their intellectual curiosity in a specific field.

Full-time Lecturer Yuki Shimonaga
No.3 Laboratory of English Language

Message from the Teaching Staff

Use and Improve Your Language Abilities!

The Austrian linguist Ludwig Wittgenstein said, "The limits of my language mean the limits of my world." If people have freedom, I would say it is freedom of opinion and freedom of thought. It is no exaggeration to say that this freedom of spirit reflects on the quality of individual's linguistic capabilities. I am confident that the great variety of general subjects will give you many hints for training your language and thinking.

Associate Professor Hiroyuki Matsushita
Laboratory of Japanese

Course Report

Learning Living English through Reading

Foreign Culture Seminar

Have you ever had a foreigner ask you for directions on the street? A lot of people have probably had similar experiences. When it happened, were you able to answer appropriately? Japan continues to globalize, and English is becoming increasingly important for communication. But the formal English that we have been learning for tests is difficult to put into practical use. The goal of this seminar is to learn more colloquial expressions that cannot be learned from a textbook, by reading and discussing English-language books in a variety of genres.
(Daiki Kato, current student)

From Supervisor

While this seminar does not place particular emphasis on teaching useful English, the teaching materials are modern texts that are relatively simple. This, combined with the seminar's focus on careful reading and appreciation of the texts, and gaining a psychological insight into the content, probably helps improve the students' spoken English. (Professor Masaharu Tamiya)

Staff Members in General Subjects

Laboratory of Philosophy

Scholarly Inquiry into Life and Thought

Professor Yukihiko Kakuta (DL, DPS)

We hold dialogues with the Greek philosophers Socrates, Plato, and Aristotle, and the Roman philosophers Cicero and Seneca, and make a comprehensive inquiry into modern times.

Laboratory of German Language

Learn about a New World by Learning another Language

Professor Toshiya Sato

I hope learning German will show you that there are different ways of constructing sentences and expressions from those of Japanese, and that there are different cultures as well.

No. 2 Laboratory of English Language

What Are Aesthetics and Taste?

Professor Kazuyuki Simotani (DL)

In 18th-century Britain, the word "taste" was used to express the sense of beauty. We observe and discuss this figurative concept by applying cognitive semantic theory.

No. 1 Laboratory of Health and Physical Subjects

Considering Performance Variables

Professor Tsuneo Taga

We are often not able to perform our abilities fully when we compete in sporting events. Why is this? We consider the causes from a mental phase.

No. 4 Laboratory of English Language

Researching British and American Literature

Professor Masaharu Tamiya

We research literature, with a focus on British and American literature. We read the source texts carefully, and then search for the secret of each work's impact using the writing style and composition, cultural background, and other factors as clues.

No. 2 Laboratory of Health and Physical Subjects

Sports Biomechanics

Associate Professor Akihiko Kano

We investigate the mechanisms of movements of the athletes by ground-reaction force and three-dimensional analysis.

No. 1 Laboratory of English Language

Nature, Language, and Landscape

Associate Professor
Sayuri Hiwatashi

We consider our modern culture and lifestyles, by focusing on the period from the Industrial Revolution to the theory of evolution, which greatly influenced our views of nature, language, and aesthetics.

Laboratory of Japanese Language

The Reading Culture and Modern Japan

Associate Professor
Hiroyuki Matsushita

Modern Japanese society is established through reading books and other paper media. We research modern Japanese society through the cultural format of reading.

No. 3 Laboratory of English Language

Studying Humanity through Language

Full-time Lecturer Yuki Shimonaga

This laboratory studies Old English from the Early Medieval Period. Old documents are a treasure trove. Reading them allows you to trace and experience the lives lived by people long ago, and also lets you solve puzzles of etymology and grammar.

Laboratory of French Language

Leap out of Your Japanese Home!

Full-time Lecturer Tomoko Takase

When you just stay inside a house, you never know its exterior appearance. You need to come out from the house to see it. Learning foreign languages like French gives you another perspective for seeing Japan from the outside.

General Subjects Topics

Features of Language Education at the School of Agriculture

Two of the objectives of language study at university are to improve the ability to use the language as a means of communication, and to provide educational and spiritual enrichment by studying broadly the cultural background of that language. Certainly, true language ability cannot be learned without both of these. In order to achieve these objectives, it is vital for the student to have a clear awareness of them, and be self-motivated to study. For these reasons, the School of Agriculture's foreign-language program teaches English as the primary foreign language, as well as German, French, Chinese, and Spanish as second foreign languages that are selective compulsory subjects. At Western universities, the curriculum ordinarily includes the study of a second foreign language in addition to English. Although it is naturally not easy to learn a new foreign language in a short period of time, students are surprised by the sense of accomplishment they feel when they achieve it. There are classes available to all academic years, for those who are motivated to study. (Professor Toshiya Sato)

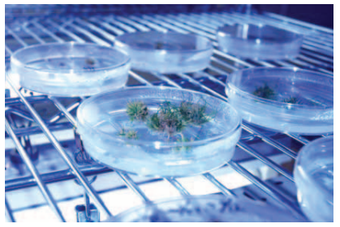
Common Subject Teaching Staff at School of Agriculture

Agriculture in English

'Food and Environment', not 'Food or Environment'

Special Associate Professor
Iain McTaggart (DAg)

Agricultural production can pollute the environment. I study how to reduce greenhouse gas emissions from agricultural soils, and prevent nutrient pollution of water systems. In my courses I teach agri-environmental topics in English to help students understand and use scientific English.



List of Laboratories

As of April 1, 2009

Departments	Name of Laboratory	Staff Name	Biological Production	Environment	Resource Management	Biotechnology	Horticulture	Life Science	Genetics	Biological Information	Microorganism	Food	Health	Production Application	Designing	Regional	Economics and Management	Marketing and Distribution	Food Product	International
Department of Agriculture (on pages 9-14)	Laboratory of Crop Science	Katsu Imai	●	●								●								
	Laboratory of Pomology	Naoto Iwasaki	●	●			●													
	Laboratory of Plant Nematology	Nobuo Ogura	●	●				●												
	Laboratory of Applied Plant Ecology	Noboru Kuramoto		●	●										●					
	Laboratory of Animal Production	Yuzo Koketsu								●		●								●
	Laboratory of Landscape Engineering	Hajime Koshimizu		●									●		●					
	Laboratory of Environmental Animal Management	Shigeki Kobayashi	●	●					●											
	Laboratory of Land Resource Science	Kosuke Noborio	●	●	●															
	Laboratory of Vegetable Science	Yasuyoshi Hayata	●	●			●													
	Laboratory of Regional Environment Planning	Kazu Fujisawa		●											●	●				
	Laboratory of Plant Breeding	Wataru Marubashi	●			●		●												
	Laboratory of Plant Pathology	Katsuyoshi Yoneyama		●					●	●										
	Laboratory of Plant Pathology	Shuichi Osato		●		●			●											
	Laboratory of Production System	Takashi Ikeda	●	●			●													
	Laboratory of Environment Designing	Hirotsugu Kanno		●											●	●				
	Laboratory of Ornamental Plant Science	Takashi Handa		●		●	●													
	Laboratory of Applied Entomology	Kyo Itoyama	●	●				●												
	Laboratory of Water Resources Engineering	Michihiko Kojima		●	●															●
	Laboratory of Animal Genetics	Yasushi Mizoguchi	●			●			●											
	Laboratory of Agri Science	Masahiko Tamaki	●	●								●								
Department of Agri-food and Environmental Policy (on pages 15-20)	Laboratory of Food Agricultural Sociology	Masatoshi Ouchi		●												●				●
	Laboratory of Regional Governance	Tokumi Odagiri		●												●	●			
	Laboratory of Food Trade Theory	Yoshiaki Kase										●						●		●
	Laboratory of Agricultural Management Theory	Tamotsu Takemoto			●											●	●			
	Laboratory of Resources Economics Theory	Tamotsu Tabata			●											●	●			
	Laboratory of Socio-Economic History	Sadaaki Nitta														●	●			●
	Laboratory of Environmental Economics Theory	Yukio Hiromasa		●	●												●			
	Laboratory of International Development Theory	Akihide Ikegami															●	●		●
	Laboratory of International Agricultural Economics	Yoshinori Ishizuki										●				●				●
	Laboratory of Environmental Sociology	Tomoko Ichida		●												●				●
	Laboratory of Food System Theory	Tetsuo Oe										●					●	●		
	Laboratory of Convivial Society Theory	Michitaro Oka			●											●				●
	Laboratory of Agricultural Policy	Takuya Hashiguchi	●									●					●			
	Laboratory of Environmental Resources Accounting Theory	Yasuhiro Honjo		●													●	●		
Department of Agricultural Chemistry (on pages 21-26)	Laboratory of Physical Properties of Food	Noriaki Ikawa						●											●	
	Laboratory of Biofunction Chemistry	Tamiji Sugiyama				●		●		●										
	Laboratory of Pedosphere Science	Hiroshi Takesako	●	●	●															
	Laboratory of Environmental Analytical Chemistry	Masamichi Tsukada		●	●			●												
	Laboratory of Microbial Ecology	Harushi Nakajima		●					●		●									
	Laboratory of Food Functional Chemistry	Fumitaka Hayase				●		●											●	
	Laboratory of Food Hygiene	Kyoichi Osada						●					●						●	
	Laboratory of Nutritional Biochemistry	Hiroaki Kawabata						●					●						●	
Departments	Name of Laboratory	Staff Name	Biological Production	Environment	Resource Management	Biotechnology	Horticulture	Life Science	Genetics	Biological Information	Microorganism	Food	Health	Production Application	Designing	Regional	Economics and Management	Marketing and Distribution	Food Product	International

Departments	Name of Laboratory	Staff Name	Biological Production	Environment	Resource Management	Biotechnology	Horticulture	Life Science	Genetics	Biological Information	Microorganism	Food	Health	Production Application	Designing	Regional	Economics and Management	Marketing and Distribution	Food Product	International
Department of Agricultural Chemistry (continued)	Laboratory of Enzyme Chemistry	Siro Kawamura		●				●			●									
	Laboratory of Animal Nutrition and Physiology	Masayuki Goto		●				●			●									
	Laboratory of Biophysics	Hiromi Suzuki						●	●	●										
	Laboratory of Food Biochemistry	Asako Takenaka						●					●						●	
	Laboratory of Environmental Control for Plant	Kazushige Nakabayashi	●		●		●													
	Laboratory of Food Engineering	Takashi Nakamura						●						●					●	
	Laboratory of Microbial Genetics	Michihisa Maeda				●			●		●									
	Laboratory of Microbial Chemistry	Shuichiro Murakami		●		●					●									
	Laboratory of Natural Products Organic Chemistry	Hiroshi Araya		●				●			●									
	Laboratory of Applied Microbiology	Eihachiro Kato									●			●					●	
Department of Life Sciences (on pages 27-32)	Laboratory of Genetic Information Controls	Yukio Kato						●	●	●										
	Laboratory of Plant Molecule Physiology	Naoto Kawakami		●					●	●										
	Laboratory of Plant Cellular Engineering	Shigeru Kuwata				●		●	●											
	Laboratory of Environmental Responsive Biology	Naoto Shibuya						●	●	●										
	Laboratory of Developmental Engineering	Hiroshi Nagashima				●		●	●											
	Laboratory of Functional Anatomy	Toshio Harigaya						●	●	●										
	Laboratory of Animal Nutriology	Tsuneo Hino	●								●		●							
	Laboratory of Biological Controls	Kimiaki Maruyama				●		●	●											
	Laboratory of Animal Physiology	Akihiko Ohta						●	●	●										
	Laboratory of Protein Engineering	Hiroshi Ozaki				●		●							●					
	Laboratory of Environmental Responsive Botany	Hanae Kaku						●	●	●										
	Laboratory of Microbiological Engineering	Makiko Hamamoto		●							●		●							
	Laboratory of Molecular Embryology	Kenichi Yoshida						●	●	●										
	Laboratory of Functional Biomacromolecules	Hirohito Watanabe						●	●										●	
	Laboratory of Metabolic Controls	Narito Asanuma							●		●		●							
	Laboratory of Bioinformatics	Kentaro Yano				●		●		●										
	Laboratory of Proteomics	Keiji Kitou				●		●		●										
	Laboratory of Functional Anatomy	Michiyo Ishida						●	●	●										
Departments	Name of Laboratory	Staff Name	Biological Production	Environment	Resource Management	Biotechnology	Horticulture	Life Science	Genetics	Biological Information	Microorganism	Food	Health	Production Application	Designing	Regional	Economics and Management	Marketing and Distribution	Food Product	International

Departments	Name of Laboratory	Staff Name	Communication	Cross-cultural Understanding	Logic and Writing Skills	Presentation	Imagination	Languages	History	Culture and Society	Arts	Understanding of Human	Psychology	Body	Health and Physical Strength	Sports Science	Life Science	Recreation	Regional	International
General Subjects (on pages 33-36)	Laboratory of Philosophy	Yukihiko Kakuta		●	●							●								
	Laboratory of German Language	Toshiya Sato					●			●		●								
	No.2 Laboratory of English Language	Kazuyuki Simotani						●		●	●									
	No.1 Laboratory of Health and Physical Subjects	Tsuneo Taga												●	●	●				
	No.4 Laboratory of English Language	Masaharu Tamiya		●			●												●	
	No.2 Laboratory of Health and Physical Subjects	Akihiko Kano												●	●	●				
	No.1 Laboratory of English Language	Sayuri Hiwatashi						●		●									●	
	Laboratory of Japanese	Hiroyuki Matsushita	●		●					●										
	No.3 Laboratory of English Language	Yuki Shimonaga		●				●		●										
	Laboratory of French Language	Tomoko Takase	●	●					●											

The Latest Devices Support Advanced Research

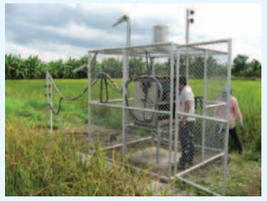
Recent advances in science and technology, and bioscience in particular, have been astounding. A wide range of devices for analyzing organic systems have been developed using these technologies. Thus, the scope of research methods you can employ will depend on whether these devices are readily available or not. The School of Agriculture is committed to supplying advanced research facilities necessary for leading-edge research, to enhance the capabilities of our research scheme.

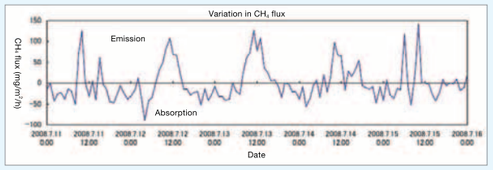
When conducting research on the mechanisms of living things by using these facilities, you will discover endless wonders and possibilities. We hope the outcomes of our research will benefit and improve the quality of our lives in the future.

Research Facility

Topics Our Uniquely Developed Measuring Device Enables to Get Leading-edge Data

As concerns over global warming increase, the reduction of greenhouse-gas emissions has become an urgent task. In agriculture, nitrous oxide (N_2O) is emitted from farm fields, and methane (CH_4) is emitted from rice paddies, but there have also been reports that fields and rice paddies absorb these gases. However, the emission and absorption of greenhouse gases, which constantly change during a year, have not been measured in rice paddies before. Here we present the relaxed-eddy-accumulation method, which determines gas emissions and absorption in rice paddies by collecting air carried by wind updrafts and downdrafts every 0.1 seconds, and measuring the concentration of CH_4 and N_2O in the collected air. Although the measurement principle is extremely simple, attempts to put it into practice were met with repeated failure. After two years of trial and error, we succeeded at continuous measurements showing that rice paddies emit CH_4 during the day, and absorb it at night. As research advances, it may no longer be possible to state unequivocally that rice paddies are sources of CH_4 emissions.
(Professor Kosuke Noborio)





Major Research Facilities, Part1

A Liquid Chromatography Mass Spectrometer (LC/MS/MS)

This device combines a system capable of separating composite samples rapidly, with a leading-edge mass spectrometer. It is able to quickly analyze with a high level of sensitivity the weights of peptides and other compounds with low molecular weights.

B Fluorescence Image Analyzer

This analyzer is able to measure the size and concentrations of proteins and nucleic acids in electrophoresed gel.

C Time of Flight Mass Spectrometer (MALDI/TOF-MS)

This mass spectrometer has become well known in public after Mr. Koichi Tanaka won the Nobel Prize in 2002. It is able to analyze the weights of minute quantities of proteins, nucleic acids, and other macromolecule compounds.

D DNA Sequencer

This device automatically decodes DNA base sequences. It can be combined with database searches to analyze the DNA's physiological functions.

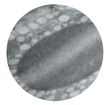
E Scanning Electron Microscope (SEM)

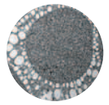
This is an electron microscope used to observe the surface structure of a material. It is used to observe such things as the entire shape of a microbe or the cell structure of plants and animals.

F Sectioning Fluorescence Microscope

This microscope allows you to view dynamic changes in yeast and other microbes, and inside animal cells, while the organisms are alive and in real time. Specific proteins inside the cell are detected via red or green fluorescence, and these are then analyzed as high-resolution three-dimensional images in order to research cell division and changes in cell organelles.

G Transmission Electron Microscope (TEM)





This microscope can view objects over 100,000 times smaller than the optical microscopes often used at elementary and junior high schools. It can be used to view nano-scale viruses and single protein molecules.

H Inductively Coupled Plasma Mass Spectrometer (ICP-MS)

This device can detect minute differences in mass, by introducing liquefied samples into hot plasma and a magnetic field, thus enabling a microanalysis on multielement composition of substances in soil, animals, plants, etc.

I Microarray Data Processing Unit

This equipment exhaustively investigates changes in the thousands of different genetic expressions in response to stimulus and environmental conditions. It is used for postgenomic analysis.

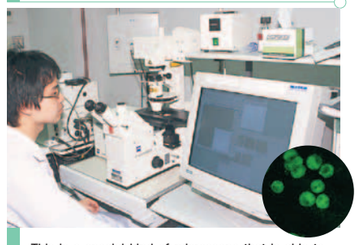
▶P41

Major Facilities, Part 2

J Gas Chromatograph/Mass Spectrometer (GC/MS)

GC/MS device is composed of a gas chromatograph (GC) with a mass spectrometer (MS). GC conducts a qualitative analysis by measuring MS spectra of a single separated component, and then MS conducts a quantitative analysis by detecting their ion strength. We use this device for qualitative and quantitative analysis of organic compounds, especially compounds with low molecular weight.

K Confocal Laser Scanning Microscope



This is a special kind of microscope that is able to take cross-section images of cells like a CT scan using laser light. This data can be gathered and used to create three-dimensional images on a computer. It is used to analyze the state of proteins, chromosomes, and the like inside a cell. The photo to the upper right is a microscopic photo of a T cell.

L Analysis Server

This server conducts a sequencing analysis of DNA and amino acids, to identify genetic sequences, structures and functions of genomes as well as important genes and proteins. This system can also publish the results worldwide by means of a web database.

M Hydraulic Lab

This lab operates hydraulic model tests in order to develop and improve channels, diversion works, and other irrigation facilities that are easy to maintain and environmentally friendly. The photo shows an experiment with a waterwheel for small scale hydro power generation using irrigation channels.

N Biotechnology Laboratory

This is a clean room for gene-recombination experiments on plants, microbes, and other organisms. It has an air curtain that keeps out dust from outside the lab, and equipment to prevent the pollen of transgenic plants and the like from spreading outside the lab.

O Plant Culture Rooms

These rooms can be used to cultivate plants with artificially regulated light, temperature, and humidity. They are used to reproduce plants from cells to which genes are transferred, and analyze the responses of plants to such environmental conditions as cold and drought, as well as their genetic functioning.

P Lysimeter

This facility is used to observe levels of rainfall, irrigation, and wastewater while growing actual crops, and monitor the crops' evapotranspiration (water requirement) over time. The groundwater can be adjusted in order to analyze quantitatively the relationship of the water balance, which is vital for crop production.

Q Greenhouse

These greenhouses are used for experimental research into greenhouse horticulture using hydroponics and gravel culture. They are mostly used for experimental cultivation for creating improved varieties and the like.

R Greenhouse Gas Exchange Measuring Device

This device measures the emission and absorption of greenhouse gases (CO_2, N_2O, and CH_4) in rice paddies over time. It consists of a 3D supersonic anemometer and an optoacoustic gas monitor. It can also measure the heat balances of emission and absorption of gases as well as the soil environment at the same time.

A Complete Support Structure for Studying in Greater Depth

University Farm

What is Farm Practice?

Farm practice is a basic subject given to first-year students in all departments of the School of Agriculture. Its goal is to teach students at an early stage the fundamental character of agricultural science—the focus on practice, and enhancing understanding and advancing research through practice—while enabling them to do practical experiments and promote personal development. Every year, about 400 students (about 70% of 1st-year students) take this course. The practice takes place in the summer. Students are divided into groups of approximately 40 each, and over two nights and three days, they stay at a dormitory adjacent to the university farm, while they train under the guidance of course instructors and farm employees.

Honda Farm

This farm is located in the southeastern area of Chiba City, on a hill that is approximately 50 m high. The area of the farm is 261,500 m^2.

The farm grows a variety of different crops according to the season, including potatoes, sweet potatoes, yams, taro, napa cabbage, daikon radishes, corn, green leeks, burdock, and peanuts. Over the past few years, the farm has been putting effort into tea cultivation. The reputation of the tea continues to improve, because of its delicious taste, and its safety due to sparing use of agricultural chemicals.

New Kurokawa Farm

In 2004, Meiji University acquired land for a teaching and research farm in the Kurokawa area of Kawasaki City's Asao Ward. This farm will enable practical training throughout the growing season, as well as leading-edge technologies created via research and the like to be developed at a farm located closer to the university. The farm's area is 12.8 hectares. Preparations are currently underway for its scheduled opening in 2012.

Farm Practice

Pursuit of Closed Loop Farming Techniques

Adjunct Professor Akio Sakura, BS Agriculture

We search for the ideal vision of agriculture, which draws out the power of life of crops and produces healthy food, while preserving a favorable ecological balance.

School of Agriculture Learning Support Room

The Meiji University School of Agriculture's Student Counseling Room and Follow-up Room work continually to support the studies of students in the School of Agriculture. Teaching assistants (TAs) are on call at the Learning Support Room at all times during open hours, providing counseling and advice suited to the needs of each student.

These offices are also ideal for individual study, as they are fully equipped with computers, dictionaries, and reference materials. Through the Learning Support Program, our teaching staff, TAs, and employees offer support for our students to have fulfilling study and university careers.

School of Agriculture Learning Support Program

1	School of Agriculture Learning Support Room	New Student Counseling Room and Follow-up Room
2	Student Counseling Program	Study counseling by dedicated teaching staff and TAs
3	Refresher Courses	Short-term, intensive refresher courses in basic fields
4	Pre-admissions Educational Program	Pre-admissions support for those passing the Special Entrance Exams
5	Course Registration Counseling	One-on-one meeting with dedicated teaching staff for counseling on course registration
6	Office Hours	Provided at all labs on ongoing basis

Do You Want to Study Internationally?

Study Abroad/Overseas Language Training Program

Study Abroad Program

Meiji University offers two types of study abroad programs: Partner University Exchanges, where students passing through a university selection process are sent to foreign universities having student-exchange agreements with Meiji university; and Certified University Exchanges, where the student applies independently to any university where he or she wishes to study, and obtains the approval of Meiji University.

Both programs offer a credit certification program, which allows a transfer of up to 30 credits obtained at the university abroad into credits required for graduation. Our continuous registration program can also help students to graduate in four years.

In the 2008 school year, the School of Agriculture sent students to partner exchanges at Korea University (Korea); in the 2007 and 2006 school years, to Ewha Womans University (Korea); and in the 2004 school year to the University of Alberta (Canada).

Summer Overseas Language Training Program

Each year in August, we send students for approximately one month of English, German, and French study to York University (Canada; 45 openings), McMaster University (Canada; 30 openings); the University of Sheffield (England; 30 openings); the University of Cambridge (England: 40 openings); Alliance Française de Toulouse (France; 30 openings); and the Univeristät Wien (Austria; 30 openings). Classes are given for 3 to 5 hours per day, 5 days per week. Students are grouped into classes by level, and are also given ample opportunities for discussion and presentations.

There are also opportunities for extra-scholastic activities, such as study tours and home stays. The program improves the students' foreign-language proficiency, while enhancing their understanding of the country's culture, society, history, politics, and other aspects.

Differences between Partner University Exchanges and Certified University Exchanges

Partner Universities		Certified Universities
Undergraduate Students (1) Must be at least 3rd year at time of departure (at least 2nd year at time of application) (2) Must obtain at least 30 credits per academic year. Students are selected based on their performance at Meiji University. **Graduate Students** Approval of advisor, etc.	Eligibility	**Undergraduate Students** (1) Must be at least 2nd year at time of departure (2) Must obtain at least 30 credits per academic year. **Graduate Students** Approval of advisor, etc.
One or two students per university per academic year (depends on university)	Number	No limitations
Tuition at exchange university waived (tuition is paid to Meiji University). Student is responsible for travel, lodging, and other expenses.	Expenses	Student must pay all expenses. Student must pay tuition both at Meiji University and exchange university.
There is a financial assistant program for exchange study (up to 300,000 yen). There is a university-internal selection process.	Subsidies	There is a financial assistant program for exchange study (up to 500,000 yen). There is a university-internal selection process.
○ English-speaking world: A minimum TOEFL score of iBT61 is required. * Higher scores may be required for some universities. ○ For other languages, reviews and tests will be conducted as necessary.	Foreign-language Ability	Depends on desired exchange university.

* Please see the Center for International Programs's "Foreign Exchange Guidebook" for details.

Overseas Partner Universities (91 universities in 27 countries)

As of February 2009 * Student exchange programs ★ Partnership with School of Commerce ☆ Partnership with School of Business Administration

Overseas Language Training Memoire

Be yourself! Study in your own way!

Keiko Iwasaki
3rd-year student, Department of Life Sciences

At first, I was worried about my English ability, but as I attended classes each day at the University of Sheffield (England) and lived with my host family, I felt my ability to speak English improve each day by an astounding amount. I actively discussed our mutual cultures, values, social problems, and other topics with my host family. This improved my understanding of other cultures, while at the same time it taught me the joy of being able to communicate with other people. I was also able to do a variety of activities on my own initiative, including conducting street-corner surveys, taking trips to historical sites, and attending social events with multinational exchange students. My time in England was thus very full and fulfilling. This invaluable experience, shared with classmates who are highly interested in international matters, gave me even greater motivation to improve my international understanding and language abilities.

During the summer break, Meiji University provides language training courses in Canada, England, France, and Austria to students of all schools and departments. After returning to Japan, students make their understanding of other cultures a part of their daily lives, and experience the joy of living in society on their own terms. (Associate Professor Sayuri Hiwatashi)

Graduate School

Graduate School of Agriculture

http://www.meiji.ac.jp/agri/daigakuin/nouken-top.html Web

Surviving the Century of the Environment

The 20th century was called the century of industry, as humankind industrialized at breakneck speed. Land was put under the plow to increase food production; mining resources were harvested; and science and technology progressed enormously. These advances now benefit our lives in various ways.

On the other hand, however, our industrial activities were gradually ruining the planet, resulting in a succession of impacts including loss of forest resources, desertification, soil deterioration, and global warming. In order to survive on a planet with finite resources, we must now take serious steps to remedy these issues. The 21st century is the century of the environment.

The goal of the Graduate School of Agriculture is to contribute to the welfare of humanity by making effective use of our limited resources, and achieve sustainable development with harmony between nature and humankind, with a comprehensive field of study encompassing food, environment, and life. We aim to foster in students a high degree of specialized knowledge and a broad perspective, through leading-edge research activities from the molecular and cellular level to the level of the global environment.

(Harushi Nakajima, Dean, Graduate School of Agriculture)

Learning Support

The Graduate School of Agriculture offers Teaching Assistant (TA) and Research Assistant (RA) programs to provide financial support for our students' research. Our Research Assistant Program (aiming to foster future researchers) is also available for students in the Doctorate Degree Program for this purpose.

Loans and scholarships are available through the Japaan Student Services Organization (JASSO), as well as the Meiji University Loan-type Scholarship Program. Nearly everyone who applies is eligible for some sort of loan or scholarship.

We also support our students' presentation of their research outside of the university. Graduate students are given subsidies to cover transportation and participation costs (there are maximum limits for both) for attending academic conferences twice per year, in order to present their research.

2010 Entrance Examination Schedule

Masters Degree Program

Category of Examination	Eligible Applicants	Available Date of Application Form	Application Period	Examination Date	Examination Method
Entrance Examination for Internal Selection	4th-year undergraduates of School of Agriculture	May	May 18 – 20	June 6	Individual Interview
Phase I Entrance Examination	4th-year undergraduates, graduates, and foreign students	August	September 2 – 4	September 26	English, Basic Subjects, Specific Subjects, and Interviews *English and presentation for applicants for Agricultural Chemistry Major
Phase II Entrance Examination	4th-year undergraduates, graduates, and foreign students	December	January 13 – 15	February 1	English, Basic Subjects, Specific Subjects, and Interviews *English and presentation for applicants for Agricultural Chemistry Major
Entrance Examination for Adult Students	Adults including those with working experience	December	January 13 – 15	February 1	Application Documents Review, Short Essay Exam, and Individual Interview
Entrance Examination for Accelerated Program	3rd-year undergraduates	December	January 13 – 15	February 1	Individual Interview

Doctorate Degree Program

Category of Examination	Eligible Applicants	Available Date of Application Form	Application Period	Examination Date	Examination Method
Entrance Examination for Internal Selection	2nd-year postgraduates in Masters Degree Program of the Meiji University Graduate Schoolof Agriculture	May	May 18 – 22	June 6	Individual Interview
Phase I Entrance Examination	2nd-year postgraduates or those completed in Masters Degree Program, and foreign students	August	September 2 – 4	September 26	English and Interviews
Phase II Entrance Examination	2nd-year postgraduates or those completed in Masters Degree Program, and foreign students	December	January 13 – 15	February 1	English and Interviews
Entrance Examination for Adult Students	Adults including those with working experience	December	January 13 – 15	February 1	Application Documents Review, Short Essay Exam, and Individual Interview

For further details, please refer to the "Graduate Prospectus of Meiji University."

Agricultural Chemistry Major

Using Sophisticated, Leading-edge Technologies

The Agricultural Chemistry Major studies issues relating to food, the environment, and life from the perspectives of physics, chemistry, biology, molecular biology, and engineering. We use leading-edge technologies to overcome issues relating to food, nutrition, and the global environment, which must be resolved in order for us to lead safe and comfortable lives.

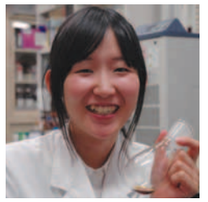
Our main fields of research relate to biological production and bioresources, including nutrition and metabolism of plants, animals and microbes, selection and raising of effective organisms, searching for physiologically active substances, and improving the soil/cleaning the environment using living organisms. We also develop new food ingredients and food functions and the like, as part of our food product research.

Through the above education and research, we educate students to have knowledge of chemistry and molecular biology necessary for bioscience research, and to be able to contribute to society in a broad range of agricultural and chemical fields in the future. Graduates of this major are active in environmental improvement industries and at research institutions, including in the food industry, general chemical industry, and pharmaceutical and agricultural chemical industries.

Graduate School Life Report — Make a Choice You Won't Regret!

Do you know why coffee, miso paste, and beer are brown? I am a member of the Laboratory of Food Functional Chemistry, where we research the browning reactions in these types of foods.

When I reached my third year and had to decide my career path, I had trouble deciding whether to go into the workforce or go on to graduate school. In the end, I decided to go on to graduate school because I thought that this would be my only chance to do research, and expand my own possibilities. I am now doing specialized study into the topics I researched as an undergraduate. Although researching unknown topics is difficult, it is extremely motivating. I also increase my understanding and make new discoveries by tutoring my juniors. I am very glad that I chose to go on to graduate school, in an environment where I can concentrate fully on my research every day. If you are having trouble deciding your career path, please take your time and choose a path that you won't regret.



Kana Kurimoto
2nd-year postgraduate in Masters Degree Program
Agricultural Chemistry Major

Agriculture Major

Broad Fields of Research

In the Agriculture Major, students research production plants, environmental plants, agricultural land, and animals. The methodologies used range from physiology and ecology, to animal behavior, microbiology, organic chemistry, molecular biology, molecular genetics, environmental chemistry, soil physics, epidemiology, and biostatistics. This research includes study of plants and other organisms from the community level to the level of the individual, organ, tissue, cell, and molecule. Some key phrases that we could use to describe the goals of our research include: crop harvest; development management; disease-resistant transgenic varieties; utilization of the natural characteristics of the land; greening; methods for preserving rare species; immune-system functioning; mechanisms of metabolic regulation; effective microbial genes; cloning of useful enzyme-producing microorganism genes; animal behavior and breeding; and animal welfare. The ultimate goal of this research is to contribute to the maintenance and development of human society, including sustainable food production, health and welfare, coexistence, and a closed-loop economy. The program demands a high level of motivation to do research.

Graduate School Life Report — Don't Let Opportunity Pass You By!

I am a member of the Laboratory of Animal Production, where I mainly research pig raising. In our research, we perform analysis based on production logs provided by pig farmers. The goal of the research is to provide a variety of information that can be used at production sites.

Graduate school is filled with opportunities. In my four years at my lab, I have been able to gain a wide variety of experience, including presenting papers in Japanese and international conferences; submitting papers to foreign journals; and conducting experimental studies at production farms. Although it is sometimes difficult, I think that you can gain valuable assets and experience for yourself by fighting to take advantage of the opportunities in front of you. Let's make the most of every day, and have a significant and fulfilling research career.

Yosuke Sasaki
1st-year postgraduate in Doctorate Degree Program
Agriculture Major

Agricultural Economics Major

Considering and Responding to Food, Agricultural, and Environmental Issues

This major has a noble goal: to explain problems relating to food, agriculture, and the environment from the perspective of the social sciences, and research sustainable societal and economic conditions for humankind. This is also required of our major by society in today's difficult times. For this reason, we provide students with an education primarily focusing on learning various subjects related to social science, and develop them to obtain professional and comprehensive views as well as global and multiple perspectives specializing in their field.

Graduate students choose their own topics of research, and are able to receive a wide range of advice from our well staffed department. One of the strengths of our major is the closeness between the staff and graduate students. Graduate students have access to dedicated research space and IT equipment. This environment enables those who complete their research in our graduate programs to succeed in experimental research institutes, agricultural organizations, the public sector, and private industry.

Graduate School Life Report

The Two Pillars of Graduate School

Graduate school consists of two main pillars: The first is research in a field of your choice, which culminates in the Master thesis. Research includes statistics and searches of the literature, as well as fieldwork in farming communities and enterprise. In our major of agricultural economics, fieldwork is a vital tool that replaces experiments and practical training.

The other pillar is our day-to-day lectures. Most of the lectures in graduate schools take the form of seminars, where a different presenter is chosen for each class, and each presentation is used as a springboard for discussion. This means that the presenters are not solely responsible for the content of the lecture: the participants are also required to take part in the discussion. This gives graduate students a great sense of satisfaction with these lectures.

Yohei Iiyama
2nd-year postgraduate in Masters Degree Program
Agricultural Economics Major

Life Sciences Major

Exploring the Mysteries of Life and Contributing to the Future of Humankind

The fundamental knowledge and research methods of the life sciences and biotechnology form a common base for this major. We conduct research and education in a broad range of fields including animals, plants, and microbes, and including both basic and applied topics. We actively research a wide range of fields at each of the labs, including research into protein structure and function, and basic research into molecular and cellular biology that will benefit such fields as food production, environmental maintenance, and medicine. Other research focuses on controlling the genetic information of plants and animals and their mechanisms for responding to the environment; improving plants, animals and microbes through genetic engineering; and developmental engineering, which serves as the foundation for regenerative medicine, including cloned and transgenic animals. We are confident that the graduates of our major will find success in research and industry, in fields that broadly improve the welfare of humankind, including foods, chemistry, pharmaceuticals, genomic research, bioresources, and environmental conservation.

Graduate School Life Report

Meiji University as a Research Institution

What image comes to mind when you hear the name "Meiji University?" Most people probably imagine schools and departments in the humanities. When I was in high school, I also didn't know that Meiji University had a School of Agriculture. Certainly, it is unfortunately the case now that the research institutions of the Meiji University School of Agriculture are not very highly regarded. I decided to go on to graduate school at Meiji University despite this fact because the graduate school has a great research environment, the latest research equipment, and good opportunities for learning.

Actually, the Life Sciences Major is gradually building up a good body of research, and it has recently begun to gain a good reputation at academic societies and conferences in Japan and internationally. Come to Meiji University and join us to produce outstanding outcomes!

Hideo Miyazaki
Masters Degree Program
Completed in 2009
Life Sciences Major

Staff Members in Graduate School of Agriculture

Name	Specialized Field	Name	Specialized Field
Agricultural Chemistry Major			
Noriaki Ikawa	Physical Properties of Food	Tamiji Sugiyama	Biofunction Chemistry
Hiroshi Takesako	Pedosphere Science	Harushi Nakajima	Environmental Microbiology
Fumitaka Hayase	Food Functional Chemistry	Kyoichi Osada	Food Hygienics
Hlroaki Kawabata	Nutritional Biochemistry	Siro Kawamura	Enzyme Chemistry
Hiromi Suzuki	Biophysics	Asako Takenaka	Food Chemistry
Masamichi Tsukada	Analytical Chemistry	Kazushige	Environmental Control for Plant
Takashi Nakamura	Food Engineering	Nakabayashi	Microbial Genetics
Shuichiro Murakami	Microbial Chemistry	Michihisa Maeda	Natural Products Organic Chemistry
		Hiroshi Araya	
Agriculture Major			
Katsu Imai	Crop Science	Naoto Iwasaki	Pomology
Nobuo Ogura	Plant Nematology	Noboru Kuramoto	Conservative Biology
Yuzo Koketsu	Animal Production	Hajime Koshimizu	Landscape Architecture
Shigeki Kobayashi	Environmental Animal Management	Masahiko Tamaki	Agri Science
Kosuke Noborio	Land Resource Science	Yasuyoshi Hayata	Vegetable Science
Kazu Fujisawa	Regional Environment Planning	Wataru Marubashi	Plant Breeding
Katsuyoshi Yoneyama	Plant Pathology	Takashi Ikeda	Production Systems
Hirotsugu Kanno	Environment Designing	Takashi Handa	Ornamental Plant Science
Kyo Itoyama	Applied Entomology	Michihiko Kojima	Water Resources Engineering
Yasushi Mizoguchi	Animal Genetics		
Agricultural Economics Major			
Masatoshi Ouchi	Theory on International Regional Society	Tokumi Odagiri	Agricultural Policy
Yoshiaki Kase	Agricultural Products Trade	Tamotsu Takemoto	Regional Resources Management
Tamotsu Tabata	Agricultural Resources Economics	Yukio Hiromasa	Environmental Economics Theory
Akihide Ikegami	Theory on International Development Economy	Yoshinori Ishizuki	International Agricultural Economics
Tomoko Ichida	Regional Planning	Tetsuo Oe	Agricultural Markets
Michitaro Oka	Global Environmental Resources	Takuya Hashiguchi	Agriculture and Food Policy
Life Sciences Major			
Yukio Kato	Genetic Information Controls	Naoto Kawakami	Plant Molecule Physiology
Shigeru Kuwata	Plant Engineering	Naoto Shibugaya	Environmental Responsive Biology
Hiroshi Nagashima	Developmental Engineering	Toshio Harigaya	Functional Anatomy
Tsuneo Hino	Animal Nutriology	Kimiaki Maruyama	Ecological Controls
Akihiko Ota	Animal Physiology	Hiroshi Ozaki	Protein Engineering
Hanae Kaku	Environmental Responsive Botany	Makiko Hamamoto	Microbiological Engineering
Kenichi Yoshida	Molecular Embryology	Hirohito Watanabe	Functional Biomacromolecules
Narito Asanuma	Metabolic Controls	Keiji Kitou	Proteomics
Kentaro Yano	Bioinformatics		

Message from the Teaching Staff

Meiji U. Undergrads forward! And Graduate Students a Step Ahead!

For both the graduate school and our undergraduate program, it goes without saying that the greatest emphasis is placed on lectures and experimental studies in your field of specialization. At graduate school, however, I want our students to have a wide range of interests and curiosity that extend beyond their own specialized fields. In particular, I think it is vital to become familiar with other fields which are closely related to your specialized field; there are several ways, such as reading through papers concerning these fields, or discussing with your friends and professors who are specialized in them. Furthermore, agricultural science is a field of practical research, so in addition to understanding events relating to food, the environment, and biology, it is also necessary to keep an eye on general trends in the world. I believe that understanding adjacent fields and the stance of your research in society will help you greatly in the future whatever you choose to become your career.

Professor Kosuke Noborio
Committee member of graduate school

Facing Your Future after Your Studies Head-on

Employment after Graduation

Choose your school and department with consideration for your future

When you are choosing your school and department when you apply to university, it is difficult to imagine your future path (employment or graduate school). Within two or three years, however, this choice will be looming. In this publication, the pages about each department include data on the career paths chosen by your seniors. It is vital to choose a school and department with consideration for what field you want to study, as well as the career path you would like to follow after university.

A fulfilling university career is fundamental

Entering university is the start of a student life that is different for each individual. While you study in your major, you will also get involved in clubs, volunteer activities, and research, make good friends, and have experiences that you can only have as a university student. Although this may be difficult for you to understand at the time, these things affect your future lifestyle and career choices greatly. It is no exaggeration to say that achieving your dreams depends on how fulfilling your university career is.

The School of Agriculture's employment support programs

The School of Agriculture offers a variety of programs to help its prospective graduates find jobs. One of these is the Career Planning Support Course. The course provides lectures by business persons with active careers in various fields, so that students can get some ideas about becoming a working adult before they go through a period of job searching. We also have university-wide civil-service exam preparation courses for students who want to work in the national or a local government. As you make these preparations, actual employment support starts in September of the third year for undergraduates, and the first year for graduate students (Masters Degree). Two staff members from each department (as committee members in charge of career path) and the Ikuta Career Support Office collaborate to offer students comprehensive support in their job searches. A wide range of events are held throughout the year, with the support office playing a central role. These events include special lectures (e.g. "What Is a Job Search?" and "The State of the Economy"); vocational aptitude surveys; industry research seminars; chats with alumni; entry sheet strategy courses; career support courses (self analysis); reports on job search activities by students who have received job offers; one-on-one consultations; career counseling; on-campus corporate seminars; factory and office tours; courses in interviewing skills; and Vocational Preference Inventory (conducting a vocational interest test). The support office also has a library with job advertisements, job-search diaries by senior students and alumni, and a record of the places where alumni have found work, allowing students to research companies from the university. The Internet can naturally also be used to gather information.

Meiji University is well known for the success its graduates have finding jobs, and the reason for this reputation is the united effort by the entire school staff to provide detailed job-search guidance. We hope sincerely that those of you applying to university now will come to the Meiji University School of Agriculture, learn and improve your abilities, and find success in the workforce.

Certifications Achieving your Objectives

The strength of certification

Meiji University offers courses to obtain a wide range of certifications. Students of the School of Agriculture can also register for these courses, and obtain certifications by obtaining the requisite course credits. There are also certifications, qualifications for taking exams, and other qualifications that students obtain by graduating from the School of Agriculture.

By Course Certification courses offered at Meiji University

Course Name	Department	License/Certification Given
Teacher Training Course	Department of Agriculture	Class 1 Junior High School Teaching License in Science, Class 1 High School Teaching License in Science and in Agriculture
	Department of Agri-food and Environmental Policy	Class 1 Junior High School Teaching License in Social Studies, Class 1 High School Teaching License in Geography and History, in Civics education, and in Agriculture
	Department of Agricultural Chemistry	Class 1 Junior High School Teaching License in Science, Class 1 High School Teaching License in Science and in Agriculture
	Department of Life Sciences	Class 1 Junior High School Teaching License in Science, Class 1 High School Teaching License in Science
Curator Training Course	All departments	Curator
Social Education Supervisor Training Course	All departments	Social education supervisor*1
Librarian Training Course	All departments	Librarian
School Librarian Training Course	All departments	School librarian*2

*1 At least one year of experience as an assistant supervisor for social education is required after completing the course to be certified as a social education supervisor.
*2 Qualification as a school librarian is effective only for those with a teaching license.

By Certification Certifications, qualifications for taking exams, and other qualifications available at School of Agriculture

Title	Department	Qualification	Title	Department	Qualification
Assistant surveyor	Department of Agriculture	Qualification is given when applied for after graduation.*	Feed production supervisor	Department of Agricultural Chemistry	Qualification for appointment
Assistant tree surgeon			Poisonous and deleterious substances handling supervisor		Qualification for appointment
Class-A hazardous materials handler	Department of Agricultural Chemistry	Qualification for examination	Food sanitation inspector		Qualification for appointment*
Chemical analyst		Qualification for examination	Food sanitation supervisor Environmental health inspector		Qualification for appointment*
Nutritional representative		Qualification for examination	On-site inspector for the testing of living modified organisms		Qualification for appointment*
Animal nutrition consultant		Qualification for examination	Inspector at inspection agency for foods for		Qualification for appointment
Food sanitation supervisor		Qualification for appointment	special dietary use		Qualification for appointment

* Credits in certain subjects required.

Comments from Certification Course Student

Certification courses enrich my university life

I have been in the Curator Training Course since my second year. I chose the curator program because I have loved zoos and museums since I was a child, and I want to work in one!

I decided to take the program after starting university, and finding that the School of Agriculture offered this certification. At first, I was worried about whether I could balance the program with my lectures, club, and part-time job, but similar courses are often offered at different campuses, so I could pick the courses that fit my schedule.

It's fun and stimulating to go to other campuses, because there's a different atmosphere there. There are also a lot of interesting things, because you get to study things different from your department's lectures, and there are also lectures with group work, so you can make friends in other schools and departments.

Certification courses let you make a lot of new friends and have many new experiences, so although it's hard to balance it with the rest of your student life, I think it will allow you to have a fulfilling university career.

Shiho Ishida
3rd-year student, Department of Agricultural Economics

Scholarship and Loan Programs Support University Life

Scholarships and loans: the financial support system

You need a certain minimum level of financial backing in order to get the most out of your university education. Some parents, however, are only able to bear a limited financial burden. Although students typically earn money for some of the necessary costs at part-time jobs, part-time jobs can sometimes interfere with university studies.

Universities have various systems to support all aspects of your university education. One key form of support is the wide range of scholarships and loans enabling students to finance their studies in a planned and efficient way.

Types of Scholarships and Loans

Financial Aid & Cultivation/ Grants & Loans

There are two types of scholarship objectives: financial-aid type for students with a desire for a higher education but no funding option; and cultivation type for students with top grades and potentials to contribute to society in the future. There are also two types of scholarship payment, a grant type and a loan type. The loan type requires repayment after graduation, while the grant type does not.

The available scholarship types (programs) include: the Japan Student Services Organization Scholarship, which is a government scholarship program; scholarships unique to Meiji University; scholarships by charitable private organizations; and scholarships by local governments. Each scholarship has its own selection criteria, including eligibility, conditions, scholastic aptitude, family (financial) situation, and personal qualities.

For more details, please refer to our scholarship guidebook "ASSIST."

Grant-type
Meiji University Special Scholarship (University scholarship)
Meiji University Scholarship (University scholarship)
Meiji University Scholarship in Memory of the Founder (University scholarship)
Meiji University Sports Scholarship (University scholarship)
Meiji University Academic Grant-type Scholarship (University scholarship)
Meiji University Alumni Scholarship (University scholarship)
Meiji University Special Grant-type Scholarship for Studnets Suffered from Disasters (University scholarship)
Meiji Kohgyo Scholarship (University scholarship)
Meiji University Parents Association Emergency Grant-type Scholarship (University scholarship)
Meiji University Parents Association Special Grant-type Scholarship

Loan-type
Japan Student Services Organization's Category 1 loans
Japan Student Services Organization's Category 2 loans (with interest)
Meiji University Enrollment Loan (University scholarship)
Meiji University Loan (University scholarship)
Meiji University Special Loan (University scholarship)

2010 Admission Information for School of Agriculture

Open Application Entrance Examination / AO Entrance Examination / Entrance Examination for Applicants Holding Bachelor Degrees

◆Open Application Special Entrance Examination◆

At the Meiji University School of Agriculture, we believe that an active search for people who want to study at the school's departments, and discovering and developing new certifications, will raise the level of education and research at the school.
We are confident that this will serve as the springboard for development in the 21st century in which nature and humankind are in harmony, as well as promote the advancement of agricultural science.

Number to be Admitted

Departments	Number to be Admitted
Department of Agriculture/Department of Agricultural Chemistry/ Department of Life Sciences/Department of Agri-food and Environmental Policy	Five for each department

Eligibility for Application

Applicants for Open Application Entrance Examination

Applicants must expect to graduate from high school by March 31, 2010; or obtain a certification for an educational program designated by MEXT as being equivalent to a high-school diploma by March 31, 2010; or expect to complete relevant programs at a designated foreign educational institution by March 31, 2010.
Applicants are also required to meet one of the following conditions:
(1) Have a grade-point average of at least 4.3 by the first semester of the final academic year
(2) Have an outstanding record of extra-scholastic activities while enrolled at school, and have a grade-point average of at least 4.0 by the first semester of the final academic year (Department of Agriculture/Department of Agricultural Chemistry)
(3) Have an outstanding record of extra-scholastic activities while enrolled at school, and have a grade-point average of at least 3.5 by the first semester of the final academic year (Department of Life Sciences/Department of Agri-food and Environmental Policy)

Returnee

Applicants must have graduated or expect to graduate from a foreign high school, and meet the following conditions.
(a) Japanese citizen
(b) Completed or expect to complete at least 12 years of ordinary school education (in Japan or abroad).
(c) Enrolled at an overseas high school based on a foreign curriculum for at least two years, and have graduated or expect to graduate between April 1, 2009 and March 31, 2010.
(d) Meet the requirements separately specified on the list of requirements for taking the university entrance exam or taking a comprehensive entrance examination.
(e) Accompanied your legal guardian to live overseas, and as a result, all conditions specified in above items (a) to (d) become applicable.

Application Period

November 2 (Mon) – 6 (Fri), 2009

Examination Schedule

	Exam Date	Exam Subjects	Announcement of Results
1st Stage Selection	November 17 (Tue), 2009	Application Documents Review	November 20 (Fri), 2009
2nd Stage Selection	December 5 (Sat), 2009	Short Essay Exams and Interviews	December 14 (Mon), 2009

Applicants and Successful Applicants

Departments	FY2009				FY2008			
	1st Stage Selection		2nd Stage Selection		1st Stage Selection		2nd Stage Selection	
	Applied	Passed	Applied	Passed	Applied	Passed	Applied	Passed
Department of Agriculture	11	5	5	4	9	7	7	5
Department of Agricultural Chemistry	13	11	11	6	11	10	10	7
Department of Life Sciences	8	4	4	3	13	9	7	5
Department of Agri-food and Environmental Policy	17	11	11	7	8	5	4	4

◆Special University Entrance Exams for Local Agricultural Development (AO System)◆

This program is open to students with a strong ambition, innovative mindset, and persistent energy to promote the development of local agriculture and farming communities. They should wish to use the knowledge and experience they have gained at the Department of Agri-food and Environmental Policy, and contribute to the local community in the future by addressing challenges for revitalizing local agriculture and rural communities.

Number to be Admitted

Departments	Number to be Admitted	Examination Venues
Department of Agri-food and Environmental Policy	12	Hokkaido (Sapporo), Kyushu (Fukuoka), Tokyo (Meiji University, Ikuta Campus)

Eligibility for Application

Applicants must meet all of criteria (1) to (3), below:
(1) Deeply interested in local agriculture and farming communities, and in the future, wish to contribute to or provide guidance for revitalizing local agriculture and rural communities.
(2) Wish to apply for the first choice to the Department of Agri-food and Environmental Policy of the School of Agriculture, and if admitted, wish to enroll in this university.
(3) One of the following should apply:
A. Graduated or expect to graduate from high school by March 2010.
B. Passed or expect to pass the Certificate for Students Achieving the Proficiency Level of High School Graduates (including those who passed the University Entrance Qualification Examination) by March 31, 2010, and those who are 18 years old or above at the time of March 31, 2010.

Application Period

August 17 (Mon) – 21 (Fri), 2009

Examination Schedule

	Exam Date	Exam Subjects	Announcement of Results
1st Stage Selection	Hokkaido Venue, September 16 (Wed) Kyushu Venue, September 16 (Wed) Tokyo Venue, September 18 (Fri) and 19 (Sat)	● Application Documents Review ● Group Discussions ● Individual Interviews	September 29 (Tue), 2009
2nd Stage Selection	October 16 (Fri) - 17 (Sat), 2009	● Short Essay Exams ● Announcement of Exam Topic (for Presentations) ● Individual Interviews	October 26 (Mon), 2009

Applicants and Successful Applicants

Departments	FY2009				FY2008			
	1st Stage Selection		2nd Stage Selection		1st Stage Selection		2nd Stage Selection	
	Applied	Passed	Applied	Passed	Applied	Passed	Applied	Passed
Department of Agri-food and Environmental Policy	41	17	16	10	35	18	18	13

◆Entrance Examination for Applicants Holding Bachelor Degrees◆

We accept applicants who hold or expect to hold a bachelor's degree.

Number to be Admitted

Departments	Number to be Admitted
Department of Agriculture/Department of Agricultural Chemistry/Department of Life Sciences/Department of Agri-food and Environmental Policy	Few admissions for each department

Eligibility for Application

Applicants must hold or expect to hold a bachelor's degree by March, 2010.
We do NOT accept applicants who have graduated or expect to graduate from our School of Agriculture and wish to apply for the same department of the School.

Application Period

January 25 (Mon) – 29 (Fri), 2010

Examination Schedule

	Exam Date	Exam Subjects	Announcement of Results
1st Stage Selection	March 1 (Mon), 2010	Short Essay Exams and Interviews	March 8 (Mon), 2010

* Please refer to our Admission Guidelines of each examination described above, to confirm the latest information on the application eligibility and examination method.

2010 Admission Information for School of Agriculture

General Entrance Examination / Entrance Examination for All Departments / Entrance Examination via the National Center for University Entrance Examinations

* The Department of Agricultural Economics has changed its name to the Department of Agri-food and Environmental Policy since 2008.

◆ General Entrance Examination ◆

● Number to be Admitted

Departments	Enrollment Capacity	Number to be Admitted	Subject Category	Exam Subjects	Exam Scores	Time of Examination
Department of Agriculture	130	77	Japanese/Mathematics/Science (select two out of four subjects)	Japanese (Comprehensive Japanese (excluding Chinese classics))	One subject 100 scores Total 200 scores	120 min.
				Mathematics (Mathematics I, II, A and B "Numerical sequence and vectors")		
Department of Agricultural Chemistry	130	77		Chemistry (Chemistry I & II), Biology (Biology I & II)		
Department of Life Sciences	130	82	Foreign Languages (select one subject)	English (English I, English II, Reading and Writing), German, French	100 scores	60 min.
Department of Agri-food and Environmental Policy*	130	70	Japanese, Geography and History/Civics Education/Mathematics/Science (Japanese is compulsory, and select one out of other seven subjects)	Japanese (Comprehensive Japanese (excluding Chinese classics))	One subject 100 scores Total 200 scores	120 min.
				World History B, Japanese History B, Geography B, Politics and Economics		
				Mathematics (Mathematics I, II, A and B "Numerical sequence and vectors")		
				Chemistry (Chemistry I & II), Biology (Biology I & II)		
			Foreign Languages (select one subject)	English (English I, English II, Reading and Writing), German, French	100 scores	60 min.

● Examination Schedule

Application Period	Examination Date	Announcement of Results
January 4 (Mon) - February 2 (Tue), 2010	February 15 (Mon), 2010	Starting at 9:30 am on February 23 (Tue), 2010 at Ikuta Campus

● Applicants and Successful Applicants

Departments	FY2009			FY2008			FY2007		
	Applied	Passed	Competition Rate	Applied	Passed	Competition Rate	Applied	Passed	Competition Rate
Department of Agriculture	1,084	309	3.5	874	302	2.9	846	289	2.9
Department of Agricultural Chemistry	763	196	3.9	762	186	4.1	645	226	2.9
Department of Life Sciences	1,294	324	4.0	1,160	349	3.3	1,162	309	3.8
Department of Agri-food and Environmental Policy *	1,037	145	7.2	756	193	3.9	859	163	5.3

* It was previously the Department of Agricultural Economics until 2007.

◆ Entrance Examination for All Departments ◆

● Applicants and Successful Applicants

Departments	Number to be Admitted	Subject Category	Exam Subjects	Exam Scores	Time of Examination
Department of Agriculture	15	Foreign Languages	English (English I, English II, Reading and Writing), German, French (select one subject)	100 scores	2nd session (60 min.): 11:20 – 12:20
Department of Agricultural Chemistry	15	Science	Chemistry (Chemistry I & II), Physics (Physics I, Physics II "Force and movement", "Electricity and magnetism" and "Movement of atoms and molecules" of "Physical matters and atoms"), Biology (Biology I & II) (select one subject)	100 scores	3rd session (60 min.): 13:40 _ 14:40
Department of Life Sciences	10	Japanese	Comprehensive Japanese (excluding Chinese classics)	100 scores	1st session (60 min.): 9:30 – 10:30
		Mathematics	Mathematics (Mathematics I, II, A and B "Numerical sequence and vectors)		4th session (60 min.): 15:30 – 16:30
* Foreign Languages and Science are compulsory, and the rest of subjects are selective subjects. Select 1 or 2 out of these selective subjects. If you select 2 subjects, the highest score will be added to overall score.					
Department of Agri-food and Environmental Policy*	10	Foreign Languages	English (English I, English II, Reading and Writing), German, French (select one subject)	100 scores	2nd session (60 min.): 11:20 – 12:20
		Japanese	Comprehensive Japanese (excluding Chinese classics)	200 scores	1st session (60 min.): 9:30 – 10:30
		Geography and History/Civics Education	World History B, Japanese History B, Geography B, Politics and Economics (select one subject)		3rd session (60 min.): 13:40 – 14:40
		Science	Chemistry (Chemistry I & II), Physics (Physics I, Physics II "Force and movement", "Electricity and magnetism" and "Movement of atoms and molecules" of "Physical matters and atoms"), Biology (Biology I & II) (select one subject)		
		Mathematics	Mathematics (Mathematics I, II, A and B "Numerical sequence and vectors)		4th session (60 min.): 15:30 – 16:30
* Foreign Languages are compulsory, and the rest of subjects are selective subjects. Select 2 or 3 out of these selective subjects. If you select 3 subjects, the first and second highest scores will be added to overall score.					

● Examination Schedule

Application Period	Examination Date	Announcement of Results
January 4 (Mon) – 21 (Thu), 2010	February 5 (Fri), 2010 Examination Venues: Sapporo, Sendai, Tokyo (the university campus), Nagoya, Osaka, Hiroshima and Fukuoka	Starting at 10:30 am on February 12 (Fri), 2010 at Ikuta Campus

● Applicants and Successful Applicants

Departments	FY2009			FY2008		
	Applied	Passed	Competition Rate	Applied	Passed	Competition Rate
Department of Agriculture	491	95	5.2	402	80	5.0
Department of Agricultural Chemistry	381	54	7.1	378	74	5.1
Department of Life Sciences	463	78	5.9	494	98	5.0
Department of Agri-food and Environmental Policy	580	77	7.5	375	75	5.0

* Admission Guideline is released in the beginning of November every year. For further information on examinations, please refer to "2010 Admission Guidelines."

◆ Entrance Examination via the National Center for University Entrance Examinations ◆

● Number to be Admitted

Departments	Number to be Admitted	Subject Category	Exam Subjects	Exam Scores	Remarks
Department of Agriculture	15	Foreign Languages	English, German, French (select one subject)	100 scores	Convert the scale of 200 scores at the National Center for University Entrance Examinations into the scale of 100 scores. A listening test is not included in the English test.
		Japanese	Japanese	100 scores	Convert the scale of 200 scores at the National Center for University Entrance Examinations into the scale of 100 scores.
Department of Agricultural Chemistry	15	Select 2 out of the following 8 subjects in the 2 subject categories. If you select more than 2 subjects, use the first and second highest scores out of them. You can select 2 subjects out of the "Science" category. You canNOT select 2 subjects out of the "Mathematics" category.			
Department of Life Sciences	15	Mathematics	Mathematics I, Mathematics I and Mathematics A, Mathematics II, Mathematics II and Mathematics B	200 scores (100 scores×2)	
		Science	Physics I, Chemistry I, Biology I, Geography I		
Department of Agri-food and Environmental Policy*	15	Foreign Languages	English, German, French (select one subject)	100 scores	Convert the scale of 200 scores at the National Center for University Entrance Examinations into the scale of 100 scores. A listening test is not included in the English test.
		Japanese	Japanese	100 scores	Convert the scale of 200 scores at the National Center for University Entrance Examinations into the scale of 100 scores.
		Select 1 out of the following 14 subjects in the 4 subject categories. If you select 2 subjects or more, use the highest score out of them.			
		Geography and History	World History B, Japanese History B, Geography B	100 scores	
		Civics Education	Contemporary Sociology, Ethics, Politics and Economics		
		Mathematics	Mathematics I, Mathematics I and Mathematics A, Mathematics II, Mathematics II and Mathematics B		
		Science	Physics I, Chemistry I, Biology I, Geography I		

● Examination Schedule

Application Period	Examination Date	Announcement of Results
January 4 (Mon) – 15 (Fri), 2010	January 16 (Sat) – 17 (Sun), 2010	Starting at 10:30 am on February 12 (Fri), 2010 at Ikuta Campus

● Applicants and Successful Applicants

Departments	FY2009			FY2008			FY2007		
	Applied	Passed	Competition Rate	Applied	Passed	Competition Rate	Applied	Passed	Competition Rate
Department of Agriculture	702	176	4.0	631	208	3.0	577	188	3.1
Department of Agricultural Chemistry	572	114	5.0	383	126	3.0	343	113	3.0
Department of Life Sciences	888	265	3.4	865	254	3.4	784	231	3.4
Department of Agri-food and Environmental Policy*	511	103	5.0	323	107	3.0	546	142	3.8

*It was previously the Department of Agricultural Economics until 2007.

Enquiry: Administrative Office, School of Agriculture TEL.044-934-7570 FAX.044-934-7902

● Students on the front cover:
Yohei Otake (2nd year, Department of Agri-food and Environmental Policy)
Ai Ono (2nd year, Department of Agri-food and Environmental Policy)

● Photo location on the front cover:
Laboratory of Pomology, Greenhouse (Professor Naoto Iwasaki)