Utsunomiya University
Graduate School of Agriculture
Graduate School code: 58

Web site: ***http://agri.mine.utsunomiya-u.ac.jp/hpe/index.html***

1. Graduate School code	58	
2. Maximum number of participants	3 (three) Participants per year	
3. Fields of Study	□Environmental Science □Marine Science □Meteorology □Natual Disaster/ Disaster Prevention Science □Tourism □Politics □Economics □Sociology □Education □Engineering ■ Agriculture (including Fishery, Dairy and Livestock) □Geology □ICT □Medical Science □Others( )	
Sub Fields	Crop Science, Biochemistry, Microbiology, Food Science, Livestock Science / Veterinary and Animal Medicine, Horticulture, Soil Science, Plant Protection and Other Agricultural Fields.	
4. Program and Degree	**Program**	Master's Program in Bioproductive Science, English-option.
	Degree	Master's degree in Agriculture
5. Standard time table (Years needed for graduation)	Two(2) years as a Master's student OR starting as a Research Student up to 6 months, then 2 years as a Master's Student after passing the exam.	
6. Language of Program	(1) Lectures: All required classes and lectures are given in English while some selective ones are in Japanese. Graduate college may provide "Tutor" to support your academic needs. (2) Textbooks and class handouts: Mostly in English but some Japanese reference books might be assigned. (In case of Japanese reference books are in critical, instructors will provide some additional information in English to assist English-option students.) (3) Laboratory and/or fieldwork: All instructions including safety instructions are provided in English. Instructors or teaching assistants will be always available when you work at a bench or in a lab. Incase of fieldwork, Japanese students may join but the instructions are given in both English and Japanese. Instructors may provide additional instructions if you have any difficulty to conduct fieldwork. (4) Seminars: In seminars with Japanese students, both English and Japanese are used while trying to achieve English-only environment to improve English proficiency of Japanese students. You may have chance to learn some basic Japanese technical terms in your area of study. (5) Master's thesis: Thesis/research advising provided in English. Your thesis committee/advisors (both your primary research advisor and department assigned supporting advisors) are available for your support from the 1st year research planning to thesis writing and final defense.	
7. Desirable English level and Necessary Academic background	Linguistic Ability	English language is considered essential for all applicants. If their primary language is not English, they are requested to provide some evidence that their command of spoken and written English is adequate. We can accept students from countries whose one of official language(s) is English and/or whose major medium of instruction in language for university education is English. Or applicants should

		provide any of their reasonable scores, such as TOEIC: 700, TOEFL iBT: 80 and/or PBT: 550.
	EJU, IELTS, GRE or else	At least 16 years of academic background with BSc degree or equivalent.
8. Prior Inquiry From Applicants (Before Submission of Application Documents)	Before submitting application documents, you are recommended to inquire about your research theme/ plan in order to select an appropriate university supervisor matched with your research area. Please click here for the inquiry.	
9. Website	1) Graduate School of Agriculture http://www.utsunomiya-u.ac.jp/en/faculties/agriculture.php http://agri.mine.utsunomiya-u.ac.jp/hpe/indexe.html (2) Utsunomiya University http://www.utsunomiya-u.ac.jp/en/	
10. Professors and Associated Professors	**Name**	**Research Subject, Contact (e-mail), Special message for the Future students**
	Natsuaki, Tomohide (Dr.) Professor	Plant Pathology, especially Plant Virology **【Contact(e-mail)】** natsuaki@cc.utsunomiya-u.ac.jp **【Special message for the Future Students】** We will offer extraordinary possibilities to gain experience in the variety of approaches used to investigate the nature and management of plant virus diseases. There are excellent facilities for work ranging from lab-based investigations of host-pathogen interaction to field investigations. We also investigate the many attenuated viruses that may offer better ways to control plant viral diseases without using chemical pesticides.
	Wada, Yoshiharu (Dr.) Professor	Photosynthesis and dry matter production of crop plants, including rice, barley, maize and some energy crops. 【Contact(e-mail)】 wada@cc.utsunomiya-u.ac.jp 【Special message for the Future Students】 In our lecture, students can get basic knowledge on plant production in Japan, especially rice, barley and some garden crops.
	Yamane, Kenji (Dr.) Professor	Horticulture, Pre and postharvest quality of ornamental plants, Control of germination and flowering in peach trees. 【Contact(e-mail)】 yamane@cc.utsunomiya-u.ac.jp 【Special message for the Future Students】 We are studying on physiology of horticultural plants. Here students are performing wide range activity such as planting materials, measuring physiological parameters and analyzing molecular aspects. Nowadays, Pacific countries have been important production area of horticultural crops including ornamental plants such as orchids and foliage plants. You'll be able to learn about Japanese modern and

		traditional technology for ornamental plants.
	Kashiwagi, Takayuki (Dr.) Associate Professor	Genetic, morphological, and physiological researches for understanding agronomic traits in crop. 【Contact(e-mail)】 kashiwagi@cc.utsunomiya-u.ac.jp
	Hirai, Hideaki (Dr.) Professor	Soil genesis and classification, Soil fertility, Soil education, Sustainable development under different soil characteristics, Development of utilization method of local bio-resources as amendments for crop seedings and paddy rice cultivation. Slush and burn agriculture and soil characteristics **【Contact(e-mail)】** hirai@cc.utsunomiya-u.ac.jp **【Special message for the Future Students】** I have been concerned with the sustainable development in the sloping land of the northeast in Thailand for many years where people are doing slush and burn agriculture. Based on my major and experiences of assistance activities there, I would like to continue considering and conveying sustainable development to make people happy in local society.
	Sugita, Shoei (Dr.) Professor	My research subjects are neuroscience and animal behaviors. Brain anatomy of all domestic animals is performed in our laboratory. **【Contact(e-mail)】** Sugita@cc.utsunomiya-u.ac.jp **【Special message for the Future Students】** Until now, I was a supervisor of eight foreign students in Ph.D (doctor of agriculture) program along with many Japanese students. It is my pleasure to support for your study. My major is quite basic study of animal science but my teaching and research subject will be helping your advanced study in future. I hope students will study hard, and have good communication ability and become to like Japan.
	Aoyama, Masato (Dr.) Associate Professor	Investigation of the mechanisms of the stress, especially of the transportation stress in farm animals. **【Contact(e-mail)】** aoyamam@cc.utsunomiya-u.ac.jp **【Special message for the Future Students】** There might be some differences in the styles of animal production, and

		in the breeds or races of the farm animals between your country and Japan, but some basal physiological mechanisms involved in the stress responses are universal among domestic animals. I hope that some knowledge and skills you learn with us will be useful after you go back to your country.
	Kabuyama Yukihito (Dr.) Professor	Application of extracellular matrix proteins to manage human health condition **【Contact(e-mail)】** kabuyama@cc.utsunomiya-u.ac.jp **【Special message for the Future Students】** Extracellular matrix proteins, such as collagens, are among abundant proteins which are disposed as industrial waste in food processing. Recent research progress demonstrates nutritional benefits of these proteins on the management of human health conditions. Therefore, research experience with us will provide you the basis for the future application of biomaterials, which do not always receive higher attention, in your country.
	Nihei, Ken-ichi (Ph.D.) Associate Professor	Natural Products Chemistry **【Contact(e-mail)】** nihei98@cc.utsunomiya-u.ac.jp **【Special message for the Future Students】** My interests are structures of natural products and related compounds, and their biological activity. Thus, isolation, structural determination, organic synthesis, and biological evaluation have been studied to identify unique molecules including phenolics, glycosides, and peptides.
	Hashimoto, Kei (Ph. D.) Professor	Our research focuses on application of phytochemicals of vegetables containing Allium, Brassica, Solunum, and Zingiber. We have been investigated the effect of phytochemicals on the enzymatic activities. We especially are interested in the beta-glucuronidase-inhibition, which

		plays the important role in the reduction of the risk of colon cancer, by cinnamic acids, flavonoids and their metabolites. **【Contact(e-mail)】** keih@cc.utsunomiya-u.ac.jp **【Special message for the Future Students】** It is my pleasure to support your study in Japan. There might be some difference in the way of the food processing between in your country and in Japan. I hope discussion on such difference will bring the serendipitous findings.
	Maeda, Isamu (Dr.) Associate Professor	Development of microbial and protein biosensors for detection of heavy metals in drinking water or food disease biomarkers. Biochemistry of yeast lipid metabolism, lactic acid yogurt production, and photosynthetic bacterial nitrogen fixation. **【Contact(e-mail)】** i-maeda@cc.utsunomiya-u.ac.jp **【Special message for the Future Students】** There are a lot of useful microorganisms which do not have any toxicity and pathogenicity, and these microorganisms have been applied to production of fermentative foods, alcoholic beverages, medicines, and raw materials for commodity chemicals, as well as sewage treatment for long time. We are studying on application of such microorganisms especially to production of valuable raw materials and to bio-sensing for polluted water and biomarkers. Join us and learn the knowledge and technologies.
	Matsuda, Masaru (Dr.) Professor	Genetics, Developmental Biology, Fish Biology, Medaka (Oryzias latipes), Sex-determination, Wild Population, Genetic Diversity, Population Genetics **【Contact(e-mail)】** matsuda@cc.utsunomiya-u.ac.jp

		【Special message for the Future Students】 Our research focuses on sex determination and genetic diversity of a small fresh water fish, the medaka (Oryzias latipes). Sex determination is a process that decides the direction of gonadal development. During normal gonadal development, many genes must function in the proper order that is called a gene cascade. However, the gene cascade of gonadal development remains an enigma. In order to reveal the gene cascade in vertebrates, we use an experimental model fish, the medaka. By using techniques of molecular genetics and developmental biology, we study how these genes affect gonadal development. We are also interested in geographic variation and diversity in wild populations of medaka. Analyses of genetic diversity and population structure of the wild populations will reveal the origin and natural history of wild populations in our neighboring region.
	Iigo, Masayuki (Dr.) Professor	Investigation on the regulatory mechanisms of physiology and behavior by neurotransmitters and hormones in animals Investigation on the regulatory mechanisms of circadian and seasonal rhythms in animals **【Contact(e-mail)】** iigo@cc.utsunomiya-u.ac.jp **【Special message for the Future Students】** Chemical substances such as hormones and neurotransmitters form complicated networks in the body. We are trying to reveal the molecular mechanisms of fundamental brain functions such as circadian rhythms, seasonal reproduction, migration, and aggressive behavior in animals by functional genomics approaches. The understanding on the above mentioned subject will help you to develop advanced techniques to regulate physiology and behavior in animals in your country.
	Matsumoto, Hiromichi (Dr.) Associate	Reproductive physiology.　Developmental biology of mammalian embryos during periimplantation. **【Contact(e-mail)】**

	professor	matsu@cc.utsunomiya-u.ac.jp **【Special message for the Future Students】** Implantation involves an intricate discourse between the embryo and uterus, and is a gateway to further embryonic development. Synchronizing embryonic development until the blastocyst stage with the uterine differentiation that takes place to produce the receptive state is crucial to successful implantation and therefore to pregnancy outcome. Although implantation involves the interplay of numerous signaling molecules, the hierarchical instructions that coordinate the embryo uterine dialogue are not well understood. This lecture highlights our knowledge about the molecular development of preimplantation, implantation, and the future challenges of the field. A better understanding of periimplantation biology could alleviate female infertility and help to develop novel contraceptives.
	Sato, Yusuke (Dr.) Lecturer	Skeletal muscle physiology, metabology and nutritional biochemistry. Nutritional regulation of muscle size and fiber-type for application of animal meat production and human health care. **【Contact(e-mail)】** ysato@cc.utsunomiya-u.ac.jp
	Nomura, Takahito (Dr.) Associate Professor	Molecular mechanisms of plant growth regulated by plant hormones **【Contact(e-mail)】** tnomura@cc.utsunomiya-u.ac.jp **【Special message for the Future Students】** Plants can grow if they have water, carbon dioxide and nutrients under light but the mechanism of plant growth is not so simple. My lecture will lead you to understand how plants grow at the molecular level.
	Xie, Xiaonan (Ph. D.) Assistant	Structural and functional analysis of bioactive substances in plants. Characterization of bioactive compounds produced by and released from plant roots which are produced only in very small amounts and decompose rapidly in the rhizosphere. These compounds play an

	Professor	important role in the communications between plants and other organisms in the rhizosphere. **【Contact(e-mail)】** xie@cc.utsunomiya-u.ac.jp **【Special message for the Future Students】** Based on this knowledge, I hope you understand that what kind of compounds are produced and released from plants and also their biosynthetic pathway these for agriculture application in future.
	Nishigawa, Hisashi (Dr.) Associate Professor	Genetic analysis of plant viruses. Functional analysis of plant viral genes. **【Contact(e-mail)】** nishigawa@cc.utsunomiya-u.ac.jp **【Special message for the Future Students】** Control of viral diseases is indispensable for the cultivation of crops in any country in the world. As a basic research for the development of a new viral disease control method, we analyze the genes of plant viruses. I hope that our study will help to control the viral disease that occurs in your country.
	Kodama, Yutaka (Dr.) Associate Professor	Molecular cell biology in plants under environmental alterations. Development of new techniques for molecular biology and plant factory. **【Contact(e-mail)】** kodama@cc.utsunomiya-u.ac.jp
	Fukui, Ryo (Dr.) Associate Professor	Soil microbiology to establish sustainable farm management **【Contact(e-mail)】** ryo@cc.utsunomiya-u.ac.jp
	Kurokura,Takeshi (Ph.D.) Lecturer	Molecular physiology of flowering in Rosaceae crops **【Contact(e-mail)】**

		kurokura@cc.utsunomiya-u.ac.jp
11. Features of University	【Utsunomiya University】 The fundamental goal of Utsunomiya University is to improve the welfare of mankind and contribute to world peace through distinctive high-quality education and research as an institution open to society. The university is comprised of four faculties; the Faculty of International Studies, the Faculty of Education, the Faculty of Engineering, and the Faculty of Agriculture. Graduates of this university can be found all over Japan and around the world. Utsunomiya University believes in taking the wide-view and balanced approach of training highly specialized professionals who will be active in the international arena. We accomplish this by combining a strong liberal arts education with specialized professional training. Utsunomiya University exists for the students. We want our students to remember with pride the time that they spent studying here. We, at Utsunomiya University, are committed to supporting our students. Everyone, why not come and study at Utsunomiya University?..... (from; "Message form the President") Utsunomiya University http://www.utsunomiya-u.ac.jp/en/	
12. Features of Graduate School	【Graduate school of Agriculture】 Thank you for looking at the information on the Faculty of Agriculture. Our faculty has recorded 92 years of excellence in agricultural education, research and extension. Since our faculty has been established in 1922, our educational mind is based on practical education-in-field as well as theoretical education. We will continue to build on our traditional strengths and push the envelope of new, exciting opportunities. We have focused our work on plant health, from molecular to global level; fundamental science for all living things, biological interaction in field, breeding to environmentally friendlier protection from droughts and landslide so on. We have five departments to educate in professional subjects and techniques for graduate students..... (from; "Greetings from the Dean's office") 【"English option" in MS degree program in Agriculture】 This option in MS in Biological production and Life science department is our newly established program for prospective students starting 2015 school year. By taking this option, students who take the designated classes taught in English while conducting Master's research work under the instruction of the advisors, one can complete all the requirements for MS degree in Agriculture. All the advisors are ready to accept your application through JICA and will be happy to have you in Utsunomiya. For more details or any questions, please contact by email listed in this site or through JICA, your inquires are always appreciated. In addition, you may also interested in our "Center for International Exchange" HP (URL : "intl.utsunomiya-u.ac.jp/en/") to get additional information on your Campus life in Utsunomiya, Cultural activities, introductory Japanese classes and so on. Please visit our websites for further information. Utsunomiya University http://www.utsunomiya-u.ac.jp/en/ Center for International Exchange http://intl.utsunomiya-u.ac.jp/en/index.html	

13. Features and Curriculum of Program	Please refer to the following website for the details: http://education-japan.org/africa/tmp_img/124_01.pdf
14. Academic Schedule	Please refer to the following website for the details: http://education-japan.org/africa/tmp_img/124_02.pdf
15. Supporting service to International Students	
International Students Support Center for Consulting or counseling about daily life, campus life, cross-cultural adjustment etc.	Center for International Exchange For further information, please visit: http://intl.utsunomiya-u.ac.jp/en/index.html Consultation You might feel stressful living in Japan where things are unfamiliar. If you have any questions or concerns, please feel free to ask your tutor or the staff at Center for International Exchange. Please refer to the website for details.
Provision of Student Dormitory	Utsunomiya University makes necessary arrangements for international students with financial difficulties that the International House can be accommodated for them. The tenancy period differs depending on the financial base and programs, but after the tenancy period expires, the student may need to move to off-campus housing. Please refer to the website for details.
Japanese Language Education Program for International Students	Utsunomiya University offers comprehensive Japanese language and culture programs for the international students to acquire necessary skills based on their language level. For further information, please visit: http://intl.utsunomiya-u.ac.jp/en/foreign_student/foreign_student01.html Please refer to the website for details.
Cultural Activities	There are various events for international students such as study tour to international exchange events with a local community.
Any special attention to Religious Practice	Registered student volunteer group “UU Halal research group” support Muslim students start their campus life at Utsunomiya University.
Facilities (Library etc)	Health Service Center, University Library For further information, please visit: http://www.utsunomiya-u.ac.jp/en/facilities/facilities.php Please refer to the website for details.
Please state other particular supporting service you are endeavoring, if any.	Utsunomiya University offers a tutor system to support international students. It is not rare for international students to get in various troubles due to the cultural differences. Moreover, some students might have difficulties understanding the cultures in Japan. In times like these, a student volunteer tutor will be there to fully support you one to one, so that you will be able to enjoy the school life at Utsunomiya University. Please refer to the website for details.
16. Message to Prospective International Students	

Message from University	Utsunomiya University's fundamental mission is to improve the welfare of mankind and contribute to world peace through distinctive high-quality education and research as an institution open to society. Utsunomiya University offers a safe and comfortable school life through its comprehensive programs tailored to support international students. Please refer to the website for details.
Voice of International Students	Pursuing study here is one of the best decisions in my life due to good support facilities and the academic community which has been very helpful for me to finish my study on time. Agung Prasetya from Indonesia, a first year in the Master's course student in the Graduate School of Agriculture, the Department of Forest Science Please refer to the website for details.