Course Name	**Food Resources and Environment**		
Semester, Year	First Semester, 2017	**Number of Credits**	2 credits
Course level	2000	**Course Number**	027019
Instructor(s) (Institution)	Taichi TAKASUKA (大学院農学研究院) Tomomichi KATO (大学院農学研究院) Yoshitaka UCHIDA (大学院農学研究院) GAO HUICHEN (大学院農学研究院) Yoko SAITO (大学院農学研究院)		
Course Objectives	Global population grows rapidly in an unprecedented ratio, and it would raise multiple serious food-related issues such as food shortage, environmental damages and wars, and so on. How can we feed all the human being with still meeting the balance between the economics and environment in future? Despite its difficulty, we have to come up the ways to solve and sustainably provide food and energy productions globally. The state-of-art technics and scientific ideas may give us hints. This lecture would give you some tips of them from many different areas: microbiology, biotechnology, ecology, economics, pedology, and environmental science, relating to food and energy resources. The lecture would also require you to work as a group of multi-background students to search the recent scientific technics and knowledge for solving the issues, and form an essay and give a presentation in English. We definitely welcome both Japanese and Foreign students.		
Course Goals	1.To understand the state-of-art technics and scientific ideas to solve the problems related to both food resources and environment on multiple spatial scales: from microbial scale to global scale. 2.To identify the problems occurring in the real society in terms of food and energy resources under the changing world and to try to give the possible solutions for them. 3.To learn how to work in group to write a structured report and to do an effective presentation ALL in English.		
Course Schedule	Week 1 Guidance Week 2 Lecture on the state-of-art techniques and scientific ideas related to food and energy resources and environment. Week 3 Lecture on the state-of-art techniques and scientific ideas related to food and energy resources and environment. Week 4 Lecture on the state-of-art techniques and scientific ideas related to food and energy resources and environment. Week 5 Choosing the theme for each group. Week 6 Group work for searching the recent scientific knowledge Week 7 Group work for searching the recent scientific knowledge Week 8 Group work for searching the recent scientific knowledge Week 9 Group work for searching the recent scientific knowledge Week 10 Submission of group essay Week 11 Preparing the group presentation Week 12 Preparing the group presentation Week 13 Preparing the group presentation Week 14 Group presentation Week 15 Group presentation		
Homework	Students will be required to complete an essay and prepare a presentation as a group outside of lecture.		
Grading System	- Attendance 10% - Activity in Group Work 30% - Group essay 30% - Group presentation 30%		
Textbooks / Reading List			
Websites			
Website of Laboratory	http://www.agr.hokudai.ac.jp/takasuka/index_en.html http://www.agr.hokudai.ac.jp/katolab/ http://www.uchidalab.com http://www.agr.hokudai.ac.jp/en/rfoa/ric/ric1-7.html		
Additional Information			