

Course	Advanced Food System
Course No.	
Credits	2 Credits
Grade	1 Year
Timetable	Fall AB intensive
Instructor	Yutaka Kitamura
Course Overview	This course focus on food security issues in terms of food system. From the reasons to be directed to non-uniform wide variety of organic resources, required persistence for energy conservation and resource conservation, and the difficulty of the artificially controlled by influence of nature, explain that the handling by systematizing is effective while citing example.
Remarks	Conducted in English
Course Type	Lectures
Link between Course Objectives and Activities	Achieved by the profession of development of food systems, design, analysis and methods including the evaluation of quality and quantity of numerical evidences, reliability of reports.
Academic Goal	To learn the theory and techniques (such as mathematical elucidation of parameters in food production, practical analyses of statistical data, systematic analyses of climate and environment) required for system of process leading to consumption from food production.
Course Schedule	<ol style="list-style-type: none"> 1. Control of food system and its actuality 2. Analysis of mathematical model of food system control system 3. Optimal scale of decision technique in food system 4. Exercises of calculation simulation 5. Case of the analysis and optimization of system 6. Evaluation method of food system 7. Case Studies of futuristic energy system 8. Case Studies of biomass utilization system 9. Verification of natural energy use food system 10. Grain of food safety system
Course Prerequisites and Advisories	
Grading Philosophy (Percentage/ Criteria/ Methodology)	Report and class participation. Grading Criteria is A+ (Superior), A (Excellent), B (Good), C (Average) and D (Failure). Students need to attend at least 80% of classes for getting grade C.
Self-Directed Learning Other Than Coursework	Complete reports as assigned
Textbooks, References and Supplementary Materials	Introduced appropriately in lecture
Office Hours	Name: Yutaka Kitamura E-mail: kitamura.yutaka.fm@u.tsukuba.ac.jp By appointment only
Other (i.e. Expectations on Classroom, Conduct and Decorum etc.)	
Related Courses	Advanced Course on Global Food Security Agriculture in Taiwan Impact of Environmental Stresses on Crops Production
Keywords	Food Security, Food System, Statistical Analyses