Module Code	18349025	Course Term
Course Subject Name	**Special Lecture on Advanced Topic of Agriculture 5**	Spring Semester
Course Tutor	**Takahiro Nakamura Tomonao Matsushita**	
Credit	2	Taught Day
Schools	School of Agriculture	Intensive
Taught Year	The 4th year	
Campus	Ito campus	
Subject Area	Lecture	
Course Subject Classification	Common basic subject	
Course Requirements	None	
Course Requirement (Pre-requisite)	None	

Course Outline

"Challenges in agricultural science and technology of plants"
This course aims to provide students with advanced topics of plant science related to agriculture, including molecular biology, genetics, physiology of model plant species and their utilization for food and other bio-products.

key words

phytohormone, rice, plant nutrition, forest breeding, hygene, post-harvest, genetically modified organisms, chloroplast and mitochondria

Study Objectives (General)

Students will gain deeper understanding of plant biology and its application to agriculture, food science, and other biological researches.

Study Objectives (Specific)

A. Students will develop understanding of advanced biology of agricultural plant species and its application.
B. Students will develop skills in critical thinking and research design.

Course Plan

1: Plant Photophysiology (phytohormone signal transduction)
2. Plant Genetics (rice resource, seed protein)
3. Plant Nutrition (metabolism of sulfer in plants)
4. Silviculture (Integration of morphological and molecular data toward Next Generation Breeding of Forest Tree in Japan)
5. Horticultural Science (Introduction of horticultural science)
6. From Stockholm to Rio+20: Historical perspective
7. Food Hygienic Chemistry (For good quality and safety of vegetables)
8. Postharvest Science
9. Bioproduction Engineering (Bioproduction engineering)
10. Plant Nutrition (Genetically modified organisms)
11. Plant Molecular Bioscience (chloroplast & mitochondria)

Course Approaches	Lecture
Textbooks	None
Reference Books	
Study consultation (office hour)	Office Hours: By email or appointment Email: tnaka@agr.kyushu-u.ac.jp, mat@agr.kyushu-u.ac.jp
Exams/Results Evaluation Method	1.Final report or examination (50%) 2. Class participation and attitude (50%)
Others	