Module Code	19349026	Course Term
Course Subject Name	**Genetics and Plant Breeding**	Spring The 4th Semester
Course Tutor	**Professor Takahiro Kusakabe** **Professor Yutaka Banno** **Professor Toshihiro Kumamaru** **Associate Professor Hideshi Yasui**	
Credit	2	Taught Day
Schools	School of Agriculture	TUE-3,4
Taught Year	The 2nd year	
Campus	Ito campus	
Subject Area	Lecture	
Course Subject Classification	Common Basic Subjects	Tuesday, 3rd and 4th period (13:00-16:20)
Course Requirements	Attentance of course work and examination	
Course Requirement (Pre-requisite)	Reading textbook	

Course Outline

key words

mitosis, meiosis, genotype, phenotype, chromosome, mutation, linkage, quantitative trait loci

Study Objectives (General)

To understand Mendelian genetics as foundamental approach of genetics in animals and plants

Study Objectives (Specific) The course aims to achieve the following:

Human genetics

Mendelian genetics

Application to plant breeding and animal husbandry

Course Plan

An Introduction to Genetics

Mitosis and Meiosis

Mendelian genetics

Sex determination and sex chromosomes

Modification of Mendelian ratios

Linkage and chromosome mapping in Eukaryotes

Quantitative genetics

Chromosome mutations: Variation in number and arrangement

Course Approaches	Lecture
Textbooks	Essentials of Genetics, 5th edition
Reference Books	Essentials of Genetics, 5th edition
Study consultation (office hour)	Associate Professor Hideshi Yasui Plant Breeding Laboratory, hyasui@agr.kyushu-u.ac.jp
Exams/Results Evaluation Method	Attendance of laboratory tour and experiment Midterm examination Final examination
Others	