

Plant Physiology			
Registration code	0909130 (Agr) 0606821 (Sci)	Credits	2.0
Course Category	Specialized Courses	Class room	Room 6
Term (Semester)/Day/Period	VI (3 rd year 2 nd semester) / Wed / 2 (10:30 – 12:00)		
Instructor	CARTAGENA Joyce Abad		
Contact	Office: Rm. B508A, Building B, Graduate School of Bioagricultural Sciences Phone: 052-789-5209 E-mail: joyce@agr.nagoya-u.ac.jp		
Course Purpose	This course will provide the students with the basic understanding on how plants carry out metabolic processes during growth and development. Furthermore, the mechanisms of how plants respond to changes in the environment will be discussed. In order to facilitate active learning, some basic experimental techniques and methods will be presented in the classroom or in the laboratory.		
Course Contents	<ol style="list-style-type: none"> 1. Water and Plant Cells, Water Balance of Plants (Chapters 3-4) 2. Mineral Nutrition, Solute Transport (Chapters 5-6) 3. Photosynthesis: Physiological and Ecological Considerations (Chapter 9) 4. Stomatal Biology, Translocation in the Phloem (Chapters 10-11) 5. Respiration and Lipid Metabolism (Chapter 12) 6. Assimilation of Inorganic Nutrients (Chapter 13) 7. Signals and Signal Transduction (Chapter 15) 8. Vegetative Growth and Organogenesis (Chapter 19) 9. The Control of Flowering and Floral Development (Chapter 20) 10. Biotic Interactions (Chapter 23) 11. Abiotic Stress (Chapter 24) 12. Responses and Adaptations to Abiotic Stress (Chapters 23-24) 		
Grading	In-class participation (25%), Presentation (25%), Examinations (50%)		
Course Withdrawal	Deadline for course withdrawal: May 22, 2019	Criteria for “Absent” & “Fail” Grades Absent: Approved Course Withdrawal Request Fail: Total accumulated score of less than 60%	
Prerequisite	Fundamentals of Biology 1 and 2 or equivalent	Related Courses	
Text Book	Plant Physiology and Development: International 6 th Edition by L.Taiz, E. Zeiger, I.M. Møller and A. Murphy, Oxford University Press Inc. USA, 2018		
Reference Book			
Remarks			