MODULE HANDBOOK

	UNIVERSITAS PADJADJARAN **FACULTY OF MATHEMATICS AND NATURAL SCIENCES** **BACHELOR OF BIOLOGY PROGRAMME**	**COURSE CODE:** **D10D-4003**
Module designation	Plant Physiology	
Semester in which the module is taught	4	
Persons responsible for the module	1. Dr. Mohamad Nurzaman, M.Si 2. Dr. Tia Setiawati, M.Si 3. Drs. Ruly Budiono, M.Sc. 4. Rusdi, Ph.D 5. Asep Zainal Mutaqin, M.Si.	
Medium of instruction	Indonesian	
Relation to curriculum	Compulsory course	
Teaching methods	Lectures and discussions	
Workload	Total workload : 5440 minute = 90.67 hour Lecture and discussion : 2 x 50 minute x 16 week = 1600 minute = 26.67 hour Exercises : 2 x 60 minute x 16 week = 1920 minute = 32 hour Self-study : 2 x 60 minute x 16 week = 1920 minute = 32 hour	
Credit points	2.00 (3.62 ECTS)	
Required and recommended prerequisites for joining the module	Basic biology, Structure and Development of Plants	
Module objectives/intended learning outcomes	1. Able to understand the scope and scope of plant physiology 2. Able to explain the concept of water relations with plants (osmosis and diffusion, water and nutrient transport, transpiration, gutations, imbibition) 3. Able to explain the concept of metabolism in the process of photosynthesis (C3, C4, and CAM plants) and respiration 4. Able to explain the role of growth hormones and their biosynthesis in plants 5. Able to explain the role of macro and micronutrients and identify symptoms of deficiency 6. Able to explain the concept of various movements in plants 7. Able to explain the concept of secondary metabolism and the relationship between plant physiology and the development of plant biotechnology	
Contents	Plant Physiology is a compulsory course that studies the understanding and scope of plant physiology, which includes physiological processes that occur in plants. This course studies the relationship between water and plants, metabolic processes (photosynthesis and respiration), the role of phytohormones in influencing growth and development, the role of nutrients (macro and micronutrients), and their deficiencies. In addition, various types of motion in plants that are influenced by stimulation or no stimulation from the environment are also studied. This course also includes learning about the concept of secondary metabolites and their relationship with the development of plant biotechnology such as tissue culture.	
Examination forms	Quiz, Midterm exam, Assignment, and Final exam	
Study and examination requirements	The minimum attendance in lectures is 80%. Final grades are evaluated based on quiz (15%), midterm exam (35%), assignment (15%), and final exam (35%)	
Reading lists	1. Djiwoseputro, D. 1994. Pengantar Fisiologi Tumbuhan. Cetakan ketiga belas. Jakarta: PT Gramedia Pustaka Utama 2. Lakitan, B. 2010. Dasar-dasar Fisiologi Tumbuhan. Ed I cetakan 8. Jakarta: Rajawali Pers 3. Salisbury, F. B. & C. W. Ross. 1995. Fisiologi Tumbuhan. Diterjemahkan oleh D. R. Lukman & Sumaryono. Bandung: ITB 4. Taiz, L. and Z. Eduardo. 1992. Plant Physiology. New York: The Benyamin Cumming Publishing Company. Inc.	