


MODULE HANDBOOK

	UNIVERSITAS PADJADJARAN FACULTY OF MATHEMATICS AND NATURAL SCIENCES BACHELOR OF BIOLOGY PROGRAMME	COURSE CODE: D10D-3004
Module designation	Plants Structure and Development 2 Practicum	
Semester in which the module is taught	3	
Persons responsible for the module	1. Dr. Mohamad Nurzaman 2. Dr. Tia Setiawati 3. Ruly Budiono, M.S 4. Asep Zaenal Muttaqien, MT	
Medium of instruction	Indonesian	
Relation to curriculum	Compulsory course	
Teaching methods	Practice	
Workload	Total workload : 2720 minutes = 45.33 hours Practice : 1 x 170 minutes x 16 weeks = 2720 minutes = 45.33 hours Exercises : - Self-study : -	
Credit points	1.00 (1.81 ECTS)	
Required and recommended prerequisites for joining the module	-	
Module objectives/intended learning outcomes	1. Able to understand the general scope and scope of plant structure and development 2. Able to identify and describe the characteristics of the constituent components of plant structures 3. Explain theoretically and practically about the structure of cells, tissues and organs before their development 4. Able to use the basic principles of using tools in research activities in the field of plant structure and development	
Contents	Explain theoretically and practically about the structure of cells, tissues and organs along with their development and function. Through observing cells, tissues, vegetative organs and generative organs by making wet preparations. Consists of: Introduction; how to use and observe with a microscope, how to make preparations, observing cells, protoplasmic and non-protoplasmic components; Types of tissue, primary tissue, primary and secondary meristem. Types of epidermis mature tissue and epidermis derivatives, ground tissue, mechanical tissue, vascular tissue, secretory tissue; Stem organs: Root organs, Leaf organs, Fruit, Seeds and Flowers	
Examination forms	Quiz, Midterm exam, Assignment, and Final exam	
Study and examination requirements	The minimum attendance in lectures is 100%. Final grades are evaluated based on quiz (10%), midterm exam (35%), assignment (20%), and final exam (35%)	
Reading lists	1. Gartner L.P. and Hiatt J.L. 2006. <i>Color Textbook of Histology</i> , 3 rd ed. Saunders Elsevier: Philadelphia. 2. Drake, R.L, Vogl, W and Mitchell, A.W.M. 2007. <i>Gray's Anatomy for Students</i> . Saunders Elsevier: Philadelphia. 3. Harver, H.A., V.W. Rodwel & P.A. Mayes. 1997. <i>Review of Physiology Chemistry</i> . Lange Medical Publishing. Los Altos California. 4. Vander, A.J., H.S. James & D.S. Luciano. 1994. <i>Human Physiology</i> . McGraw-Hill Inc. New York. St Louis. San Fransisco. 5. Tortora, G.G. & N.P. Anagnostakos. 1984. <i>Principles of Anatomy and Physiology</i> , 4 th ed. Harper & Row Publishers: New York	

