


## MODULE HANDBOOK

	<b>UNIVERSITAS PADJADJARAN FACULTY OF MATHEMATICS AND NATURAL SCIENCES BACHELOR OF BIOLOGY PROGRAMME</b>	<b>COURSE CODE: D10D-60104</b>
<b>Module designation</b>	Plant Microtechnics	
<b>Semester(s) in which the module is taught</b>	6	
<b>Person(s) responsible for the module</b>	1. Dr. Mohamad Nurzaman 2. Dr. Tia Setiawati 3. Ruly Budiono, Drs. 4. Dr. Asep Zaenal Muttaqien	
<b>Medium of instruction</b>	Indonesian	
<b>Relation to curriculum</b>	Elective course	
<b>Teaching methods</b>	Lectures, discussions, cooperative learning, and inquiry learning	
<b>Workload</b>	Total workload : 5440 minutes = 90.67 hours  Lectures, discussions, cooperative learning, and inquiry learning : 2 x 50 minutes x 16 weeks = 1600 minutes = 26.67 hours Exercises : 2 x 60 minutes x 16 weeks = 1920 minutes = 32 hours Self-study : 2 x 60 minutes x 16 weeks = 1920 minutes = 32 hours	
<b>Credit points</b>	2,00 (3,62 ECTS)	
<b>Required and recommended prerequisites for joining the module</b>	-	
<b>Module objectives/intended learning outcomes</b>	1. Able to understand in general how to prepare organs, tissues or tissue sections to be observed and analyzed. 2. Able to describe the technique of making preparations or preparations microscopically 3. Explain theoretically and practically the benefits of mycotechnics 4. Able to use the basic principles of the use of tools in research activities in the field of Biology, especially in observing the structure of plant tissues.	
<b>Contents</b>	Explain theoretically and practically about the stages of how to prepare organs, tissues or tissue parts to be observed and examined which include sources of material, sources of tissues and organs, stages of fixation, washing, dehydration, seeding, infiltration, embedding, cutting, sticking and staining.	
<b>Examination forms</b>	Quiz, midterm exam, assignment, and final exam	
<b>Study and examination requirements</b>	The minimum attendance in lectures is 80%. Final grades are evaluated based on Quizzes (20%), Tasks (20%), midterm exams (30%), and final exam (30%)	
<b>Reading lists</b>	1. Esau, K, 1965, 2006, Plant Anatomy. John Willey, New York. 2. Fahn, A. 1990, Plant Anatomy. Willey, New York 3. Estiti, B. Hidayat, 1995. Anatomi Tumbuhan Berbiji, ITB Press.	