

MODULE HANDBOOK

	UNIVERSITAS PADJADJARAN FACULTY OF MATHEMATICS AND NATURAL SCIENCES BACHELOR OF BIOLOGY PROGRAMME	COURSE CODE : D10D-4002
Module designation	Genetics Practicum	
Semester in which the module is taught	4	
Persons responsible for the module	1. Annisa, M.Si., Ph.D 2. Dr. Sri Rejeki Rahayuningsih 3. Nining Ratningsih, Dra., MIL.	
Medium of instruction	Indonesian	
Relation to curriculum	Compulsory Course	
Teaching methods	Practice	
Workload	Total workload : 2720 minute = 45.33 hour Practice : 1 x 170 minute x 16 week = 2720 minute = 45.33 hour Exercises :- Self-study :-	
Credit points	1.00 (1.81 ECTS)	
Required and recommended prerequisites for joining the module	-	
Module objectives/intended learning outcomes	<ol style="list-style-type: none"> 1. Able to apply theory in the form of a practicum. 2. Observing the life cycle of drosophila melanogaster as a model animal in genetics practicum and recognizing mutants. 3. Able to perform crosses based on mendel's law (monohybrid and dihybrid) and discuss the crossing results. 4. Able to perform sex-linked crosses and discuss the crossing results. 5. Able to understand and practice eye chromatography in drosophila melanogaster. 6. Able to make onion root preparations and directly recognize the stages of mitotic division. 7. Able to make preparations and recognize giant chromosomes (polytene) from the salivary glands of Drosophila larvae. 8. able to perform simulations for population genetics 	
Contents	This course is a compulsory practicum course where students can better understand the discussion of genetics given in the theory class. This course covers the application of the introduction of animal research models of Drosophila melanogaster, Mendel's Law, sex-linked, chromosomes during mitosis, polytene chromosomes, chromatography, and population genetics.	
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 (25%), midterm exam (25%), assignment (25%), and final exam (25%)	
Reading lists	<ol style="list-style-type: none"> 1. Markow, Therese A. and Patrick O'Grady. 2006. Drosophila: A Guide to Species Identification and Use. California. Elsevier. 2. Sullivan, William, and Hawley, R. Scott. 2000. Drosophila Protocols. New York. Cold Spring Harbor Laboratory Press. 3. Snustad D.P and Simmons M, J 2012. Principles of Genetics, 6th Ed. John Wiley & Sons, Inc. NJ. 	