MODULE HANDBOOK

	UNIVERSITAS PADJADJARAN **FACULTY OF MATHEMATICS AND NATURAL SCIENCES** **BACHELOR OF BIOLOGY PROGRAMME**	**COURSE CODE:** **D10D-60108**
Module designation	Collection and Management of Biological Specimens	
Semester in which the module is taught	5	
Person (s) responsible for the module	1. Dr. Budi Irawan, M.Si 2. Annisa Ph.D 3. 3. Dr. Eneng Nunuz Rohmatullayaly, M.Si	
Medium of instruction	Indonesian	
Relation to curriculum	Elective course	
Teaching methods	Lectures, discussions, cooperative learning, and inquiry learning	
Workload	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	
Credit points	2,00 (3,62 ECTS)	
Required and recommended prerequisites for joining the module	General Biology	
Module objectives/intended learning outcomes	1. Know and understand the functions and benefits of biological resource collections 2. Know and understand the techniques for collecting and managing specimens of both plants and animals for research and educational purposes 3. Know and understand the techniques for collecting and managing specimens for molecular analysis 4. Know and understand collection techniques and management of fossil specimens 5. Understand the management of preserved and living specimen collections	
Contents	The Biological Specimen Collection and Management course is an elective course for Biosciences majors. This course studies the process of collecting, processing and storing biological samples which become biological resources. So that students gain the ability to collect and manage specimens from various taxa tailored to the purpose of the collection, both for research and educational media. Apart from that, students can understand how to manage good storage, so that the specimen collection can be used for molecular analysis in the future.	
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 Quizzes (25%), Assignments (25%), midterm exam (25%), and final exam (25%).	
Reading lists	1. Bridson, D., & Forman, L. (1992). The herbarium handbook, rev. ed. *Kew: Royal Botanic Gardens*. 2. Rugayah, R. A., Windadri, F. I., & Hidayat, A. (2004). Pedoman pengumpulan data keanekaragaman flora. *Dalam: Rugayah, Widjaja EA & Praptiwi (eds.). Bogor: Puslit-LIPI*, 5-42. 3. De Vogel, E. F. (1987). *Manual of herbarium taxonomy*. Unesco. 4. William Goodwin, Ed. (2016) *Forensic DNA Typing Protocols*, 2nd Edition. Humana Press. New York. 5. Mónica V. Cunha and João Inácio, Ed. (2015) *Veterinary Infection Biology: Molecular Diagnostics and High-Throughput Strategies* Methods in Molecular Biology. Springer Science+Business Media New York. 6. Funk, V.A., Gostel, M., Devine, A., Kelloff, C.L., Wurdack, K,Tuccinardi, C. , Radosavljevic, A, Peters, M., Coddington, J. (2017). *Guidelines for collecting vouchers and tissues intended for genomic work (Smithsonian Institution): Botany Best Practices*. Biodiversity Data Journal 5: e11625.	