MODULE HANDBOOK

	UNIVERSITAS PADJADJARAN **FACULTY OF MATHEMATICS AND NATURAL SCIENCES** **BACHELOR OF BIOLOGY PROGRAMME**	**COURSE CODE:** **D10D-1003**
Module designation	Bioprospecting	
Semester in which the module is taught	1	
Persons responsible for the module	1. Prof Ratu Safitri 2. Drs. Tatang E. MS 3. Asri Peni Wulandari Ph.D 4. Prof. Nia Rossiana 5. Dra. Betty Mayawati MS. 6. Dra. Nining Ratningsing, M.IL.	
Medium of instruction	Indonesian	
Relation to curriculum	Compulsory course	
Teaching methods	Lectures and discussions, Collaborative Learning, Cooperative Learning, Project Based Learning	
Workload	Total workload : 5440 minutes = 90.67 hours Lecture and discussion : 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	-	
Module objectives/intended learning outcomes	1. Students are able to explain the concept of bioprospecting and the issue of biopiracy, and provide solutions to the cases presented. 2. Can describe Indonesia's biodiversity potential and opportunities in the ecological economy. 3. Can illustrate biological prospects based on examples of bioproducts and research results. 4. Can analyze innovative examples based on access to scientific information and sources about biological prospects in the context of future bioentrepreneurship.	
Contents	This compulsory course provides an introduction to the basic concepts of bioprospecting and biopiracy. The material covers local SDH exploration, ethics and regulations on scientific SDH utilization, and encourages students to think critically and innovatively in the context of SDGs, especially in the areas of health, the environment, biodiversity, and green economic development. Students are trained to recognize ethical issues in the utilization of SDH, identify its potential, and develop initial ideas for bioprospecting projects based on literacy skills. The learning methods used are lectures, discussions, collaborative literature exploration, and mini scientific writing project assignments. The learning is designed to provide experience in developing critical, analytical, and innovative thinking skills through literature studies, discussions, and the design of contextual and applicable bioprospecting-based project ideas.	
Examination forms	Pretest, 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 (10%), midterm exam (15%), assignment (10%), final exam (15%), project and participation (50%)	

Reading lists	1. Neimark, B. D. (2017). Bioprospecting and Biopiracy. In D. Richardson (Ed.), The International Encyclopedia of Geography. Wiley-Blackwell. https://doi.org/10.1002/9781118786352.wbieg0587 2. Bioprospecting and Sustainable Development. https://undp-biodiversity.exposure.co/the-new-gold-rush-bioprospecting 3. Strobel G, Daisy B. Bioprospecting for microbial endophytes and their natural products. Microbiol Mol Biol Rev. 2003 Dec;67(4):491-502. doi: 10.1128/MMBR.67.4.491-502.2003. PMID: 14665674; PMCID: PMC309047.Pedoman PKM, Simbelmawa 2025 4. Rodrigues, M. J. (2024). Bioprospecting of Natural Products from Medicinal Plants. Plants, 13(24), 3556. https://doi.org/10.3390/plants13243556