

Module designation	Laboratory Work in Phytopharmaceuticals
Semester(s) in which the module is taught	Odd
Person responsible for the module	Dr. Bernadetta Octavia, M.Si., Dr. Anna Rakhmawati, M.Si
Language	Bahasa Indonesia
Relation to curriculum	Elective
Teaching methods	Lab works, project, seminar, exam
Workload (incl. contact hours, self-study hours)	Total workload is 46 hours per semester which consists of 170 minutes of lab work per week for 16 weeks.
Credit points	1 SKS (1.6 ECTS)
Required and recommended prerequisites for joining the module	-
Module objectives/intended learning outcomes	PLO3 PLO 4 PLO 6 PLO 7
Content	This course trains the skills of applying basic techniques for applications in the field of microbial ecology and designing experimental designs related to the role of microorganisms in biotic and abiotic environments.
Examination forms	

Study and examination requirements	The final mark will be weight as follow:		
	NO	Assessment Techniques	Percentage Weight Assessment (%)
	1	Cognitive	50
		Presence	
		Quiz	
		Task	
		Mid Semester Exam	
		Final Semester Exam	
	2	Participatory	50
		Case Study	
		Team Based Project	
		Total	100
Reading list	<p>A. Febrianti,N.,Prijambada,I.D., Sembiring, L, dan Widiyanto, D. 2003. Karakterisasi dan Identifikasi Isolat Bakteri Pendegradasi Fraksi Aspaltik Hidrokarbon Lumpur Minyak Bumi, Biologi, 3 (2)</p> <p>B. Benson,H,J. 2002. Microbiological Applications: Laboratory Manual in General Microbiology,WCB McGraw-Hill,Boston USA</p> <p>C. Dipeshkumar Patel. 2022. A Textbook of Experimental Microbiology. Lambert Academic Publishing.</p> <p>D. James G. Cappucino, Natalie Sherman. 2008. Microbiology: A Laboratory Manual. Pearson International Edition.</p> <p>E. Jeremy W. Dale. 2013. Understanding Microbes: An Introduction to a Small World. Wiley-Blackwell</p> <p>F. Collins,C.H, Lyne,P.M., Grange,J.M., and Falkinham,J.O. 2004. Microbiological Methods, 8th edition. Oxford University Press.</p> <p>G. Jacquelyn G. Black, Laura J. Black. 2017. Microbiology: Principles and Explorations, 10th Edition. Wiley.</p>		