

Module designation	Microbial Ecology
Semester(s) in which the module is taught	Odd
Person responsible for the module	Dr. Bernadetta Octavia, Dr. Anna Rakhmawati, M.Si.
Language	Bahasa Indonesia
Relation to curriculum	Elective
Teaching methods	Lecture, lesson, project, seminar, exam
Workload (incl. contact hours, self-study hours)	Total workload is 91 hours per semester which consists of 100 minutes lectures, 120 minutes structured activities, and 120 minutes individual study per week for 16 weeks.
Credit points	2 SKS (3.2 ECTS)
Required and recommended prerequisites for joining the module	Microbiology
Module objectives/intended learning outcomes	PLO 2 PLO 6 PLO 7 PLO 9
Content	This course teaches the concept of microbial ecology and the role of microorganisms related to the environment and daily life so students can have the provision to develop microbiology in various fields
Examination forms	

Study and examination requirements	The final mark will be weight as follow:		
	NO	Assessment Techniques	Percentage Weight Assessment (%)
	1	Cognitive	50
		Presence	5
		Quiz	5
		Task	10
		Mid Semester Exam	15
		Final Semester Exam	15
	2	Participatory	50
		Case Study	25
		Team Based Project	25
		Total	100
Reading list	<p>A. Barton, L.L. and Northup, D.E. 2011. Microbial Ecology. Wiley-Blackwell</p> <p>B. Glazer. A.N. and Nikaïdo. H., 2007. Microbial Biotechnology Fundamentals of Applied Microbiology. Cambridge University Press. UK</p> <p>C. Madigan, M.T., Martinko, J.M., Bender, K.S., Buckley, D.H. and Stahl, D.A. 2015. Brock Biology of Microorganisms. Pearson Education, Inc, USA</p> <p>D. Mitchell ,R. and Gu Ji-Dong (Ed.) 2010. Environmental Microbiology, 2 nd ed. Wiley-Blackwell</p> <p>E. Cohen, G.N. 2011. Microbial Biochemistry, 2 nd ed. Springer</p>		