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Bachelor of Science in Biology

MODULE HANDBOOK

Module name:	Laboratory Work in Plant Cultivation				
Module level, if applicable:	Undergraduate				
Code:	BIM6188				
Sub-heading, if applicable:	-				
Classes, if applicable:	-				
Semester:	Even				
Module coordinator:	Dr. Ir. Suhartini, MS				
Lecturer(s):	Dr. Ir. Suhartini, MS.				
Language:	Indonesian				
Classification within the curriculum:	Elective Course				
Teaching format / class hours per week during the semester:	170 minutes preparation, practice and report making per week				
Work load:	Total workload is 45,5 hours per semester which consists of				
	preparation, practice, report making and response for 16 weeks.				
Credit points:	1 SKS (1,5 ECTS)				
Prerequisites course(s):	Plant Systematics, Plant Developmental Biology				
Perogram Learning Outcomes:	 4. Comprehensively mastering Biology (core biology) to solve problems in the field of Biology (problem-solving) and to underlie the concepts of related sciences 5. the techniques and methodologies in Biology as well as familiar with the equipment used in Biology laboratories in order to get the knowledge of Biology (how we know what we know) 6. Being adaptive, creative, innovative in applying the concepts of Biology and other related fields 7. Being skillful in applying the techniques used in laboratories and daily life Being skillful in applying the techniques used in laboratories and daily life Being skillful in applying the techniques used in laboratories and daily life 9. Being able to work and create jobs/being an entrepreneur in the field of Biology 10. Having managerial ability to supervise and evaluate workers and optimizing the networks in order to develop professionalism Having managerial ability to supervise and evaluate workers and optimizing the networks in order to develop professionalism 11. Possessing scientific skills to support the ability to speak in local, national, and international forums 				
Course Outcomes	After taking this practice, the students have ability to: CO1. practice cultivating land for crop cultivation CO2. practice how to plant nurseries and how to plant them CO3. practice ways to irrigate various types of plants				

	 CO4. practice the choice of fertilizer, how to fertilize, fertilizer time and fertilizer dosage CO5 Pactice how to control pests, diseases and plant weeds CO6. practice the way of breeding plants both through pollination and tissue culture CO7. determine and practice harvest time, how to harvest and handling post-harvest CO8. Elaborate all of practice, make reports and communicate group 						
Content:	Plant cultivation practice develop the ability and skills of the land management, plant nurseries, planting, irrigation, fertilization, pest control, plant diseases and weeds, plant propagation through pollination and tissue culture, harvesting and post-harvest handling						
	The f	inal mark will b	be weight as follow	:			
	No	CO	Assessment Object	Assessment Technique	Weight		
Study/examachievements:	1	C01 to C08	Observed attitudes , knolwedge, and skills	Survey, test, rubrics and manuals	100%		
	Total 100%						
Forms of media:	Real objects, model, multimedia						
Reference:	 A. Harjadi, Sri Setyati, 1982, Pengantar Agronomi, PT. Gramedia, Jakarta B. Hasan Basri Jumin, 1991, Dasar-dasar Agronomi, CV. Rajawali, Jakarta C. Novizan. 2002. Petunjuk pemupukan yang Efektif. Agro Media Pustaka D. Raharja dan Wahyu Wiryanta. 2003. Aneka Cara Memperbanyak Tanaman. Agro Media E. Sukman, Y dan Yakup. 2002. Gulma dan Teknik Pengendaliannya. Raja Grafindo Persada. F. Stephen R. Gliessman. 2006. Agroecology: The Ecology of Sustainable Food Systems, Second Edition. G. Wudianto, Rini. 1999. Membuat Setek, Cangkok dan Okulasi. Penebar Swadaya. 						

PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11
CO1				V			V				
CO2				V			V				
CO3				V		V	V				
CO4				V		V	V				
CO5				V		V	V				
CO6				V		V	V				
CO7				V		V	v		v	v	
CO8											v