



**UNIVERSITAS NEGERI YOGYAKARTA
FACULTY OF MATHEMATICS AND SCIENCE
DEPARTMENT OF BIOLOGY EDUCATION**

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Bachelor of Science in Biology	MODULE HANDBOOK
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Module name:	Laboratory Work in Plant Ecophysiology
Module level, if applicable:	
Code:	BIM6143
Sub-heading, if applicable:	Required natural resources Plant Response to environmental water condition Structure and function of stressed plant Plant Reproduction Strategies to environment Plant Adaptation to their environment Regulation and homeostatic processes in plants
Classes, if applicable:	Biology study program
Semester:	Odd semester
Module coordinator:	Dr. Suyitno Aloysius, M.S.
Lecturer(s):	Suyitno Aloysius Lili Sugiyarto
Language:	Indonesian
Classification within the curriculum:	Elective Course
Teaching format / class hours per week during the semester:	Guided inquiry approaches (discussion, observation/ experiment & presentation)
Workload:	170 min/week
Credit points:	2 credits/ semester
Prerequisites course(s):	Plant morphology; Plant anatomy; Plant physiology; Ecology
Program Learning Outcome(s)	<ol style="list-style-type: none"> 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. Mastering 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 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

	11. Possessing scientific skills to support the ability to speak in local, national, and international forums
Targeted learning outcomes:	CO-1. Able to carry out scientific processes to find the understanding / basic concepts of ecophysiology through observational and / experimental activities to understand the basic concept of ecophysiology and its interrelationship between ecological condition and physiological activities profile. CO-2. Able to apply the basic concepts of ecology and physiology using the scientific methods and scientific attitudes in solving ecophysiological problems and its implication.
Content:	Practicum of ecophysiology discusses the morphological, anatomical, selular and molecular adaptation of plants and its characteristics in relation to the role of physiological activities of the plant, through theoretical and analitical studies connected to the plant adaptation processes.
Study / exam achievements:	Portofio, skill performance, attitude,
Forms of media:	Student guide, practicum tools and materials
References:	A. Campbell, N. A, J. B. Reece, L. A. Urry, M. L. Cain, S. A. Wasserman, P. V. Minorsky, R. B. Jackson. (2008). <i>Biologi, Jilid 1, 2, 3, Edisi Bahasa Indonesia</i> . Jakarta: Erlangga. B. Starr, C., C. A. Evers, L. Starr. (2008). <i>Biology, Concepts and Applications, Seven Edition</i> . Thompson Brooks/ Cole. C. Hall, M.A (Ed). 1978. <i>Plant Structure, Function and Adaptation</i> . Hongkong :The McMillan Press Ltd.

PLO and CO mapping

	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7	PLO 8	PLO 9	PLO 10	PLO 11
CO 1				✓	✓	✓	v		✓	✓	✓
CO 2				v	v	v	v		v	v	v