

Module Handbook

Modul Name	Plant Physiology
Modul Level	Bachelor
Abbreviation, if applicable	BIB211
Sub-heading, if applicable:	-
Courses included in the module, if applicable:	-
Semester	Even (6 th semester)
Module Coordinator(s)	Dr. Y. Sri Wulan M., M.Si.
Lecturer(s)	Dr. Y. Sri Wulan M., M.Si. Dr. Edy Setiti W.U., M.Si. Drs. Hery Purnobasuki, M.Si., Ph.D. Dr. Junairiah, M. Kes
Language	Bahasa Indonesia
Classification Within The Curriculum	Compulsory Course / Elective Studies
Teaching format/ classhours per week during semester	450 minutes/ week
Workload per semester	150 min lecture + 150 min structural assignment + 150 min self-assignment x 13 weeks; total 5850 min = 97.5 hours 97.5/25 = 3.9 ECTS
Credit point	3
Requirement	Plant Anatomy
Learning goals/ competencies	<p>General Competence (knowledge): Students are able to explain the physiological processes that occur in plants, as well as the accompanying metabolic properly .</p> <p>Specific competence:</p> <ol style="list-style-type: none"> 1. ability to explain several plant physiology postulates, structure and function of plant cell 2. ability to explain the concept of diffusion, osmosis, imbibition and water potential 3. ability to explain the mechanism of plant transpiration 4. ability to explain the plant nutrition and their transportation 5. ability to explain the definition, variation, and function of enzyme, protein and amino acid 6. ability to explain the mitochondria structure and the definition and mechanism of respiration 7. ability to explain the chloroplast structure and their function to mechanism of photosynthesis 8. ability to explain the factors and mechanism of photosynthesis 9. ability to explain the metabolism of nitrogen, sulphur, lipid, and the other plant products. 10. ability to explain the growth and development of plant, plant morphogenesis, plant growth regulator and the plant movement (tropic and nastic). 11. ability to explain of the plant responses and ecophysiology.
Content	The scope, roles, and concepts of plant physiology, structure and function of cell organelles, cell connection with its environment, water, transpiration, respiration, photosynthesis, enzymes, plant nutrients, plant hormones, metabolism of nitrogen, sulphur, lipid and other products; plant morphogenesis; plant responses to stimuli, ekofisiologi.
Soft skill Attribute	Discipline and good communication

Study/ exam achievement	<p>Students are considered to be competent and pass if at least get 40 of maximum mark of the final score.</p> <p>Final score: paper project (15%), quiz (15%), mid exam (30%), final exam (30%), and soffskill (10%)</p> <p>Final index is defined as follow:</p> <p>A : 75-100 AB : 70-74,99 B : 65-69,99 BC : 60-64,99 C : 55-59,99 D : 40-54.99 E : 0-39.99</p>
Form of Media	LCD
Learning Methods	Class and discussion
Literature	<ol style="list-style-type: none"> a. Noggle, G.R., and Fritz, G.J., 1986, <i>Introductory Plant Physiology</i>, 2nd Ed., Prentice-Hall of India Private Limited, New Delhi. b. Wilkins, M.B., 1989, <i>Physiology of Plant Growth and Development</i>, McGraw-Hill Publishing Company Ltd., London
Note	Requirement of plant tissue culture