UNIVERSITAS NEGERI YOGYAKARTA

BIOLOGY EDUCATION

1 Colombo Street, Yogyakarta 55281

Phone (0274)565411 ext. 217, (0274)565411(Administration office), fax (0274)548203

Website: fmipa.uny.ac.id, e-mail: humas_fmipa@uny.ac.id

Bachelor of Education in Biology **MODULE HANDBOOK**

Module name:	**Structure of Plant Functions**
Module level, if applicable:	Undergraduate
Code:	MKU6210
Sub-heading, if applicable:	-
Classes, if applicable:	-
Semester:	2nd
Module coordinator:	Ratnawati, M.Sc
Lecturer(s):	Ratnawati, M.Sc., Dr. Suyitno, MS.; Budiwati, M.Si; Lili Sugiyarto, M.Si
Language:	Bahasa Indonesia
Classification within the curriculum:	University Course
Teaching format / class hours per week during the semester:	100 minutes lectures and 120 minutes structured activities per week.
Workload:	Total workload is 90.67 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 ETCS)
Prerequisites course(s):	-
Targeted learning outcomes:	After taking this course, the students are expected to be able to: CO1. describe the scope and essential concepts of scientific structure of plant functions and their interrelationships CO2. describe scientific approaches and procedures and techniques in developing scientific concepts of plant function structures CO3. show scientific attitudes and processes in studying and solving scientific problems of plant function structures CO4. identify the benefits and / or potential scientific structure of

<table>
<tr><td></td><td>plant functions in everyday life
CO5. identify the potential materials for studying plant function structures as an alternative field of entrepreneurship</td></tr>
<tr><td>Content:</td><td>This course discusses the structure of the anatomical structure of the plant body and its characteristics in relation to the physiological role or function of the plant body, through theoretical and laboratory studies related to environmental factors (adaptation and regulatory systems).</td></tr>
<tr><td>Study / exam achievements:</td><td>Attitude assessment is carried out at each meeting by observation and/or self-assessment techniques using the assumption that basically every student has a good attitude. The student is marked very good or not good attitude if they show it significantly compared to other students in general. The result of attitude assessment is not taken into account in the final grades, but as one of the requirements to pass the course. Students will pass from this course if at least have a good attitude.
The final mark will be weight as follow:
<table>
<tr><th>CO</th><th>Assessment Object</th><th>Assessment Technique</th><th>Weight</th></tr>
<tr><td>CO1,
CO2,
CO3,
CO4,
CO5,</td><td>a. Scores for each sub competence
b. Mid-term exam
c. Final Exam</td><td>Presentation / written test</td><td>60%

20%
20%</td></tr>
<tr><td colspan="3">Total</td><td>100%</td></tr>
</table></td></tr>
<tr><td>Forms of media:</td><td>Board, LCD Projector, Laptop/Computer</td></tr>
<tr><td>References:</td><td>Agus Pudjoarinto dan Issirep Sumardi, 1992. Struktur dan Perkembangan Tumbuhan. Fakultas Biologi UGM, Yogyakarta.
Esau, K (1992). Anatomy of Seed Plants 2nd. John Wiley and Sons, New York.
Estiti Hidayat. 1991. Anatomi Tumbuhan Berbiji . Bandung: Institut Teknologi Bandung
Estiti B. Hidayat, 1994. Morfologi Tumbuhan. Proyek Pendidikan Tenaga Akademik, Jakarta.
Halle, F. Dan Oldeman, R.A.A. 1975. An Essay on The Architecture and Dynamics of Growth of Tropical Trees. Penerbit Universiti Malaya. Kuala Lumpur.
Tjitro Soepomo, G. 1989. Morfologi Tumbuhan. Gadjah Mada University Press, Yogyakarta.
Hall, M.A. (ed.) 1976. Plant Structure, Function and Adaptation. The English Language Book Socie. and Macmillan.
Salisbury,F.B and C.W. Ross. 1992. Plant Physiology. 4th Ed.</td></tr>
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	California. Wadsworth Publ. Co. Tais L and Zeiger E. 1991. Plant physiology. Tokyo. The Benyamin/Cumming Publising Company Inc. Bold, A.C, 1957. *Morphology of Plants*. Harper & Brothers Publisher. New York. Fahn, A, 1990. *Plant Anatomy*. 4th. edit Pergamon. New York. Foster and Clifford, 1959. *Comparative Morphology*. Vikas Publisher, San Fransisco. Bidwell R.G.S. 1979. 1979. Plant Physiology. Collier MacMillan Publ.Comp. NY. Krisnamoorthy,H.N. 1981. Plant Growth Substances. TataMcGraw-Hill Publ.. N Delhi Meyer A.M. and Poljakoff-Mayber. 1975. The Germination of Seeds. Pergamon Press Sitompul, S.M dan B. Guritno. 1995. Analisis Pertumbuhan Tanaman. Yogyakarta : Gadjah Mada Univ. Press. Mohr H, Schopfer. 1995. Plant Physiology Translated by Gudrun and D.W. Lawlor. Spinger.

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	PLO 12
CO 1				✓								
CO 2				✓								
CO 3							✓					
CO 4				✓								
CO 5				✓								