Module Handbook

Module designation	Plant Morphology and Anatomy (course code MPB 1204)
Semester(s) in which the module is taught	2
Person responsible for the module	*Dr. Dwi Gusmalawati, Dr. Elvi Rusmiyanto, Dr. Zulfa Zakiah, Masnur Turnip, M.Sc, Mukarlina,*
Language	*Indonesia*
Relation to curriculum	***Compulsory***
Teaching methods	*lecture and lab work*
Workload (incl. contact hours, self-study hours)	*(Estimated) Total workload: 170 minutes x 4-unit x 16 = 10,880 minutes (182 hours)* *Contact hours (please specify whether lecture, exercise, laboratory session, etc.):* *Class A lecture: every Monday, 07:30 - 10:00* *Class B lecture: every Thursday, 07:30-10.00* *laboratory session: Wednesday, 13:00 - 16:00* *Private study including examination preparation, specified in hours[1]: 240 minutes x 16 session = 3,840 minutes (64 hours)*
Credit points	*4 unit*
Required and recommended prerequisites for joining the module	*General Biology (course code MPB 1100)*

[1] When calculating contact time, each contact hour is counted as a full hour because the organisation of the schedule, moving from room to room, and individual questions to lecturers after the class, all mean that about 60 minutes should be counted.

Module objectives/intended learning outcomes	***Knowledge:*** *Mastering and being able to apply biological science and other scientific fields that support the development of biological science* ***First general skill****: Able to work in teams and communicate actively orally and in writing in the field of biological sciences* ***Second specific skills****: Mastering biological instruments and methodologies and being able to apply them in the management of tropical wetland resources*.
Content	*The subject exposes students to the basic knowledge required to understand animal ecology principles. Students will be acquainted with the definition of Leaf morphology, stem morphology, root morphology, flower morphology, fruit morphology and seed morphology; Leaf anatomy, primary stem anatomy, secondary stem anatomy, periderm anatomy, primary root anatomy, secondary root anatomy, flower anatomy, fruit anatomy and seed anatomy*.
Examination forms	*Written test*
Study and examination requirements	*Re-registration and 75% attendance*.
Reading list	*1) Tjitrosoepomo, G. 1988. Morfologi Tumbuhan. Gadjah Mada Univ. Press. Yogyakarta* *2) Hidayat, E. 1991. Anatomi Tumbuhan Berbiji. Penerbit Ganesha. Bandung* *3) Suradinata, T. 1999. Struktur Tumbuhan. Penerbit Ganesha. Bandung.*