

Module designation	Developmental Biology of Plant
Semester(s) in which the module is taught	Even/4 th
Person responsible for the module	Dra. Ratnawati M.Sc., Dra. Budiwati M.Si.
Language	Bahasa Indonesia
Relation to curriculum	Compulsory
Teaching methods	Lecture, lesson, project, seminar, exam
Workload (incl. contact hours, self-study hours)	Total workload is 91 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 (3.2 ECTS)
Required and recommended prerequisites for joining the module	-
Module objectives/intended learning outcomes	PLO 2 PLO 3 PLO 4 PLO 6 PLO 7 PLO 9
Content	<p>This course studies issues related to the important stages of structural and functional development at the cellular, tissue, and organ levels in the life cycle of plants, especially Angiospermae, and their factors. The scope of the study covers the development of sexual reproductive organs, pollination, embryo and endosperm development, fruit and seed development, seedling development, vegetative organs, including the development of the structure and function of the meristematic regions of the root and stem tips, the initiation and production of inflorescences, the regressive/retrograde development of vegetative organs, and the factors that influence morphogenesis, both internal and/or external, in a specific regulatory mechanism involving many genes. Internal factors such as genetics, hormones, and nutritional status, as well as environmental factors, are important factors in plant developmental biology.</p>
Examination forms	Presence, task, quiz, mid semester exam, final semester exam, case study, team based project.

Study and examination requirements	The final mark will be weight as follow:		
	NO	Assessment Techniques	Percentage Weight Assessment (%)
	1	Cognitive	50
		Presence	5
		Task	5
		Quiz	5
		Mid Semester Exam	15
		Final Semester Exam	20
	2	Participatory	50
		Case Study	25
		Team Based Project	25
		Total	100
Reading list	<p>A. Solomon, E.P, Berg, L.R, and D.W. Martin. 2008. Biology. 8 th edition. Singapore, Canada, Australia, United Kingdom, Mexico: Thomson Brooks/Cole.</p> <p>B. Beverly Glover. 2007. Understanding Flowers & Flowering. Oxford University.</p>		