

**Module Handbook for Horticulture**

Module designation	Horticulture
Module level, if applicable	Bachelor
Code, if applicable	22A42C410
Subtitle, if applicable	-
Courses, if applicable	-
Semester(s) in which the module is taught	Even Semester (4)
Person responsible for the module	Dr. Ir. Hj. Hilda Karim, MP.
Lecturer	Dr. Ir. Hj. Hilda Karim, MP.
Language	Indonesia
Relation to curriculum	Elective course, 4 st Semester
Type of teaching, contact hours	Learning methods: lectures, project based learning, discussions, assignments. CSU : 2 2 x 50 minutes lecture = 100 minutes 2 x 60 minutes scheduled task = 120 minutes 2 x 60 minutes independent task = 120 minutes Total teaching format = 340 minutes = 5.7 hours
Workload	Total workload = (Total Teaching format x 16) = 5,7 x 16 = 91,2 hours
Credit points	2 CSU (3 ECTS) ECTS = Total workload : 30 hrs = 91,2 : 30 = 3
Requirements according to the examination regulations	Student must have attended at least 80% of the lectures to sit in the exams.
Recommended prerequisites	Students must have passed general biology, plant anatomy, plant morphology, and high plant botany courses
Module objectives/intended learning outcomes	After taking this course the students have ability to: 1. Understanding the meaning, concept and scope of horticulture comprehensively 2. Understand the concept of hydroponic plant cultivation 3. To cultivate horticultural plants using hydroponic techniques 4. Understand the concept of ornamental plant cultivation 5. To design ornamental plant production business 6. Understanding horticultural plant propagation techniques vegetatively and generatively 7. To carry out vegetative propagation and pollination of orchid plants 8. To do orchid acclimatization 9. Understand vegetable crop cultivation and post-harvest aspects of vegetables 10. Able to design a vegetable crop production and harvest business 11. Understand the process of producing and harvesting fruit crops 12. To design the production and harvesting business of fruit crops

	13. Understand about the landscape of plants and the types of plants 14. Understand the concept of organic farming
Content	The horticulture course covers the concept and scope of horticulture which discusses plant handling techniques such as plant cultivation using hydroponic techniques, production and post-harvest handling of ornamental plants, vegetables and fruit, as well as the ins and outs of organic farming.
Study and examination requirements and forms of examination	Midterm and final exam, assignments.
Media employed	PPT, Video, LCD, Laptop.
Reading list	1. Gunawan, L. W. 1990. Teknik Kultur Jaringan. Jurusan Budidaya Pertanian, Fakultas Pertanian, Institut Pertanian Bogor. 2. Kencana, I.P. 2007. Cara cepat membungakan anggrek. Serial Taman. PT Gramedia. 3. Reijntjes, C., Haverkort, B., dan Waters-Bayer, A. 1999. Pertanian Masa Depan. Kanisius, Yogyakarta, 270 hal. 4. Sharma, H.C., J.H. Crouch, K.K.Sharma, N. Seetharma, C.T. Hash. 2002. Application of biotechnology for crop improvement: prospects and constraints. Plant Science 163:381-395. 5. Stoskopf N.C., D. T. Tomes and B. R. Christie.1993. Plant Breeding, Theory and Practice. Westview Press, Oxford. Pendukung : 1. Suslowet al. 2002. Biotechnology provides new tools for plant breeding. University of California, Davis, USA. 2. Sutanto, R. 2002. Penerapan Pertanian Organik. Kanisius, Yogyakarta, 219 hal. 3. Taji A. M, W. A. Dodd and R. R. Williams. 1997. Plant Tissue Culture Practice. Third Edition. The University of New England Printery, Armidale, NSW, 2351. 4. Taji A. M and R. R. Williams. 1996. Tissue Culture of Australian Plants. University of New England, Armidale NSW 2351, Australia. 5. Zulkarnain, H. 2009. Dasar-dasar Hortikultura. PT Bumi Aksara, Jakarta, 336 hal. 6. Semangun H., Penyakit-Penyakit Tanaman Hortikultura di Indonesia, Gadjah Mada University Press.