



THE MODULE HANDBOOK
FACULTY OF BIOLOGY
MASTER PROGRAMME

PLANT DEVELOPMENT AND PHYSIOLOGY

Module code	BIO 70905
Module level	2 nd year of Master Program in Biology
Abbreviation, if applicable	-
Courses related	-
Semester	Even
Course coordinator(s)	1. Dr. Diah Rachmawati, S.Si., M.Si.
Lecture(s)	2. Dr. Diah Rachmawati, S.Si., M.Si. 3. Dr. Kumala Dewi, M.Sc.St.
Language	Bahasa Indonesia and English
Classification within the Curriculum	Compulsory Courses for Specific Field of Interest
Teaching format/class hours per week during the semester	This course is organized into one class and planned to have 14 teaching weeks and 2 weeks of examination. This course also has laboratory works credits.
Workload	Estimated working hour: 10.5 hours/week.
Credit	2-1 credits
Requirements	-
Course Learning Outcome	<ol style="list-style-type: none">1. Able to master basic concepts, principles, and theories related to processes in plant development and their modes of regulation.2. Able to plan, conduct, report, and analyze researches about the physiology of plant development.



THE MODULE HANDBOOK

FACULTY OF BIOLOGY

MASTER PROGRAMME

	3. Able to correctly plan, design, conduct, and analyze researches about the physiology of plant development.
Syllabus	Plant Development and Physiology is a compulsory subject of interest in botany learning about the cellular and molecular aspects of plant development. General Concepts in Plant Growth and Development, Gene Regulation and Environment Roles in Development, Cell Division and Differentiation; Cell Enlargement, Hormone Roles, Flowering; Seed Development and Dormancy; Seed Germination and Growth; Senescence, Abscission, and Apoptosis
Study/exam achievements	a. Midterm: 35% b. Final examination: 35% c. Personal Assignments: 10% d. Group Assignments : 20%
Forms of media	White board, notebook, LCD
Reference	<ol style="list-style-type: none">1. Bewley, I. D & M. Black 1994. Seeds. Physiology of development and germination. Plenum Press, N. York2. Davies, P.J. 1995. Plant Hormones: Physiological, Biochemical, and Molecular Biology. Kluwer Academic Publisher, Amsterdam.3. Lea P.J. and Leegood, R.C. 1993. Plant Biochemistry and Molecular Biology. John Wiley & Sons.4. Fosket. D.E. 1994. Plant growth and development, A molecular approach. Academic Press. New York.5. Leyser, O & Day, S. 2002. Mechanism in Plant Development. Blackwell Science, UK6. Mc.Manus, M.T. & Veit, B.E. 2002. Meristematic tissues in plant growth and development. Sheffield Acad. Press. CRC Press.7. Nooden, L.D. and Leopold, A.C. 1988. Senescence and Aging in Plants. Academic Prss, Inc. San Diego, California.8. Russo, V.E.A., D.J. Cove., L.G. Edgar, R. Jaenisch, and F. Salimi. 1999. Development: Genetics, Epigenetics, Environmental Regulation. Springer-Verlag Berlin Heidelberg New York.9. Steeves, T.A. and Sussex, I.M. 1989. Pattern in Plant Development. 2nd edition. Cambridge University Press. Cambridge.10. Westhoff, P. 1998. Molecular plant development from gene to plant. Oxford University Press.