



THE MODULE HANDBOOK
FACULTY OF BIOLOGY
MASTER PROGRAMME

IN VITRO CULTURE TECHNIQUE

Module code	BIO-60201
Module level	2 nd Semester of Master Program in Biology
Abbreviation, if applicable	-
Courses related	-
Semester	Even
Course coordinator(s)	Dr. Endang Semiarti, M.S., M.Sc.
Lecture(s)	1. Dr. Endang Semiarti, M.S., M.Sc. 2. Dr.rer.nat. Ari Indrianto, SU
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 2 teaching weeks, 12 practical, and 2 weeks of examination.
Workload	Estimated working hour: 10,5 hours/week.
Credit	0-3 credits
Requirements	-
Course Learning Outcome	1. The ability to conduct research on plant tissue culture 2. Analysis of research experiment
Syllabus	This In Vitro Culture Technique course provides skills to students to be able to conduct in vitro cell and tissue research independently in one semester. These techniques include cell culture techniques, callus induction, somatic embryogenesis, meristem culture, organ culture, isolation and protoplasmic culture to gene transfer techniques to plants in vitro.
Study/exam achievements	a. Midterm: 25% b. Final examination: 30% c. Quiz: 5% d. Project: 30% e. Presentation: 10%
Forms of media	White board, notebook, laboratory project, LCD
Reference	1. George, E.F., M.A. Hall, and G-J De Klerk (2007). Plant Propagation by Tissue Culture. 3rd ed. Vol I and II. Springer, Dordrecht, The Netherland. 2. Gupta, S.D. and Y. Ibaraki (2006). Plant Tissue Culture Engineering. Springer, Dordrecht, The Netherland.



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3. Howell, S. 1998. Molecular genetic of Plant Development. Cambridge Univ. Press., Cambridge
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