



# THE MODULE HANDBOOK

Magister Biology Study Program

FACULTY OF BIOLOGY

## Insect Ecology

<b>Course code</b>	BIMB202220
<b>Course level</b>	Magister
<b>Semester/ term</b>	Odd
<b>Course coordinator(s)</b>	1. Dr. RC Hidayat Soesilohadi, M.S.
<b>Lecture(s)</b>	2. Dra. Siti Sumarmi, Ph.D. 3. Drs. Hari Purwanto, M.P., Ph.D. 4. Sukirno, S.Si., M.Sc., Ph.D.
<b>Language</b>	Indonesian
<b>Classification within the Curriculum</b>	Elective
<b>Teaching format/ class hours per week during the semester</b>	This course is organised into one class with minimum 3 enrolled students and planned to have 14 topics delivered in 14 meetings and 4 weeks of exams.
<b>Workload</b>	Estimated working hour: 2 credits of theory and 1 credit of laboratory and field works.
<b>Credits</b>	2-1 credits
<b>Requirements</b>	Entomology
<b>Program Learning Outcome</b>	A1 contribute in improving the quality of life of society, nation, state, and the development of civilization based on Pancasila A2 cooperate with communities at various level, and have social sensitivity and concern for the society and environment GS5 Able to use information technology in the development of science and apply it in their field of expertise SK1Able to conduct research in the field of biology independently or in groups, and able to solve various related problems
<b>Course Learning Outcome</b>	Contribute in improving the quality of life of society, nation, state, and the development of civilization based on Pancasila through the management of insects in order to reach Indonesian welfare  Able cooperate with communities at various level, and have social sensitivity and concern for the society and environment especially on the management of insects  Able to use information technology in the development of science and apply it in the field of insect ecology



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	Able to conduct research in the field of insect biosystematics independently or in groups, and able various related problems in insects ecology
<b>Course Description</b>	This course studies the importance of insects in ecological systems and their relationship to human interests, factors that influence population development of useful insects, insect pests and vectors of human/animal/plant diseases, limiting and supporting factors for population development, namely environmental resistance and biotic potential that play a role. in population control and the role of insects in ecosystems. The coevolutionary relationship of insects and host plants. The role of insects as herbivores, carnivores, omnivores, and insect specific habitats. Intra- and inter-species relationships through pheromones, kairomones, and allomones. Insects resistance to insecticides and pesticide fate in the environments
<b>Assessments</b>	Project: insect collection, identification, and determination keys Homework (article review) Assignment (PRESENTATION) Midterm test Final test
<b>Study Media</b>	Online: computers, gadgets, internet access, field work and lab works, GIS
<b>Literature</b>	<ol style="list-style-type: none"><li>1. Price, P. W. 1984. Insect Ecology. 2nd Ed. John Wiley and Sons. United State of America.</li><li>2. Huffaker, C. B. and R. I. Rabb. 1984. Ecological Entomology. John Wiley and Sons Inc. New York</li><li>3. Huffaker, C. B. and P. S. Messenger. 1989. Theory and Practice of Biological Control (terj.) Penerbit Universitas Indonesia. Jakarta</li><li>4. Untung, K. 2001. Pengantar Pengelolaan Hama Terpadu. Gadjah Mada University Press. Yogyakarta</li><li>5. Clark L.R., P.W. Geier, R.D. Huges and R.F. Morris. The Ecology of Insect Populations. in Theory and Practice. Metuen &amp; Co LTD. London..</li></ol>