



THE MODULE HANDBOOK

Magister Biology Study Program

FACULTY OF BIOLOGY

INSECT PHYSIOLOGY

Course code	BIMB202221
Course level	Magister
Semester/ term	Odd and Even
Course coordinator(s)	Dr. Siti Sumarmi
Lecture(s)	Dr. Siti Sumarmi Dr. RC. Hidayat Soesilohadi, MS. Drs. Hari Purwanto, MP. Ph.D. Sukirno SSi., MSc. Ph.D.
Language	Indonesia
Classification within the Curriculum	Elective
Teaching format/ class hours per week during the semester	This course is planned to have 14 teaching weeks and 2 weeks of examination.
Workload	Estimated working hour: 2credits of theory and 1 credit of practical work.
Credits	2-1credits
Requirements	Entomology
Program Learning Outcome	<ol style="list-style-type: none"><i>1. The graduates are demonstrating knowledge and comprehend biological system especially on insect physiology and bio-engineering methods to solve tropical biodiversity problems (Knowledge);</i><i>2. The graduates are able to develop logical, critical, systematic, and creative thinking through scientific concept and research (General Skills);</i><i>3. The graduates are able to solve problems related to biological resources through an inter- and / or multidisciplinary approaches beneficial to society and scientific community (Specific Skills).</i>
Course Learning Outcome	<ol style="list-style-type: none"><i>1. Students are able to implementing their skill and knowledge related to structures and functions of internal system of Insect such as: digestive and metabolic system, endocrine system, nervous system, excretory system, respiratory system, circulatory system, vision system, Communication systems, reproductive and developmental system, and insect behavior.</i><i>2. Students are able to solve problems related to</i>



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	<p><i>structures and functions of internal system of Insect for environmental adaptation</i></p> <p>3. <i>Students are able to conduct research related to insect physiology and their major research topics in entomology.</i></p>
Course Description	<p>Insect Physiology is the study of the properties, processes, and functions of insect systems. As a component of this course students will examine some major biochemical molecules and actions to study structures and functions within the physiological systems. A student in this course should be able to: become familiar with the physiological systems in insects as outlined in the syllabus; identify the influence that neural and hormonal controls have within each system. Write practical works report in the laboratory; Develop a sense of how physiology can infuse in major research topics in entomology fields.</p>
Assesments	Assignments/projects, midterm and final exams
Study Media	LCD
Literature	<ol style="list-style-type: none">1. Borror D, Triplehorn CA, Johnson N. 1989. Introduction to the study of insects. Edition no. 6. Brooks. Cole Publishing Company, USA.2. Romoser, W.S. & Stoffolano J.G. Jr. 1998. The Science Of Entomology 4th. McGraw-Hill. Boston.3. Klowden, Marc J., ,2007. Physiological System in Insect, University of Idaho Moscow, Idaho, Second Edition. Academic Press is an imprint of Elsevier 30 Corporate Drive, Suite 400, Burlington, MA 01803, USA 525 B Street, Suite 1900, San Diego, California 92101-4495, USA 84 Theobald's Road, London WC1X 8RR, UK.4. R. F. CHAPMAN, 2011, The Insects Structure and Function, Fourth edition published by Cambridge University Press 1998, 7th printing 2011 Fifth edition 2013.