UNIVERSITAS NEGERI YOGYAKARTA
FACULTY OF MATHEMATICS AND SCIENCE
DEPARTMENT OF BIOLOGY EDUCATION
Colombo 1 Street Yogyakarta 55281
Phone: (0274)565411 Ext. 217, (0274)565411(Administration Office),fax (0274)548203
Website:fmipa.uny.ac.id, E-mail :humas_fmipa@uny.ac.id

Bachelor of Science in Biology **MODULE HANDBOOK**

Module name:	Entomology
Module level,if applicable:	Undergraduate
Code:	BIM6264
Sub-heading,if applicable:	-
Classes,if applicable:	-
Semester:	odd
Module coordinator:	Triatmanto, M.Si
Lecturer(s):	
Language:	Bahasa Indonesia
Classification within the curriculum:	Elective course
Teaching format / class hours per week during the semester:	100 minutes lectures, 120 minutes structured activities, and 120 minutes individual studyper week
Work load:	Total workload is 91 hours per semester which consists of 100 minutes lectures, 120 minutes structured activities, and 120 minutes individual study per week for 16 weeks.
Credit points:	2 SKS (3 ECTS)
Prerequisites course(s):	Inbertebrate Biology
Perogram Learning Outcomes:	4. Comprehensively mastering Biology (core biology) to solve problems in the field of Biology (problem-solving) and to underlie the concepts of related sciences 6. Being adaptive, creative, innovative in applying the concepts of Biology and other related fields 9. Being able to work and create jobs/being an entrepreneur in the field of Biology 11. Possessing scientific skills to support the ability to speak in local, national, and international forums
Course Outcomes	After taking this course, the students have ability to: CO1. Identify the themes and objects in Entomology CO2. Understand and apllied of BSCS scheme for Entomology CO3. Analysis of Entomology evolution base on the recent theory

<table>
<tr><td></td><td>CO4. Analysis of Phylogenetics of Entomology base on Evolution theorys
C05. Describe the basic structure of the insect's body externally.
CO6. Describe the basic structure of the insect's body internally
CO7. Explain the basic structure of the insect digestive system and its modification based on food.
CO8. Explain the basic structure of the insect's respiratory system and its modification based on its habitat
CO9. Explain the basic structure of the insect's circulatory system.
CO10. Explain the basic structure of the excretory and nervous system of insects
CO11. Explain the basic structure of insect reproduction system
CO12. Explain the function of insects in human life, especially in health, ecosystems, agriculture and industry
CO13. Students are able to explain the kinds and process of metamorphosis in insects
CO14. Analysis and communicate of population dynamic of Insect base on secondary data in individual or group project.</td></tr>
<tr><td>Content:</td><td>This course develops an understanding of insect objects, the role of insects that are beneficial and harmful ecologically, agriculture, health, and industry, as well as skills in dealing with insects directly and interpretations, predictions about the dynamics of insect populations based on secondary data</td></tr>
<tr><td>Study/examachievements:</td><td>The final mark will be weight as follow:
<table>
<tr><th>No</th><th>CO</th><th>Assessment Object</th><th>Assessment Technique</th><th>Weight</th></tr>
<tr><td>1</td><td>1 to 13</td><td>Attitudes , knolwedge, and skills</td><td>Survey, test, rubrics and manuals</td><td>85%</td></tr>
<tr><td>2</td><td>14</td><td>Scientific skills</td><td>Observe rubrics and manuals, portofolio</td><td>15%</td></tr>
<tr><td colspan="4">Total</td><td>100%</td></tr>
</table></td></tr>
<tr><td>Forms of media:</td><td>Real objects, model, multimedia</td></tr>
<tr><td>Reference:</td><td>A. Compulsory books
1. Sastrahidajat. 1983. Entomologi Terapan. Bandung: ITB
2. Karlshoven, LGF . 1981. The Pest of Crops In</td></tr>
</table>

	Indonesia. Jakarta: PT Ichtiar baru Van Hoeve **3.** Metcalf, C.L. & W.P. Flint. 1979. *Destructive and Useful Insect*. New Delhi: McGraw-Hill Book Company. **B. Recommended books** 1. Kotpal et al, 1981. *Modern Texbook of Zoollogy* Snodgrass, R.E. 1975. *Principles of Insect Morphology*. Washington DC: McGraw-Hill Book Company 2. Daly, Hewel V. Et. al.. 1978. *Introduction to Insect Biology and Diversity*. Kogakusha: McGraw-Hill, Inc. 3. Ross, Robert H, Charles A. Ross, June R.P., Ross. 1982. *A Textbook of Entomology*. Singapore: John Wiley & Sons., Inc.

PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11
CO1				✓							
CO2				✓							
CO3				✓							
CO4				✓							
CO5				✓							
CO6				✓		✓					
CO7				✓		✓					
CO8				✓		✓					
CO9				✓		✓					
CO10				✓		✓					
CO11				✓		✓					
CO12				✓		✓			✓		
CO13				✓							
CO14				✓							✓