# THE MODULE HANDBOOK
## FACULTY OF BIOLOGY

### Entomology

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| **Module code** | BID 21201IUP |
| **Module level** | 3rd year of Undergraduate Program in Biology |
| **Abbreviation, if applicable** | - |
| **Sub-heading, if applicable** | - |
| **Courses included in the module, if applicable** | - |
| **Semester/term** | Odd |
| **Module coordinator(s)** | Dr. Siti Sumarmi |
| **Lecture(s)** | 1. Dr. Siti Sumarmi<br>2. Dr. Hari Purwanto, M.P. |
| **Language** | English |
| **Classification within the Curriculum** | Elective course |
| **Teaching format/ class hours per week during the semester** | This course is organised into 1 class and planned to have 13 to 14 teaching weeks and 2 – 3 weeks of examination.<br>The course was scheduled every Tuesday at 09:15 am at Ruang Biodas Bawah Timur. The lecture will be delivered using both teaching and student center learning. At the last two weeks of lectures, the students should present their review project on the international published paper. |
| **Workload** | Estimated working hour: 10,5 hours/week. |
| **Credit points** | 2-1 credits |
| **Requirements** | Animal Systematics (BIB 21101IUP) |
| **Learning goals/ competencies** | 1. To be able to understand the concepts of insect physiology, identify and describe the insects' organ and molecules and it roles in the metabolism.<br>2. To be able to identify the insects' roles for human and environment.<br>3. To have experiences in insects' dissections for small scale insect physiological experimentation, scientific writing and oral presentation in the front of instructors. |
| **Content** | This course studies the biological process of insect physiology, insect growth hormones, molting, digestive system, circulation system, neuro system, hemolymph and immune system, excretion system, respiratory system, water equilibrium, energy and metabolism, |

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| | muscular system and insects flight, reproductive system and mating behavior, insects communication and vision, insect behavior and physiological adaptation of insects. |
| **Study/exam achievements** | **1. Theory**<br>a. Midterm: 40%<br>b. Final examination: 40%<br>c. Presentation, attendance and activity: 20%<br>**2. Laboratory Work**<br>a. Pretest: 10%<br>b. Laboratory activity: 30%<br>c. Laborartoey report: 30%<br>d. Final test: 30% |
| **Forms of media** | White board, computer, LCD |
| **Literature** | 1. Borror, D.J., D.M. Delong and Triplehorn. 1992. An introduction to the study of insect. 6th edition (terjemahan) Gama Press. Yogyakarta<br>2. Romoser, W.S. &Stoffolano J.G. Jr. 1998. The science of entomology 4th. McGraw-Hill. Boston.<br>3. Snodgrass, R.E. 1935. Principles of insect morphology. Mc. Graw-Hill Book Co. Inc. New York. |