



THE MODULE HANDBOOK

FACULTY OF BIOLOGY

Ornithology

Module code	BIO 41107
Module level	3 rd 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)	Drs. Bambang Agus Surtpto, S.U., M.Sc.
Lecture(s)	Drs. Bambang Agus Surtpto, S.U., M.Sc.
Language	Indonesia
Classification within the Curriculum	Elective course
Teaching format/ class hours per week during the semester	This course is organized into one class and planned to have 14 learning weeks excluded midterm and final examination.
Workload	Estimated working hour: 10,5 hours/week
Credit points	2-1 credits
Requirements	Animal Systematic (BIO 31101)
Learning goals/ competencies	<p>1. Learning Achievement</p> <ol style="list-style-type: none">be able to describe the characteristics , the origin and dissemination as well as the diversity of birds, especially living in Indonesiabe able to discuss the nature of the key characters in particular mammal biology for adaptation that allows it to survive in a variety of environmental conditionsunderstand the factors (past and present) that determines a decrease in species diversity and conservation efforts , especially in Indonesia .use identification keys are available in practical implementation to identify specimens to the level of the Order and Familia (and also the level of Genus and Species for local birds) . <p>2. Learning Materials</p> <ol style="list-style-type: none">The scope ornithologi, characteristic of birds and bird linkages with humans



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	<ul style="list-style-type: none">b. The origin and classification of birds as well as their global distributionc. Diversity and representative members of the class Aves that exist in Indonesia I (Order Casuariformes, Podicipediformes, Procellariiformes, Pelecaniformes, and the Order Ciconiiformes)d. Diversity and representative members of the class Aves that exist in Indonesia II (Order Anseriformes, Falconiformes, Galliformes, Gruiformes and Charadriiformes)e. Diversity and representative members of the class Aves that exist in Indonesia III (Order Columbiformes, Cuculiformes, Psittaciformes, Strigiformes, and Caprimulgiformes)f. Diversity and representative members of the class Aves that exist in Indonesia I (Order Apodiformes / Micropodiformes, Trogoniformes, Coraciiformes, Piciformes, and Passeriformes)g. System in birds flyh. The sensory system and extreme adaptation in birdsi. Digestive system, food and diet on birdsj. The reproductive system and reproductive patterns in birdsk. Communication in birdsl. Migration of birdsm. The conservation of birds that live mainly in Indonesia.
Content	<p>This optional course is intended for upper level students who have plans to research for a thesis or want to explore the biology of the object is a bird. In the course Ornithology will discuss avian characteristics that distinguish it from other animal groups, the origin and dissemination of global and especially the diversity of birds that live in Indonesia. The emphasis of the discussion on the character of the structure and function of biological interplay important for adaptation in varied environments through fly system, the senses in birds, digestive system and diet, reproduction, communication and migration. It also discussed the various factors that influence the degradation of the diversity of birds and bird conservation efforts especially those living in Indonesia. In the practical implementation will be taught the use of identification keys are available in practical implementation to identify specimens to the level of the Order and Family (and also the level of Genus and Species for local birds.</p>
Study/exam achievements	<ul style="list-style-type: none">1. Midterm: 20 %2. Final exam: 25 %



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	<ol style="list-style-type: none">3. Laboratory work: 30 %4. Project report: 10 %5. Paper: 5 %6. Quiz: 10 %
Forms of media	White board, notebook, LCD
Literature	<ol style="list-style-type: none">1. Chiappe, L.M. and G.J. Dyke, 2006. The early evolutionary history of birds. <i>J. Paleont.Soc.Korea</i> Vol 22, No. 1 (2006): p 133-151.2. Coates,B.J. and K.D. Bishop, 2000. Panduan Lapangan Burung-Burung di Kawasan Wallacea: Sulawesi, Maluku dan Nusa Tenggara. BirdLife International IndonesiaProgramme & Dove Publications Pty.Ltd. Bogor.3. Mackinnon, J. and J. Wind. 1980.Birds of Indonesia. Food and Agriculture Organization of The United Nations. Bogor.4. Mayr, G. 2007. Avian higher-level phylogeny: well-supported clades and what we can learn from a phylogenetic analysis of 2954 morphological characters. <i>J. Zool. Syst Evol Res</i> doi:10.1111/j.143900469. 2007.5. Meijer, H.J. 2014. The avian fossil record in Insular Southeast Asia and it implications for avian biogeography and palaeoecology. <i>PeerJ</i> 2:2956. Hedenstrom, A., 2008. Adaptations to migration in birds: behavioural strategies, morphology adn scaling effects. <i>Phil. Trans. R.B.</i> (2008) 363: 287-299.7. Hilderbrand, M. 1995. <i>Analysis of Vertebrate Structure</i>. 4th ed. John Willey & sons Inc. New York.8. Hicman, CP., Robert, LS and Larson, A. 1998. <i>Biology of Animals</i>. The McGraw-Hill Co Inc. Boston.9. Videler, J.J., 2005. <i>Avian Flight</i>. Oxford Universoty Press. 275 hal10. Web: http://www.birds.cornell.edu/AllAboutBirds/