



# THE MODULE HANDBOOK

## FACULTY OF BIOLOGY

### Animal Ecophysiology

<b>Module code</b>	BIO 50804
<b>Module level</b>	3 <sup>rd</sup> year of Undergraduate Program in Biology
<b>Abbreviation, if applicable</b>	-
<b>Sub-heading, if applicable</b>	-
<b>Courses included in the module, if applicable</b>	-
<b>Semester/term</b>	Even
<b>Module coordinator(s)</b>	Dr. Slamet Widiyanto, S.Si., M.Sc.
<b>Lecture(s)</b>	<ol style="list-style-type: none"><li>1. Dr. Slamet Widiyanto, S.Si., M.Si.</li><li>2. Dr. biol. hom. Nastiti Wijayanti, M.Si.</li><li>3. Dra. Mulyati, M.Si.</li><li>4. Rahadian Yudho Hartantyo, S.Si., M.Sc.</li></ol>
<b>Language</b>	Indonesia
<b>Classification within the Curriculum</b>	Elective course
<b>Teaching format/class hours per week during the semester</b>	This course is organized into one class and planned to have 14 teaching weeks and 2 weeks of examination.
<b>Workload</b>	Estimated working hour: 7 hours/week.
<b>Credit points</b>	2-0 credits
<b>Requirements</b>	Ecology (BIO 30302), Animal Physiology (BIO 40801)
<b>Learning goals/competencies</b>	<ol style="list-style-type: none"><li>1. Explain the process of cell homeostasis and homeostatic mechanisms and functions to support survival. Explaining the mechanism of translocation across the cell membrane material.</li><li>2. Explain aspects of physiology in the distribution and abundance of organisms.</li><li>3. Explaining the process of temperature regulation in living organisms.</li><li>4. Describes the process of physiological and behavioral responses of organisms in extreme environments.</li></ol>
<b>Content</b>	This course examines the physiological adaptations that permit survival of animals in the diverse range of environments they inhabit, and the regulatory mechanisms that ensure homeostasis in the face of environmental fluctuation. Will be studied as well as how



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	internal and external factors influencing homeostasis mechanism in organisms in survival and breeding in extreme environments or environmental pollution. In this course also will be reviewed about the physiology, anatomy, and behavioral adaptations of organisms in some environmental conditions, including the activities of hibernation, torpor, and estivasi.
<b>Study/exam achievements</b>	<ol style="list-style-type: none"><li>1. Midterm: 35%</li><li>2. Final examination: 40%</li><li>3. Quiz: 10%</li><li>4. Assignment: 15%</li></ol>
<b>Forms of media</b>	White board, computer, LCD
<b>Literature</b>	<ol style="list-style-type: none"><li>1. Bradshaw, D. 2003. Vertebrate Ecophysiology. Cambridge University Press.</li><li>2. Fregly M.J. and C.M. Blatteis. 1996. Handbook of Physiology: Environmental Physiology. Oxford University Press.</li><li>3. Louw, G.N. 1993. Physiological Animal Ecology. Longman &amp; Scientific Technical.</li><li>4. Schmidt-Nielsen, K. 1997. Animal Physiology: Adaptation and Environment. Fifth Edition. Cambridge University Press.</li><li>5. Willmer, P., G. Stone, and I. Johnston. 2000. Environmental Physiology of Animals. Blackwell Science.</li></ol>