



FACULTY OF ANIMAL AND AGRICULTURAL SCIENCE

VETERANITY UNDERGRADUATE PROGRAM

Module Handbook

Module designation	Environmental Animal Physiology
Semester(s) in which the module is taught	3 th Semester
Person responsible for the module	Dr. Dra. Endang Widiastuti, M.Si. ; Sugiharto, S.Pt., M.Sc., Ph.D.
Language	English
Relation to curriculum	Compulsory module for Animal Science Program
Teaching methods	Lecture, small group discussion
Workload (incl. contact hours, self-study hours)	<ul style="list-style-type: none"> ✓ 340 minutes Lecture per week (class 100 minutes; Assignment 120 minutes; 120 minutes self study) ✓ 170 minutes Laboratory session ✓ 100 minutes Mid Term Exam in the eighth and Final Exam in the sixteenth week
Credit points	3 (lecture 2 and laboratory session 1)
Required and recommended prerequisites for joining the module	Animal Physiology
Module objectives/intended learning outcomes	<ul style="list-style-type: none"> ✓ Internalizing academic value, norm and ethic; Showing attitude of being responsible of the duties in the expertise area independently ; Internalizing the spirit of independence, fight, and entrepreneurship ✓ Able to take the right decision in the context of solving the problems in the area of expertise, based on the information and data analysis ✓ Able to determine the status of livestock in certain livestock environmental conditions ✓ Mastering the theoretical concept of animal physiology
Content	The course elaborates the livestock as part of the ecosystem, physical environment, climate, especially tropical climate and environmental factors that affect livestock production, livestock response to the environment including temperature zoning, body heat regulation and thermoregulation, environmental effects on livestock both directly and indirectly, adaptation of livestock to the new environment and methods of eliminating negative environmental impacts on livestock.
Examination forms	Paper assignment; Self-study; Midterm exam; Final exam
Study and examination requirements	<ul style="list-style-type: none"> ✓ 75 % presence in the learning process ✓ 25 % midterm examination ✓ 25 % final examination ✓ 50 % (lab works; assignment;presentation)

Reading list

1. Curtis, E. S. 1983. Environmental Management in Animal Agriculture. The Iowa State Univ. Press, Ames, Iowa.
2. Hafez, E.S.E. Adaptation of Domestic Animals. Lea & Febiger, Philadelphia.
3. Esmay, Merle I. 1978. Principles of Animal Environment. Avi-Pub Co. Wesport.
4. Low, G.N. 1993. Physiological Animal Ecology. Longman Group, UK.
5. Sihombing, D.T.H. 2008. Lingkungan Ternak. Penerbit Univ. Terbuka, Jakarta.
6. Yousef, M.K. 1985. Stress Physiology in Livestock. C.R.C. Press, Inc. Florida.
7. Cole, D.J.A. and G.C. Brander. 1986. Bioindustrial Ecosystem. Elsevier, Amsterdam