



THE MODULE HANDBOOK

FACULTY OF BIOLOGY

Endocrinology

Module code	BIO 50804
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)	Dra. Mulyati, M.Si.
Lecture(s)	1. Dra. Mulyati, M.Si. 2. Dr. Slamet Widiyanto, S.Si., M.Si. 3. Laksmindra Fitra, S.Si., M.Si. 4. Rahadian Yudho Hartantyo, S.Si., 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 teaching weeks and 2 weeks of examination.
Workload	Estimated working hour: 10,5 hours/week.
Credit points	2-1 credits
Requirements	Animal Physiology (BIO 40801)
Learning goals/competencies	<ol style="list-style-type: none">1. Attitude and value<ol style="list-style-type: none">a. Devoted to God Almightyb. Appreciating service on previous researcher efforts.c. Appreciating the role of experimental animals as an animal model for the human welfare.d. Recognizing the importance of science Endocrinology.2. Capacity of Work:<ol style="list-style-type: none">a. Can use information and communication technologies to find solutions in the scientific understanding of Endocrinology.b. To plan, execute, analyze and report the result research of Endocrinology.c. Working independently and in accordance topic groups.



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	<p>d. Learning independently both in the new environment as well as the environment that has been known previously to critical and spirit</p> <p>3. Mastery of knowledge:</p> <p>a. Be able to apply the principles of physics, chemistry, biochemistry, cell biology and animal structures in solving problems of endocrinology.</p> <p>b. Have a basic theory and instrumentation capabilities, can apply the scientific method to conduct research Endocrinology.</p> <p>c. Conduct a holistic approach to solve problems and make plans, benefits, risks, safety, trust and environmental impact.</p> <p>d. Being able to discuss actively and effectively</p> <p>4. Authority and Responsibility</p> <p>a. Capable to communicate and apply the science of endocrinology for Animal and human welfare</p> <p>b. Being able to anticipate problems and find a way of solving problems related to Endokrinologi</p> <p>c. Responsible for professional and scientific ethics to the impact of scientific advances in the field of biology to society.</p>
Content	<p>This course begins with the history of Endocrinology to understand its chronology and the interaction with other branch of science. It continues with study the basic principles of endocrine system in vertebrates (including humans) and some invertebrates, including central and peripheral organs as well as their secretions (synthesis, secretion, circulation, and elimination of hormones). Hypothalamus-pituitary axis as the core mechanism on regulating the endocrine system. This course also discusses some examples of applications of hormones in clinical purposes and other fields.</p>
Study/exam achievements	<p>1. Theory: 75%</p> <p>a. Midterm: 35%</p> <p>b. Final examination: 40%</p> <p>c. Quiz: 10%</p> <p>d. Assignment: 15%</p> <p>2. Laboratory work: 25%</p>
Forms of media	White board, computer, LCD
Literature	<p>1. Brook, C.G.D. and N.J. Marshall. 1996. Essential Endocrinology. Blackwell Science, Inc. Oxford.</p> <p>2. Gard, P.R. 1998. Human Endocrinology. Taylor & Francis, Ltd. Gunpowder Square, London.</p> <p>3. Greenspan, F.S. and J.D. Baxter. 1994. Basic and Clinical Endocrinology. Fourth Edition. A Lange</p>



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Medical Book. Appleton & Lange/Prentice Hall International, Inc. Norwalk, CT.

4. Hadley, M.S. 1996. Endocrinology. Prentice Hall. Englewood Cliffs. New Jersey.
 5. Norris, D.O. 2006. Vertebrate Endocrinology. Fourth Edition. Academic Press. Waltham, Massachusetts.
 6. Sanders. 2004. Endocrine and Reproductive System. Second Edition. Mosby International Ltd./Elsevier Science Ltd. London.
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