



**THE MODULE HANDBOOK**  
**DOCTOR BIOLOGICAL SCIENCES STUDY PROGRAM**  
**FACULTY OF BIOLOGY**

**SELECTED TOPIC FOR DISSERTATIONS**

**Endocrinology**

<b>Course code</b>	BIDB203186
<b>Course level</b>	Doctoral Program
<b>Semester/ term</b>	Odd/even
<b>Course coordinator</b>	Dr.biol.hom. Nastiti Wijayanti, S.Si., M.Si
<b>Lecture(s)</b>	Dr. Slamet Widiyanto, S.Si., M.Sc Dr.biol.hom. Nastiti Wijayanti, S.Si., M.Si Dr.med.vet. drh. Hendry TSSG Saragih, M.P
<b>Language</b>	Indonesian/English
<b>Classification within the Curriculum</b>	Compulsory Specialization Courses
<b>Teaching format/ class hours per week during the semester</b>	This course is planned to have 14 teaching weeks and 2 weeks of examination.
<b>Workload</b>	1,125 hours/day 5 days/week 5,625 hours/week 16 Weeks/Semester  total workload : 90 hours/3,6 ECTS
<b>Credits</b>	3.6 ECTS
<b>Requirements</b>	-
<b>Program Learning Outcome</b>	CPL 2.1. Upon completing this program, the graduates demonstrate an attitude of being able to discover or develop new scientific theories/concepts/ideas in biology CPL 3.1. After attending this program, graduates demonstrate an understanding of the scientific philosophy of biology which is related in depth to structure, function, diversity, reproduction, evolution and engineering of biological systems
<b>Course Learning Outcome</b>	BIDB203186.1 Students demonstrate an understanding of the fundamental principles of physiology and endocrinology. BIDB203186.2 Students demonstrate an understanding of the mechanisms and regulatory actions of hormones relevant to their research topic.



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	BIDB203186.3 Students demonstrate the ability to design research studies and identify appropriate parameters and methods for analysis.
<b>Course Description</b>	<p>This course explores chemical signaling (hormonal signaling), which plays a critical role in all biological processes within the body. A fundamental understanding of hormone synthesis, secretion, circulation, inactivation, and elimination is essential for comprehending the regulatory mechanisms within biological systems. The course begins with the study of the hypothalamic-pituitary axis as the central regulatory mechanism of the endocrine system, followed by advanced signaling pathways in peripheral endocrine organs. These include thyroid metabolism, digestive metabolism closely related to pancreatic hormones, reproductive hormones, and other metabolic processes in living organisms, particularly in mammals. Course content will be tailored to align with each student's research plan.</p>
<b>Assessments</b>	<p>The assessment for Selected Topic for Dissertations (Endocrinology) is based on five components, with the respective criteria and weights:</p> <ul style="list-style-type: none"><li>• Participatory Activity (10%)</li><li>• Literature Review (25%)</li><li>• Result Design of Research Roadmap (10%)</li><li>• Mid-term Exam (30%)</li><li>• Research Proposal Draft in the field of endocrinology (30%)</li></ul>
<b>Study Media and Literature</b>	<p><b>Main:</b></p> <ol style="list-style-type: none"><li>1. Norris, D.O. 2006. Vertebrate Endocrinology. Fourth Edition. Academic Press. Waltham, Massachusetts.5</li><li>2. Richard E. Jones and Kristin H. Lopez, Human Reproductive Biology (4th Edition), Elsevier, 2014</li><li>3. Pierre J. Lefebvre, Daniel G. Pipeleers, 2012. The Pathology of The Endocrine Pancreas in diabetes</li></ol> <p><b>Additional</b></p> <ol style="list-style-type: none"><li>1. Any reputable journals related to endocrinology topic</li></ol>