THE MODULE HANDBOOK
DOCTOR BIOLOGY STUDY PROGRAM
FACULTY OF BIOLOGY

SELECTED TOPIC FOR DISSERTATIONS

Endocrinology

Course code	BIDB203140
Course level	Doctoral Program
Semester/ term	Odd/even
Course coordinator	Dr.biol.hom. Nastiti Wijayanti, S.Si., M.Si
Lecture(s)	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
Language	Indonesian/English
Classification within the Curriculum	Compulsory (Selected Topic For Dissertations)
Teaching format/ class hours per week during the semester	This course is planned to have 14 teaching weeks and 2 weeks of examination.
Workload	90 hours
Credits	2-0 credits / 3.6 ECTS
Requirements	Receiving approval from the Supervisory Team.
Program Learning Outcome	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
Course Learning Outcome	BIDB203140.1 Students demonstrate an understanding of the fundamental principles of physiology and endocrinology. BIDB203140.2 Students demonstrate an understanding of the mechanisms and regulatory actions of hormones relevant to their research topic. BIDB203140.3 Students demonstrate the ability to design research studies and identify appropriate parameters and methods for analysis.
Course Description	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.
Assessments	The assessment for Selected Topic for Dissertations (Endocrinology) is based on five components, with the respective criteria and weights: • Participatory Activity (10%) • Literature Review (25%) • Result Design of Research Roadmap (10%) • Mid-term Exam (30%) • Research Proposal Draft in the field of endocrynology (30%)
Study Media and Literature	**Main:** 1. Norris, D.O. 2006. Vertebrate Endocrinology. Fourth Edition. Academic Press. Waltham, Massachusetts.5 2. Richard E. Jones and Kristin H. Lopez, Human Reproductive Biology (4th Edition), Elsevier, 2014 3. Pierre J. Lefebvre, Daniel G. Pipeleers, 2012. The Pathology of The Endocrine Pancreas in diabetes **Additional** 1. Any reputable journals related to endocrynology topic