Module designation	Dissertation
Semester(s) in which the module is taught	Odd and even semesters
Person responsible for the module	Prof. Ir. Budi Guntoro, S.Pt., M.Sc., Ph.D., IPU., ASEAN Eng. Prof. Ir. Ambar Pertiwiningrum, M.Si., Ph.D., IPM., ASEAN Eng.
Language	Bahasa and English
Relation to curriculum	Study Program's Compulsory
Teaching methods	Seminar, discussion, consultation, lab works, projects.
Workload (incl. contact hours, self-study hours)	Total workload: 2,176 hours
Credit points	34/0
Required and recommended prerequisites for joining the module	None
Module objectives/intended learning outcomes	Course Outcomes (CO): 1. Gather, form and critique knowledge from research studies 2. Identify and investigate a research problem 3. Apply an appropriate research design and associated methods rigorously 4. Conduct the research project in an academic ethic 5. Draw appropriate conclusions and indicate the significance of the findings for educational practice and research 6. Report the research as appropriate to the disciplinary area Expected Learning Outcomes: - Attitudes and behaviours: 1. Be long life learning with basic character as religious attitudes, humanity, nationalism, tolerance, moderate, respecting in cultural diversity based on National Five Principle of Pancasila. (CO1, CO2, CO3, CO4, CO5, CO6) 2. Be accountable for professional practices that consist of accepting sue for any professional decision and action according to their area's scope and according to the law/regulations. (CO1, CO2, CO3, CO4, CO5, CO6) - Mastery in Sciences: 1. Able to master scientific philosophy and develop new science and technology in animal science is useful, competitive, and environmentally sound research with a multidisciplinary approach. (CO1, CO2, CO3, CO4, CO5, CO6) 2. Able to develop new science and technology concepts to solve problems in the field of animal husbandry through research with multidisciplinary and transdisciplinary

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<tr><td></td><td>approaches. (CO1, CO2, CO3, CO4, CO5, CO6)
- Special skills:
1. Able to develop science and technology through creative, original, and novelty research. (CO1, CO2, CO3, CO4, CO5, CO6)
2. Able to independently design and carry out inter-, multi-, and transdisciplinary research for the development of animal husbandry science and technology. (CO1, CO2, CO3, CO4, CO5, CO6)
3. Able to manage, lead and develop research in the field of animal husbandry, as well as communicate the results and get recognition at the national and international levels for the benefit of humankind. (CO1, CO2, CO3, CO4, CO5, CO6)
- General skills:
1. Able to find or develop new theories/concepts/ideas and contribute to the development and practice of science and/or technology by producing scientific research based on scientific methodology, logical, critical, systematic, and creative thinking through interdisciplinary, multidisciplinary, or transdisciplinary approaches, pay attention to and apply human values in their field of expertise. (CO1, CO2, CO3, CO4, CO5, CO6)
2. Able to develop a research roadmap to compile scientific, technological, or artistic arguments and solutions based on a critical view of facts, concepts, principles, or theories with an interdisciplinary, multidisciplinary, or transdisciplinary approach, based on a study of the main objectives of the research and their constellation on broader targets. (CO1, CO2, CO3, CO4, CO5, CO6)
3. Able to communicate the result of reasoning and scientific research in the form of dissertation and scientific writing responsibly based on academic ethics. (CO1, CO2, CO3, CO4, CO5, CO6)</td></tr>
<tr><td>Content</td><td>Dissertation consist of dissertation proposal and seminar (4/0), comprehensive examination (3/0), research execution and dissertation writing (16/0), research result seminar (2/0), dissertation defence (4/0), and internationally-indexed scientific publication (5/0). Dissertation is a final stage of student assessment in the program that consists of ability in forming research idea in form of research proposal and seminar, mastery of science and knowledge in the level of doctoral study program necessary to start research, ability of students in conducting research and writing the results, ability in data collection and analysis, comprehensive assessment on dissertation, and communication and technological skill in form of scientific publication</td></tr>
<tr><td>Exams and assessment formats</td><td>
<table>
<tr><th>Assessment Components</th><th>Course Outcomes (CO)</th><th>Percentage (%)</th></tr>
<tr><td>1. Presentation</td><td>CO 1, CO 2, CO 3, CO 4, CO 5 & CO 6</td><td>100</td></tr>
<tr><td colspan="3">Grade and Score</td></tr>
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<table>
<tr><th>Grade</th><th>Score</th><th>Grade</th><th>Score</th></tr>
<tr><td>A</td><td>≥80</td><td>C+</td><td>45-49,9</td></tr>
<tr><td>A-</td><td>75-79,9</td><td>C</td><td>40-44,9</td></tr>
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	A/B	70-74,9	C-	35-39,9
	B+	65-69,9	C/D	30-34,9
	B	60-64,9	D+	25-29,9
	B-	55-59,9	D	20-24,9
	B/C	50-54,9	E	0-19,9
Study and examination requirements	Finish dissertation of the research result and publication			
Reading list	- Bhaskar, R. 1978. A Realist Theory of Science. Hassocks: Harvester Press. - Bhaskar, R. 1989. Reclaiming Reality: A Critical Introduction to Contemporary Philosophy. London: Verso. - Brunel University London. 2015. Research Ethics handbook: philosophy, history and theory. Revised may 2015 version 1.1 - Lakhotia, SC. 2021.Philosophy and Ethics of Research in Science.At http://www.researcggate.net/publication/351835855 - Resnik, DB. 2007. What is Ethics in Research and Why Is It Important? at: http://researchgate.net/publication/242492652. January2007 - Saunder, MNK. 2009. Understandings research philosophies and approaches. Chapter 4. Available at: https://wwww.researchgate.net/publication/309102603			