

Module designation	Development of Animal Genetic Resources
Semester(s) in which the module is taught	Odd and even semesters
Person responsible for the module	Prof. Dr. Ir. Sumadi, M.S., IPU. Prof. Ir. Tety Hartatik, S.Pt., Ph.D., IPM. Prof. Ir. Diah Tri Widayati, M.P., Ph.D., IPM. Dr. Ir. Sigit Bintara, M.Si., IPU., ASEAN Eng. Ir. Panjono, S.Pt., M.P., Ph.D., IPM., ASEAN Eng.
Language	Bahasa and English
Relation to curriculum	Study Program's Compulsory
Teaching methods	Classical lecture and discussion
Workload (incl. contact hours, self-study hours)	Total workload: 79 hours Contact hours: - Lecture: 23 hours - Academic activity: 28 hours Private study: 28 hours
Credit points	2/0
Required and recommended prerequisites for joining the module	None
Module objectives/intended learning outcomes	<p>Course Outcomes (CO):</p> <ol style="list-style-type: none"> <li>1. Able to comprehend the importance of animal genetic resources sustainability.</li> <li>2. Able to explain the role of animal breeding on animal genetic development.</li> <li>3. Able to master animal physiology and reproduction.</li> <li>4. Able to apply reproduction technology for animal genetic development.</li> </ol> <p>Expected Learning Outcomes:</p> <ul style="list-style-type: none"> <li>- Attitudes and Behaviors: <ol style="list-style-type: none"> <li>1. Showing the social sensitivity and attention to the community and environment by respecting the culture diversity, view, religious, beliefs, and other people's opinion, and also obey the rules. (CO1, CO2, CO3, CO4)</li> </ol> </li> <li>- Mastery in Sciences: <ol style="list-style-type: none"> <li>1. Able to master the current animal science and its application theory. (CO1, CO2, CO3)</li> <li>2. Able to master the livestock production science, animal nutrition and feed science, animal products technology, and the livestock social economics in relation to food security and environment. (CO1, CO2, CO3, CO4)</li> </ol> </li> <li>- Special skills: <ol style="list-style-type: none"> <li>1. Able to make innovation in the animal husbandry based on the development of science and technology. (CO3, CO4)</li> <li>2. Able to design interdisciplinary and multidisciplinary research in the animal husbandry. (CO2)</li> </ol> </li> <li>- General skills: <ol style="list-style-type: none"> <li>1. Able to develop logical, critical, systematic, and creative thought through scientific research, creation of design in the science and technology, which pays attention and</li> </ol> </li> </ul>

	<p>applies humanity values according to their expertise. The graduates are able to arrange scientific concept and the study result based on the principles, procedures, and scientific ethics. (CO3)</p> <p>2. Able to identify the science that becomes their research object and position it to a research map by using information technology in the context of science development and expertise implementation developed through interdisciplinary or multidisciplinary approaches. (CO1, CO2, CO4)</p>			
Content	<p>Students in this course will discuss various topics in the development of animal genetic resources, i.e. principal concepts of genetics, application of molecular genetics in livestock animals, selection based on one or multiple traits, cross breeding, animal's endocrine system, environmental effects on animal's physiology and reproduction, artificial insemination, in vitro fertilization, and embryo transfer.</p>			
Exams and assessment formats	<b>Assessment Components</b>	<b>Course Outcomes (CO)</b>		<b>Percentage (%)</b>
	1. Midterm exam (written test, take home exam, paper assignment)	CO 1 & CO2		30
	2. Final exam (written test, take home exam, paper assignment)	CO1 & CO2		30
	3. Discussion	CO2, CO3, & CO4		20
	4. Assignments	CO1, CO2 & CO3		20
	<b>Grade and Score</b>			
	<b>Grade</b>	<b>Score</b>	<b>Grade</b>	<b>Score</b>
	A	≥80	C+	45-49,9
	A-	75-79,9	C	40-44,9
	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	<p>The final grade in the module is composed of 30% performance on Midterm exam, 30% final exam, 20% assignment and 20% Discussion. Students must have a final grade of 70% or higher to pass</p>			
Reading list	<p>Learning books and articles related to the topic</p>			