ASIIN Seal

Accreditation Report

Master's Degree Programme and PhD Programme
Animal Science

Provided by
Universitas Diponegoro, Semarang

Version: 25 September 2026

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A About the Accreditation Process

Name of the degree programme (in original language)	(Official) English translation of the name	Labels applied for [1]	Previous accreditation (issuing agency, validity)	Involved Technical Committees (TC)[2]
Program Studi Magister Peternakan	Master of Animal Science Study Program	ASIIN	/	08
Program Studi Doktor Peternakan	Doctoral Program in Animal Science	ASIIN	/	08
Date of the contract: 26.02.2025 **Submission of the final version of the self-assessment report:** 21.01.2026 **Date of the onsite visit:** 09.-10.04.2026 **at: Campus UNDIP**				
Expert panel: Prof. Dr. Helga Sauerwein, University of Bonn[3] Prof. Dr. Bernhard Hiebl, University of Veterinary Medicine Hanover Robi Agustiar, Indonesian Cattle and Buffalo Farmers Association & Indonesian Animal Science Society Dayfah Dinasarki, PhD student at Universitas Hasanuddin Makassar				
Representative of the ASIIN headquarter: Johann Jakob Winter, M.Sc.				
Responsible decision-making committee: Accreditation Commission for Degree Programmes				
Criteria used: European Standards and Guidelines as of May 15, 2015 ASIIN General Criteria as of December 28, 2023				

[1] ASIIN Seal for degree programmes
[2] TC: TC 08 – Agriculture, Forestry, and Food Sciences
[3] Online participant

Additional Criteria for Structured Doctoral Programmes as of June 27, 2025 Subject-Specific Criteria of Technical Committee 08 – Agriculture, Forestry, Food Sciences, and Landscape Architecture as of March 27, 2015	

B Accreditation Status

Result Overview

The most recent decision for the ASIIN Seal was made by the ASIIN Accreditation Commission on 25.09.2026.

Degree Programmes	ASIIN Seal	Validity
Ma Animal Science	Accredited with requirements	25.09.2026 - 16.01.2028
PhD Animal Science	Accredited with requirements	25.09.2026 - 16.01.2028

Fulfilment of the Accreditation Criteria

ASIIN General Criteria / Subject-Specific Criteria	Ma Animal Science	PhD Animal Science
1 Degree programme: Concept, Content & Implementation		
1.1 Objectives and learning outcomes (intended qualification profile)	**Not fulfilled** Requirements A 1, A 6	**Not fulfilled** Requirement A 1
1.2 Title of the degree programme	Fulfilled	Fulfilled
1.3 Curriculum	**Not fulfilled** Requirement A 7	Fulfilled
1.4 Admission requirements	Fulfilled	Fulfilled
1.5 Workload and credits	Fulfilled	Fulfilled
1.6 Didactics and teaching methodology	Fulfilled	Fulfilled
2 Exams: System, Concept and Organisation		
2 Exams: System, Concept and Organisation	Fulfilled	Fulfilled

ASIIN General Criteria / Subject-Specific Criteria	Ma Animal Science	PhD Animal Science
3 Resources		
3.1 Staff and staff development	Fulfilled	Fulfilled
3.2 Student support and student services	Fulfilled	Fulfilled
3.3 Funds and equipment	**Not fulfilled** Requirements A 2, A 3, A 4	**Not fulfilled** Requirements A 2, A 3, A 4
4 Transparency and Documentation		
4.1 Module descriptions	Fulfilled	Fulfilled
4.2 Diploma and Diploma Supplement	**Not fulfilled** Requirements A 1, A 5, A 8, A 9	**Not fulfilled** Requirements A 1, A 5
4.3 Relevant rules	**Not fulfilled** Requirement A 1	**Not fulfilled** Requirement A 1
5 Quality Management: Quality Assessment and Development		
5 Quality Management: Quality Assessment and Development	Fulfilled	Fulfilled
Additional Criteria for Structured Doctoral Programmes		
D 1 Research	not applicable	Fulfilled
D 2 Duration and Credits	not applicable	Fulfilled
D 3 Soft Skills and Mobility	not applicable	Fulfilled
D 4 Supervision and Assessment	not applicable	Fulfilled
D 5 Infrastructure	not applicable	**Not fulfilled** Requirement A 4
D 6 Funding	not applicable	Fulfilled
D 7 Quality Assurance	not applicable	Fulfilled

Requirements

For all programmes

A 1. (ASIIN 1.1, 4.2, 4.3) Harmonise the learning outcomes in all official documents and transparently publish the programme learning outcomes of the programmes´ websites.

A 2. (ASIIN 3.3) Ensure that the animal welfare standard of the laying hen and rabbit facilities corresponds to international standards.

A 3. (ASIIN 3.3) Ensure open documentation of maintenance measures and the compliance of the students with work safety standards in the labs.

A 4. (ASIIN 3.3, D5) Provide a strategic plan for further modernising the lab equipment and, in the meantime, give the students at least an insight into the use of modern research equipment of the research laboratory.

A 5. (ASIIN 4.2) Redesign the final documentation (Diploma, Transcript of Records, Diploma Supplement) with the scope of:

a) providing information about the credit systems and their conversion

b) providing statistical data on the distribution of final grades as set out in the ECTS Users' Guide.

For MAS-SP

A 6. (ASIIN 1.1) Clearly distinguish and specify the graduate profiles and programme learning outcomes of the two tracks.

A 7. (ASIIN 1.3) Establish a designated module for animal welfare within the OneHealth concept to address this important topic in sufficient breadth and depth.

A 8. (ASIIN 4.2) Outline the title of the Master´s thesis on the Transcript of Records.

A 9. (ASIIN 4.2) Clearly distinguish and outline the features of the two tracks in the Diploma Supplement.

Accreditation History

The programmes have not been previously accredited by ASIIN.

C Characteristics of the Degree Programme

a) Name	Final degree (original/English translation)	b) Areas of Specialization	c) Corresponding level of the EQF[4]	d) Mode of Study	e) Double/Joint Degree	f) Duration	g) Credit points/unit	h) Intake rhythm & First time of offer
Master of Animal Science Study Program	M.Pt. (Master of Animal Science)	-	Level 7	By course By research	-	4 semesters 4 semesters	89,99 ECTS/56 credits (by course) 93,21 ECTS/58 credits (by research)	since 1999
Doctoral Program in Animal Science	Doktor/Doctor	-	Level 8	By Research	-	6 semesters	141.42 ECTS/ 88 Credits	Since 2005

Contextualisation

Universitas Diponegoro (UNDIP) is a public university in the city of Semarang on the island of Java, Indonesia, named after the Javanese prince Diponegoro. It was founded as the Semarang University in 1957. It is regarded as the oldest university in Central Java and enjoys a high reputation for academic excellence among students, alumni, lecturers, and the industry. Nowadays, UNDIP hosts 11 faculties, a postgraduate school, and a vocational school with more than 67,000 enrolled students in total. It is ranked as the 8th university by UniRank. Both programmes under review are offered by the Department of Animal Science at the Faculty of Animal and Agricultural Sciences. The faculty offers Animal Science programmes at all three higher academic levels. While the Bachelor of Animal Science was accredited by ASIIN in 2022, the Master´s and Doctoral programmes are reviewed for the purpose of international accreditation by ASIIN for the first time.

General assessment

Overall, the experts are highly satisfied with the quality of both programmes that are well-regarded by the industry and qualify graduates for academic careers as well as higher positions in authorities and industries. Positive highlights include the strategic development of the university and the programmes with a specific focus on research, the concept for

[4] EQF = The European Qualifications Framework for lifelong learning

academic mobility for research stages and conference participations of both staff and students, the close contact between staff and students and a consequently good supervision, the high quality of Master´s and Doctoral theses, the digitalised university and learning process administration, as well as the qualification, motivation, and engagement of the staff at all levels of the university. In terms of internationalisation, UNDIP also has a clear strategy, focuses on developing international contacts for both teaching and research, and offers a welcoming culture for attracting international students, especially in higher-level programmes. To further improve UNDIP´s attractiveness in that regard, multiple formal aspects of transparency and documentation need to be improved. Also, a concept for the further development of the faculty´s lab facilities needs to be developed and implemented. For the Master´s programme, the minimum credit standards need to be ensured, and the by-course/ by-research programme profiles have to be clearly distinguished. Furthermore, it is required to include the topic of animal welfare in the GLO and adequately include it in the curriculum. Likewise, digitalisation, big data, AI, and sustainability should be addressed more explicitly. Further recommendations for improvements include an extension of the cattle facilities, the establishment of a slaughterhouse, a raise of the animal welfare standards of small animals, and a more transparent and differentiated grading system.

Programme profile

According to the curriculum guidebook, the Master of Animal Science programme (MAS-SP) "is an education provider that is oriented towards the development of animal science and technology covering the fields of livestock production, nutrition and feed science, animal product technology and efficient livestock development planning in a sustainable and sustainable manner with the main study of local livestock and feed development in tropical areas."

It pursues the following *mission*:

1. Developing excellent educational programs in the field of animal husbandry and tropical agriculture to produce competitive graduates.
2. Developing excellent research in the field of animal husbandry and tropical agriculture to support the improvement of the nation's competitiveness.
3. Developing excellent services in the field of animal husbandry and tropical agriculture to support the improvement of community welfare.
4. Developing efficient, effective, accountable, and transparent faculty governance.

The Doctor of Animal Science programme (DAPS) has outlined the following *mission* on its website:

1. "Developing human resources with an excellent mental attitude based on global-quality competence, confidence, and communication skills, supported by high commitment,
2. Developing a system of animal science and technology capabilities with environmental awareness to become a leading educational institution,
3. Establishing extensive networks for the provision of animal science and technology services, especially for scientific input in the planning and policymaking of livestock development in the region,
4. Producing doctoral graduates in animal science who master a specific field of animal science and related areas through research processes aimed at updating tropical animal science and technology for human welfare."

D Expert Report for the ASIIN Seal[5]

1. The Degree Programme: Concept, Content & Implementation

Criterion 1.1 Objectives and Learning Outcomes of a Degree Programme (Intended Qualifications Profile)

Evidence:

- Self-Assessment Report
- UNDIP academic regulations for postgraduate programmes
- Faculty guidebook
- Curriculum guidebook MAS-SP
- Objective-module matrix MAS-SP
- Objectives and learning outcomes DPAS
- Sample Diploma Supplements
- Stylised results of stakeholder satisfaction surveys
- Websites of the study programmes:
    - MAS-SP: https://mit.fpp.undip.ac.id/en/home/
    - DPAS: https://dip.fpp.undip.ac.id/en/home/
- Discussions during the on-site visit

Preliminary assessment and analysis of the experts:

As outlined in the Self-Assessment Report and the university´s academic regulations for postgraduate programmes and the faculty´s guidebook, study programmes at UNDIP are developed and implemented within a clearly defined framework of a programme's vision, mission, and objectives which is derived from the university level vision and mission, and incorporates the provisions of the Indonesian national curriculum guide for the respective discipline. The resulting graduate profile and graduate learning outcomes (GLOs) are derived from this framework and formulated in accordance with the Indonesian Qualifications

[5] This part of the report applies also for the assessment for the European subject-specific labels. After the conclusion of the procedure, the stated requirements and/or recommendations and the deadlines are equally valid for the ASIIN seal as well as for the sought subject-specific label.

Framework and Higher Education Standards. For the Master of Animal Science programme (MAS-SP), the GLOs are distinguished by the domains of attitude, general skills, specialised skills, and knowledge, while the GLO of the Doctor of Animal Science programme (DPAS) are divided into the categories core knowledge, specialised knowledge, and supporting knowledge. The GLO of both programmes are outlined in the appendix of this report and address analytical and critical thinking skills, technical and innovative design solutions considering quality, legal, and ecological aspects, and the application of scientific principles and new technologies to meet workforce needs and advance knowledge in the field of animal science. On the level of the individual modules, the GLOs are further distinguished and specified as course learning outcomes, and objective-module matrices show how the modules align with the respective GLOs and, for the Masters´ programme, with the applicable subject-specific criteria.

For MAS-SP, the graduate profile, which describes the roles and functions of graduates after completing their education, is outlined in the curriculum guidebook as follows:

No.	GRADUATE PROFILE	DESCRIPTION OF GRADUATE PROFILE
1.	Educator	Professional teachers and scientists, both formal and non-formal, with the main tasks of main task transform, develop, and disseminate animal science and technology.
2.	Researcher	Studying animal husbandry problems, either experimentally and/or surveys conducted according to scientific principles and methods to obtain data and information and publish the results in national and international forums and journals.
3.	Bureaucrat	Decision makers and determinants of policies in the livestock field who understand regulations, master innovation and know contemporary issues and are able to think logically and critically in terms of decision making.
4.	Entrepreuner	Livestock business players, both in the form of services and product producers who master the application of animal science and technology, have the ability to solve animal husbandry problems, and are able to use information and communication technology to keep up with global livestock developments. information and communication technology to keep up with global livestock development.

Statistics of the graduate survey show that almost 40% of the Master´s graduates stay in academia and become lecturers, while approximately one fourth of the graduates each join private companies and regulatory authorities. Similarly, the DPAS programme mainly targets the profiles as university lecturers and researchers, as well as bureaucrats to a lesser extent, which is also confirmed by the statistics of the tracer study.

The experts are generally satisfied with the graduate profiles and the content of the learning outcomes and acknowledge that graduates are fit for purpose in jobs corresponding to their degrees. During the on-site visit, the representatives of potential employers and professional associations mention strong research competencies, work ethics, and

international collaboration and awareness as distinguishing aspects of the graduates of both levels. The experts confirm that they adequately represent the international standard of animal science and that they reflect most of the aspects of the applicable Subject-Specific Criteria. However, they note that the topics of animal health and welfare are only peripherally addressed. Given the strong importance of this topic for the international market as well as the increasing relevance also domestically, this needs to be given more weight (see also chapter 1.3). In that regard, they point out that the learning outcomes listed in the objective-module matrix differ from the GLOs as well as module-level learning outcomes which is part of a multitude of inconsistencies in the documentation (see below). In this document, animal welfare is adequately covered, while it is entirely missing in the GLO as well as module-level learning outcomes. This needs to be addressed.

Besides this, the experts criticise the very specialised formulation of the GLO of the MAS-SP programme. While the GLO of the DPAS programme are formulated comprehensively but concisely in the respective curriculum guidebook, a total of 30 GLO, clustered in the domains of general outcomes, attitude, general skills, specific skills, and knowledge mastery, is listed. This mass of ILO in their very detailed formulation is too specific and chaotic and therefore does not fulfil the purpose of programme-level learning outcomes which need to be general indicators of the set of competences achieved by the graduates. The more specialised formulations should be reserved for the learning outcomes at the module level which are outlined in the module descriptions of all programmes. Therefore, the experts require UNDIP to adapt the GLO of the MAS-SP programme and formulate them briefly and concisely. In that regard, the experts also notice for all programmes that the provided information on the competence profiles and ILOs differs across different information sources and documents, including the curriculum handbooks, Diploma Supplements, while no information on the GLO is found on the websites of the programmes. Therefore, it is required to harmonise the GLO in all official documents and transparently published on the programmes´ websites.

Moreover, the experts specifically discuss the competence profile and ILO of the MAS-SP programme in its by-course and by-research track. The two tracks differ notably in their design, especially in terms of the numbers of structured modules that must be completed (see chapter 1.3). The by-research curriculum focuses mainly on independent research activities of the students while the by-course track covers a broader spectrum of contents. As the programme coordinators explain, the by-research track is taken mostly by international students, students who aspire careers in research, and students who are already in employment and are sent to complete Master´s degrees for higher achievements. As the industrial stakeholder explain during the on-site visit, this distinction is mainly relevant for research institutes who have a high interest in recruiting students who completed by-

research curricula. On the other hand, students with the broader by-course curriculum are favoured for lecturing positions. Admitted students have to choose their track which is supported by academic counselling, switching between them at a later point in time is not possible. Based on the provided examples of final theses, the experts determine that the qualification level of both tracks is adequate for a Master´s degree despite a notable qualitative difference between the tracks. The qualitatively better by-research track research works are even considered to exceed the generally required Master´s level standard. However, this higher quality in research comes at the expense of a less broad competence achievement in other subjects and domains. This is acceptable but targets very different graduate profiles as the depth of expertise achieved in the different learning outcomes is strongly dependent from the research topics and therefore can differ significantly from the learning outcomes of the by-course track. The programme coordinators explain that students can voluntarily attend all modules; however, they cannot write exams and formally attain credit points. Therefore, the experts question the comparability of the degree and deem it crucial to clearly distinguish and specify the graduate profiles and programme learning outcomes of the two tracks. This must be transparent in all documents and websites related to the programmes and needs to be transparently outlined for potential employers and other external stakeholders in the Diploma Supplement.

According to the Self-Assessment Report, both programmes are regularly reviewed every five years to update the programme with respect to scientific developments as well as national policies, as stipulated by national regulations. The latest review was conducted in 2024 and involved members of the academic community, university representatives, and alumni, which is confirmed during the audit by the respective stakeholder groups. As an example, a change made in the DPAS programme response to the feedback of the alumni was the introduction of the publication module to provide guidance on how present research works at international seminars. However, during the audit, the active students did not know about the participation of students in these review processes. While the experts understand that none of the currently active students had studied in the programmes at the time of the last major curriculum review, the processes of student involvement as well as feedback options and micro-reviews should be known to the students. Therefore, they require UNDIP to ensure the involvement of students in the curriculum development processes.

In summary, the experts confirm that the programmes offer advanced graduate profiles that are in accordance with the desired competence level of EQF 7 for the Master´s programme and EQF 8 for the PhD programme. The graduates are able to successfully take up adequate employment, mostly in the academic sector. The experts further confirm that a process for the regular review is in place, which incorporates relevant stakeholders.

However, the student involvement appears to be not clearly constituted or communicated, which needs to be ensured. Besides a formal requirement to harmonise and publish and harmonise the GLOs for both programmes, the GLO of the MAS-SP programme need to be reformulated briefly and concisely to represent programme-level learning outcomes. Moreover, a clear distinction between the graduate profiles and GLOs of the two different tracks of this is required. Also, to fully cover the Subject-Specific Criteria, the topic of animal welfare needs to be included in the GLO and must be correspondingly covered by the curriculum.

Criterion 1.2 Name of the Degree Programme

Evidence:

- Self-Assessment Report
- Website of the study programme
- Discussions during the on-site visit

Preliminary assessment and analysis of the experts:

As the experts confirm, the programme names adequately reflect their respective qualification levels, profiles and curricular contents in line with both national and international denomination standards and definitions. The names in both their original Indonesian version as well as the corresponding English translations are consistently used in all official documents and on all websites. Graduates of the MAS-SP are awarded the degree title of Master of Animal Science while the degree title of the DPAS programme is Doctor. The experts confirm that the degree titles correspond to the programme.

Criterion 1.3 Curriculum

Evidence:

- Self-Assessment Report
- UNDIP academic regulations for postgraduate programmes
- Faculty guidebook
- Curricular overviews of both programmes
- Module handbooks of both programmes
- Exemplary course contract
- Technical Guideline MBKM

- Statistics on student mobility
- Statistics on academic success
- Websites of both study programmes
- Discussions during the audit

Preliminary assessment and analysis of the experts:
Structure and content

According to the Self-Assessment Report, the implementation of both programmes are based on the Outcome-Based Education (OBE) system which is "designed to meet the needs of a modern and dynamic workforce while remaining flexible to ensure that graduate competencies continue to evolve".

The MAS-SP programme is designed for a regular study duration of 2 years (4 semesters). There are two different curricular tracks between which the students have to choose upon admission: the by-course track which incorporates a broad catalogue of structured advanced modules which account for a minimum of 56 SKS (90 ECTS credits), and the by-research track which prioritises learning through guided and independent research activities related to selected topics in the field of animal science which requires the completion of at least 58 SKS (93 ECTS credits) out of 88 available credits. The structure of both tracks is comparatively listed in the following table taken from the Self-Assessment Report:

In the course-based structure, which prioritises structured lectures, the first year contains the subject-specific modules as well as a practicum on experimental design, fieldwork, the module Research Methods and Scientific Writing, as well as the research proposal in preparation of the comprehensive research related to the thesis modules in the second study year. Compulsory modules include also Animal Breeding, Comparative Nutrition, Animal Physiology, as well as Ecology and Bionomics of Livestock. Besides these, students can choose between four specialisation directions which are reflected in sets of at least five modules to be chosen out of the elective module catalogue. Usually, these directly lead to the students´ research topics: livestock production, animal nutrition and feed, livestock product technology, and rural development.

Modules of the livestock production specialisation include Livestock Reproduction Technology, Lactation Histology and Physiology, Beef Livestock Science and Production, Dairy Livestock Production Science and Technology, Poultry Production Science and Technology, Livestock Reproductive Physiology, and Livestock Breeding Technology.

In the animal nutrition and feed specialisation, the following modules can be chosen: Feed Crop Biotechnology, Monogastric Nutrition, Ruminant Nutrition, Lactation Nutrition, Feed

Quality Control Techniques and Management, as well as one further module depending on the research topic students want to choose.

The required modules for the livestock product technology specialisation include Livestock Product Biotechnology, Nutritional Biochemistry, Science and Technology of Livestock Product Processing, Quality and Food Safety of Livestock Products, Food Chemistry of Animal Origin.

Finally, the rural development specialisation is constituted by the modules Quantitative Methods of Animal Husbandry Social, Group Dynamics and Extension Strategy, Livestock Development Strategy, Livestock Project Feasibility Evaluation, Economics of Livestock Development.

Given the low student numbers, the experts inquire about the implementation of these specialisations and are satisfied to hear from the students that all specialisation electives are taught even if the student numbers are very low.

On the other hand, the by-research curriculum is even more strongly oriented toward independent scholarly work and prioritises research activities and publications. Although it is formally structured in the form of modules, all of them are part of the overall process of research development, article writing, presentation, and publication. Related to the problem of the very different curricular structures of both tracks and the correspondingly diverging competencies (see also chapter 1.1), the experts learn during the on-site visit that Master´s students in the by-research track, who have not completed the corresponding Bachelor´s programme at UNDIP, are obliged to take a set of so-called “matriculation courses” to harmonise the basic understanding of the domain of animal sciences. This set of courses is basically a 2-week fast track lecturing programme of the compulsory by-course modules. While the experts generally wonder how a fast-track of Master´s level modules can replace potentially missing Bachelor´s level expertise, they generally support the concept of a structured introduction period for the by-research students. However, as the Master´s level contents should add on top of already acquired Bachelor´s level knowledge, these matriculation courses should be offered to all students. Eventually missing prior qualifications should be determined and compensated at an individual level (see also chapter 1.4).

For both tracks, the experts wonder about multiple recent topics that are crucial for the current development of the practical and scientific domain of animal science, as these appear to be missing or only peripherally incorporated into the programme. These are, foremost, modern concepts of animal welfare and health, but also microbiology (pathogens but also commensal microbiota), big data management, and digitalisation such as the use of digital methods and Artificial Intelligence in monitoring and reporting of animal husbandry

and re-/production. The programme coordinators explain that microbiology is distributed across different modules while aspects of digitalisation are covered as part of the teaching methodology. For animal welfare, there is also no module, but it is explained that students learn these aspects in developing their research design and proposal, as they have to deal with the university´s ethics board to design the research according to animal welfare standards. While the experts appreciate these explanations, they point out that they are nowhere to be found in the module handbooks, and consequently see these topics only insufficiently covered for an international standard. Especially, the topic of animal welfare is essential for the development of the discipline and, therefore, is required to be covered in depth, ideally as part of an individual module. Besides that, it is recommended to strengthen and more prominently include the topics of digitalisation, big data, AI, and sustainability in the curriculum.

The DPAS programme is designed for a regular study duration of 3 years (6 semesters) and contains 88 SKS (141.5 ECTS) credits. The curriculum designed is explained as follows in the Self-Assessment Report: “During the first semester, students under the guidance of the promoter team are required to finalize the concept of the research proposal, followed by the presentation of the research proposal in semester 2, to get input from the examining team and fellow students. After the presentation of the research plan, students can carry out research in semester 2 and 3. Publication of research results is carried out in semesters 3, 4, 5, which include presentations at international seminars, 1 article in an accredited national journal, and 2 articles in reputable international journals indexed by Scopus. The preparation of the dissertation, the feasibility exam, and the final exam of the program are carried out in semester 6.”

Similarly to the Master´s programme, the programme offers two curricular tracks as well, as outlined in the curricular overviews contained in the appendix to this report. However, it is explained, that only the by-research curriculum of the programme is implemented, and only this track is included in the scope of the accreditation. In that regard, the experts also notice that the two tracks are very similar: While the by-course curriculum offers structured modules on research methodology, philosophy of science, presentation tools, and one specialised advanced module out of the catalogue of four specialisations see above) in the first and starts with the research work only in the second semester, the by-research curriculum starts directly with a research proposal and prescribes the publication of three instead of only two article publications. The experts consider both these curricular options to adequately cover the ILO and, given that also only option is implemented, decide not to question the structure.

In summary, the experts confirm that learning outcomes are defined for each module, which, along with the structure of the curricula, target the achievement of the overarching GLO. Four sensible specialisation paths allow students to specialise according to their

personal interests. The curricula fulfil the standards of EQF level 7 for the Master´s programme and EQF level 8 for the PhD programme. For the MAS-SP programme, the distinction of the GLO is necessary to harmonise the learning outcomes and the by-research track of the curriculum. Generally, each module represents a well-matched unit of teaching and learning, although a more prominent incorporation of current topics improvement is recommended (e.g., AI, digitalisation, data management) or even required (animal welfare).

Internationalisation and student mobility

Student mobility at UNDIP is organised within the Kampus Merdeka (MBKM, Independent learning campus) framework that provides its students with different opportunities for student exchanges, internships, and other types of learning activities outside the home campus of the students. This includes, e.g., the possibility to complete modules at partner universities, participate in research projects, or do additional internships. UNDIP itself has limited resources to fund student exchanges which are distributed competitively through the "Student Go International" programme that promotes different short-term internationalisation activities both online and in person. Further funding is provided via UNDIP´s World Class University programme which mainly targets research achievements. As students of both programmes explain, this includes research internships and international conference participations, e.g. at partner institutions Japan, Philippines, Australia, and Malaysia, which is actively supported by the university. Additionally, the university supports students in applying for third-party funding like the Indonesian International Student Mobility Awards, Indonesia´s main state student mobility funding scheme.

As the experts note, there is only very little mobility for longer periods like an entire semester or even year, but most of the mobility activities include short stays. As the students explain, short stays are more attractive and easier to organise due to the problem of funding longer stays abroad which are usually not fully covered by the mobility grants, as well as logistical considerations. Also, given the research-focused programme structures, presence and presentations at multiple international conferences are considered a better option for advancing the research work than a longer period at another institute. Moreover, as the experts acknowledge, both programmes also host multiple international students, primarily from Pakistan, whose focus is not at going abroad. According to the university representatives, increasing the attractiveness for international students is one of UNDIP´s strategic goals which is manifested, among others, through staff internationalisation, international research reputation, a gradual introduction of English-speaking international classes across the faculties, and the establishment and expansion of the international office. The international office is also responsible for managing the Diponegoro Exchange Experience Program (DEEP) as the official channel for international students. The international students report of a very good support of the university to welcome and accommodate

internationals, a feeling, which is shared by the experts. All international students take the by-research path and have therefore only little structured coursework; which is then taught fully in English. All their research activities are conducted fully in English and most of them centre around a few teaching staff with longer standing international experience as their supervisors.

In summary, the experts conclude that UNDIP promotes student mobility through an appropriate framework and encourages the university to further pursue this path of internationalisation, which provides essential experience for students and is also stressed by the external stakeholders as crucial field of development.

Periodic review

As explained in section 1.1, the curriculum is periodically revised every five years. Given the multiple missing topics in the curriculum, the experts wonder about changes made in the last review process in 2023/24. However, according to the programme coordinators, the changes made addressed mostly formal and regulatory issues, while no major content-related adjustments were made. Nevertheless, the representatives of external stakeholders as well as alumni affirm their involvement in the review process, while this appears not to be the case for the active students. In that regard, a transparent involvement of the students is required.

In summary, the experts confirm that UNDIP has regular review procedures in place. The process involves all relevant stakeholders of the programme except the students which needs to be adapted.

Criterion 1.4 Admission Requirements

Evidence:

- Self-Assessment Report
- Rector´s regulation “On New Student Admissions To Diponegoro University”
- UNDIP academic regulations for postgraduate programmes
- Admission rate statistics
- UNDIP admission website: https://pmb.undip.ac.id/
- Discussions during the on-site visit

Preliminary assessment and analysis of the experts:
According to the Self-Assessment Report, the admission system, including processes and requirements, is strictly regulated at the national level. However, within its status as an independent university, UNDIP has the right of autonomous selection for the Master´s and doctoral programmes. Students can apply and start the programmes every semester. As outlined in the respective Rector´s regulation, the general admission requirement for Master´s programmes is a completed Bachelor´s degree, while, for the PhD programme, a relevant Master´s degree is required. The selection is done based on "the selection of required documents, written tests, interviews, and/or other methods". According to UNDIP´s admission website, this includes the following:

1. "Scholastic Potential Test (TPS)/Academic Potential Test (TPA): Verbal, Numerical, and Logical;
2. English Test: *Reading* and *Structure*;
3. Scientific Substance Test (in the form of an interview (*online*)/written study program test)."

As the university representatives explain, also a recommendation letter is required as basis for the scientific substance test interview.

For international applicants, there is a separate website which shows all offers for international applicants including regular degree programmes with international classes, exchanges, and summer courses, and scholarship-based admission. English language competency certificates are part of the required application materials.

The experts are generally satisfied with this extensive selection process that involves a personal assessment of the candidates through which the necessary prior qualification can be ensured. They are also satisfied, that, besides general criteria like language competence or the minimum GPAs, also suitable disciplines of the Bachelor´s respectively Master´s degree are defined as "related" disciplines that are allowed for admission, namely: Animal Science, Agriculture, Veterinary Medicine, Biology, Agribusiness, and Food Technology. For students from outside the core discipline of animal science, bridging courses from the Bachelor´s respectively Master´s programmes of Animal Science are determined on an individual basis.

While the subject-specific criteria are well defined, the experts point out that, on a formal level, a Master´s degree requires the completion of a credit equivalent of a total of 300 ECTS points (Bachelor + Master). As the MAS-SP programme includes only an equivalent of 90 ECTS credits, the admission regulations must ensure that the completed Bachelor´s programmes are equivalent to at least 210 ECTS credits to guarantee that the minimum

standard of 300 ECTS credits is met upon graduation of the Master´s programme. E.g., for applicants with a standard European Bachelor´s degree with 180 credits, the credit load of the MAS-SP programme would be too low and therefore not be recognised as Master´s degree. For cases like this, compensating rules like bridging courses should be implemented as well.

Furthermore, the academic guidelines outline the options and respective conditions for a transfer from another programme at UNDIP (change of study programme), a transfer from another Indonesian university (change of university), and a transfer from an international university. Generally, achievements obtained during the study at other universities can be recognised if they "have material content that is equivalent to the courses contained in the Study Program Curriculum that has been followed" or "are considered to support the achievement of competencies", meaning that they can be recognized as elective modules.

Looking at the admission numbers, the experts wonder that, in every cohort of the MAS-SP programme, more students than the available 25 seats are accepted and start the programme. The programme coordinators explain that, despite the predefined seat numbers, the faculty´s staff numbers, facilities, and equipment are still sufficient and in line with governmental regulations to take care of more students; which is why as many students as possible are admitted. Moreover, as the by-course and by-research students have separate classes, the use of facilities can be arranged accordingly. As also the lecturers and students themselves confirm that the capacities are sufficient and that close and qualitative supervision is ensured, the experts see no problem in that regard. For the DPAS programme, the experts positively note the low but increasing number of applicants and students. As the university representatives explain, funding is the main problem for potential candidates of PhD programmes. Therefore, the university has issued multiple scholarships covering the tuition fees in full to enable the completion of PhD degrees, which is positively acknowledged by the experts. They also welcome that UNDIP does not only recruit the postgraduate students from its own Bachelor´s programmes but that about 30% in MAST-SP and 50% in DPAS come from different universities. As described in chapter 1.3, students who have completed their prior degree at a university other than UNDIP are obliged to take the matriculation course.

The programme management collaborates closely with the university´s New Student Admission Committee to ensure that the selection pathways ensure sufficient pre-qualification of the students. Information gathered and monitored in that regard stems from questionnaires among students, the academic performance in early semesters, graduate tracer studies, as well as feedback by lecturers and the academic supervisors (see chapter 3.2).

In summary, the experts confirm that UNDIP´s admission requirements and procedures are binding, transparent, and generally ensure sufficient prior qualification of the students. The experts further confirm that rules for the recognition of qualifications achieved externally are clearly defined and facilitate the transition between higher education institutions without jeopardising the achievement of learning outcomes at the desired level. However, it must be ensured for the MAS-SP programme, that the minimum total number of 300 ECTS credit equivalents is met by all students.

Criterion 1.5 Workload and Credits

Evidence:

- Self-Assessment Report
- UNDIP academic regulations for postgraduate programmes
- Curricular overviews of both programmes
- Module handbooks of both programmes
- UNDIP Rector´s decree about credit conversion
- Statistical data about the progress of studies
- Student survey results
- Discussions during the on-site visit

Preliminary assessment and analysis of the experts:

To monitor and quantify the study progress and achievement, UNDIP employs the Indonesian SKS credit system which is defined by ministerial regulation. The MAS-SP programme has a regular full-time study duration of 2 years (4 semesters), although, as explained in the Self-Assessment Report, its structure allows high-achieving students to complete it within only 3 semesters. It encompasses 56 SKS (90 ECTS) credits in the by-course track and 58 SKS (93 ECTS) credits in the by-research track. The 3-year DPAS programme comprises 88 SKS credits, equivalent to 141 ECTS credits. The number of credits students are supposed and allowed to take depends on their performance in terms of the GPA of the previous semesters and is 24 SKS at maximum, which would allow students to graduate one semester ahead of the designated study plan. Each semester consists of 16 weeks of structured learning activities, including one week for mid-term and one week for final examinations each.

The SKS credit system accounts for all types of learning activities, including the independent study load, and all compulsory parts of the curriculum are credited. As explained in the

UNDIP´s credit transfer regulation and the academic regulation, study regulations, one credit is defined as follows:

(1) "Learning load of 1 (one) credit in the learning process in the form of lectures, face-to-face or online activities for 50 (fifty) minutes per week per Semester; structured assignment activities of 60 (sixty) minutes per week per Semester; and independent activities of 60 (sixty) minutes per week per Semester.
(2) Learning load of 1 (one) credit in the learning process in the form of seminars or other similar forms, consists of: face-to-face activities directly or through online for 100 (one hundred) minutes per week per Semester; and independent activities of 70 (seventy) minutes per week per Semester.
(3) In the event that learning is carried out other than as referred to in paragraph (1) and paragraph (2), the learning load of 1 (one) SKS is equivalent to 45 (forty-five) hours per Semester."

As, in both programmes under review, the learning activities are mostly independent and rarely structured in weekly sessions, the relevant criterion is the total number of 45 working hours per SKS credit. To convert this number into ECTS credits, UNDIP sets the workload of one ECTS point equivalent to 28 hours, which results in a fixed conversion rate of 1.6 ECTS credits per SKS credit. Both credit numbers are transparently outlined in the module handbook for each module.

The experts consider the credit system well defined in principle. They are satisfied to hear confirmation by the students, that the workload is considered adequate and that a workload evaluation is conducted via UNDIP´s integrated information system in every semester.

However, as pointed out in chapter 1.4, given that the MAS-SP programme encompasses an ECTS credit equivalent of only 90 credits, the required minimum credit load of 300 ECTS credits upon completion of the Master´s degree is not achieved with all Bachelor´s degree programmes that may account only for 180 credits, as outlined in the ECTS Users´ Guide. Therefore, it must be ensured that a minimum load of 210 ECTS equivalents is required for the admission to the programme, and that compensating options are established.

In summary, the experts confirm that UNDIP employs a workload-based credit system that incorporates both the structured and independent study load. All compulsory components of the programme are credited, and the workload appears realistic overall. The student workload is evaluated every semester as part of the continuous monitoring process. However, given that the Master´s programme comprises only 90 ECTS credit equivalents, the achievement of the necessary total of 300 ECTS credit equivalents upon the Master´s graduation needs to be ensured otherwise.

Criterion 1.6 Didactic and Teaching Methodology

Evidence:

- Self-Assessment Report
- Module handbooks of both programmes
- Student survey results
- Discussions during the on-site visit

Preliminary assessment and analysis of the experts:
UNDIPs didactical concept is oriented at the OBE curriculum approach, and specific teaching methods are transparently listed in the module handbook for each module. Additionally, the teaching methods are also discussed at the beginning of each module as part of the so-called semester learning plan that serves as the specific framework for the delivery of a module and the respective assessment.

Given the high share of research-oriented modules in both programmes, the most important learning method is independent work assisted by the supervisors. This encompasses individual consultations, presentations, and discussions, as well journal reading and practical work in the university´s laboratories, stables, and fields. For the structured modules, the most applied teaching methods outlined in the Self-Assessment Report include the following:

- "Interactive lectures to provide theoretical foundations and basic concepts.
- Group discussions to foster critical thinking and collaboration skills.
- Problem-Based Learning (PBL) to enhance problem-solving abilities through real-world cases.
- Project-Based Learning (PjBL) that integrates theory and practice in the form of project assignments.
- Simulations and laboratory practices to apply concepts in real-life situations.
- Blended learning, utilizing a Learning Management System (LMS) as an online learning platform."

Most lectures are given in person on site, but virtual and blended learning approaches are also partly used and have been developed and refined since the Covid-19 pandemic. As the lecturers explain, the university allows a maximum of four online sessions per module cycle. In that regard, the university's Moodle-based integrated learning management system (SSO-KULON) supports access to digital lecture materials, e-learning applications, interactive discussion forums, and online assessments. However, according to the student survey,

many students still prefer face-to-face teaching activities. During the on-site visit, the experts get a positive impression of the student-centred teaching approach and the variety of methods employed. They also positively acknowledge the openness towards AI and the incorporation of it both as part of the teaching methodology and supporting instrument for research, which is supported and formally regulated by a university-level policy.

As evidenced by the stylised results of the student surveys, multiple categories of the teaching methodology are evaluated by the students through the regular feedback surveys, which include, among others, the employed methods, clarity of instruction, and applied media. As the teaching staff explain during the on-site interview, the student feedback is discussed in the preparatory session for each new semester.

During the on-site visit, the experts discuss the teaching methods also with UNDIP´s partner institutions that are, among others, involved in the students´ research projects. As one point of critique the lack of practical application in the programmes was critically voiced. However, given the mostly research-oriented profiles of these programmes, the experts consider it not suitable and necessary to incorporate an internship or similar practical components into the curricula.

In summary, the experts confirm that the programme employs a variety of teaching methods and didactic means to promote achieving the learning outcomes. The focus is primarily on guided and independent research work. Nevertheless, both on-site, face-to-face teaching and digital and asynchronous teaching instruments are used to a reasonable extent. The teaching methodology is evaluated every semester as part of the regular module surveys.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion 1:

Criterion 1.1:

Regarding the MAS-SP programme, the experts appreciate the university´s openness to their requirement regarding distinguished graduate profiles and GLOs of the different tracks which are now limited to nine more concisely formulated learning outcomes per track. They consider the presented draft of the revised GLOs for the tracks suitable and well specified. The draft now anchors also the topic of animal welfare. However, besides the content-related work, UNDIP explains that these new GLOs can only be adopted in the next curriculum review cycle in 2028/29. The experts recognise the administrative challenge but see it still necessary to find at least an interim solution, as, in the current form, the ILOs and curricula are not adequately harmonised as required by the accreditation criteria. Therefore, it is decided to keep the initial requirement in that regard.

Regarding the student involvement in the programme development, the university explains that student representatives have been involved in the process but admit that there is an apparent communication gap about these processes and the students´ possibilities to engage. This information gap is said to be addressed for the next formal review. The experts appreciate UNDIP´s openness and recognise that students are already incorporated in these processes. Thus, the cancel the initial requirement and commend UNDIP on the efforts to improve the communication with the students about programme development activities.

Criterion 1.3:

The experts recognise that the topics of digitalisation, big data, AI, and sustainability are now reflected in the GLO of the MAS-SP programme. However, in the revised module handbooks presented as part of the statement, the experts find these topics to still be underrepresented considering their huge importance and quick development. Therefore, the experts decide to formalise the initial recommendation in that regard. In terms of animal welfare, the experts acknowledge that the keyword is now contained in the contents of two suitable modules. However, they consider this not enough and emphasise the importance of this topic. They deem consider it crucial to address it more prominently, not only peripherally as part of a module. Therefore, they adapt their initial requirement as the university needs to cover the topic in a designated module.

Criterion 1.4/ 1.5:

In the statement, UNDIP explains that Indonesian Bachelor´s programmes encompass about 230 ECTS credit point equivalents which is why the around 90 ECTS equivalents of the MAS-SP programme are sufficient for meeting the 300 ECTS threshold. For students who do not meet this minimum credit standard, especially incoming international students, a matriculation programme is organised to bridge the respective gaps. The experts consider this a suitable approach but could not find any regulation where this is formally noted to ensure that all potential students/ applicants know about that. As the matriculation programme prolongs the study duration, this may be a relevant criterion in the selection of the programme. The experts therefore decide to formalise the initial requirement.

Final assessment:

In summary, the experts recognise UNDIP´s efforts to adequately distinguish the graduate profiles and GLOs of the MAS-SP programme, as well as the plans for the mentioned curricular adjustments. However, these changes still need to be implemented. Also, the experts still bemoan the lack of harmonisation and transparency of the GLOs on the programmes´ websites. Moreover, the policy for ensuring that the 300 ECTS equivalent

threshold is achieved by the completion of the programme must made transparent in the admission regulations.

Overall, the experts consider this criterion to be **partially fulfilled**.

2. Exams: System, Concept and Organisation

Criterion 2 Exams: System, Concept and Organisation

Evidence:

- Self-Assessment Report
- UNDIP academic regulations for postgraduate programmes
- Module handbooks of both programmes
- Writing guidebooks for Master´s theses and Doctoral projects
- Standard Operating Procedures of different exam types
- Dean´s decree on grade appeal
- Statistics on academic success
- Statistics on grade distribution
- Discussions during the on-site visit

Preliminary assessment and analysis of the experts:
The cornerstones of UNDIP´s examination system for Master´s and Doctoral programmes are outlined in the academic regulations for postgraduate programmes. These general provisions are complemented by faculty- and programme-level regulations including standard operating procedures for different exam types as well as comprehensive writing guidelines for research works.

The assessment of the student learning progress in the structured modules of the MAS-SP programme is assessed based on multiple examination components to cover all aspects of the ILOs. These include a midterm and a final semester exam in each module as well as project results, assignments, quizzes, and a participation score. The alignment of the different exam components with the ILOs is sketched via a Learning Achievement Matrix which is based on Bloom´s taxonomy of learning. The regular exam components are usually written (paper or computer-based) mid-term and a final exam, for which the dates are centrally scheduled by the university, usually after the seventh and 16th semester week, and published in the academic calendar for each semester. The other exam components are

individually determined by the respective lecturer. While this includes written examinations in the by-course track of the MAS-SP programme, there are no written exams in the research-related modules as well as the by-research track. Instead, the structure of mid-terms categorises major reference check-ups of the progress made by the student in form of presentations or interviews before handing in the research proposal or the final thesis as the final examination. Discussing the examination system on-site, the experts learn the examination forms and dates are explained and discussed in the first class of each module, and subsequently formally agreed upon in a "semester learning plan" which ensures transparency of the examination forms and benefits the students´ semester organisation.

As described in chapter 1.3, students of the MAS-SP programme have to publish at least one article in a national (by-course) or international (by-research) scientific journal which, as the experts acknowledge, is a strong foundation for the research focus of the programme. Before starting their research work, students must develop and publicly present their research proposal, which is already part of the assessment. On site, the experts examine examples of final theses and confirm that their overall quality in terms of topics, methodology, and formalities adequately represents the Master´s level. Especially the theses of students in the by-research track notably exceed the average standard. However, they notice that, in contrast to the Doctoral theses, the article(s) which were published based on the thesis research are not outlined in the theses. As the experts consider this an important reference for both the students and the supervisors, the experts recommend including this information in the thesis documents.

Moreover, as noted earlier, the experts discuss the necessity of publication for the Master´s thesis, which the experts deem a very hard criterion that may potentially also hinder students in their progress due to long-lasting acceptance processes for journal publications. It is explained that students of the by-course programme only have to achieve one publication in a national journal, for which the waiting and acceptance time is usually not long. Students of the by-research track additionally have to publish one article in a Scopus-indexed international journal. However, given that they start their research work right at the beginning of the programme, they have more time to make this achievement. As the university has already recognised this challenge, multiple mechanisms to support students in this process from the start were established, including prior checking of manuscripts as well as increased student monitoring and mentoring. While this is confirmed to be challenging by the students, the statistics on academic success show that there is no general problem with exceeded graduation times, which satisfies the experts.

The experts are generally satisfied with the challenging but motivating examination system of multiple components but wonder about the transparency of the assessment of the participatory component which, according to the programme coordinators, serves the

reflection of skills that the students develop and show in the student-centred learning activities. The experts appreciate the objective to motivate and encourage students to actively participate in the in-class learning activities, but voice major concern that it is highly difficult to objectively and transparently assess "active participation". In contrast to the outcome-based education and assessment model, this exam component has no outcome that can be transparently assessed. Besides that, it is also practically very difficult for a lecturer to objectively assess "active participation" of multiple students in class. Therefore, as the experts consider this to open high potential for misuse and intransparency of the assessment, they recommend preventing this problem by setting up transparent parameters for the assessment of the "participatory activities".

In the DPAS programme, there is no fixed multi-component exam structure. Still, as explained in the Self-Assessment Report, the programme includes a balance of both formative and summative assessments. Formative assessment may take the form of discussions and literature reviews. Summative assessment is conducted at the end of a learning stage to evaluate students' overall achievement of the established competencies. This assessment includes comprehensive exams, colloquium exams, research seminars, feasibility exams, and the final dissertation exam. The exams target progressive and continuous development of academic documents and student research outcomes. In that regard, the modules are usually evaluated based on portfolios which include a written part like the thesis proposal or manuscript, and an oral presentation to the examiners or even a public audience. Detailed provisions for this kind of exams are contained in the respective SOPs, which the experts find to be reasonable.

Before the dissertation, PhD candidates have to accomplish three publications, at least two of them in international journals. During the on-site visit, the experts review examples of manuscripts, published articles, and dissertations and confirm that they adequately represent the required level of EQF 8 for PhD programmes. While they praise the high scientific aspiration of this requirement, they consider this number of publications is very difficult to achieve over the comparatively short period of time. As noted earlier, even if the experimental parts of the research projects, which often involve live animals, run smoothly and without any delays, the administrative processes around journals, including the multi-stage submission, peer-review, and adaptation processes for articles, are likely to result in delays which ultimately affect the graduation time of the students. This is also mirrored by the statistics on academic success which show that the graduation time in this programme is exceeded by almost one year on average. The experts therefore discuss the reasons for these delays and learn that the publication requirement is indeed a challenge in many cases. While the experts appreciate the university´s awareness and the established support measures, they still consider these research and publication issues, which are regular

recurring problems, as a structural challenge for the timely completion of the programme. In that regard, they suggest reconsidering the requirement of a successful publication, as the time between the finalisation of the original paper and the publication poses a high risk for prolonged study times. E.g., the students´ research work can be assessed by the supervisors also at the stage when a manuscript is submitted to a journal, which would not significantly lower the required effort of the students but reduce the barrier for successful graduation.

Concerning the research work in both programmes, the experts inquire about the choice of the topics. It is explained that, while the major topic areas depend on the expertise of the available professors, the students are still free to select topics according to their interest. In this case, they have to present their topics to the head of the programme who then assigns a corresponding supervisor. The concrete research project itself is then developed jointly by the student and supervisor to ensure its alignment with the learning outcomes and available resources. Besides that, students have the opportunity to contact professors themselves and develop their thesis within the domain of the larger research projects of the professor. In that regard, the experts acknowledge that the consumables needed for the theses are usually financed via the research budgets of the associated projects or the professor which may constitute a limit to the freedom of choice. However, as the students express their satisfaction with the system and their topics, no further inquiry is made.

For both programmes, the experts positively highlight that there are comprehensive thesis guidelines which transparently outline both formal, methodological, and content-wise provisions. Also, they approve that the exam organisation, publication of results, as well as the application for grade appeals are administered via UNDIP´s digital information system. This ensures clear a clear documentation of procedures, transparency, and accountability for all involved parties. Remedial exams are administered according to a respective Dean´s decree. If students fail or miss the final exam for valid reasons, they are allowed to submit a follow-up exam which are usually organised within only a few days of the original exam date. Because of the cumulative grading in the structured modules as well as the very close supervision of the research-related modules, students rarely fail exams.

The exam assessment is graded based on the following scale:

Score Range	Letter Grade	Weight
80.00 - 100.00	A	4.00
70.00 - 79.99	B	3.00
60.00 - 69.99	C	2.00
50.00 - 59.99	D	1.00
< 50.00	E	0.00

The minimum passing grade for regular modules is D, while the final thesis requires a B as the minimum grade.

Regarding the grades, the experts notice in all programmes that the share of students achieving a cum laude degree is very high, exceeding 50% in the DPAS programme and accounting for almost 90% in the MAS-SP programme. While high performance of students is certainly desirable, such a skewed distribution raises questions about the balance of the grading. The programme coordinators explain that this is, in the first place, due to the opportunity for students to take remedial examinations to increase their grades even if they have passed a module already, and, secondly, that students get the top mark already with only 80% of the points (see grading scale above) which makes it comparatively easy to achieve a good grade. This effect is even enhanced through the recent introduction of the new grading table which eliminated intermediate grades (AB, BC, CD) and, thus, made the grading intervals even larger. Although the cumulative GPA is still outlined with two digits in the documentation of the students and therefore allows for a certain degree of comparison, the experts deem this grading scale to be too undifferentiated which ultimately also lowers the meaning of a good grade and a cum laude degree. Therefore, they recommend that UNDIP may adopt a more differentiated grading scale.

Moreover, the experts criticise that the information on the examination forms and weights provided in the module handbook is not complete for all modules. While, in the MAS-SP the examination components are listed, there is no transparent information on their weight for the final overall grade, which needs to be specified and transparently outlined. For the DPAS programme, the “Supervision and approval by promoters” is listed for almost all modules which does not constitute a transparent information on the exam form. The other information related to examinations given there is also not fully in line with the SOPs, which needs to be clarified. Therefore, the experts see the need to review the module descriptions in that regard (see chapter 4.1).

During the on-site visit, the experts also discuss the examination system with the active students. They are satisfied to hear that the students consider the overall exam load to be

high but manageable, and that they positively mention the transparent channels for information on grades and feedback on the exams via the university´s digital information system. Feedback on the exams and associated processes can be given via the regular module surveys, and there is also the option to issue a direct appeal or complain against grades, as outlined in a respective standard operating procedure.

In summary, the experts confirm that both programmes employ module-specific exams. The examination processes are organised well and transparently regulated by the academic regulations, including rules for re-sit and remedial exams. However, the experts criticise the lack of transparent provisions for the assessment of the participatory exam component and therefore recommend establishing respective assessment parameters. Moreover, the grading scale should be differentiated to allow for a more distinguished performance indication. The suitability of the exams and the related processes, as evidenced by the student feedback report, is regularly reviewed based on student feedback and the exam results. As a suggestion, the experts mention to reconsider whether three publications are necessary, as the same performance standard of the PhD students could be ensured without that requirement which is likely to result in delays of the study times.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion 2:

The experts acknowledge that, in line with their recommendation, a transparent rubric for the assessment of the "participatory" grading component has been set up which is designed to motivate the students´ active participation in class. Although they still consider it a challenging task for lecturers to continuously assess the contributions of all students of a class, they value this progress in terms of transparency and accountability and see their initial recommendation as fulfilled.

The experts also commend the university´s considerations regarding the publication requirement to avoid this as a bottleneck for timely graduation of the student.

Moreover, the statement explains that another grading scale has already been introduced again during the 2024 curriculum review:

Numerical Score Range	Letter Grade	Numerical Grade Weight
≥ 85	A	4.00
80 – 84.99	AB	3.50
75 – 79.99	B	3.00
70 – 74.99	BC	2.50
60–69.99	C	2.00
40–59.99	D	1.00
< 40	E	0

Given that, the experts consider their initial recommendation to be fulfilled already. However, they still opine that the top grade should not be given at only 85% of the points but suggest increasing the bar for the highest grade to stress its exceptional meaning.

Final assessment:

The experts are generally satisfied with UNDIP´s examination system and positively acknowledge that the recommendations described in the report have already been accommodated. As one suggestion, the experts mention to higher the threshold for obtaining the top mark.

In summary, the experts consider this criterion as **fulfilled**.

3. Resources

Criterion 3.1 Staff and Development

Evidence:

- Self-Assessment Report
- Staff handbook of both programmes
- MAS-SP staff website: https://mit.fpp.undip.ac.id/en/profile/lecturer-staff/
- DPAS staff website: https://dip.fpp.undip.ac.id/en/profile/lecturer-staff/
- HR development plan of the Faculty of Animal and Agricultural Sciences 2025-29
- Guidelines for calculation of lecturer workload, mandatory performance incentives, and permanent employee excess performance incentives
- Student survey questionnaires and results
- Discussions during the on-site visit

Preliminary assessment and analysis of the experts:
UNDIP´s academic staff is classified by four different academic ranks: professor, associate professor, assistant professor, and lecturer, all of which come along with different responsibilities and workload distributions. The regular lecturer workload is 12 to 16 credits per semester, distributed over the tridharma objectives and duties of education, research, and community service. The teaching in the two programmes under review is carried out in lecturer teams for each module, comprising one coordinator and up to three members. Furthermore, the staff have to engage in university committee work as well as administrative and support tasks. Detailed profiles of all staff members, among others, including education history, academic career, employment history, research interests, industry collaborations, and publications are outlined in the staff handbooks of both study programmes. Additionally, short profiles including contact details and links to scientific publication databases are published on the staff website of the programmes.

There are 26 permanent lecturers involved in the teaching of the MAS-SP programme, consisting of 75% from the Department of Animal Science and 25% from the Department of Agriculture. The composition includes 14 Professors (53.84%), 9 Associate Professors (34.61%), and 3 Assistant Professors (11.53%). The DPAS programme is currently run by 19 permanent lecturers, many of which are also involved in the Master´s programme. Compared to a total of currently 36 PhD students, this results in a student-to-faculty ratio of 1:1.84 which is in line with the regulations of the National Accreditation Board for Higher Education (BAN-PT). All staff members involved in the teaching of the two programmes under review hold PhD degrees which satisfies the experts.

Besides the permanent lecturers, UNDIP also fosters guest lecturing through various programmes as explained by the university representatives. These include adjunct professorships for which international staff is contracted for multiple months, visiting professors who are invited on individual bases for specific purposes like delivering special lectures, conducting training on international journal article writing, reviewing research manuscripts, expanding research and publication networks, and contributing to curriculum improvement, as well as lecturer associations via UNDIPS “global classroom” in which individual sessions are digitally by international scholars. The experts positively acknowledge this approach towards internationalisation of the teaching activities.

Given the extensive research orientation of the programmes, the experts inquire about the workload for supervising students. They are satisfied to hear that the capacities are sufficient and that the supervisors are in close contact with their students which is also confirmed by the students. Generally, a high motivation of the staff to advance the university is notable. In that regard, the staff also confirms their engagement in research project which, in line with its strategic goal of becoming an excellent research university, is actively

supported by the university. Every academic staff member has an allocated fixed research budget of IDR 10 million and, as the programme coordinators explain, the faculty designates 10% of its budget to research. Besides these internal funding resources of the university, there is also support for attracting and applying for external funds like government grants. Furthermore, UNDIP collaborates with Indonesia´s national research and innovation agency, BRIN. UNDIP targets an increase in its quantitative and qualitative research output. Research output is therefore a criterion of the annual staff performance evaluation, and financial incentives are awarded for successful publications. International research cooperations and conference participations are supported by the UNDIP World Class University programme. As the lecturers explain, they are continuously involved in collaborative research projects, among others, with universities in Australia, Malaysia, Japan, and China. Within the World Class University framework, also outbound staff exchanges are organised with partnering universities and research institutes.

In terms of staff development, the faculty´s HR development plan transparently outlines the faculty´s objectives for staff development, including the recruiting needs for staff with expertise in certain fields, career development of the academic ranks of the existing staff, and staff training. The latter refers to the offer of different courses and workshops, among others, regarding pedagogy with the Indonesian national lecturer certification and three levels of teaching skill qualification as examples, guardian lectureship (positions as academic advisors), entrepreneurship, and research proposal-making. For junior lecturers, there is a catalogue of mandatory trainings, including teaching methods workshops, and the educational communication media production training. Other training offers are optional, such as the staff exchange programme. All staff training activities are monitored by the HR directorate which, as the teaching staff explain during the on-site visit, offers also help and psychological support in case of problems. Overall, the experts gain a very positive impression of the staff qualification, development measures, and internationalisation.

To ensure that the lecturers´ qualifications align with the programme objectives, the lecturers´ performance is evaluated every semester based on defined key performance indicators in terms of the tridharma objectives. Part of the through the assessment is the feedback on the lecturer's performance given by the students as part of their regular module surveys conducted every semester. The evaluation results show the overall high satisfaction of the students who also, during the audit, confirm their satisfaction with the quality of teaching and supervision, as well as their openness to criticism.

In addition to the academic staff, each programme has associated educational support and administrative staff members, including laboratory technicians, IT technicians, librarians, facility managers, and academic administrators. For them, the HR development plan outlines the strategy for training and expansion as well.

In summary, the experts confirm that the composition, professional orientation, and qualification of the teaching staff are suitable for successfully delivering the programmes. The staff development offer is positively highlighted as a strength of the programmes. Lecturers are also supported in their research activities, which contribute to the teaching in the programme. The experts further confirm that the staff qualification and performance is regularly reviewed.

Criterion 3.2 Student Support and Student Services

Evidence:

- Self-Assessment Report
- Dean´s decree on the appointment of the student guidance and counselling team
- UNDIP student services website: https://undip.ac.id/language/en/student-services
- Halo UNDIP website: https://ult.undip.ac.id/en/home-2/
- Student survey questionnaires and results
- Discussions during the on-site visit

Preliminary assessment and analysis of the experts:

According to the Self-Assessment Report, UNDIP has a comprehensive, integrated student support system. The main point of reference in terms of academic support is the system of academic advisors, who are members of the academic staff assigned to each student at the beginning of their study career at the university. The academic advisors are responsible for guiding students in preparing their study plans, monitoring academic progress, and assisting in resolving other academic issues. As stipulated in a respective establishment decree of the Dean of the Faculty of Animal and Agricultural Science, the faculty has an additional guidance and counselling team to provide assistance for students at the faculty-level and develop and implement seminars, workshops, and trainings for dealing with and preventing recurring problems.

For non-academic matters, there are different specialised university-level service facilities for different matters, as outlined on UNDIP´s student support website:

- Student counselling for students with personal, academic, and self-development challenges, including the need for mental health assistance
- Scholarship centre to assist students in financial need and mediate scholarships and discounts, as well as for finding government and industrial sponsorships

- Partnerships office, which provides information on partnering institutions for research, academics, exchange programmes, and sustainable development
- International students office to support incoming students, which implements measures like the buddy programme

Regarding the tuition fees, the experts regret the university representatives´ explanations that many of postgraduate students have to halt their academic careers due to financial reasons. As these students do not stop due to academic reasons, they are not officially counted as dropouts but the difference between the starting and graduating cohort sizes gives a clear impression. However, the experts acknowledge UNDIP´s efforts to support students, among others with a number of different discount and scholarship schemes.

Furthermore, there is the Unit Career Centre service that facilitates employment of graduates, offers career guidance, alumni teaching, and organises job fairs. The primary clinic of the university offers basic medical services, including mental health consultation. Also, there is a Disability Consultation Service at the university level, and a Rector´s regulation transparently outlines the measures to accommodate students with disabilities at the university. All services are facilitated by the integrated service unit “Halo UNDIP”. During the on-site interview, the students express their overall satisfaction with the student support system of the university and faculty, not at least because of the close supervision and guidance of their lecturers.

UNDIP hosts multiple student associations and clubs. This includes the Student Executive Board and the Student Senate as two committees of student representation at the university, different academic and research-oriented student associations, as well as clubs in the domains of sports, arts, culture, and music.

All support offers can be contacted on campus or digitally through online platforms. As the students explain, UNDIP has developed its own mobile application that unites access to all academic and non-academic services and facilities of the university, which positively impresses the experts.

In summary, the experts confirm that there are sufficient human resources and organisational structures for both academic and non-academic counselling, which support the students in successfully completing the programme. These services are regularly evaluated through the student surveys.

Criterion 3.3 Funds and equipment

Evidence:

- Self-Assessment Report
- UNDIP strategic plan 2025-29
- Student survey questionnaires and results
- Rector´s regulation about services for students with disabilities
- UNDIP library portal: https://digilib.undip.ac.id/v1/
- Discussions during the on-site visit

Preliminary assessment and analysis of the experts:

As outlined in the university´s strategic plan, UNDIP operates based on various funding sources, including the state budget which is mainly allocated to the salaries of the staff members, tuition fees, and income generated through the PTNBH fund management. PTNBH refers to the legal status of an independent university which gives the administration a high degree of autonomy in managing the university's income and expenditures with less governmental supervision. Income sources in that regard include, among others, research funding, cooperations, contracted research, and business units of the university, such as student housing, hotels, a gas station, and consulting services. Furthermore, the plan outlines strategies and policies for future funding. According to the university representatives, UNDIP strives for a higher degree of financial sustainability and independence. Besides the mentioned business entities, there is a designated university entity for fostering the development and marketing of staffs´ and students´ business projects as well as the transfer of research to the market.

Furthermore, it is explained that the university´s financial planning and the allocation to the faculties is done through a split budget: A fixed budget which covers all the fixed operational costs and a variable budget which the faculties need to apply for, e.g. for the realisation of investment projects. Especially for these investment projects, UNDIP respectively the faculty seek to collaborate with industrial partners The budget is allocated based on 5-year plans, and the faculties are given high degrees of independence in managing their own funds. During the on-site visit, the experts get a very positive impression of the university´s resource management and the cooperation between the actors at different institutional levels.

In terms of infrastructure, UNDIP has multiple campuses in Semarang as well as additional facilities spread over the region. The Faculty of Animal and Agricultural Sciences is located on the main campus. General facilities include the faculty buildings with classrooms, PC pools, reading rooms, co-working spaces, offices, and support facilities. For the

postgraduate students, there are also other designated facilities such as rooms specifically designed and equipped for seminars, research project discussions, proposal examinations, and final examinations.

The laboratory facilities and equipment of the Department of animal Science are listed as follows:

No.	Laboratory	Facility
1.	Physiology and Biochemistry Laboratory	Hematology, hormone, and antibody analysis
		Microbiology analysis (microbial count, antimicrobial activity)
		Analysis of fresh and frozen semen quality in livestock
2.	Genetics, Breeding, and Reproduction Laboratory	Statistical analysis
		Artificial Insemination in livestock
		Pregnancy examination in livestock
		Estrus synchronization in cattle, goats, and sheep using progesterone
		Frozen semen production in livestock
3.	Animal Nutrition and Feed Laboratory	Proximate analysis (moisture, protein, fat, ash, crude fiber)
		Van Soest fiber analysis (NDF, ADF, cellulose, lignin)
		Energy analysis (in feed, feces, urine)
		Mineral analysis (in feed, blood, urine, feces) Ca, P, Zn, Cu, Mn
		Antioxidant and polyphenol compound analysis (tannin, beta-carotene, flavonoid, curcumin), isoflavones (Daidzein, Genistein), biogenic amines (Cadaverine, Spermidine, Putrescine, Spermine, Histamine)
		In vitro digestibility test (dry matter, organic matter, fiber, etc.), feed fermentability in the rumen (total VFA, NH3, total protein)
4.	Meat and Dairy Production Laboratory	Milk quality test (Gerber test, lactodensimeter test, lactoscan test, breed test (somatic cell count), reductase test, alcohol test)
		Dry matter and ash content test (using oven and furnace), meat pH test, meat protein and fat test, cooking loss test
		Methane gas production test from lab-scale digester
		Blood sample preparation
		Meat physical quality analysis (pH, WHC, drip loss, color)
		Carcass physical quality and grading analysis
5.	Poultry Production Laboratory	Egg physical quality analysis (HU, pore density, ESG, yolk color, eggshell strength and color)
		Bone physical quality analysis (bone strength)

		Microclimate and barn air quality analysis (PM, NH3, HCHO, TVOC, O2, CO2)
6.	Feed Technology Laboratory	Medium sterilization and mold culture inoculation (autoclave and laminar flow)
		Grain moisture content test
		Pellet hardness test
		Fermentation of agricultural by-product feed materials (incubator)
		Grinding of feed materials (disk mill)
		Production of concentrate and complete feed (horizontal and vertical mixer)

In addition, the department has its own teaching farm and holds the following livestock:

No	Livestock	Pen Area (m^2)	Populations (heads)
1	Beef Cattle	192	40
2	Dairy Cow	192	42
3	Broiler	3360	44.000
4	Layer	78	500
5	Goat	96	40
6	Sheep	96	20
7	Rabbit	30	50

During the on-site visit, the experts visit different facilities and generally approve of the learning environment provided for the students. However, while they consider the supporting facilities very well suited, they see the need for further development of the departments/ faculty´s own advanced equipment which is highly important for research purposes. The programme coordinators explain in that regard that UNDIP has established a central research lab. Besides its own physical lab facilities and equipment, the central lab is a network of advanced laboratories associated with different faculties. These laboratories and all activities are run by specially trained, designated full-time laboratory technicians. These resources are pooled in the integrated research lab and are shared among all faculties; a system which, according to the lecturers, works very well and grants sufficient resource access for research purposes. The experts acknowledge that all staff members are apparently able to adapt to this situation and efficiently work with the limited pool of shared resources. Given the number of staff members and Master´s/ PhD students, the experts deem it highly unlikely that all students and staff members can equally access the pooled resources without conflicts of relays and therefore figure that, in many cases, it may be necessary to adapt projects or analyses to the limits of the still relatively basic teaching

lab equipment of the faculty. This is also a reason for the high share of applied and translational research, while foundational research projects are very rare. For students aspiring academic careers, it is highly important to have sufficient access to modern equipment. Therefore, they deem it necessary to modernise and increase the standard of the equipment also at the faculty level and require a strategic plan for further modernising the lab equipment for both teaching and research purposes.

As an example of an area where investment is crucially necessary, the experts mention drying ovens for producing animal feeds. Apparently, the industrial ovens broke down some time ago, and the lab installed a self-built drying machine made from wood. While the experts appreciate the creativity and solution-oriented approach, this is not suitable for teaching students the use of up-to-date technology and, secondly, bears high risks in terms of work safety. Also, in the meantime, all students should be given at least an insight into the use of modern research equipment of the research laboratory. In that regard, the programme coordinators explain that a new laboratory building of the faculty is currently being constructed to increase the capacities for the students. The necessity of a new and expanded biomolecular lab, which will be part of this new facility, is explicitly mentioned by the students. The experts positively acknowledge this development and stress that, at the same time, not only the quantitative but also the qualitative equipment needs to be improved to a higher standard which fulfils UNDIP´s claim to become an excellent research university.

Moreover, while visiting the laboratories, the experts note that, while basic maintenance and safety policies appear to be in place, the experts find proof of multiple places and situation of insufficient implementation. This includes, e.g., the necessity of openly visible documentation of maintenance measures of the machinery, incident logbooks, as well as the consequent use of personal protection and work safety gears in the laboratories. It is therefore required to ensure open documentation of maintenance measures and the compliance of all students with work safety standards in the labs.

In terms of the livestock facilities, the experts acknowledge the good teaching situation of having the animals directly on campus. However, the comparatively low numbers of the different species of dairy cows and beef cattle in the breeding facility are a limiting factor for research purposes. In that regard, the faculty is currently planning the construction of a larger cattle breeding facility in cooperation with multiple industrial partners. The experts commend this plan and suggest to also considering directly connecting an own slaughterhouse. Currently, slaughtering is outsourced to industrial partners which, however, limits the influence on this important process and, as the students also stress, is a situation that needs improvement.

Finally, the experts take positive note of the university´s efforts to increase the farm animal biosecurity and animal welfare standards of its facilities. For large animals, a sufficient standard has been achieved already, and worth mentioning are, e.g. the run-off area for the larger animals and the establishment of the faculty´s Animal Research Ethics Committee. However, the facilities for chicken and rabbits are still at a low level, as these animals are kept in very small, dirty, metal cages. This harms the animals in the first place and ultimately lowers their development and productivity. Therefore, the experts strongly recommend to improve the animal welfare standard of the laying hen and rabbit facilities.

In terms of general facilities, UNDIP has a central library, which is complemented by faculty-bound sub-libraries that are equipped with the main body of subject-specific literature. The library provides a broad selection of recent journals and academic literature, both online and offline, which includes access to scientific databases like ScienceDirect, ABI/Informa Global, Cam-bridge University Press E-Journal, Clinical Key Flex, EBSCOhost, Emerald, JSTOR Archive Complete Edition, Thomson Reuters, Taylor and Francis, and Wiley. Via a recently developed single-sign-on system, the library resources can be accessed both at the university and from home. Furthermore, multiple AI applications specifically trained and adjusted for research purposes are provided. In general, as the lecturers explain, UNDIP has made significant investments in IT resources and digital systems for both administrative and academic purposes. This includes the KULON platform which provides functions for the management of lectures, provision of materials, e-learning, as well as quizzes and digital tests, as well as the previously mentioned app, which integrates access to all university services, including, e.g., the library, and the registration and study progress documentation of the students. The experts positively highlight UNDIP´s modern and efficient digital structures as a strength of the university.

In summary, the experts confirm that the financial resources, general facilities, and digital equipment of the university and the faculty constitute a sustainable basis for the successful delivery of the study programme. However, further improvement regarding advanced teaching and research equipment as well as concerning work safety is necessary. Also, it is recommended to invest in expanded cattle facilities, a slaughterhouse, and improved animal welfare standards for small animals. As evidenced by the student survey results which contain multiple questions on the resources, the facilities are also subject to the evaluation of the students. Besides the mentioned shortcomings, they show general satisfaction.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion 3:

Criterion 3.3:

Regarding the lab equipment, UDNIP explains that the Faculty of Animal and Agricultural Sciences is currently developing a molecular laboratory to strengthen research capacity further and enhance the quality of education and scientific innovation, which is positively acknowledged by the experts.

Besides these ongoing construction and equipment procurement processes, FAAS is explained to have a strategic roadmap for the laboratory modernisation with three phases: (1) short-term (2025–2026) procurement of priority analytical and digital monitoring equipment for teaching laboratories; (2) medium-term (2026–2027) renovation of existing laboratory spaces to improve workflow, safety compliance, and teaching capacity; and (3) long-term (2027 and beyond) establishment of an integrated molecular biology laboratory to support advanced research across both programmes. The experts are satisfied that the faculty has a clear vision and plan for the development of the laboratories. Nevertheless, they decide to retain their initial requirement for a detailed strategic plan for the lab modernisation to ensure the continuous work on these issues and support the faculty in applying for the necessary funds. Likewise, they also formalise the recommendation for the expansion of the breeding facilities and the establishment of an own slaughterhouse to help the university in developing these projects.

Regarding the animal welfare standards of the rabbit and laying hen facilities, the university comments that concrete steps already underway include planning for a free-range housing system for laying hens and an upgrade of the rabbit cages to more spacious, enriched enclosures. The experts appreciate the commitment but still formalise this recommendation to follow it up as part of a potential reaccreditation.

In terms of documentation of maintenance measures as well as the compliance with safety standards, UNDIP explains that respective policies are in place but need to be reinforced more consistently. The experts recognise the commitment but require more evidence than explanations to consider this requirement fulfilled.

Final assessment:

In summary, the experts recognise that UNDIP is aware of the necessities as well as the further room for improvement of its physical facilities. Multiple aspects are already being developed, although completion is still outstanding. To support the programmes with the acquisition of the necessary funds for the development projects, the experts still formalise multiple requirements and recommendations.

Overall, the experts consider this criterion as **partially fulfilled**.

4. Transparency and Documentation

Criterion 4.1 Module Descriptions

Evidence:

- Module handbooks of both programmes
- Websites of both programmes

Preliminary assessment and analysis of the experts:

In the documentation of the Self-Assessment Report, UNDIP has presented comprehensive module descriptions for all modules, which contain the almost the complete required information, including module title, module coordinator, teaching and exam methods, learning outcomes, and module contents, as well as a reading list. However, the applied examination formats and their weighting are not always specifically outlined, which needs to be corrected. Moreover, for multiple modules, the titles in the module handbook do not match the titles listed in the curricular overviews, which requires harmonisation. Also, while both the lecturers and students confirm that current research and literature are directly integrated into the programmes, the experts wonder about multiple outdated and publications listed as recommended literature as well as only very general literature recommendations that refer to entire journals. Therefore, the literature lists should be updated and specified. As the students and staff members confirm, the module descriptions are internally available via the university´s information system. However, the experts cannot find the module handbooks published online although many other important documents are provided in the download section of the websites. It is recommended to make them available online as well to give potential students, external stakeholders, and other interested parties the possibility to access them.

Criterion 4.2 Diploma and Diploma Supplement

Evidence:

- Self-Assessment Report
- Exemplary Diploma Certificate, Transcript of Records, and Diploma Supplement of each study programme

Preliminary assessment and analysis of the experts:

In line with the corresponding ministerial regulations, the students receive comprehensive documentation of their study achievements upon graduation. This includes a Diploma Certificate, a Transcript of Records which outlines the list of completed modules and the

respective grades, as well as a Diploma Supplement which provides contextual information about the Indonesian education system and the specific study programmes. All documents are provided bilingually in Bahasa Indonesia and English. The experts are generally satisfied with the provision and outline of the documentation but point towards multiple faults that need to be corrected: For both programmes, statistical data that allows for an assessment of the relative individual student performance (e.g., in comparison to the cohort) is missing and is required to be added. This could, e.g., be a grade distribution table (ECTS grading table) for the cohort/programme, in line with the ECTS Users' Guide. Also, while the SKS credit numbers are transparently displayed in the Transcript of Records, the number of ECTS points is not presented, which may hinder the recognition and transfer of credits overseas. It is therefore required to, at least, display the total number of completed ECTS credits in the Transcript of Records and provide information about the credit conversion in the Diploma Supplement. To further increase transparency, the experts additionally recommend displaying the ECTS numbers of the individual modules on the Transcript of Records. For the MAS-SP programme, as explained in earlier parts of this report, the experts deem it necessary to clearly outline the system of the two different Master´s degree tracks in the Diploma Supplement and specify, respectively distinguish the completed programme accordingly. Also, in the Transcript of Records of this programme, the title of the thesis, which provides crucial information about the students´ specialisation, is missing and needs to be added.

Criterion 4.3 Relevant Rules

Evidence:

- Self-Assessment Report
- All regulations provided on the university´s, faculty´s, and programmes´ websites
- Discussions during the on-site visit

Preliminary assessment and analysis of the experts:

The baseline regulation for programmes at UNDIP is the university´s statute, which is distinguished for the faculties and individual programmes in the form of faculty- and programme-specific academic guidelines. As the experts verify, most of relevant documents and information, apart from the shortcomings mentioned in this report, are published on the university´s websites. However, the experts note that there is notably less information on the English versions of the websites compared to the "original" websites in Bahasa Indonesia. In line with UNDIP´s objective to attract more international students and achieve international recognition, the English websites should be completed. During the on-site

visit, all interview partners confirm that the rights and duties of both the university as well as the students are well-defined and that all regulations are transparently accessible to all involved parties.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion 4:

Criterion 4.1:

In its statement, UNDIP writes that the required updates and harmonisations of the module descriptions and other programme documentation have already been done. The experts exemplarily check the revised module descriptions and confirm that this has been done, making the initial requirements redundant.

The experts also appreciate that the programmes plan to publish their module handbooks in the download section of their websites. However, as the experts could not find the documents there yet, they retain the initial recommendation.

Criterion 4.2:

Concerning the requested changes/ additions of the Diploma Supplement and Transcript of Records, the university plans to propose these to the academic department which is responsible for the design of the final documents. The experts also acknowledge the interim solution of providing this information via the student guidebook. However, they stress that certain information is required by the ASIIN criteria as outlined in the report and is therefore mandatory for obtaining the accreditation. Thus, all requirements and recommendations in that regard are formalised.

Criterion 4.3:

The programmes present updated versions of their English-translated websites which contain already more comprehensive information that at the time of the on-site visit. The experts recognise these improvements and the still ongoing process of harmonising the English version of the websites. Given the progress made already, they see no need to formalise the initial recommendation.

Final assessment:

In summary, the experts point out that multiple formal aspects of the final documentation of the programmes are not in line with the provisions of the ASIIN criteria. These critical issues which are formalised in multiple requirements and recommendations need to be addressed.

Overall, the experts consider this criterion as **partially fulfilled**.

5. Quality management: quality assessment and development

Criterion 5 Quality management: quality assessment and development

Evidence:

- Self-Assessment Report
- Rector´s regulation on the "Universitas Diponegoro Quality Assurance System"
- UNDIP quality management handbook
- Documentation of the curriculum benchmarking and review meetings on the faculty´s website
- Student survey questionnaires and results
- Discussions during the on-site visit

Preliminary assessment and analysis of the experts:
UNDIP´s quality assurance system is founded on a Rector´s regulation which outlines the scope, objectives, and institutions, respectively actors of the system. This comprehensive system includes elements of both internal and external quality assurance.

The implementation of the internal quality assurance system is described in the university´s quality assurance policy, which, together with a detailed description of standards for education, research, community service, evaluation, and documentation, forms part of an extensive quality management handbook. As outlined in the Self-Assessment Report referring to the UNDIP standard, the implementation of quality assurance mechanisms is structured through the three organisational levels of university, faculties, and study programmes. At the university level, there is the Institute for Education Development and Quality Assurance that covers all aspects of quality assurance across all study programmes and conducts annual internal audits, which result in internal audit reports exemplarily presented to the experts as part of the documentation. At the faculty level, quality assurance is managed by the Quality Assurance Team, and the Quality Assurance Groups operate at the study programme level. The quality assurance mechanisms are based on a continuous cycle of "Determination, Implementation, Evaluation, Control, and Improvement". All processes are transparently outlined in the form of guidelines and standard operating procedures, examples of which are provided as part of the documentation. Multiple elements of the quality assurance system have already been mentioned in previous chapters of this report.

The most important instruments of quality monitoring are different, annually or semesterwise conducted review meetings and surveys, which are directed at different stakeholders,

including the students, graduates, and external stakeholders. Different surveys collect their feedback on different aspects of the programmes, including the overall programme design and performance, lecturers and university administration, as well as internships. The regular implementation of these surveys is confirmed by the students and external stakeholders during the audit, and the students further explain that they are also informed about the results of the feedback and the actions taken in response. However, as noted in chapter 1.3, the students are apparently not involved or poorly informed about opportunities to actively engage in curriculum review processes and programme-level committees. It is therefore required to ensure the student involvement in the curriculum development processes.

The results of the survey instruments at different levels and are the basis for the follow-up action plans for quality improvement which are formulated annually for each programme. This data, together with additional key figures of the programmes like learning outcome attainment, GPAs, graduation times, etc., is used as a basis for the internal quality audit. During the audit, the representatives of the Rector´s office stress their focus on a close contact between the students and university staff, facilitated through direct social media-based feedback channels at the faculty and university level, the student councils, an annual student forum with the rectorate, and the facilitation of the Halo UNDIP office.

In terms of external quality assurance, UNDIP programmes are subject to regular national programme accreditation and are also highly engaged in international programme accreditation by renowned agencies. At the national level, both programmes under review have achieved the “excellent” accreditation status. Both programmes are subject to international accreditation by ASIIN for the first time.

In summary, the experts confirm that all study programmes are subject to periodical internal quality assurance and that the results of these processes are incorporated in the further programme development. The quality assurance processes and responsibilities are defined and transparently regulated in respective guidelines and standard operating procedures. Students are actively involved in the processes, and the feedback loop back to the students is closed. Quality assurance measures are adequately documented.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion 5:

As explained under criterion 1, the questioned issue of student involvement in the quality assurance and programme development processes has been clarified to the satisfaction of the experts.

Final assessment:

In summary, the experts commend UNDIP for its solid and forward-looking quality assurance system for the programmes under review.

Overall, they consider this criterion as **fulfilled.**

E Additional Criteria for Structured Doctoral Programmes

Criterion D 1 Research

Evidence:

- Self-Assessment Report
- UNDIP academic regulations for postgraduate programmes
- Objectives and learning outcomes DPAS
- DPAS curricular overview
- Module handbook
- Examples of doctoral theses and publications reviewed during the on-site visit
- Discussions during the on-site visit

Preliminary assessment and analysis of the experts:

As described in section 1.3, the DPAS programme theoretically exists in two tracks. However, UNDIP implements only the by-research track which consists entirely of research-related modules including proposals, experiments and data analysis ("core research"), the preparation and review of manuscripts in seminars, as well as publications. Over the course of the programme, students have to achieve at least three publications, at least one publication in a nationally accredited journal indexed in the Science and Technology Index (SINTA) with a minimum ranking of 3 and at least two in reputable international journals indexed in Scopus. The final component of the programme is the dissertation defence to demonstrate the originality of the research and its significant contribution to the academic field. The Self-Assessment Report additionally outlines how students are supported to participate in scientific conferences, scientific seminars, and trainings, and present their research works there. The experts are satisfied with the structure of the PhD programmes, and the presented examples of doctoral theses show that graduates acquire advanced, cutting-edge knowledge and can demonstrate a deep and comprehensive understanding of their research field.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion D 1

UNDIP did not comment on this criterion.

Final assessment:

Overall, the experts consider this criterion as **fulfilled**.

Criterion D 2 Duration and Credits

Evidence:

- Self-Assessment Report
- UNDIP academic regulations for postgraduate programmes
- Objectives and learning outcomes DPAS
- DPAS curricular overview
- Discussions during the on-site visit

Preliminary assessment and analysis of the experts:
According to the academic regulations for postgraduate programmes, the DPAS programmes are designed for a regular duration of 3 years (6 semesters). The study period is capped at 5 years (10 semesters) but a one-year extension may be granted under certain circumstances outlined in the regulation. As described in chapter 2, the designated study period is regularly exceeded, resulting in an average study duration of 3.9 years. The experts consider this to be reasonable but, as outlined before, still suggest reevaluating the necessity of multiple completed journal publications.

Like undergraduate and graduate study programmes in Indonesia, the DPAS programme also operates within the framework of the SKS credit point system. Successful graduation requires the completion of a minimum of 88 SKS (equivalent to 141.42 ECTS) credit points (see also chapter 1.5).

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion D 2:

UNDIP did not comment on this criterion.

Final assessment:

Overall, the experts consider this criterion as **fulfilled**.

Criterion D 3 Soft Skills and Mobility

Evidence:

- Self-Assessment Report

- DPAS statistics on student mobility
- Discussions during the on-site visit

Preliminary assessment and analysis of the experts:
The DPAS programme provides the students with different offers for their personal and professional development. In the first place, this includes the structured proposal and presentation seminars of the research works. Besides that, the PhD students can also rely on the university´s extensive offer of student support and development measures described in section 3.2 which includes different opportunities for soft skill development.

UNDIP requires and supports international mobility of its doctoral students, primarily in the form of conference participations but also short-term research exchanges or internships. The experts take positive note that these offers appear to be well-used by the students.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion D 3:

UNDIP did not comment on this criterion.

Final assessment:

Overall, the experts consider this criterion as **fulfilled**.

Criterion D 4 Supervision and Assessment

Evidence:

- Self-Assessment Report
- UNDIP academic regulations for postgraduate programmes
- SOP dissertation examination
- Discussions during the on-site visit

Preliminary assessment and analysis of the experts:
The experts confirm that the referenced regulations form a transparent framework for the training of PhD students, including their rights and responsibilities in relation with UNDIP. This includes the assignment of a supervisor and two co-supervisors for the students´ entire study duration which ensures academic continuity and quality. Besides the general provisions for the assessment of modules as outlined in chapter 2, multiple SOPs outline the assessment of the different curricular components. This includes provisions for the constitution of the dissertation examination committee which, besides the student´s supervisors,

consists of the Dean of the faculty, the head of the study programme, two internal examiners, and one external examiner from outside UNDIP. However, as noted in chapter 2, the information in the module handbook needs to be harmonised with these regulations. The experts confirm that the assessment rules are reasonable, clearly defined, and binding.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion D 4:

UNDIP explains that the harmonisation has been done already, fulfilling the initial requirement.

Final assessment:

Overall, the experts consider this criterion as **fulfilled**.

Criterion D 5 Infrastructure

Evidence:

- Self-Assessment Report
- Discussions during the on-site visit

Preliminary assessment and analysis of the experts:

UNDIP´s doctoral candidates operate within the infrastructure of the university and the Faculty of Animal Sciences as described in chapter 3.3, which includes the animal farm used for both teaching and research purposes. While the laboratories of the faculty are equipped with mostly basic equipment, the central research lab provides access to advanced equipment that can also be used by the doctoral students. The experts confirm that the available infrastructure and resources are generally suitable for the PhD research work but stress the need for an update of the faculty´s equipment in a mid-term perspective to accommodate the shortcomings explained in chapter 3.3. This would also allow staff and doctoral students to engage more in basic/ foundational research, which would benefit the university´s research reputation in line with its strategic goal for research excellence. Currently, the largest share of projects is applied and translational research.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion D 5:

As commented by the experts under criterion 3, the development plans for the laboratories and animal facilities are appreciated. To support their implementation, multiple aspects are still formalised as requirements and recommendations.

Final assessment:

Overall, the experts consider this criterion as **partially fulfilled**.

Criterion D 6 Funding

Evidence:

- Self-Assessment Report
- Discussions during the on-site visit

Preliminary assessment and analysis of the experts:
Based on the Self-Assessment Report and the explanations of the representatives of the Rector´s office, the experts confirm that UNDIP provides a reliable financial basis for the delivery of the programme. Although funding appears to be a reason for not completing the programme for some students, the experts acknowledge the university´s extensive support system and the diverse scholarships.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion D 6:

UNDIP did not comment on this criterion.

Final assessment:

Overall, the experts consider this criterion as **fulfilled**.

Criterion D 7 Quality Assurance

Evidence:

- Self-Assessment Report
- UNDIP academic regulations for postgraduate programmes
- Student survey questionnaires and results
- Discussions during the on-site visit

Preliminary assessment and analysis of the experts:
The university provides an extensive regulatory framework for the DPAS programme (compare chapter D 4), which ensures reliable planning for the students. These regulations further ensure that good scientific practice is followed, which is also demonstrated by the formal and methodological quality of the presented dissertations and publications. The

programme is integrated into the regular monitoring and quality assurance mechanisms of the university as described in chapter 5 and is accordingly evaluated and developed.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion D 7:

UNDIP did not comment on this criterion.

Final assessment:

Overall, the experts consider this criterion as **fulfilled**.

F Additional Documents

Before preparing their final assessment, the panel ask that the following missing or unclear information be provided together with the comment of the Higher Education Institution on the previous chapters of this report:

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G Comment of the Higher Education Institution (19.06.2026)

The following quotes the detailed statement of the institution:

No	Comment	Program Coordinators Response
	GENERAL ASSESSMENT	
1	To further improve UNDIP´s attractiveness in that regard, multiple formal aspects of transparency and documentation need to be improved	Thank you for this suggestion, improving transparency and documentation is something we genuinely care about. To enhance transparency and documentation, information related to academic documents and the learning process will be made available on the official website of the study program in the future. Several new features and information sections have been added in DPAS website, including: GLO, Modul Matrix, Modul Description and MAS-SP Magister GLO. In addition, all student correspondence and administrative requests are now processed online through the following link: https://mandala.undip.ac.id that can be accessed through the Single Sign-On (SSO) account of each member of the Diponegoro University academic community.
2	Also, a concept for the further development of the faculty´s lab facilities needs to be developed and implemented.	Thank you for this constructive feedback. The laboratory development program in Undip is designed to strengthen the quality of education, research, and innovation by providing modern facilities, advanced equipment, and a conducive academic environment. The laboratory will serve as a centre for learning, scientific investigation, technology development, and collaboration among students, lecturers, researchers, and external stakeholders. Diponegoro University remains committed to continuously improving and upgrading its laboratory facilities to support both teaching and research activities. Budget proposals for laboratory development and equipment procurement are submitted one year in advance, with funding allocated for implementation in the following year. As additional information, the Faculty of Animal and Agricultural Sciences (FAAS) is developing a molecular laboratory to strengthen

		research capacity further and enhance the quality of education and scientific innovation.
3	For the Master´s programme, the minimum credit standards need to be ensured, and the by-course/ by-research programme profiles have to be clearly distinguished	According to the European Qualifications Framework (EQF), students at the Master's level are required to complete a total of 300 ECTS credits, including both Bachelor's and Master's studies. In Indonesia, Bachelor's degree students are required to complete at least 144 credit units (approximately 230 ECTS). Therefore, Indonesian students are generally able to meet the EQF requirement when progressing to the Master's level. For international students whose previous academic qualifications do not fully satisfy this requirement, the gap is addressed through a matriculation program conducted at the beginning of the admission period, prior to the commencement of regular coursework. This program is designed to ensure that all students possess the necessary academic background and competencies to successfully undertake the Master's program. Additionally, to fully meet the 300 ECTS requirement, foreign students are also required to sit in on necessary courses, with each sit-in course attended recorded and its details included in the Diploma Supplement. Regarding the distinction between the By-Course and By-Research tracks, we fully acknowledge the need to communicate these two graduate profiles more clearly. The By-Course track is structured around a broader set of taught modules and is designed for students seeking a wide range of competencies across animal science domains, making it well suited for lecturing positions and industry roles. The By-Research track, on the other hand, is research-intensive, with fewer structured modules and a stronger focus on independent scholarly inquiry, and is therefore preferred by research institutes and students with academic careers in mind. While a formal separation of the GLOs per track must wait for the next curriculum review cycle (2028/2029), we are taking immediate steps to distinguish the two profiles in the Curriculum Guidebook, the Diploma Supplement (pending university-level approval), and the programme website. Academic advisors also play a key role in helping students understand the implications of each track before they commit to their choice.

4	Furthermore, it is required to include the topic of animal welfare in the GLO and adequately include it in the curriculum.	Thank you very much for your valuable suggestion. The inclusion of animal welfare topics in the Graduate Learning Outcomes (GLOs) DPAS, and Modul Matrix, Modul Description MAS-SP, will be taken into serious consideration and will serve as an important input for the curriculum review and evaluation process in the next revision cycle. We appreciate this recommendation and recognize the growing importance of animal welfare in animal science education and professional practice..
5	Likewise, digitalisation, big data, AI, and sustainability should be addressed more explicitly.	Thank you very much for your valuable suggestion. The regulatory framework and guidelines for the use of Big Data and Artificial Intelligence (AI) in the teaching and learning process are currently being developed by the Directorate of Academic Affairs, guided by the regulations established by the Ministry of Higher Education (Guidelines for Using Generative AI in Higher Education). Although formal academic regulations regarding AI are still under development, Universitas Diponegoro has proactively published guidelines on its library website to ensure that the academic community uses AI ethically, transparently, and responsibly as a supportive tool rather than a substitute for original work and critical thinking (https://digilib.undip.ac.id/penggunaan-ai-yang-etis-dan-bertanggung-jawab/). Nevertheless, Diponegoro University has already provided AI facilities and services for its academic community, which can be accessed free of charge through each member's Single Sign-On (SSO) account (https://m365.cloud.microsoft/chat?auth=2&t=MTc4MDk4NjUzNw%3d%3d&origindomain=Office&client-request-id=69b03ede-ca30-4f43-bb46-3bd11ab5cebd). The university continues to support the responsible and effective use of AI to enhance teaching, learning, research, and academic productivity. Once finalized, the university-level policy framework will be translated into GLOs and implemented accordingly within each study program.

		Regarding digitalization, all documents related to the teaching and learning process at FAAS are maintained in digital format. Furthermore, student administrative services and correspondence are processed electronically through an online platform accessible via a dedicated link:https://mandala.undip.ac.id In terms of sustainability, FAAS ensures its commitment through three main approaches: • **Environmental Sustainability:** FAAS remains committed to preserving the campus environment through several initiatives, including anaerobic livestock waste management for biogas and maggot production (FAAS Biogas Installation), and the implementation of a circular economy approach through the recycling of plastic waste https://drive.google.com/file/d/1b_nTphAa0IQVRtsFHJiRqrTRpWtOR-sZl/view?usp=drive_link • **Community Sustainability:** FAAS continuously strives to contribute to the achievement of the Sustainable Development Goals (SDGs), particularly through community service activities, which constitute one of the core missions of higher education under the Tri Dharma of Higher Education. Currently, we are also engaged in the development of improved local laying chicken breeds. Furthermore, Diponegoro University has established the Occupational Safety, Health, and Environment Technical Implementation Unit (UPT K3L) at the university level, which is responsible for the independent management and treatment of waste generated from university activities. • **Financial Sustainability:** FAAS promotes financial sustainability through strategic partnerships with industry, including the establishment of a closed-house broiler facility and broiler farming partnership programs. In addition, the quality of teaching and learning is evaluated annually through a systematic and independent review conducted by the Institute for Educational Development and Quality Assurance (LP2MP), while faculty competencies are

		continuously enhanced through various professional development and training programs
6	Further recommendations for improvements include an extension of the cattle facilities, the establishment of a slaughterhouse, a raise of the animal welfare stand-ards of small animals, and a more transparent and differenti-ated grading system.	Thank you for your valuable comments and suggestions. As we have previ-ously stated, we are committed to continuous improvement in all aspects of our academic and research facilities. Regarding the improvement of cattle housing facilities, we are currently upgrading the cowshed facilities (see at-tached photo). In addition, FAAS Undip has an Animal Ethics Committee that ensures all research involving animals is conducted in accordance with animal welfare standards (Animal Ethics Committee Team). At present, we do not have our own slaughterhouse facility. However, we have established a collab-oration with the slaughterhouse owned and operated by the Semarang City Government, which is available for teaching, research, and practical training activities (Agreement of FAAS Undip-BPS Slaugterhouse Semarang). Thank you for your recommendation regarding the establishment of a slaugh-terhouse facility. We will consider including the construction of such a facility in our future development plans. Concerning the facilities for small animal production, we also appreciate your valuable input. In the future, we may plan the development of more animal-friendly housing systems, including the use of bamboo slatted flooring. For your information, the current facility is actu-ally a semi-closed-house system in which there is an exhaust blower; there-fore, it has good air circulation environment for the animals (see attached photo). Concerning the grading system, starting from the 2024 curriculum, Diponegoro University has implemented a plus–minus grading system, allow-ing for a more comprehensive and equitable assessment of student perfor-mance (see page 31, Rector's Regulation, 2024). Once again, we thank the expert team for this thorough and practical set of recommendations.
		CRITERIA 1
7	However, they note that the topics of animal health and welfare are only peripherally addressed. Given the strong importance of this topic for the interna-tional market as well as the increasing relevance also	We take this point seriously. Animal welfare has always been part of how our students are trained — but you are right that it has not been made explicit enough in our official learning outcomes and module documentation. The GLOs have already been adjusted in light of the Expert Team's input, though

	domestically, this needs to be given more weight (see also chapter 1.3. In that regard, they point out that the learning outcomes listed in the objective-module matrix differ from the GLOs as well as module-level learning out-comes which is part of a multitude of inconsistencies in the documentation (see below). In this document, animal welfare is adequately covered, while it is entirely missing in the GLO as well as module-level learning outcomes. This needs to be addressed.	the formal implementation can only take effect through the next scheduled curriculum revision. In the meantime, the updated GLO, module matrix, and module-level learning outcomes for DPAS are available here (GLO By Course, GLO By Research) and modul matrix by course, modul matrix by research and modul description of MAS-SP (Modul Matrix By Course, Modul Matrix By Research, Modul Description). In addition, FAAS Undip has an Animal Ethics Committee that ensures all research involving animals is conducted in accordance with animal welfare standards (Animal Ethics Committee Team).
8	Besides this, the experts criticise the very specialised formulation of the GLO of the MAS-SP programme. While the GLO of the DPAS programme are formulated comprehensively but concisely in the respective curriculum guidebook, a total of 30 GLO, clustered in the domains of general outcomes, attitude, general skills, specific skills, and knowledge mas-tery, is listed. This mass of ILO in their very detailed formulation is too specific and chaotic and therefore does not fulfil the purpose of programme-level learning outcomes which need to be general indicators of the set of competences achieved by the graduates. The more specialised formulations should be reserved for the learning outcomes at the module level which are outlined in the module descriptions of all programmes. Therefore, the ex-perts require UNDIP to adapt the GLO of the MAS-SP programme and formulate them briefly and concisely. In that regard, the experts also notice for all programmes that the provided information on the competence profiles and ILOs differs across different infor-mation sources and documents, including the curriculum handbooks, Diploma Supple-ments, while no	We hear this feedback clearly, and we agree. The GLO of the DPAS programme is accessible here: GLO On the GLO for MAS-SP, we agree that the current 30 ILOs across multiple domains are too detailed for a programme-level GLO and don't meet international expectations. However, at Universitas Diponegoro, formally revising the GLOs requires a full curriculum review through a Faculty Level Curriculum Workshop, per Ministerial Regulation No. 53/2023. Since the last review was in 2024, the next opportunity falls in 2028/2029. In the meantime, we are preparing a proposal to reformulate the MAS-SP GLOs into five to six concise, programme-level indicators covering animal welfare, digitalisation, and the By-Course/By-Research distinction, for adoption at the next review. We will also harmonise how the current GLOs are presented across the Curriculum Guidebook, Diploma Supplement, Objective-Module Matrix, and programme website, and add explanatory notes in the SAR clarifying that the current 30-point structure reflects the KKNI requirements in force at the last review, with full ASIIN/EQF alignment planned for the upcoming revision. (Magister GLO, Modul Matrix By Course, Modul Matrix By Research, Modul Description)

	information on the GLO is found on the websites of the programmes. Therefore, it is required to harmonise the GLO in all official documents and transparently published on the programmes´ websites.	
9	Moreover, the experts specifically discuss the competence profile and ILO of the MAS-SP programme in its by-course and by-research track. The two tracks differ notably in their design, especially in terms of the numbers of structured modules that must be completed (see chapter 1.3). The by-research curriculum focuses mainly on independent research ac-tivities of the students while the by-course track covers a broader spectrum of contents. As the programme coordinators explain, the by-research track is taken mostly by international students, students who aspire careers in research, and students who are already in em-ployment and are sent to complete Master´s degrees for higher achievements.	Thanks for the detailed look at the two MAS-SP tracks. We agree that By-Course and By-Research graduates have distinctly different profiles that should be clearly communicated to students, employers, and other stakeholders. A formal GLO revision to separate the two tracks has to wait for the next curriculum review (2028/2029), as noted under Comment No. 8. In the meantime, we will document and distinguish both tracks' profiles in non-GLO documents, particularly the Curriculum Guidebook, a new By-Research Curriculum Overview and a dedicated Objective Module Matrix for the By-Research track, mapping its modules to the existing ILOs. Academic advisors will also explain each track's profile and career implications at the point of selection. A formal proposal for revising the Diploma Supplement (SKPI) to explicitly reflect the track distinction will be submitted to the university's central administration, as this document falls under university-level authority.
10	As the in-dustrial stakeholder explain during the on-site visit, this distinction is mainly relevant for research institutes who have a high interest in recruiting students who completed by-research curricula. On the other hand, students with the broader by-course curriculum are favoured for lecturing positions. Admitted students have to choose their track which is sup-ported by academic counselling, switching between them at a later point in time is not possible. Based on the provided examples of final theses, the experts determine that the qualification level of both tracks is adequate for a Master´s degree despite a notable qual-itative difference between the tracks. The qualitatively better by-research track research works are even considered	Thanks for examining the comparability of the two MAS-SP tracks. Since the Diploma Supplement (SKPI) and Transcript of Records are regulated at the university level, we will formally propose to the university's central administration that these documents be updated to state the track completed, include each track's focus and credit load (56 SKS / 89.99 ECTS for By-Course, 58 SKS / 93.21 ECTS for By-Research), state the ECTS conversion basis (1 SKS = 1.607 ECTS, Rector's Decree No. 389/UN7.A/HK/XI/2024), and include the thesis title and total ECTS credits in the Transcript of Records. In the meantime, this information will be communicated transparently through the Curriculum Guidebook and programme website. Formally distinguishing the programme-level GLOs per track requires the five-yearly curriculum revision (2028/2029), as explained under Comment No. 8. The GLOs of both programs are as follows: GLO by Course and GLO by research

	to exceed the generally required Master´s level standard. How-ever, this higher quality in research comes at the expense of a less broad competence achievement in other subjects and domains. This is acceptable but targets very different graduate profiles as the depth of expertise achieved in the different learning outcomes is strongly dependent from the research topics and therefore can differ significantly from the learning outcomes of the by-course track. The programme coordinators explain that stu-dents can voluntarily attend all modules; however, they cannot write exams and formally attain credit points. Therefore, the experts question the comparability of the degree and deem it crucial to clearly distinguish and specify the graduate profiles and programme learning outcomes of the two tracks. This must be transparent in all documents and web-sites related to the programmes and needs to be transparently outlined for potential em-ployers and other external stakeholders in the Diploma Supplement.	
11	However, during the audit, the active students did not know about the participation of students in these review processes. While the experts understand that none of the currently active students had studied in the programmes at the time of the last major curriculum review, the processes of student involvement as well as feedback options and micro-reviews should be known to the students. Therefore, they require UNDIP to ensure the involvement of students in the curriculum development pro-cesses.	Thank you for your valuable suggestion. During every curriculum review process, various stakeholders, including students, are involved. However, not all students actively participate in the process; only student representatives are engaged. The curriculum review process is initiated through the socialization and dissemination of information to all relevant stakeholders, including students. This requirement is explicitly outlined in the university-level Standard Operating Procedure (SOP) for curriculum review The ASIIN review team's observation during the site visit reflects this communication gap rather than an absence of student participation, and we are taking concrete steps to close it.once again, thank you for raising this — it has pushed us to think more

		carefully about how we communicate student participation to the broader student body.
12	In summary, the experts confirm that the programmes offer advanced graduate profiles that are in accordance with the desired competence level of EQF 7 for the Master´s pro-gramme and EQF 8 for the PhD programme. The graduates are able to successfully take up adequate employment, mostly in the academic sector. The experts further confirm that a process for the regular review is in place, which incorporates relevant stakeholders. However, the student involvement appears to be not clearly constituted or communicated, which needs to be ensured. Besides a formal requirement to harmonise and publish and harmonise the GLOs for both programmes, the GLO of the MAS-SP programme need to be reformulated briefly and concisely to represent programme-level learning outcomes. Moreover, a clear distinction between the graduate profiles and GLOs of the two different tracks of this is required. Also, to fully cover the Subject-Specific Criteria, the topic of animal welfare needs to be included in the GLO and must be correspondingly covered by the cur-riculum.	The latest formulation of the GLO, which includes the topic of animal health and welfare in the DPAS, is provided in the attached document (GLO) . On this summary for MAS-SP: the student involvement issue (Comment No. 11) has been addressed. The formal revision of the MAS-SP GLOs, including reformulation into concise indicators, distinguishing By-Course/By-Research profiles, and adding animal welfare as a GLO, depends on the national framework allowing curriculum revision only once every five years, with the next window in 2028/2029, which we will prioritise. In the interim, animal welfare will be reflected through the module descriptions, explained in the Curriculum Guidebook and the current GLOs published on the programme website with explanatory notes; the two-track profiles will be distinguished in the Diploma Supplement and other non-GLO documents (GLO & Matrix).
13	While the experts generally wonder how a fast-track of Master´s level modules can replace potentially missing Bachelor´s level expertise, they generally support the con-cept of a structured introduction period for the by-research students. However, as the Mas-ter´s level contents should add on top of already acquired Bachelor´s level knowledge, these matriculation courses should be offered to all students.	Thanks for the suggestion on opening the matriculation programme to all students. It currently targets By-Research students to close knowledge gaps before independent research, while By-Course students build their foundation through regular coursework. We agree a tailored gap assessment could benefit all incoming students and will explore introducing a diagnostic assessment for both tracks, to be considered further at the next curriculum review. Fast Track students can continue their master's studies after completing 6 semesters, so that when they enter the Fast Track program they only need to complete their

	Eventually missing prior qual-ifications should be determined and compensated at an individual level (see also chapter 1.4).	thesis. In addition, a minimum GPA of 3.5 is required, according to the provisions for the Fast Track scheme in the postgraduate academic regulations. Fast track
14	For both tracks, the experts wonder about multiple recent topics that are crucial for the current development of the practical and scientific domain of animal science, as these ap-pear to be missing or only peripherally incorporated into the programme. These are, foremost, modern concepts of animal welfare and health, but also microbiology (pathogens but also commensal microbiota), big data management, and digitalisation such as the use of digital methods and Artificial Intelligence in monitoring and reporting of animal husbandry and re-/production. The programme coordinators explain that microbiology is distributed across different modules while aspects of digitalisation are covered as part of the teaching methodology. For animal welfare, there is also no module, but it is explained that students learn these aspects in developing their research design and proposal, as they have to deal with the university´s ethics board to design the research according to animal welfare standards. While the experts appreciate these explanations, they point out that they are nowhere to be found in the module handbooks, and consequently see these topics only insufficiently covered for an interna-tional standard. Especially, the topic of animal welfare is essential for the development of the dis-cipline and, therefore, is required to be covered in depth, ideally as part of an individual module. Besides that, it is recommended to strengthen and more prominently include the topics of	Thanks for raising this. Animal welfare, microbiology, big data, and digitalisation are present in the programme but underdocumented in the module handbooks. For animal welfare, students engage with these principles through the mandatory ethics review process, and modules such as Livestock Production Systems, Poultry Production Science and Technology, and Field Work cover welfare in practice; these descriptions will be updated accordingly, with a dedicated animal welfare module proposed for the next curriculum review. Microbiology coverage across disease management, reproduction, and livestock production modules will be made more explicit, and digitalisation/big data/AI content within research methodology and Scientific Journal Writing will likewise be documented, with a dedicated digital methods and AI module also proposed. These module description updates don't require a formal curriculum revision and can proceed in the near term. In addition, FAAS Undip has an Animal Ethics Committee that ensures all research involving animals is conducted in accordance with animal welfare standards (Animal Ethics Committee Team). Taken together, these updates will ensure that all four topic areas — animal welfare, microbiology, big data, and digitalisation — are meaningfully and visibly present across the programme. GLO and matrix by course and by research

	digitali-sation, big data, AI, and sustainability in the curriculum.	
15	The experts consider both these curricular options to ade-quately cover the ILO and, given that also only option is implemented, decide not to ques-tion the structure.	We appreciate the Expert Team confirming that the MAS-SP structure, with both By-Course and By-Research tracks, adequately covers the programme's ILOs, and welcome the decision not to question its overall design. GLO and matrix by course and by research
16	For the MAS-SP programme, the distinc-tion of the GLO is necessary to harmonise the learning outcomes and the by-research track of the curriculum. Generally, each module represents a well-matched unit of teaching and learning, although a more prominent incorporation of current topics improvement is rec-ommended (e.g., AI, digitalisation, data management) or even required (ani-mal welfare).	Thanks for the recommendation to give AI, digitalisation, data management, and animal welfare a more prominent place in the MAS-SP curriculum. For-mally distinguishing GLOs between the two tracks requires the next curricu-lum review (2028/2029), as noted under Comment No. 8. Within the current cycle, module descriptions (RPS) will be updated to explicitly cover digitali-sation, big data, and AI applications, and animal welfare content already ad-dressed through ethics review and practical teaching will be documented more explicitly. A dedicated Objective Module Matrix for the By-Research track (Appendix 1.7b) will map its modules to existing ILOs, and a dedicated animal welfare module and digital methods module will be proposed as priorities for the next review. GLO and Matrix by course and by research
17	the experts wonder about changes made in the last review process in 2023/24. However, according to the pro-gramme coordinators, the changes made addressed mostly formal and regulatory issues, while no major con-tent-re-lated adjustments were made.	There were in fact meaningful changes made in the 2023/24 review — perhaps more than the report gives credit for. During the curriculum review process for DPAS, stakeholders flagged that some alumni lacked confidence presenting in international academic forums. In direct response, the 2024 curriculum made participation and presentation at an international seminar a compulsory re-quirement — something that was previously substitutable with a SINTA 3 journal publication (DPAS curriculum). There has been a significant structural change between the 2020 and 2024 MAS-SP curriculum, characterized by an overall increase of 20 credit units (SKS) across all study tracks. Under the 2020 curriculum, the "By Course" track required 36 SKS and the "By Research" track required 38 SKS. In con-trast, the updated 2024 curriculum now requires 56 SKS for the "By Course" track and 58 SKS for the "By Research" track. This substantial 20-credit

		increase reflects the addition of new courses and requirements aimed at strengthening research competencies, academic writing, and international exposure for students across both tracks. (Curriculum)
18	Nevertheless, the representatives of external stakeholders as well as alumni affirm their involvement in the review process, while this appears not to be the case for the active students. In that regard, a transparent involvement of the stu-dents is required.	Thank you for your valuable suggestion. During every curriculum review process, various stakeholders, including students, are involved. The curriculum review process is initiated through the socialization and dissemination of information to all relevant stakeholders, including students. This requirement is explicitly outlined in the university-level Standard Operating Procedure (SOP) for curriculum review. However, not all students actively participate in the process; only student representatives are engaged. The ASIIN review team's observation during the site visit may be attributed to the fact that the representatives participating in the visit were different from those who had been involved in the curriculum review process. Once again, thank you for your valuable feedback.
19	How-ever, given that the Master´s programme comprises only 90 ECTS credit equivalents, the achievement of the necessary total of 300 ECTS credit equivalents upon the Master´s grad-uation needs to be ensured otherwise.	According to the European Qualifications Framework (EQF), students at the Master's level are required to complete a total of 300 ECTS credits, including both Bachelor's and Master's studies. In Indonesia, Bachelor's degree students are required to complete at least 144 credit units (approximately 230 ECTS). Therefore, Indonesian students are generally able to meet the EQF requirement when progressing to the Master's level. For international students whose previous academic qualifications do not fully satisfy this requirement, the gap is addressed through a matriculation program conducted at the beginning of the admission period, prior to the commencement of regular coursework. This program is designed to ensure that all students possess the necessary academic background and competencies to successfully undertake the Master's program. transcript
20	During the on-site visit, the experts discuss the teaching methods also with UNDIP´s partner institutions that are, among others, involved in the students´ research projects. As one point of critique the lack of practical application in the programmes was critically	The teaching and learning process in FAAS also involves stakeholders outside the university. For instance, livestock slaughtering activities are conducted at a slaughterhouse owned by the Semarang City Regional Government (Agreement of FAAS Undip-BPS Slaugterhouse Semarang). Likewise, several research activities carried out by permanent lecturers and students are conducted

	voiced. However, given the mostly research-oriented profiles of these programmes, the experts consider it not suitable and necessary to incorporate an internship or similar practical com-ponents into the curricula.	in collaboration with industry partners and other external organizations. collaboration with BRIN
	STANDARD 2	
21	However, they notice that, in contrast to the Doctoral theses, the article(s) which were published based on the thesis research are not outlined in the theses. As the experts consider this an important reference for both the students and the supervisors, the experts recommend including this information in the thesis documents.	This is a good point, and we agree that making publications visible in the thesis itself adds value for both students and supervisors. This recommendation will be incorporated into the next revision of the dissertation writing guidelines — specifically, doctoral students will be required to attach their research-based publications to the dissertation manuscript (writing guidance).
22	Therefore, as the ex-perts consider this to open high potential for misuse and intransparency of the assessment, they recommend preventing this problem by setting up transparent parameters for the assessment of the "participatory activities".	This is fair criticism, and we have already developed clear parameters to address it. The assessment guidelines for Participatory Activities are as follows: 1. Attendance and Engagement (20%) ○ Regular attendance in scheduled academic activities. ○ Active involvement throughout the session. ○ Demonstration of preparedness and commitment to the learning process. 2. Quality of Contributions (25%) ○ Relevance and clarity of comments, questions, or arguments. ○ Use of scientific evidence and critical thinking in discussions. ○ Ability to connect ideas with course content and current research. 3. Communication Skills (20%) ○ Clear and professional oral communication. ○ Respectful interaction with peers, lecturers, and guest speakers. ○ Ability to articulate ideas effectively in academic settings. 4. Critical Reflection and Analysis (15%)

		○ Ability to critically evaluate presented information. ○ Constructive feedback and thoughtful responses to peers' contributions. ○ Demonstration of analytical and problem-solving skills. 5. Collaboration and Academic Conduct (10%) ○ Respect for diverse perspectives. ○ Contribution to a positive and inclusive learning environment. ○ Compliance with academic ethics and professional behavior. 6. Leadership and Initiative (10%) ○ Willingness to initiate discussions or propose new ideas. ○ Facilitation of group discussions when appropriate. ○ Demonstration of leadership in academic interactions.
23	This is also mirrored by the statistics on academic success which show that the graduation time in this programme is exceeded by almost one year on average. The experts therefore discuss the reasons for these delays and learn that the publication requirement is indeed a challenge in many cases. While the experts appreciate the university´s awareness and the established support measures, they still consider these research and publication issues, which are regular recurring problems, as a structural challenge for the timely completion of the programme. In that regard, they suggest reconsidering the requirement of a successful publication, as the time between the finalisation of the original paper and the publication poses a high risk for prolonged study times. E.g., the students´ research work can be assessed by the supervisors also at the stage when a manuscript is submitted to a journal, which would not significantly lower the required effort of the students but reduce the barrier for	We agree with this suggestion, and we are glad the Expert Team raised it. The publication requirement has in practice been a bottleneck for timely graduation, and the programme management has already begun moving toward a more workable solution. The recommendation on publication requirements for the final doctoral examination will be formally addressed in the next curriculum review. In principle, we support shifting the requirement from a published article to a Letter of Acceptance (LoA) from a journal — which is already reflected in the latest academic regulation — as this still holds students to a high standard without exposing them to the unpredictable timelines of peer review. The previous regulation required actual publication (DPAS curriculum). According to latest academic regulation, students can use a Letter of Acceptance (LoA) as a requirement for taking the final program exam. The previous academic regulation required publication. This measure is expected to optimize students' research focus and support the timely completion of their doctoral studies while maintaining academic quality and research excellence.

	successful graduation.	
24	Although the cumulative GPA is still outlined with two digits in the documentation of the students and therefore allows for a certain degree of compar-ison, the experts deem this grading scale to be too undifferentiated which ultimately also lowers the meaning of a good grade and a cum laude degree. Therefore, they recommend that UNDIP may adopt a more differentiated grading scale.	We agree that a more differentiated grading scale gives more meaningful signals to students, employers, and partner institutions. We are pleased to note that starting from the 2024 curriculum, Diponegoro University has implemented a plus–minus grading system, which already moves in exactly this direction (see page 31, Rector's Regulation, 2024).
25	Moreover, the experts criticise that the information on the examination forms and weights provided in the module handbook is not complete for all modules. While, in the MAS-SP the examination components are listed, there is no transparent information on their weight for the final overall grade, which needs to be specified and transparently outlined. For the DPAS programme, the "Supervision and approval by promoters" is listed for almost all mod-ules which does not constitute a transparent information on the exam form. The other in-formation related to examinations given there is also not fully in line with the SOPs, which needs to be clarified. Therefore, the experts see the need to review the module descrip-tions in that regard (see chapter 4.1	Thanks for raising this. For MAS-SP, all module descriptions (RPS/Semester Learning Plans) have been updated with a transparent percentage breakdown of each assessment component (attendance, assignments/practicum, quizzes, midterm, final exam) toward the final grade. The Learning Achievement Matrix has also been updated to include these weights alongside the ILO/GLO alignment (Scoring). The assessment weighting in DPAS utilizes the form attached below (Assessment Form DPAS) for Dissertation Proposal, Research Result Seminar, Qualification Examination, and Dissertation course. However, for other courses, the weighting is processed within the SSO.
26	In summary, the experts confirm that both programmes employ module-specific exams. The examination processes are organised well and transparently regulated by the academic regulations, including rules for re-sit and remedial exams. However, the experts criticise the lack of transparent provisions for the assessment of the participatory exam component and	To summarise our response on this summary point: clear assessment parameters for Participatory Activities are now in place, as outlined here: 1. Attendance and Engagement (20%) ○ Regular attendance in scheduled academic activities. ○ Active involvement throughout the session. ○ Demonstration of preparedness and commitment to the learning process.

	therefore recommend establishing respective assessment parameters. Moreover, the grading scale should be differentiated to allow for a more distinguished performance indi-cation. The suitability of the exams and the related processes, as evidenced by the student feedback report, is regularly reviewed based on student feedback and the exam results. As a suggestion, the experts mention to reconsider whether three publications are necessary, as the same performance standard of the PhD students could be ensured without that re-quirement which is likely to result in delays of the study times.	2. Quality of Contributions (25%) o Relevance and clarity of comments, questions, or arguments. o Use of scientific evidence and critical thinking in discussions. o Ability to connect ideas with course content and current research. 3. Communication Skills (20%) o Clear and professional oral communication. o Respectful interaction with peers, lecturers, and guest speakers. o Ability to articulate ideas effectively in academic settings. 4. Critical Reflection and Analysis (15%) o Ability to critically evaluate presented information. o Constructive feedback and thoughtful responses to peers' contributions. o Demonstration of analytical and problem-solving skills. 5. Collaboration and Academic Conduct (10%) o Respect for diverse perspectives. o Contribution to a positive and inclusive learning environment. o Compliance with academic ethics and professional behavior. 6. Leadership and Initiative (10%) o Willingness to initiate discussions or propose new ideas. o Facilitation of group discussions when appropriate. o Demonstration of leadership in academic interactions. Concerning the grading system, starting from the 2024 curriculum, Diponegoro University has implemented a plus–minus grading system, allowing for a more comprehensive and equitable assessment of student performance (see page 31, Rector's Regulation, 2024). In principle, the study program management agrees with this recommendation and will propose a reduction in the requirement for publication in a nationally

		accredited journal as one of the prerequisites for the final program examination. Examination component weights across all MAS-SP module descriptions are also being updated with explicit percentage breakdowns, as covered under Comment No. 34.
	STANDARD 3	
27	Every academic staff member has an allocated fixed research budget of IDR 10 million and, as the programme coordinators explain, the faculty desig-nates 10% of its budget to research. Besides these internal funding resources of the univer-sity, there is also support for attracting and applying for external funds like government grants.	We want to give a fuller picture of the research funding environment at UNDIP. Beyond a fixed annual allocation per staff member, the university also runs a competitive internal grant scheme that rewards strong proposals across teaching, research, and community service. In the current year, DPAS permanent lecturers secured Rp 1,450,000,000.00 through this scheme (PL DPAS Grant Awardee). Likewise, permanent lecturers in the Master of Animal Science Study Program (MAS-SP) have also successfully secured competitive research grants from UNDIP. In the current year, the total research funding awarded to MAS-SP lecturers through UNDIP internal grant schemes amounted to Rp 890,000,000.00 (PL MAS-SP Grant Awardees). Besides receiving these internal grants, several lecturers from both the DPAS and MAS-SP programs have obtained external research funding from various sources, including international research grants, the Indonesian Ministry of Higher Education, and private institutions. These achievements demonstrate the strong research capacity, competitiveness, and commitment of the academic staff in advancing scientific knowledge and supporting innovation in animal science and related fields.
28	Regarding the tuition fees, the experts regret the university representatives´ explanations that many of postgraduate students have to halt their academic careers due to financial reasons.	We would like to respectfully clarify that the situation in which many postgraduate students have to halt their academic careers due to financial reasons has never occurred in either the MAS-SP or DPAS programs. The authors would like to express their sincere appreciation for the valuable comments and suggestions. Diponegoro University remains committed to continuously improving and upgrading its laboratory facilities to support both teaching and research activities.

		Budget proposals for laboratory development and equipment procurement are submitted one year in advance, with funding allocated for implementation in the following year. As additional information, the Faculty of Animal and Agricultural Sciences (FAAS) is developing a molecular laboratory to strengthen research capacity further and enhance the quality of education and scientific innovation. The FAAS has plans for the construction of a laboratory building in 2026, with the Detailed Engineering Design (DED) as follows: Laboratory Building DED; https://drive.google.com/file/d/1WqCrSvYvzEtNom2DdYl15qoUdKNueCpl/view?usp=drive_link, molecular lab
29	Therefore, they deem it necessary to modernise and in-crease the standard of the equip-ment also at the faculty level and require a strategic plan for further modernising the lab equipment for both teaching and research pur-poses.	We take this point seriously. Diponegoro University remains committed to continuously improving and upgrading its laboratory facilities to support both teaching and research activities. All budget proposals for laboratory development and equipment procurement are submitted annually, with funding allocated for the following year. As additional information, the Faculty of Animal and Agricultural Sciences (FAAS) is developing a molecular laboratory to strengthen research capacity further and enhance the quality of education and scientific innovation. The FAAS has plans for the construction of a laboratory building in 2026, with the Detailed Engineering Design (DED) as follows: Laboratory Building DED; https://drive.google.com/file/d/1WqCrSvYvzEtNom2DdYl15qoUdKNueCpl/view?usp=drive_link, molecular lab Beyond ongoing procurement cycles, FAAS has a strategic roadmap for labor-atory modernisation with three phases: (1) short-term (2025–2026) procure-ment of priority analytical and digital monitoring equipment for teaching la-boratories; (2) medium-term (2026–2027) renovation of existing laboratory spaces to improve workflow, safety compliance, and teaching capacity; and (3) long-term (2027 and beyond) establishment of an integrated molecular bi-ology laboratory to support advanced research across both programmes. This

		roadmap is reviewed annually as part of the faculty budget planning cycle and is aligned with the university's institutional development plan.
30	Moreover, while visiting the laboratories, the experts note that, while basic maintenance and safety policies appear to be in place, the experts find proof of multiple places and sit-uation of insufficient implementation. This includes, e.g., the necessity of openly visible documentation of maintenance measures of the machinery, incident logbooks, as well as the consequent use of personal protection and work safety gears in the laboratories. It is therefore required to ensure open documentation of maintenance measures and the com-pliance of all students with work safety standards in the labs.	We accept this feedback without reservation. While maintenance and calibration of equipment are carried out regularly, you are right that the documentation of these processes was not sufficiently visible during the visit. Since then, we have improved both the equipment usage logbooks and the maintenance logbooks, and made them more accessible in the lab spaces. The use of personal protection equipment is also being reinforced through regular reminders and spot-checks. These are practical steps that do not require a policy change, just more consistent follow-through — and we are committed to that.
31	Currently, slaughtering is outsourced to industrial partners which, however, limits the influence on this important process and, as the students also stress, is a situation that needs improvement.	At present, we do not have our own slaughterhouse facility. However, we have established a collaboration with the slaughterhouse owned and operated by the Semarang City Government, which is available for teaching, research, and practical training activities (Agreement of FAAS Undip-BPS Slaugterhouse Semarang). We recognise this arrangement has real limitations. We are actively working to address them in two ways: first, by establishing a more structured and supervised access protocol with the city facility to give students better, more consistent learning conditions; and second, by formally proposing the construction of a campus-based slaughterhouse in our long-term infrastructure development plan. Students deserve better access to this core competency area, and we are committed to making that happen.
32	However, the facilities for chicken and rabbits are still at a low level, as these animals are kept in very small, dirty, metal cages. This harms the animals in the first place and ulti-mately lowers their development and productivity. Therefore, the experts strongly recom-mend to improve the animal welfare standard of the laying hen and rabbit facilities.	We appreciate this feedback and want to be straightforward: the experts' observations during the site visit are taken seriously, and we recognise that the current housing conditions for laying hens and rabbits need improvement. While the facilities do use bamboo flooring for rabbit cages and a semi-closed system with ventilation, we acknowledge that the overall setup did not reflect the welfare standards we aspire to. We are not satisfied with the status quo. Concrete steps already underway include planning for a free-range housing

		system for laying hens, and we are reviewing the rabbit facilities with a view to upgrading to more spacious, enriched enclosures. Rather than pointing to compliance thresholds, we are committed to going beyond minimum standards, and the experts' direct feedback has strengthened our resolve to make these improvements a priority in our upcoming development cycle. We also note the experts' point about FELASA compliance: while we believe current dimensions meet the minimum thresholds, we recognise that meeting a minimum is not the same as meeting a good standard, and we will use this feedback as a basis for improvement rather than a defence of the current situation.
33	However, further improvement regarding advanced teaching and research equipment as well as concerning work safety is necessary. Also, it is recommended to invest in expanded cattle facilities, a slaughterhouse, and improved ani-mal welfare standards for small animals. As evidenced by the student survey results which contain multiple questions on the resources, the facilities are also subject to the evaluation of the students. Besides the mentioned shortcomings, they show general satisfaction.	We are grateful for these recommendations and remain firmly committed to continuous improvement. Diponegoro University is steadily upgrading its laboratory facilities to better serve teaching and research. Budget proposals for laboratory development and equipment procurement are submitted one year in advance, with funding allocated for implementation in the following year. As additional information, the Faculty of Animal and Agricultural Sciences (FAAS) is developing a molecular laboratory to strengthen research capacity further and enhance the quality of education and scientific innovation.
	STANDARD 4	
34	In the documentation of the Self-Assessment Report, UNDIP has presented comprehensive module descriptions for all modules, which contain the almost the complete required in-formation, including module title, module coordinator, teaching and exam methods, learn-ing outcomes, and module contents, as well as a reading list. However, the applied exami-nation formats and their weighting are not always specifically outlined, which needs to be corrected. Moreover, for multiple modules, the titles in the module handbook do not match the titles listed in the curricular overviews, which requires harmonisation.	We appreciate the detailed review of the module documentation. For context: assessment components and their respective weightings for each course are available in each lecturer's SSO account, consisting of participatory activities (20%), project outcomes (30%), assignments (10%), quizzes (10%), midterm evaluation (15%), and final semester examination (15%). For MAS-SP: all module descriptions (RPS) have been updated with explicit examination formats and percentage weights per assessment component (also covered under Comment No. 25), and all module titles have been audited and harmonised across the module descriptions, Curriculum Guidebook, Objective Module Matrix and programme website with discrepancies corrected accordingly.

<table>
<tr>
<td>35</td>
<td>Also, while both the lecturers and students confirm that current research and literature are di-rectly integrated into the programmes, the experts wonder about multiple outdated and publications listed as recommended literature as well as only very general literature rec-ommendations that refer to entire journals. Therefore, the literature lists should be up-dated and specified. As the students and staff members confirm, the module descriptions are internally available via the university´s information system. However, the experts can-not find the module handbooks published online although many other important docu-ments are provided in the download section of the websites. It is recommended to make them available online as well to give potential students, external stakeholders, and other interested parties the possibility to access them.</td>
<td>Both points are well taken. The module matrix for DPAS has already been updated and uploaded to the programme website (module matrix for the DPAS). The MAS-SP module descriptions (RPS) will also be made publicly accessible via the programme website’s download section, (

For MAS-SP: outdated or overly general literature references have been reviewed and replaced, with at least two to three 2020–2025 publications added per module, including references on animal welfare, AI, and digitalisation where relevant. The MAS-SP module descriptions (RPS) will also be made publicly accessible via the programme website’s download section, (Module Matrix by Course; Module Matrix by Research;
Matrix by course and by research)</td>
</tr>
<tr>
<td>36</td>
<td>The experts are generally satisfied with the provision and outline of the documentation but point towards multiple faults that need to be corrected: For both programmes, statistical data that allows for an assessment of the relative individual student performance (e.g., in comparison to the cohort) is missing and is required to be added. This could, e.g., be a grade distribution table (ECTS grading table) for the cohort/programme, in line with the ECTS Users’ Guide. Also, while the SKS credit numbers are transparently displayed in the Transcript of Records, the number of ECTS points is not presented, which may hinder the recognition and transfer of credits over-seas. It is therefore required to, at least, display the total number of completed ECTS credits in the Transcript of Records and provide</td>
<td>Thank you for the valuable feedback provided. We will convey and discuss this suggestion with the relevant authorities to ensure that the English version of the academic transcript is supplemented with the corresponding ECTS credits for each course.
Here is the grade distribution table for each cohort at DPAS:
<table>
<tr><th>Year</th><th>Satisfactory (%)</th><th>Very Satisfactory (%)</th><th>Cumlaude (%)</th></tr>
<tr><td>2020</td><td>0</td><td>1</td><td>2</td></tr>
<tr><td>2021</td><td>0</td><td>1</td><td>4</td></tr>
<tr><td>2022</td><td>0</td><td>3</td><td>1</td></tr>
<tr><td>2023</td><td>0</td><td>1</td><td>2</td></tr>
<tr><td>2024</td><td>0</td><td>2</td><td>2</td></tr>
</table>

For MAS-SP, we recognise all four issues: missing grade distribution data, ECTS credits not in the Transcript of Records, the two-track system not explained in the Diploma Supplement, and the missing thesis title. Since the</td>
</tr>
</table>

	information about the credit conversion in the Diploma Supplement. To further increase transparency, the experts additionally recom-mend displaying the ECTS numbers of the individual modules on the Transcript of Records. For the MAS-SP programme, as explained in earlier parts of this report, the experts deem it necessary to clearly outline the system of the two different Master´s degree tracks in the Diploma Supplement and specify, respectively distinguish the completed programme ac-cordingly. Also, in the Transcript of Records of this programme, the title of the thesis, which provides crucial information about the students´ specialisation, is missing and needs to be added.	Transcript of Records and Diploma Supplement are regulated at the university level, changes require central approval and can't be made unilaterally. An ECTS Grading Table showing grade distribution per cohort for the last 3–5 years has been compiled at programme level as a supplementary document. We will formally propose to the university's central administration the addition of ECTS credit equivalents and the conversion basis (1 SKS = 1.607 ECTS, Rector's Decree No. 389/UN7.A/HK/XI/2024) in the Transcript of Records and Diploma Supplement, the thesis title in the Transcript, and the two-track distinction in the Diploma Supplement. In the interim, this information will be shared through the programme website and Curriculum Guidebook.
37	The baseline regulation for programmes at UNDIP is the university´s statute, which is dis-tinguished for the faculties and individual programmes in the form of faculty- and pro-gramme-specific academic guidelines. As the experts verify, most of relevant documents and information, apart from the shortcomings mentioned in this report, are published on the university´s websites. However, the experts note that there is notably less information on the English versions of the websites compared to the "original" websites in Bahasa In-donesia. In line with UNDIP´s objective to attract more international students and achieve international recognition, the English websites should be completed.	This is a valid point, and we are committed to addressing it. Attracting international students requires that they can actually find and understand our programme information in English. We will convey this urgency to university management and push for parity between our Indonesian and English website content. For the MAS-SP website specifically: the English version currently has less content than the Bahasa Indonesia version, reducing accessibility for prospective international students. We will expand the English content (https://mit.fpp.undip.ac.id/en/) to include the current GLOs with a note on the planned 2028/2029 reformulation, a description of both tracks (structure, modules, SKS/ECTS credit loads, graduate profiles), admission requirements for international applicants, English module handbooks, and graduate achievement data. Changes to the Transcript of Records and Diploma Supplement fall under university authority and have been formally proposed; in the interim, ECTS equivalents and track information will be shared via the website and

		other supplementary documents. The English website update is targeted for completion within the current academic year.

H Summary: Expert recommendations (30.06.2026)

Taking into account the additional information and the comments given by UNDIP the experts summarize their analysis and **final assessment** for the award of the seals as follows:

Degree Programme	ASIIN Seal	Maximum duration of accreditation
Ma Animal Science	With requirements for one year	30.09.2032
PhD Animal Science	With requirements for one year	30.09.2032

Requirements

For all programmes

A 1. (ASIIN 1.1, 4.2, 4.3) Harmonise the learning outcomes in all official documents and transparently publish the programme learning outcomes of the programmes´ websites.

A 2. (ASIIN 3.3) Ensure open documentation of maintenance measures and the compliance of the students with work safety standards in the labs.

A 3. (ASIIN 3.3, D5) Provide a strategic plan for further modernising the lab equipment and, in the meantime, give the students at least an insight into the use of modern research equipment of the research laboratory.

A 4. (ASIIN 4.2) Redesign the final documentation (Diploma, Transcript of Records, Diploma Supplement) with the scope of:

a) providing information about the credit systems and their conversion

b) providing statistical data on the distribution of final grades as set out in the ECTS Users' Guide.

For MAS-SP

A 5. (ASIIN 1.1) Clearly distinguish and specify the graduate profiles and programme learning outcomes of the two tracks.

A 6. (ASIIN 1.3) Establish a designated module for animal welfare within the OneHealth concept to address this important topic in sufficient breadth and depth.

A 7. (ASIIN 1.4, 1.5) Ensure that the students complete a credit equivalent of at least 300 ECTS by completing the Master´s programme.

A 8. (ASIIN 4.2) Outline the title of the Master´s thesis on the Transcript of Records.

A 9. (ASIIN 4.2) Clearly distinguish and outline the features of the two tracks in the Diploma Supplement.

Recommendations

For all programmes

E 1. (ASIIN 3.3) It is recommended to improve the animal welfare standard of the laying hen and rabbit facilities.

E 2. (ASIIN 3.3) It is recommended to expand the breeding capacities of the cattle facilities and establish a slaughterhouse.

E 3. (ASIIN 4.1) It is recommended to update and specify the recommended literature in the module descriptions.

E 4. (ASIIN 4.1) It is recommended to publish the module handbooks on the programmes´ websites.

E 5. (ASIIN 4.2) It is recommended to outline the ECTS credits of the individual modules on the Transcript of Records.

For MAS-SP

E 6. (ASIIN 1.3) It is recommended to more strengthen the topics of digitalisation, big data, AI, and sustainability in the curriculum.

E 7. (ASIIN 1.3/4) It is recommended to make the matriculation courses compulsory for all students of the by-research track.

I Comment of the Technical Committee 08 - Agriculture, Forestry and Food Sciences (16.09.2026)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee discusses the procedure and notes that the facilities for living animals which, for some animals, are comparatively well-developed but, for other kinds of animals, still need significant development in terms of animal welfare, as well as safety and maintenance measures and modernization of lab equipment are critically addressed. In terms of the curriculum, the aspects of digitalisation, big data, AI, and sustainability should be strengthened. The Technical Committee highlights the importance of access to adequate research equipment for the students which is addressed in A3. As these expensive infrastructure developments cannot be implemented within one year, the experts require a strategic plan for the implementation. In that regard, the Technical Committee stresses the need to monitor and confirm the implementation as part of a future reaccreditation. Regarding E2, the Technical Committee proposes a change of wording as the term “slaughterhouse” induces industry-level slaughtering facilities, while, commonly, only small-scale experimental slaughtering facilities are installed, which is in line with the intention of the experts. Besides this minor change, the Technical Committee confirms the proposal of the experts.

The Technical Committee 08 – Agriculture, Forestry and Food Sciences recommends the award of the seals as follows:

Degree Programme	ASIIN Seal	Maximum duration of accreditation
Ma Animal Science	With requirements for one year	30.09.2032
PhD Animal Science	With requirements for one year	30.09.2032

Requirements

For all programmes

A 1. (ASIIN 1.1, 4.2, 4.3) Harmonise the learning outcomes in all official documents and transparently publish the programme learning outcomes of the programmes´ websites.

A 2. (ASIIN 3.3) Ensure open documentation of maintenance measures and the compliance of the students with work safety standards in the labs.

A 3. (ASIIN 3.3, D5) Provide a strategic plan for further modernising the lab equipment and, in the meantime, give the students at least an insight into the use of modern research equipment of the research laboratory.

A 4. (ASIIN 4.2) Redesign the final documentation (Diploma, Transcript of Records, Diploma Supplement) with the scope of:

a) providing information about the credit systems and their conversion

b) providing statistical data on the distribution of final grades as set out in the ECTS Users' Guide.

For MAS-SP

A 5. (ASIIN 1.1) Clearly distinguish and specify the graduate profiles and programme learning outcomes of the two tracks.

A 6. (ASIIN 1.3) Establish a designated module for animal welfare within the OneHealth concept to address this important topic in sufficient breadth and depth.

A 7. (ASIIN 1.4, 1.5) Ensure that the students complete a credit equivalent of at least 300 ECTS by completing the Master´s programme.

A 8. (ASIIN 4.2) Outline the title of the Master´s thesis on the Transcript of Records.

A 9. (ASIIN 4.2) Clearly distinguish and outline the features of the two tracks in the Diploma Supplement.

Recommendations

For all programmes

E 1. (ASIIN 3.3) It is recommended to improve the animal welfare standard of the laying hen and rabbit facilities.

E 2. (ASIIN 3.3) It is recommended to expand the breeding capacities of the cattle facilities and establish own capacities for slaughtering.

E 3. (ASIIN 4.1) It is recommended to update and specify the recommended literature in the module descriptions.

E 4. (ASIIN 4.1) It is recommended to publish the module handbooks on the programmes´ websites.

E 5. (ASIIN 4.2) It is recommended to outline the ECTS credits of the individual modules on the Transcript of Records.

For MAS-SP

E 6. (ASIIN 1.3) It is recommended to more strengthen the topics of digitalisation, big data, AI, and sustainability in the curriculum.

E 7. (ASIIN 1.3/4) It is recommended to make the matriculation courses compulsory for all students of the by-research track.

J Decision of the Accreditation Commission (25.09.2026)

Assessment and analysis for the award of the subject-specific ASIIN seal:

The Accreditation Commission discusses the procedure with particular emphasis on the animal welfare aspect which is usually formalised in the form of requirements. The Accreditation Commission notes the reasons for which the expert group has only proposed a recommendation but nevertheless deems the matter to be highly critical. Therefore, it is decided to upgrade the former recommendation E1 regarding the animal welfare standards for the laying hen and rabbit facilities to a requirement. Besides this, in accordance with a general decision regarding the interpretation of the applicable accreditation criteria, it is considered that the completion of 300 ECTS credits, cumulated for the Bachelor's and the Master's degree, is only a recommended reference value but no compulsory number. Therefore, the Accreditation Commission decides to transform the former requirement A7 into a recommendation. All other requirements and recommendations, including the reformulation of the recommendation regarding the slaughtering facilities, are confirmed.

The Accreditation Commission decides to award the following seals:

Degree Programme	ASIIN Seal	Maximum duration of accreditation
Ma Animal Science	With requirements for one year	30.09.2032
PhD Animal Science	With requirements for one year	30.09.2032

Requirements

For all programmes

A 1. (ASIIN 1.1, 4.2, 4.3) Harmonise the learning outcomes in all official documents and transparently publish the programme learning outcomes of the programmes´ websites.

A 2. (ASIIN 3.3) Ensure that the animal welfare standard of the laying hen and rabbit facilities corresponds to international standards.

A 3. (ASIIN 3.3) Ensure open documentation of maintenance measures and the compliance of the students with work safety standards in the labs.

A 4. (ASIIN 3.3, D5) Provide a strategic plan for further modernising the lab equipment and, in the meantime, give the students at least an insight into the use of modern research equipment of the research laboratory.

A 5. (ASIIN 4.2) Redesign the final documentation (Diploma, Transcript of Records, Diploma Supplement) with the scope of:

a) providing information about the credit systems and their conversion

b) providing statistical data on the distribution of final grades as set out in the ECTS Users' Guide.

For MAS-SP

A 6. (ASIIN 1.1) Clearly distinguish and specify the graduate profiles and programme learning outcomes of the two tracks.

A 7. (ASIIN 1.3) Establish a designated module for animal welfare within the OneHealth concept to address this important topic in sufficient breadth and depth.

A 8. (ASIIN 4.2) Outline the title of the Master´s thesis on the Transcript of Records.

A 9. (ASIIN 4.2) Clearly distinguish and outline the features of the two tracks in the Diploma Supplement.

Recommendations

For all programmes

E 1. (ASIIN 3.3) It is recommended to expand the breeding capacities of the cattle facilities and establish own capacities for slaughtering.

E 2. (ASIIN 4.1) It is recommended to update and specify the recommended literature in the module descriptions.

E 3. (ASIIN 4.1) It is recommended to publish the module handbooks on the programmes´ websites.

E 4. (ASIIN 4.2) It is recommended to outline the ECTS credits of the individual modules on the Transcript of Records.

For MAS-SP

E 5. (ASIIN 1.3) It is recommended to more strengthen the topics of digitalisation, big data, AI, and sustainability in the curriculum.

E 6. (ASIIN 1.3/4) It is recommended to make the matriculation courses compulsory for all students of the by-research track.

E 7. (ASIIN 1.4, 1.5) It is recommended that students complete a credit equivalent of 300 ECTS by completing the Master´s programme.

Appendix: Programme Learning Outcomes and Curricula

As outlined in the educational guidelines of the programme, the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Master of Animal Science:

Objectives:

1. To produce graduates who have the ability to develop and update science and technology in the field of tropical animal husbandry.
2. Producing graduates who have the ability to solve problems in the field of tropical animal husbandry through research and development activities and publish in reputable scientific journals on national and international scale.
3. Producing graduates who have the ability to develop professional performance in utilizing local livestock and feed resources that have sharp problem analysis and integrated problem solving.
4. Producing graduates who have the ability as managers in the field of animal husbandry both in government and private institutions.

Graduate Learning Outcomes:

STUDY PROGRAM: MASTER OF ANIMAL SCIENCE **Type**: Academic, **Level**: Master	
GRADUATE LEARNING OUTCOMES	
SLO 1	Able to develop science and technology in the fields of livestock production; nutrition and animal feed; livestock product technology and livestock development planning through research and produce innovative and tested work.
SLO 2	Able to solve science and technology problems in the fields of livestock production; nutrition and animal feed; animal product technology and animal husbandry development planning through an inter and multidisciplinary approach.
ELO 3	Able to manage, lead, develop business and business management in the field of sustainable animal husbandry through an inter, multi and transdisciplinary approach.
SLO 4	Able to think logically and critically as a lifelong learner.

Study Program: Master of Animal Science Type: Academic, Level: Master	
ATTITUDE	
A1.	Pious to God Almighty and able to show a religious attitude;
A2.	uphold human values in carrying out duties in accordance with religious teachings, morals, and ethics
A3.	contribute to improving the quality of life in society, nation, state, and the advancement of civilization based on Pancasila
A4.	role as citizens who are proud and love the country, have nationalism and a sense of responsibility to the state and nation
A5.	appreciate the diversity of cultures, views, religions, and beliefs, as well as the opinions or original findings of others
A6.	be able to work together and have social sensitivity and concern for the community and the environment environment
A7.	law-abiding and disciplined in social and state life as well as internalizing academic values, norms, and ethics values, norms, and academic ethics
A8.	show an attitude of responsibility for work in the field of animal husbandry independently, struggle and entrepreneurship

Study Program: Master of Animal Science Type: Academic, Level: Master	
GENERAL SKILLS	
PU1.	able to develop logical, critical, systematic, and creative thinking through scientific research and design creation in the field of science and technology that pays attention to and applies humanities values in accordance with the field of animal husbandry, compile scientific conceptions and study results based on scientific rules, procedures, and ethics in the form of a thesis, and uploaded on the university website, as well as papers that have been published in accredited scientific journals or accepted in international journals.
PU2.	able to conduct academic validation or studies in accordance with the field of animal husbandry in solving problems in society or relevant industries through the development of knowledge and expertise in the field of animal husbandry.
PU3.	able to organize ideas, thoughts, and scientific arguments responsibly and based on academic ethics, and communicate them through the media to the public academics and the wider community;
PU4.	able to identify the field of scientific fields which becomes the object of research and position it into a research map developed through an interdisciplinary or multidisciplinary approach
PU5.	able to make decisions in the context of solving problems in the development of animal science and technology, by considering and applying the value of humanities based on analytical or experimental studies of information and data;

PU6.	able to manage, develop and maintain work networks with colleagues, peers, within institutions and research communities;
PU7.	able to increase learning capacity independently; and
PU8.	able to document, store, secure, and retrieve research data in order to ensure validity and prevent plagiarism. research results in order to ensure validity and prevent plagiarism.
PU9.	Able to communicate orally and in writing in scientific and business forums using national and international languages.

Study Program: Master of Animal Science **Type**: Academic, **Level**: Master	
SPECIAL SKILLS	
PK1.	Able to apply and develop technology in the fields of nutrition and animal feed, livestock production or livestock reproduction, livestock product technology and aspects of livestock development in a sustainable and sustainable manner with the main study of livestock development and local resources in tropical areas. local resources in tropical areas.
PK2.	Able to manage and develop research that is beneficial to society and science in the field of animal husbandry to produce innovative and tested work.
PK3.	Able to manage and develop animal husbandry businesses, both in the form of services and products by applying animal husbandry science and technology.
PK4.	Able to utilize information technology to access the development of science and technology in animal husbandry and able to develop it as an effort to solve global animal husbandry problems.

Study Program: Master of Animal Science **Type**: Academic, **Level**: Master	
KNOWLEDGE MASTERY	
K1.	Able to develop science and technology in the field of nutrition and animal feed, livestock production or livestock reproduction, livestock product technology and aspects of livestock development with the main study of local livestock resources in the tropics.
K2.	Able to develop science and technology in the fields of **nutrition, feed and feed plants** with the main study of feed resources in the tropics.
K3.	Able to develop science and technology in the field of **livestock production (poultry, broiler and dairy), livestock reproduction** and **processing of livestock products** with the main study of local **livestock** and feed **resources** in tropical areas.
K4.	Able to analyze and evaluate climatic elements in **livestock** and plant **ecosystems** that affect the physiological functions and productivity of feed, livestock and **social and economic aspects directed at livestock development in a broad sense.**
K5.	Able to design and carry out research in the field of animal husbandry in accordance with applicable scientific principles and be able to get national and international recognition.

The following **curriculum** is presented:

By-Course track:

Semester I (Odd)

No	Course code	Course title	Credits
1	PPT1824101	Animal Breeding	3 (3-0)
2.	PPT1824102	Comparative Nutrition	3 (3-0)
3.	PPT1824103	Physiology of Animal Growth	3 (3-0)
4.	PPT1824104	Livestock Ecology and Bionomics	3 (3-0)
5.	PPT1824105	Experimental Design and Statistical Analysis	2 (2-0)
	PPT1824106	Practicum on Experimental Design and Statistical Analysis	1 (0-1)
6.		Elective	3 (3-0)
7.		Elective	3 (2-1)
		Total	21 (19-2)

Semester II (Even)

No	Course code	Course title	Credits
1.	PPT1824207	Research Methods and Scientific Article Writing	3 (3-0)
2.		Elective	3 (3-0)
3.		Elective	2 (2-0)
4.		Elective	2 (2-0)
5.	PPT1824208	Fieldwork Lecture	1 (0-1)
6.	PPT1824209	Colloquium (Proposal Seminar)	3 (0-3)
7.	PPT1824210	Research	6 (0-6)
		Total	20 (10-10)

Semester III (Odd)

No	Course code	Course title	Credits
1.	PPT1824111	Research results seminar	3 (0-3)
2.	PPT1824112	Scientific publication in national journal accredited at the minimum Sinta 3	6 (0-6)
3.	PPT1824213	Thesis	6 (0-6)
		Total	15 (0-15)
		GRAND TOTAL	56 (28-28)

Semester IV (Even)

No	Course code	Course title	Credits
1	PPT1824111	Research results seminar	3 (0-3)
2	PPT1824213	Thesis	6 (0-6)

By-research track:

Semester I (Odd)

No	Course code	Course title	Cre dits
1.	PPT18241130	Research Proposal Development	3 (0-3)
2.	PPT1824209	Colloquium (Proposal Seminar)	3 (0-3)
3.	PPT1824114	Preliminary Research	0-12)
		Total	18 (0-18)

Semester II (Even)

No	Course code	Course title	Credits
1.	PPT1824215	Main Research	18 (0-18)
2.	PPT1824208	Fieldwork Lecture	1 (0-1)
		Total	19 (0-19)

Semester III (Odd)

No	Course code	Course title	Credits
1.	PPT1824116	Scientific Publication In Reputable International Journal (indexed in Scopus)	12 (0-12)
2.	PPT1824111	Research Results Seminar	3 (0-3)
3.	PPT1824213	Thesis	6 (0-6)
		Total	21 (0-21)
		GRAND TOTAL	58 (2-56)

Semester IV (Even)

No	Course code	Course title	Credits
1	PPT1824111	Research Results Seminar	3 (0-3)
2	PPT1824213	Thesis	6 (0-6)

As outlined in the educational guidelines of the programme, the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Doctor of Animal Science:

Objectives:

1. To produce graduates who have the ability to develop new knowledge and technology in the field of tropical animal science through research, resulting in creative, original, and tested works.
1. To produce graduates who have the ability to solve problems in the field of tropical animal science using interdisciplinary, multidisciplinary, or transdisciplinary approaches.
2. To produce graduates who are capable of managing, leading, and developing research and development that benefits science and humanity, and who can gain recognition at both national and international levels.

Graduate Learning Outcomes:

Attitudes and Mastery of Core Knowledge

1. Able to discover and develop new scientific theories/concepts/ideas that contribute to the development and application of animal science, while considering and applying humanitarian values in their field of expertise, by producing scientific research based on scientific methodology and analytical, logical, critical, systematic, and creative thinking.

2. Able to design interdisciplinary, multidisciplinary, or transdisciplinary research, including theoretical and/or experimental studies in the field of animal science, and to produce innovations in the form of a dissertation, as well as publish articles in accredited national and internationally reputable scientific journals.

3. Able to select and conduct original, relevant, up-to-date, and advanced research that benefits humanity, using interdisciplinary, multidisciplinary, or transdisciplinary approaches, in order to develop and/or provide solutions to problems in the field of animal science or societal issues, based on an assessment of available internal and external resources.

4. Able to develop a research roadmap using interdisciplinary, multidisciplinary, or transdisciplinary approaches, based on an assessment of the main research objectives and their constellation within broader goals.

5. Able to demonstrate academic leadership in managing, developing, and fostering resources and organizations under their responsibility.

6. Able to manage, store, audit, secure, and retrieve research data and information under their responsibility for the purpose of further research.

7. Able to develop and maintain collegial and professional relationships within their own environment or through collaborative networks with research communities outside the institution.

Attitudes and Mastery of Specialized Knowledge (APK):

1. Mastery of a specific field of animal science and other relevant fields of study.

2. Proficient in planning, organizing, and conducting research, as well as competent in analyzing, interpreting, and disseminating research results in the field of animal science and technology.

3. Able to work effectively and efficiently, both individually and in teams, in solving problems within their professional environment.

Attitudes and Mastery of Supporting Knowledge (APP):

1. Able to manage, develop, and continue research based on advanced science and technology that can support the success of future animal science development.

2. Able to foster a conducive working environment in accordance with their expertise and field of knowledge.

The following **curriculum** is presented:

By-course track:

Semester 1				
No	**Course Code**	**Course (MK)**	**Credit**	**Description**
1.	PPT1924101	Philosophy of Science	2	
2.	PPT1924102	Animal Science Research Methods	3	
3.	PPT1924112	Scientific Publications and Presentation Techniques	3	
4.		Special Skills (Elective Course)	9	
Total Credit Units Semester 1			**17**	

Semester 2				
No	**Course Code**	**Course (MK)**	**Credit**	**Description**
1	PPT1924213	Special Supporting Material for Research	3	
2	PPT1924203	Dissertation Proposal	6	
Total Credit Units Semester 2			**9**	

Semester 3				
No	**Course Code**	**Course (MK)**	**Credit**	**Description**
1	PPT1924204	Core Research	12	
Total Credit Units Semester 3			**12**	

Semester 4				
No	**Course Code**	**Course (MK)**	**Credit**	**Description**
1	PPT1924106	Publication 1: Presenter at National/International Seminar.	6	
2	PPT2924214	Supporting Research	6	
Total Credit Units Semester 4			**12**	

Semester 5				
No	**Course Code**	**Course (MK)**	**Credit**	**Description**
1	PPT1924207	Publication 2: Scientific Article in a Reputable, Scopus-indexed International Journal	12	
2	PPT1924109	Research Results Seminar	6	
Total Credit Units Semester 5			**18**	

Semester 6				
No	**Course Code**	**Course (MK)**	**Credit**	**Description**
1	PPT1924210	Qualification Examination	6	
2	PPT1924211	Dissertation	12	
Total Credit Units Semester 6			**18**	

By-research track:

Semester 1				
No	**Course Code**	**Course (MK)**	**Credit**	**Description**
1.	PPT1924141	Research Proposal Preparation	6	
Total Credit Units Semester 1			**6**	

Semester 2				
No	**Course Code**	**Course (MK)**	**Credit**	**Description**
1	PPT1924203	Disseratation Proposal	6	
2	PPT1924204	Core Research	12	
Total Credit Units Semester 2			**18**	

Semester 3				
No	**Course Code**	**Course (MK)**	**Credit**	**Description**
1	PPT1924105	Supplementary Research	10	
2	PPT1924106	Publication 1: Presenter at an International Seminar with Scopus-Indexed Proceedings or Publication in a National journal with a minimum of Sinta 3 rating.	6	
Total Credit Units Semester 3			**16**	

Semester 4				
No	**Course Code**	**Course (MK)**	**Credit**	**Description**
1	PPT1924207	Publication 2: Scientific Article in a Reputable, Scopus 1 - Indexed International Journal	12	
Total Credit Units Semester 4			**12**	

Semester 5				
No	**Course Code**	**Course (MK)**	**Credit**	**Description**
1	PPT1924108	Publication 3: Scientific Article in a Reputable, Scopus 2 – Indexed International Journal	12	
2	PPT1924109	Research Results Seminar	6	
Total Credit Units Semester 5			**18**	

Semester 6				
No	**Course Code**	**Course (MK)**	**Credit**	**Description**
1	PPT1924210	Qualification Examination	6	
2	PPT1924211	Dissertation	12	
Total Credit Units Semester 6			**18**	