ASIIN Seal

Accreditation Report

Bachelor's Degree Programmes
Agrotechnology
Agribusiness

Master's Degree Programmes
Agronomy
Agricultural Economics
Soil Science

PhD Programme
Agricultural Science

Provided by
Universitas Padjadjaran

Version: 27 June 2025

Table of Content

A About the Accreditation Process 3

B Characteristics of the Degree Programmes 5

C Expert Report for the ASIIN Seal 6

1. The Degree Programme: Concept, Content & Implementation 6
2. Exams: System, Concept and Organisation 19
3. Resources 21
4. Transparency and Documentation 26
5. Quality management: quality assessment and development 27

D Additional Criteria for Structured Doctoral Programmes 29

E Additional Documents 39

F Comment of the Higher Education Institution 40

G Summary: Expert recommendations (01.06.2025) 41

H Comment of the Technical Committee 08 - Agriculture, Nutritional Sciences and Landscape Architecture (02.06.2025) 43

I Decision of the Accreditation Commission (27.06.2025) 45

Appendix: Programme Learning Outcomes and Curricula 47

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]
Agroteknologi	Ba Agrotechnology	ASIIN	/	08
Agribisnis	Ba Agribusiness	ASIIN	/	08
Agronomi	Ma Agronomy	ASIIN	/	08
Ekonomi Pertanian	Ma Agricultural Economics	ASIIN	/	08
Ilmu Tanah	Ma Soil Science	ASIIN	/	08
Ilmu Pertanian	PhD Agricultural Science	ASIIN	/	08
Date of the contract: 15.11.2023 **Submission of the final version of the self-assessment report:** 10.10.2024 **Date of the onsite visit:** 31.01./01.02.2025 **at:** Universitas Padjadjaran, Sumedang, Indonesia				
Expert panel: Prof. Dr. Alexander Stoy, Kiel University of Applied Sciences; Prof. Dr. Rusnadi Padjung, Hasanuddin University; Prof. Dr. Mohammad Rondhi, University of Jember; Dr. Markus Dotterweich, UDATA GmbH; Firli Afra Nafila, Sebelas Maret University				
Representative of the ASIIN headquarter: Sascha Warnke				

[1] ASIIN Seal for degree programmes.

[2] TC: Technical Committee for the following subject areas: TC 08 - Agriculture, Forestry, Food Sciences, and Landscape Architecture.

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 10, 2015 Subject-Specific Criteria of Technical Committee 08 – Agriculture, Forestry, Food Sciences, and Landscape Architecture as of March 27, 2015 ASIIN Additional Criteria for Structured Doctoral Programmes as of March 15, 2021	

B Characteristics of the Degree Programmes

a) Name	Final degree (original/English translation)	b) Areas of Specialization	c) Corresponding level of the EQF[3]	d) Mode of Study	e) Double / Joint Degree	f) Duration	g) Credit points/unit	h) Intake rhythm & First time of offer
Agrotechnology	S.Agr / Bachelor of Agriculture	/	06	Full time	/	8 semesters	144 credits ≈ 230.4 ECTS	Annually (August)
Agribusiness	S.Agr / Bachelor of Agriculture	/	06	Full time	/	8 semesters	144 credits ≈ 230.4 ECTS	Annually (August)
Agronomy	M.Agr / Master of Agriculture	a) Ecophysiology b) Weed Science c) Plant Breeding d) Plant Protection	07	Full time	/	4 semesters	43 credits ≈ 64.93 ECTS	Every Semester (August & February)
Agricultural Economics	M.Agr / Master of Agriculture	/	07	Full time	/	4 semesters	45 credits ≈ 72 ECTS	Every Semester (August & February)
Soil Science	M.Agr / Master of Agriculture	a) Soil Fertility and Plant Nutrition b) Soil Conservation and Land Reclamation c) Soil Biotechnology d) Land Use Planning Evaluation	07	Full time	/	4 semesters	42–50 credits ≈ 63.42–75.5 ECTS	Every Semester (August & February)
Agricultural Science	Dr / Doctor	/	08	Full time	/	4 semesters	53 credits ≈ 84.8 ECTS	Every Semester (August & February)

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

C Expert Report for the ASIIN Seal

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
- Diploma Supplement
- Website of the faculty
- Module-Objective matrix
- Article 5(1) of the Ministry of Education and Culture Regulation No. 3/2020 on National Standards of Higher Education
- Rector's Decree No. 43/2021 on Curriculum Development
- Discussions during the audit

Preliminary assessment and analysis of the experts:
Universitas Padjadjaran (UNPAD) is a public institution of higher education that was established in 1957. The university is located in the province of West Java, Indonesia, and its primary campus is situated in Jatinangor, Sumedang. Unpad's other campuses are Dipati Ukur in Bandung, Garut, and Pangandaran. The Pangandaran campus is approximately 169 kilometers away from the main campus.

Accounting over 38,000 enrolled students, the university offers 190 educational programs. These range from vocational and undergraduate to postgraduate programs, including specialist, professional, master's, and doctoral programs. The university comprises 16 faculties and a Postgraduate School that oversees the master and doctoral programs in interdisciplinary science and carries out quality assurance duties for postgraduate programs organised by faculties. As per its vision statement, the University aims to "become a world-renowned university bringing great impacts on society". In the 2024 QS World Universities Ranking, UNPAD is ranked 7th in Indonesia and got in the range of rankings of 661-670th in the world.

For their assessment, the experts refer to the respective ASIIN Subject-Specific Criteria (SSC) of the Technical Committee 08 (Agriculture, Forestry, Food Sciences, and Landscape

Architecture), the objective-module-matrix for each degree programme, the matching learning objectives and the modules as a basis for judging whether the intended learning outcomes of the degree programmes correspond with the competences as outlined by the SSC. The descriptions of the qualification objectives are comprehensive and include the achieved competencies and possible career opportunities of the graduates.

The six degree programmes under review here (two Bachelor's, three Master's, and one PhD programme) all belong to UNPAD's Faculty of Agriculture (FAPERTA). It was established as the university's fifth faculty in 1959. Originally located in Bandung, it relocated in 1986 to the Jatinangor campus in Sumedang Regency, West Java, where it remains today. On its webpage, the faculty claims commitment to addressing agricultural production challenges through education, research, and community service, aiming to contribute significantly to the welfare of West Java and Indonesia as a whole.

The learning outcomes of each programme can be summarised as follows:

Bachelor of Agrotechnology (BAgt)

This programme prepares graduates to become competent practitioners and young scientists within the agricultural sector. It emphasises sustainable crop production, agro-ecological engineering, and crop management. Graduates are expected to contribute across various sectors including industry, government, academia, and consultancy.

Bachelor of Agribusiness (BAgb)

The programme aims to produce graduates who can manage and analyse agribusiness systems. By integrating production, marketing, and rural development with leadership and entrepreneurial skills, it prepares students for careers in consultancy, management, and policy planning in the agricultural business sector.

Master of Agronomy (MoA)

Focusing on plant science, this programme covers ecophysiology, weed science, plant breeding, and protection. It aims to equip graduates for roles in academia, research, and practice, promoting interdisciplinary collaboration to solve agricultural issues.

Master of Agricultural Economics (MAE)

This programme develops expertise in economic theory, agribusiness management, and policy analysis. Graduates are prepared for roles in research, education, market

and policy analysis, and entrepreneurship, especially in addressing socio-economic and environmental challenges in agriculture.

Master of Soil Science (MSS)

Designed to enhance expertise in managing dryland and paddy soil productivity, the programme stresses research and sustainable resource management. Graduates are equipped to work both independently and collaboratively to resolve soil-related issues.

Doctoral Programme in Agricultural Science (DPAS)

This doctoral programme trains high-level researchers and experts to produce original scientific contributions using interdisciplinary, multidisciplinary, and transdisciplinary methods. Graduates are prepared for leadership positions in academia, research, public policy, and development planning.

The programmes have established Programme Educational Objectives (PEOs) and Programme Learning Outcomes (PLOs) to ensure graduates achieve the intended qualification profiles. The PLOs encompass attitudes, knowledge, general skills, and specific competencies, as outlined in Article 5(1) of the Ministry of Education and Culture Regulation No. 3/2020 on National Standards of Higher Education. A list of the learning outcomes for each programme can be found in the annex of this report. The PLOs also conform to the Indonesian National Qualifications Framework (INQF), with undergraduate programmes at level 6, master's programmes at level 7, and doctoral programmes at level 9, in line with Presidential Decree No. 8/2012.

The development of PLOs is guided by UNPAD's academic and strategic framework, including the Rector's Decree No. 43/2021 on Curriculum Development. Inputs from the Faculty of Agriculture's vision and mission, the scientific orientation of each study programme, and feedback from stakeholders have also informed the process. Additionally, national qualification standards issued by the Directorate of Higher Education, Research, and Technology, the Indonesian National Work Competency Standards, and guidance from national professional associations have been considered, along with international accreditation criteria.

As part of the audit preparation, the assessors review the learning outcomes and graduate profiles of the six programmes under consideration. They find that the learning outcomes are sufficiently distinct to justify the existence of separate programmes within the Faculty, as each focuses on a specific area that aligns with the needs of Indonesia's workforce.

However, the assessors observe that the intended differences in skill proficiency—particularly between Bachelor's and Master's level programmes—are not clearly articulated in the

learning outcomes. For instance, the phrase “apply technology” is used in both the Bachelor of Agrotechnology (“Able to apply methods and technology to support sustainable crop production systems […]”) and the Master of Agronomy (“Have the ability to determine and apply knowledge and technology in the field of agronomy”).

Furthermore, graduates of the Ba Agrotechnology are expected to become researchers according to the graduate profile, which is on the same level as the profile for the Master’s degrees and not feasible for a graduate with a Bachelor’s degree. During the audit, the programme coordinators state that this is supposed to mean “research assistant” which would be in line with the skills acquired in the programme.

Although the difference in expected skills is evident in the actual programme content (see Chapter 1.3), this distinction is not sufficiently reflected in the learning outcomes and graduate profiles. As a result, the learning outcomes may not fully convey the progression in complexity, autonomy, and depth of understanding that is expected between undergraduate and postgraduate qualifications. This lack of differentiation could affect the clarity of academic expectations and may impact both internal quality assurance processes and external recognition of programme levels.

The assessors suggest that the Faculty revises the learning outcomes and graduate profiles holistically—considering, for example, Bloom’s taxonomy—to effectively communicate to third parties, among them future employers of the students, the degree of skills and knowledge that students acquire after each degree. Apart from that, the assessors are satisfied with the learning outcomes for each programme.

Criterion 1.2 Name of the Degree Programme

Evidence:

- Self-Assessment Report
- Ministerial Decrees by the Ministry of Higher Education
- Documentation of the study programmes
- Diploma Supplements
- Website of the University and Faculty
- Discussion during the audit

Preliminary assessment and analysis of the experts:

The Bachelor’s programmes in Agrotechnology and Agribusiness are named in accordance with the relevant decrees of the Ministry of Higher Education and were established in 2008.

Graduates of the undergraduate programmes are awarded the degree Sarjana Pertanian (S.Agr.), equivalent to a Bachelor of Agriculture (B.Agr.), as specified by Ministerial Decree.

Similarly, the Master's and Doctoral programmes are named according to Ministry of Higher Education Decree. The Master's degrees in Agronomy, Soil Science, and Agricultural Economics confer the title Magister Ilmu Pertanian (M.Agr.), equivalent to Master of Agricultural Science. The Doctoral degree in Agricultural Science awards the title Doktor Ilmu Pertanian (Dr.), equivalent to Doctor of Agriculture.

As with all study programmes in Indonesia, the naming conventions for degree programmes follow a Ministry catalogue that dictates the corresponding programme content. The University has limited flexibility in choosing programme names. This becomes clear during the audit when assessors discuss key issues related to the Ba Agrotechnology and the consecutive Master's programmes. While it is evident that the Master's programmes in Soil Science and Agronomy follow from the Bachelor's degree programmes, the naming conventions differ due to ministerial decisions. Specifically, the Bachelor's degree programmes in Agronomy, Plant Breeding, Soil Science, and Plant Disease were considered sufficiently similar to be merged under the single title 'Agrotechnology,' whereas the Master's programmes have not been similarly combined.

A notable issue is that the term 'Agrotechnology' suggests a focus on engineering or practical farming technologies, which does not accurately reflect the programme content. Although students report being aware of the programme's focus before enrolment, some express the expectation of a more technological emphasis, which can lead to misunderstandings. The assessors do not want to urge the university to change the programme names, recognising this is beyond the University's control, but they hope the government may consider updating the naming conventions in the future, keeping a gentle recommendation. Meanwhile, they suggest the University clearly communicates in its programme descriptions that the Bachelor's degree in Agrotechnology does not primarily focus on technological aspects.

Apart from this, the assessors find that the names of the study programmes fully reflect the contents and learning outcomes. Upon review they come to the conclusion that the documentation transparently and consistently names the study programmes by their original Indonesian names and uses binding English translations, e.g. on the webpage of the University and Faculty.

Criterion 1.3 Curriculum

Evidence:

- Self-Assessment Report

- Curricula for all degree programmes
- Module handbooks for all degree programmes
- Student handbooks
- Websites of FAPERTA
- Discussions during the audit

Preliminary assessment and analysis of the experts:

Structure and content

Just as with the PEOs and PLOs, the curricula of all six study programmes are designed with the university's vision, mission, core values, and strategic plans, as well as the scientific orientation of each programme in mind. The curricular design also incorporates input from stakeholders, labour market needs, national qualification standards, and guidelines from the Directorate General of Higher Education. Further input is drawn from relevant national professional associations and international accreditation standards.

The curriculum aims to achieve the stated PLOs and PEOs within standard study durations and is developed through structured processes, including focus group discussions and workshops involving faculty, alumni, stakeholders, and professional bodies.

The Faculty of Agriculture has recently restructured its curricula to adopt Outcome-Based Education (OBE), and for undergraduate programmes, also to comply with the national "Merdeka Belajar – Kampus Merdeka" (MBKM) policy. The outcome-based curricula were implemented starting from the 2021/2022 academic year. Each programme's curriculum is reviewed and updated periodically to ensure continued relevance and quality.

The two Bachelor's degree programmes each span four years and comprise 144 Indonesian credits, equivalent to 230.4 ECTS. The curriculum is structured into national content, university-wide content, faculty content, core programme courses, and electives. In line with government regulations, all Bachelor's programmes include foundational courses on Indonesian society and language.

Following introductory content and agricultural fundamentals, students progress to more specialised subjects. The Agrotechnology programme includes ,e.g., soil science, plant breeding, and plant protection, while the Agribusiness programme covers economics, logistics, farm management, and agribusiness operations.

From the fifth semester, students may choose elective courses or participate in the national "Freedom to Learn – Independent Campus" (MBKM) initiative, which promotes student mobility and practical experience. Up to 20 credits may be earned through MBKM, which includes studying at other institutions or engaging in relevant internships.

The fifth semester also includes training in research methodology, preparing students for their final thesis in the eighth semester. Additionally, all students are required to complete a period of community service, applying their academic knowledge to support societal needs.

The three Master's degree programmes span three to four semesters and offer varying amounts of credits and courses depending on the programme and the specialisation within. The Master's degree programme Agronomy offers four areas of specialisations: Ecophysiology, Weed Science, Plant Breeding, and Plant Protection. All students take several obligatory courses, among them instructions about research methodology, scientific publication, and a research proposal seminar. Additionally, a thesis forms the mandatory termination of the programme. Some courses teach about the area of specialisation.

The Master's degree programme Soil Science also offers four areas of specialisations. Across all four specialisations—Soil Fertility and Plant Nutrition, Soil Conservation and Land Reclamation, Soil Biotechnology, and Land Use Planning Evaluation—the curriculum shares a common core of foundational and methodological courses, including Soil Physics, Soil Biology, Agroclimatology, Pedogenesis, Soil Fertility, and Research Methodology, as well as thesis and publication components in the final semesters. The key differences lie in the elective courses, which reflect each specialisation's focus. Soil Fertility and Soil Biotechnology emphasise microbial processes and bio-based soil enhancement techniques, while Soil Conservation and Land Use Planning concentrate on spatial planning, watershed management, and environmental impact assessment. These elective paths allow students to tailor their studies according to their professional interests within the broader field of soil science and land management.

The Master of Agricultural Economics programme has a credit requirement that ranges from 36 to 45, including components such as Research Methodology, research proposal and results seminars, national and international scientific publications, and a thesis. Students must complete 28 credits of compulsory courses covering concentrations in Intermediate Agricultural Development, Agricultural Economics, Agribusiness Management, Agricultural Sociology and Community Development, as well as Research Methodology and Research Problems. Additionally, students can choose elective courses amounting to 6 credits in a field of interest and 3 credits for thesis support. Students with unrelated undergraduate degrees are required to undertake non-credit matriculation modules at the beginning of their studies, covering basic concepts in economics, agribusiness systems, agricultural sociology, and sustainable development. The programme also offers optional, non-credit certified courses and workshops to enhance students' research skills and critical thinking.

Lastly, the PhD Programme in Agricultural Science is structured across six semesters and integrates doctoral qualification, core academic components, and supplemental activities. In the first semester, students begin with foundational courses such as Philosophy of Science and a literature review, alongside seminars and optional special topics in their field of interest. The second semester deepens methodological competence through courses in research methodology and practical teaching or research assistance, culminating in a Research Proposal Seminar.

From the third semester onward, the focus shifts toward research dissemination and academic writing, including Scientific Writing and Research Progress Seminars. In the fourth and fifth semesters, students are expected to present at national and international conferences or summer schools, and publish in international journals.

The final semester is dedicated to dissertation completion, including a Dissertation Seminar, approval process, and the Final Oral Presentation. Throughout the programme, credit requirements range between 47 and 53 credits, corresponding to 75.2 to 84.8 ECTS, depending on elective choices. The structure ensures a comprehensive academic and professional development pathway for doctoral candidates in agricultural science.

Upon review, the assessors find that all programmes are well-structured to support students' academic progression. The curriculum is coherently designed both within individual programmes and across the faculty, enabling students to build from foundational to specialised knowledge—both within a single degree and as they advance to higher levels of study. A broad range of electives and specialisations allows students to pursue their individual interests, further supported by the MBKM programme at the Bachelor’s level.

However, during the audit, the assessors note that the university’s goal of internationalisation is not yet clearly reflected in the current course offerings. While the use of Bahasa Indonesia as the primary language of instruction is understandable, both faculty and students express interest in offering and participating in English-taught courses. This holds true during the interview of the industrial representatives. During the audit, the panel engages with industrial representatives to discuss the importance of language skills in the workplace. When asked about the role of English, the university and Ministry representatives emphasise that English is very important for communication and keeping up to date with technological advancements. An alumnus from the Agribusiness sector echoes this sentiment, highlighting that English is crucial for effective collaboration within the industry and that globalization has made English a key requirement.

Regarding the importance of Bahasa Indonesia, the general consensus among participants is that English holds greater significance, particularly in international and cross-cultural environments. Even national representatives note that their work is international in scope,

thus prioritizing English. Overall, the dialogue reveals a clear recognition among industrial stakeholders that English language proficiency is critical for professional success, especially in globalized and international contexts. Expanding the availability of courses in English could enhance students' ability to engage in a globalised academic and professional environment and attract more international students, thereby strengthening inbound internationalisation. The assessors therefore suggest exploring ways to increase the number of English-language classes.

Student mobility

To enhance students' knowledge and skills, the Study Program offers additional competencies through national and international student mobility programs. These include the MBKM initiative, which allows students to gain practical experience via internships, research, teaching assistance, entrepreneurship, and community service. The Indonesian International Student Mobility Awards (IISMA) enable selected undergraduate students to study abroad for one semester at top global universities. While these are mostly initiated by the government, the Faculty of Agriculture also conducts summer programs and Sakura Science Programs in partnership with Japanese universities such as Tsukuba, Tokai, and Yamagata, attracting 170 inbound students from countries like Japan, Malaysia, and India. Faculty students participated in 33 outbound exchange and internship programs.

Between 2022 and 2023, the Bachelor's programs in Agrotechnology and Agribusiness show active participation in the MBKM, student exchange, and international internship programs, both inbound and outbound. Notably, the Bachelor of Agrotechnology experiences significant growth in MBKM participation and student exchanges during this period. The Master's and Doctoral programs show more limited involvement, primarily focused on inbound and outbound internships, with minimal student exchange activity. Overall, the greatest mobility is within Indonesia in undergraduate programmes. The strive for internationalisation at UNPAD is clearly there but still developing, with more emphasis needed on expanding international exchange opportunities and attracting inbound students, especially at the graduate and doctoral levels. The assessors suggest that the University, in broad terms, focus on enhancing student mobility in the future.

All activities may be formally recognized for academic credit, in line with university regulations.

Periodic review of the programme

The curriculum at the Faculty of Agriculture undergoes continuous quality improvement through regular formative and summative evaluations. Formative evaluations happen each

semester to monitor curriculum implementation, teaching methods, and learning outcomes, while summative evaluations occur every 4-5 years involving stakeholders such as staff, alumni, and experts to ensure relevance and alignment with current knowledge, technology, and regulations.

Each study program conducts curriculum reviews tailored to its needs. For the Bachelor's Programmes the curricula are restructured every four years based on stakeholder feedback and government regulations, with workshops and focus groups held to address evolving educational and industry demands. The Master's Programmes periodically update their curricula (every 2-3 years) by involving both internal and external stakeholders to improve graduate competencies, learning methods, and timely graduation. Innovations include module-based learning and hybrid teaching. The PhD Agricultural Sciences has a curriculum which has shifted from course-based to research-focused since 2016, with recent adjustments requiring doctoral students to complete specific coursework to enhance research skills alongside their dissertation work. Overall, the Faculty emphasises stakeholder involvement when revising the curricula. During the audit, several external stakeholders, such as industrial and government representatives as well as alumni report their knowledge of and involvement in the processes of curriculum review. Similarly, the teaching personnel also reports their involvement.

Criterion 1.4 Admission Requirements

Evidence:

- Self-Assessment Report
- Admission documents
- Faculty website
- Discussion during the audit

Preliminary assessment and analysis of the experts:

The Faculty of Agriculture admits bachelor's students through three main paths: SNBP (achievement-based without a written test), SNBT (a written test held with other state universities) – both of which are regulated by the government—, and local admission (SMUP), which includes academic and English proficiency tests.

Master's program admissions are managed via the SMUP platform and involve two stages: administrative selection and a program-specific interview. Admissions occur twice yearly in line with the national academic calendar. Doctoral program admissions also use SMUP and follow transparent university and faculty guidelines, requiring applicants to pass English proficiency and academic potential tests, plus an entrance exam and faculty interview.

There are two application periods annually, allowing for reapplication if needed. Detailed admission information is available on university and faculty websites.

While the overall admission requirements for the Master's and Doctoral programs appear comprehensive, the specific criteria—particularly regarding the acceptable fields of prior study—are not clearly defined or communicated in official documents or on the university's websites. This lack of clarity undermines transparency and creates uncertainty for prospective applicants, potentially leading to inconsistent admissions decisions and discouraging qualified candidates from applying. To ensure fairness and maintain the program's academic standards, it is essential that the university clearly specify and publish detailed admission criteria, including acceptable prior academic backgrounds.

Criterion 1.5 Workload and Credits

Evidence:

- Self-Assessment Report
- Curricular Handbooks
- Syllabi
- Explanation of credit conversion
- Discussion during the audit

Preliminary assessment and analysis of the experts:
As with all universities in Indonesia, credits are measured in SKS (Satuan Kredit Semester). At the Faculty of Agriculture, the minimum credit requirements follow the National Standard of Higher Education (SNPT 2020): 144 SKS for bachelor's degrees, 36 SKS for master's, and 42 SKS for doctoral degrees, with additional credits for master's and doctoral students to meet program educational objectives. One SKS corresponds to specific weekly learning activities over a semester, varying by activity type: lectures/tutorials require 50 minutes in class plus structured and self-study time; seminars involve 100 minutes of learning and 70 minutes of self-study; practical lessons, internships, and field activities require 170 minutes per meeting. Credit allocation per course reflects the workload needed to achieve learning outcomes, with combinations of lecture and practical hours depending on the course structure.

The data on student performance and enrolment from the academic years 2021 to 2024 reveal varying trends across study programmes at the Faculty of Agriculture. The on-time graduation rates show that Bachelor of Agribusiness students perform relatively well, with an average on-time graduation rate of 58%, whereas Bachelor of Agrotechnology students

have a lower average of 35.3%. Master's programmes such as Master of Agronomy, Master of Agricultural Economics, and Master of Soil Science demonstrate higher average on-time graduation rates, ranging from 73% to 77.3%. The Doctoral Programme in Agricultural Sciences has the lowest average on-time graduation rate at 28%. The longer duration of the bachelor and doctoral programmes means they have been more affected by disruptions caused by the COVID-19 pandemic, contributing to delayed graduations.

Regarding student numbers, enrolment varies across programmes and years. The Bachelor programmes have the highest number of new students, with Ba Agrotechnology enrolling between 257 and 362 students and Ba Agribusiness between 121 and 135 students annually. Master's programmes have smaller intakes, with new students ranging from 8 to 26 depending on the programme. The doctoral programme maintains a steady intake of around 12 to 28 students annually. Transfer students and international students are minimal or absent across all programmes. The total active students correspond with new intakes, with few students resigning without explanation. Alumni numbers indicate consistent graduation outputs, especially in bachelor's and master's programmes.

Overall, the data highlight strengths in graduation rates for master's programmes and identify potential areas for improvement in undergraduate and doctoral completion rates, with COVID-19 disruptions likely contributing to delays in the longer programmes. Enrolment patterns reflect the faculty's focus on undergraduate education while maintaining steady graduate and doctoral cohorts. However, the assessors see no direct necessity to intervene as the students during the audit do not voice and issues regarding the workload.

Criterion 1.6 Didactic and Teaching Methodology

Evidence:

- Self-Assessment Report
- Syllabi
- Discussion during the audit

Preliminary assessment and analysis of the experts:

The learning process at the Faculty of Agriculture is guided by nine key characteristics outlined in official standards: interactive, holistic, integrative, scientific, contextual, thematic, effective, and collaborative. Central to this approach is student-centred learning, where students take an active role in their education while lecturers act as facilitators. Various student-centred learning (SCL) methods are employed, including small group discussions, discovery learning, collaborative learning, contextual instruction, problem-based learning, project-based learning, and case-based learning. These methods are designed to develop

both hard skills, such as scientific knowledge, and soft skills, including interpersonal and intrapersonal abilities, all aligned with the course and programme learning outcomes.

Learning activities at the Faculty include lectures, practical sessions, seminars, field studies, internships, and community engagement under the MBKM framework. The choice of learning methods is tailored to the intended learning outcomes: interactive and problem-based learning promote understanding, case-based learning sharpens analytical skills, and project-based learning enhances practical competencies. Collaborative learning and flipped classroom approaches further support communication skills and independent study.

To support these activities, the Faculty extensively utilises digital tools and platforms such as LiVE Unpad (MOODLE-based), Google Classroom, and others for communication, assignment management, and access to e-resources. Since the COVID-19 pandemic, blended and hybrid learning models combining online and offline methods have been encouraged, particularly to accommodate larger class sizes and student mobility programmes.

Lecturers receive ongoing training to improve their teaching methods and effective use of technology, with performance monitored through dedicated indexes. The academic environment is further enriched by supportive facilities, including designated learning spaces, reliable internet access, and online libraries, fostering active engagement between students and lecturers both inside and outside the classroom.

During the audit, teachers say they noted a significant shift towards student-centred learning over the past decade, emphasising that the choice of didactic methods depends primarily on the specific learning outcomes of each course. They describe a collaborative culture among staff, where there is no competition over teaching approaches. The COVID-19 pandemic accelerated a transition from predominantly deductive teaching methods to more inductive approaches, supported by digital platforms that enhance student engagement through gamification. The university also employs an internal learning system focusing on academic and curriculum development, guidelines, and facilities to support teaching and learning.

In practical terms, the Bachelor's programmes include complex courses such as the Business Development Programme, which carries 4 SKS and has some of the most demanding learning outcomes. Master's courses, such as those in Agricultural Economics, frequently use project- and problem-based learning alongside small group discussions. In the Soil Science programme, teaching is closely linked to industry, with students gaining hands-on experience and the curriculum currently emphasising a shift from inorganic to organic fertilisers.

Basic preparatory courses are available to all students, and there has been a gradual shift away from traditional assessment methods towards more diverse and formative evaluations. The university's Learning Management System, UNPAD Live, is well equipped to manage assignments comprehensively and track student engagement effectively. The academic system now includes a variety of assessment methods beyond conventional exams, such as quizzes and class participation, providing a more holistic evaluation of student performance.

The students confirm these evaluations during the audit leaving the assessors fully satisfied with the didactic training of the teaching staff and the methods they use to deliver a varied learning experience throughout the study programmes.

Final assessment of the experts regarding criterion 1:

Criterion partially fulfilled.

2. Exams: System, Concept and Organisation

Criterion 2 Exams: System, Concept and Organisation

Evidence:

- Self-Assessment Report
- Module handbooks and syllabi of all study programmes
- Academic Guidelines
- Rector Regulations No. Rector Regulation No. 2/2021 and 38/2021
- Samples of students' works
- Discussion during the audit

Preliminary assessment and analysis of the experts:

The assessment of teaching-learning processes and Program Learning Outcome (PLO) attainment in the Faculty of Agriculture follows specific regulations set by UNPAD. Bachelor's programmes (Agrotechnology and Agribusiness) are governed by Rector Regulation No. 2/2021 and Faculty Academic Guidelines, while master's and doctoral programs follow Rector Regulation No. 38/2021. Learning outcomes for all courses are documented in curriculum handbooks, lesson plans, and learning contracts, with assessments and evaluations

recorded in the university's Integrated Management System (UIMS) to ensure transparency and accountability.

Each course has a detailed syllabus (RPS) outlining learning outcomes, course content, schedules, assessment types, and grading criteria, which is communicated to students at the semester start. Assessments include both tests (pre/post-tests, quizzes, midterms, finals) and non-test methods (assignments, reports, presentations, practicals), designed to evaluate cognitive, affective, and psychomotor skills. Online platforms like regular.live.unpad.ac.id are widely used for conducting assessments. Formative assessments focus on ongoing student activities, while summative assessments measure achievement at learning outcome milestones. Tests and assignments are weighted equally, with no more than 50% of the final grade from tests.

Grading follows a letter system (A to E) converted to numeric values to calculate GPA. Students must maintain at least 80% attendance and can access their grades and assessment results online. Retakes and accommodations are available for students facing difficulties, including medical or personal emergencies, with specific provisions for disabled students outlined in detailed guidelines ensuring accessible and fair assessments tailored to various impairments.

Undergraduate students participate in internships and final projects as part of the MBKM programme, which allows credit recognition for real-world experience and collaboration with external institutions. Master's and doctoral students conduct research projects, presenting proposals and defending their findings in seminars evaluated with standardised forms to assess scientific and analytical abilities aligned with PLOs.

Course portfolios reflecting student achievement are reviewed regularly by study programs and the faculty's Quality Assurance unit. Teaching teams update course materials and assessment methods based on feedback to improve the accuracy of learning outcome measurements. Overall, the Faculty maintains rigorous standards for assessment and continuous quality improvement, with GPA averages reflecting consistent academic performance across programmes.

In their assessment of this criterion, the expert group finds that appropriate rules and regulations, which govern the examination systems university-wide, are in place. These rules and regulations are adequately communicated and transparently published. The students also confirm during the audit that they are well-informed about the examination schedule, form, and grading rules. Additionally, they are given sufficient time to prepare for the exams adequately. All in all, they are very content with the organisation of examinations throughout the programmes under review.

During the audit, the assessors discuss the current practice of encouraging bachelor's degree students to publish their final theses, with publication being linked to the awarding of the "cum laude" distinction. The assessors consider this requirement somewhat excessive, noting that the primary goal for EQF Level 6 graduates is to understand, contextualise and apply existing research rather than to produce original research. Therefore, they suggest that the "cum laude" honour should no longer be contingent upon publishing the thesis.

Final assessment of the experts regarding criterion 2:

Criterion fulfilled.

3. Resources

Criterion 3.1 Staff and Development

Evidence:

- Self-Assessment Report
- Statistics on lecturers
- Rector Regulation No. 22/2018
- Discussions during the audit

Preliminary assessment and analysis of the experts:

According to the Self-Assessment Report, academic staff play a crucial role in supporting the mission, vision, goals, and objectives of each Study Programme within the Faculty of Agriculture at UNPAD. The faculty's academic workforce comprises 130 lecturers, alongside 2 librarians, 4 technicians, 10 laboratory staff, and 30 administrative personnel.

The lecturers hold various academic positions, which are evaluated based on several criteria including their educational qualifications, teaching and learning activities, research output and publications, H-index citations, intellectual property rights, student supervision, and other professional activities that contribute to career development. Their professional growth aligns with the Tri Dharma of Higher Education, emphasizing three main pillars: teaching, research, and community service.

In accordance with Ministry of Education and Culture Regulation No. 234/2020, each Study Programme must have a minimum of six lecturers with the appropriate qualifications and expertise. Currently, the Faculty of Agriculture boasts 16 Professors, 41 Associate Professors, 45 Assistant Professors, and 10 Lecturers. Notably, 69.64% of the faculty hold doctoral

degrees, while the remaining 30.36% possess at least a Master's degree, with most currently pursuing doctoral studies.

The National Accreditation Agency for Higher Education sets specific student-to-lecturer ratio guidelines: a maximum of 1:60 for bachelor's and diploma programs, 1:20 for master's programs, and 1:10 for doctoral programs. The Faculty's Study Programs generally meet or exceed these standards. For example, the Bachelor of Agrotechnology programme maintains a ratio of 57 lecturers to 1,047 students (approximately 1:18), while the Bachelor of Agribusiness programme has 29 lecturers for 456 students (about 1:16). Ratios for other programs are similarly favourable, such as 1:5 in the Master of Agribusiness, 1:2 in the Master of Soil Science, 1:7 in the Master of Agricultural Economics, and 1:16 in the Doctoral Program in Agricultural Science.

These ratios indicate that the Faculty of Agriculture provides sufficient lecturer availability and support, with academic staff expertise well matched to their respective fields of study. However, especially in the PhD programme the target value is currently not met. Neither students nor teachers indicated any lack in time for supervision or counsel, which is why the assessors find the staffing to be adequate. Generally, it supports effective teaching, supervision, and administration, ensuring high-quality service for students in line with national accreditation standards.

UNPAD offers a comprehensive staff development programme regulated by Rector Regulation No. 22/2018 and guidelines for the functional positions of educational personnel. Various internal initiatives enhance academic and teaching skills, including internal research grants (for doctoral candidates, professors, and other staff), travel awards, postdoctoral programmes, matching grants, and research collaborations. These are managed by the Directorate of Research and Community Engagement, with detailed information available through annual university guides and online systems. Lecturers are supported to attend and organise national and international seminars, symposia, conferences, and workshops. Career development at the Faculty of Agriculture is overseen by the Dean, Vice Dean of Human Resources, Human Resource Manager, and department heads according to academic expertise.

Training covers a wide range of areas such as e-learning, desktop applications, networking, multimedia, management services, and academic writing tools. The university's e-learning unit collaborates with lecturers to develop online courses and provide advice on course design to improve teaching through technology. Recently, a "Hybrid Learning Workshop Series" was conducted to prepare staff for blended teaching methods, focusing on both the use of technology and fostering interaction between online and in-person students. Workshop materials are available on UNPAD's E-learning YouTube channel.

Each semester, staff qualifications are reviewed based on curriculum vitae, publication records, workshops, training, and competency certificates to ensure alignment with the courses taught. Lecturers are encouraged to participate in professional training relevant to their fields (e.g., organic agriculture, hydroponics, pest control), with certification awarded upon successful completion. The faculty and university further evaluate lecturer performance each semester via an online system, assessing the Tri Dharma of Higher Education (teaching, research, and community service). These evaluations support continuous improvement of lecturer quality and contribute to university rankings.

All in all, the assessors consider the staff development and the teachings for staff the be fully sufficient to fulfil the teaching workload for the six degree programmes.

Criterion 3.2 Student Support and Student Services

Evidence:

- Self-Assessment Report
- Tour of the facilities
- Discussion during the audit

Preliminary assessment and analysis of the experts:
In their Self-Assessment Report, the university states that it offers comprehensive support to students through various programmes and facilities aimed at promoting academic success and personal development. Scholarships are available from government, university, and faculty sources, including alumni contributions, and cater to students in different categories, especially those facing financial difficulties, by providing full or partial tuition waivers and periodic semester awards. Research activities are supported by well-equipped experimental fields and laboratories that foster collaboration and innovation among staff and students. The university library offers an extensive collection of accessible academic resources, particularly in agriculture, while high-speed internet is available 24/7 to facilitate seamless access to online publications and databases.

Each student is assigned a supervising lecturer who provides guidance from enrolment to graduation, supporting both study and research. The faculty also provides essential facilities such as a canteen, prayer rooms, parking, student centres, and sports areas. Career development is promoted through courses on job preparation, interview skills, and CV writing, complemented by ongoing academic staff advice on career prospects. To enhance academic and international exposure, the faculty regularly invites visiting and guest lecturers

from partner institutions and organises programmes including twinning, joint degrees, double degrees, and credit transfers.

The Study Program maintains high service standards, reflected in student satisfaction surveys conducted via the university's Integrated Academic Information System, which assess teaching, supervision, and administration. Feedback from students, faculty, and other stakeholders is collected and analysed to guide improvements, alongside benchmarking against best educational practices.

Detailed academic programme information is readily accessible on the university's website. The Career Development Center (CDC) provides job placement assistance, career guidance, internships, and training tailored to graduate competencies. Additionally, qualified students can apply for research grants like the Hibah Riset Unpad through their supervisors. The CDC also monitors graduate employment, focusing on time to first employment and job relevance as key success indicators. Student welfare is supported through counselling services and guardianship facilities at the faculty level, with university-wide counselling provided by the Faculty of Psychology.

During the audit the students state that they have a feeling of community with their fellow students and their lecturers. They are not afraid to reach out if they have questions or grievances which is particularly helped by the supervisor system. This strengthens the impression of a tight-knit faculty that the assessors report to have during the days of the audit. They are fully satisfied with the student services.

Criterion 3.3 Funds and equipment

Evidence:

- Self-Assessment Report
- Memoranda of Understanding
- Tour of the facilities
- Discussion during the audit

Preliminary assessment and analysis of the experts:

The Faculty of Agriculture plays a crucial role in sustainable agricultural development in Indonesia and receives funding from diverse sources including community contributions, government budgets, industry partnerships, and grants. These funds support infrastructure development, staff, education, research, and community service, managed through a prioritised budgeting system in accordance with the university's Financial Management Standards Manual and Standard Operating Procedures.

Funding and expenditure within the Faculty are divided among operational costs, research, community service, and infrastructure investments. Detailed annual allocations for each study programme demonstrate consistent financial support, with the Bachelor of Agrotechnology programme receiving the largest share, followed by other undergraduate and postgraduate programmes.

The university employs a centralised financial system that enhances efficiency but requires ongoing coordination and improved communication for optimal operation. Financial policies are governed by Rector's Regulations and Standard Operating Procedures, with budget proposals submitted periodically through study programmes and faculty channels. While student tuition remains the primary funding source, the Faculty actively pursues collaborations with local, national, and international institutions to enhance teaching, learning, and research quality. These partnerships maximise the use of existing facilities and infrastructure, increase research grant success at various levels, and boost publication quantity and quality.

Looking ahead, strategies to strengthen financial sustainability include expanding collaborations with government and private sectors for research and social services, seeking alternative scholarship funding for master's students, upgrading facilities and infrastructure to accommodate student growth, and allocating funds to enhance the capacity of academic and administrative staff. This focus aligns with the university's ambition to become internationally oriented, necessitating well-prepared human resources.

During the on-site visit, the assessors receive a tour of the faculty. The Faculty of Agriculture is equipped with a variety of laboratories and experimental fields designed to support both teaching and research activities. The faculty houses multiple specialised laboratories, including those for agribusiness, soil chemistry and plant nutrition, microbiology, soil physics, land evaluation, pesticide and toxicology, phytopathology, plant pest management, plant biotechnology, plant breeding, crop production, and general teaching purposes. These laboratories typically operate five days a week for seven hours per day, covering a total area ranging from around 60 to over 690 square metres depending on the facility.

In addition to indoor laboratories, the faculty manages several agricultural farms, including Ciparay, Arjasari, Ciparanje, and Bale Tatanen farms, which vary significantly in size, providing ample space for practical fieldwork and research. There are also seven greenhouses, offering controlled environments for plant cultivation and experimentation.

Supporting facilities include study programme rooms, classrooms, an administration area, an Agrimart facility, and a central laboratory, all designed to facilitate comprehensive agricultural education and research. The faculty library, covering over 1,100 square metres, further supports academic activities by providing access to essential resources.

The assessors express satisfaction with the quality, utilisation, and variety of the laboratories and fields, acknowledging that these facilities adequately meet the needs of students and staff for both academic and research purposes.

Final assessment of the experts regarding criterion 3:

Criterion fulfilled.

4. Transparency and Documentation

Criterion 4.1 Module Descriptions

Evidence:

- Self-Assessment Report
- Syllabus for each study programme

Preliminary assessment and analysis of the experts:
The syllabi, which are used instead of module handbooks, are very detailed outlines of the whole semester for each course. They contain all necessary information such as the persons responsible for each module, the teaching methods, credits and workload, as well as the intended learning outcome. They feature the content of each module and the requirements needed to be admitted to a course as well as the forms of assessment throughout the semester. Lastly, it contains recommended literature and the date of last amendment.

Criterion 4.2 Diploma and Diploma Supplement

Evidence:

- Self-Assessment Reports
- Sample Transcript of Records, all programmes under review
- Sample Diploma/Degree Certificate, all programmes under review
- Sample Diploma supplements, all programmes under review

Preliminary assessment and analysis of the experts:
Graduates receive their degree certificates and transcripts—issued in both Bahasa Indonesia and English—shortly after graduation, which takes place four times a year (February,

May, August, November). These documents include detailed academic and personal information, are digitally accessible, and comply with national and university regulations. They also feature the specialisation chosen, if relevant. Additionally, a diploma supplement is issued, providing a comprehensive record of the student's academic and extracurricular achievements, legalised by the dean and available for reference.

Criterion 4.3 Relevant Rules

Evidence:

- Self-assessment report
- All relevant regulations as published on the university's webpage
- Discssions during the audit

Preliminary assessment and analysis of the experts:
The auditors confirm that the rights and duties of both UNPAD and the students are clearly defined and binding. All rules and regulations are published on the university's website and hence available to all relevant stakeholders. In addition, the students receive all relevant course material in the language of the degree programs at the beginning of each semester. The students confirm this during the audit.

Final assessment of the experts regarding criterion 4:

Criterion fulfilled.

5. Quality management: quality assessment and development

Criterion 5 Quality management: quality assessment and development

Evidence:

- Self-Assessment Report
- Stastistical data
- Discussion during the audit

Preliminary assessment and analysis of the experts:
UNPAD employs a comprehensive Quality Assurance (QA) system, both internal and external, to uphold and enhance academic standards in line with national regulations. Internally,

QA is managed through a continuous cycle of planning, implementation, evaluation, control, and improvement (P-I-E-C-I), coordinated by QA units at the university and faculty levels. Activities are documented and monitored using the SIAT integrated information system, and internal audits are conducted annually. Externally, study programs are accredited by BAN-PT or LAM in compliance with national standards, promoting transparency and accountability. Several programs, such as the Master's in Soil Science and Agronomy, have achieved "Unggul" (Excellent) accreditation. Evaluations by national audit bodies (ITJEN, BPK) also contribute to continuous improvement.

In the Self-Assessment Report, the university mentions several changes that have been implemented in the recent overhauls of the study programmes based on the findings of the QA units. Among them are the implementation of the OBE curricula, the implementation of the MBKM, the spread of hybrid learning and tracer studies of alumni. The university is open about past struggles, such as the credit transfer for the MBKM when it was implemented, and the new necessity for MoUs with new partners. The assessors appreciate the openness. They find that the QA system is robust and very well equipped to find problems and offer impulses to mitigate them.

Final assessment of the experts regarding criterion 5:

Criterion fulfilled.

D Additional Criteria for Structured Doctoral Programmes

Criterion D 1 Research

Evidence:

- Self-Assessment Report
- Description of research activities and projects related to the doctoral programme on behalf of the university or research institute
- Website of the study programme
- Study and examination regulations
- Active participation of doctoral candidates at conferences, seminars, research colloquiums etc.
- Sample of published dissertations or papers in scientific journals
- Discussion during the audit

Preliminary assessment and analysis of the experts:

The Doctoral Programme in Agricultural Sciences (DPAS) at the Faculty of Agriculture, established on 23 July 1979, is committed to achieving international recognition by 2026. Its vision is centred on the advancement of science, technology, and the arts grounded in local excellence to enhance community welfare.

To realise this vision, the programme pursues four core missions:

1. Delivering doctoral education in agricultural sciences through an effective and efficient learning framework.
2. Advancing research via collaboration with national and international partners.
3. Disseminating research findings through both national and international scientific platforms.
4. Applying research outputs in academic instruction, scholarly activities, and community engagement.

The DPAS programme supports a broad spectrum of scientific disciplines for dissertation research, reflecting the interdisciplinary nature of agricultural sciences. Research in the field of plant sciences encompasses areas such as ecophysiology, weed science, plant breeding, as well as plant pest and disease sciences. In the domain of soil and land management, the programme includes specialisations in soil fertility and plant nutrition, soil

conservation, soil biotechnology, and land use planning. Research related to water and aquatic resources covers the management of aquatic resources, rehabilitation and conservation of aquatic environments, and the sustainable utilisation of water resources. Furthermore, the programme addresses the social and economic dimensions of agriculture, offering research opportunities in agribusiness, agricultural development, sociology, and agricultural extension.

Doctoral candidates must undertake an original and significant research project. A key graduation requirement is the publication of at least one research article in a reputable international journal indexed in Scopus (Q1–Q3) or Web of Science. The originality and novelty of the research are critical criteria for acceptance.

During the audit, the assessors examine several dissertations and can confirm that the research output fully satisfies the criterion.

Final assessment of the experts regarding criterion D 1

Criterion fulfilled.

Criterion D 2 Duration and Credits

Evidence:

- Self-Assessment Report
- Study and examination regulations
- Statistical data on graduation time
- Discussion during the audit

Preliminary assessment and analysis of the experts:

As was outlined in 1.3, the goal for this PhD programme is six semesters, which has in the past been an issue. At the heart of the Doctoral Programme in Agricultural Sciences (DPAS) is the research process itself. Students are expected to undertake original research projects, involving the design and execution of experiments, data collection, and analysis, ultimately culminating in the production of a dissertation under the guidance of a supervisory team. The doctoral journey is structured around a series of key milestones designed to ensure timely and effective progress.

The first major milestone is the presentation of a research proposal progress seminar, which must take place within the first semester. This is followed by the formal research

proposal seminar, to be completed by the end of the third semester at the latest. In addition, the programme incorporates a structured series of checkpoints in the form of research progress seminars, which must be conducted in three consecutive semesters. These regular progress seminars enable continuous monitoring of the student's research development and are instrumental in maintaining momentum throughout the doctoral journey.

The implementation of this milestone-based system has had a tangible impact on the programme's efficiency, significantly reducing the average time required for students to complete their studies. Prior to the adoption of this research-based system in the 2021/2022 academic year, the DPAS followed a coursework-centred curriculum. For example, students from the 2015 cohort, who were not required to publish their research for graduation and were subject to a five-year completion deadline, had an average completion time of 3.69 years. However, when the curriculum transitioned to a research-focused model, the average time to graduation initially increased to 5.47 years for the 2016 cohort.

Subsequently, with the introduction of structured research milestones, the average duration began to decline steadily. Students from the 2017 cohort completed their studies in an average of 4.60 years. This trend of improved efficiency continued, culminating in one student from the 2020 cohort completing their doctoral degree in just 2.33 years. While the data for the 2020 cohort remains incomplete due to many students still progressing through their studies, the evidence thus far highlights the effectiveness of the new system in accelerating research completion and promoting timely graduation.

Final assessment of the experts regarding criterion D 2:

Criterion fulfilled.

Criterion D 3 Soft Skills and Mobility

Evidence:

- Self-Assessment Report
- Rector Regulation No. 38 of 2021
- Discussion during the audit

Preliminary assessment and analysis of the experts:

Soft skills

While the core of the programme remains focused on advanced research and scholarly contribution, considerable effort has been made to embed soft skills training into the doctoral experience just as described earlier in this report. Skills such as communication, collaboration, critical thinking, problem-solving, adaptability, and leadership are increasingly demanded by employers and essential for navigating contemporary academic and professional environments. The DPAS has made strides in addressing these needs. Its approach aligns with global higher education trends that advocate for the formation of well-rounded scholars who are not only technically proficient but also socially and emotionally intelligent.

The programme incorporates structured activities aimed at fostering these competencies. According to UNPAD's Rector Regulation No. 38 of 2021, doctoral candidates are expected to develop three key areas of non-technical skill: Basic Research Skills, Knowledge Dissemination and Development Skills, and Personal Development Skills. These are cultivated through a combination of internal training and external engagement. Notably, the requirement for students to participate in national and international seminars as oral presenters contributes significantly to their communication and dissemination abilities. In addition, Career Development Skills are enhanced through the organisation of webinars, where students are tasked with acting as speakers and moderators—an exercise that reinforces leadership, planning, and public speaking.

An integral part of the soft skills development framework is the series of internal academic seminars embedded into each semester of study. These academic checkpoints serve a dual function: ensuring systematic research progression and offering students repeated opportunities to refine their presentation and analytical skills under formal assessment conditions.

An analysis of the evaluation scores provided by supervisors, co-promoters, and examiners across the Research Proposal Seminar (SUR), Research Results Seminar (SHR), and Doctoral Promotion Session (SPD) demonstrates a positive trend in soft skill development. Over the duration of their study, students consistently show improvements in areas such as verbal and written communication, critical thinking, problem-solving, leadership, and innovation. These findings suggest that the programme's soft skills training strategies are effectively integrated and yielding measurable outcomes.

The assessors find that in conclusion, the DPAS demonstrates a strong commitment to the holistic development of its doctoral candidates. Its emphasis on structured academic communication, leadership in scientific dissemination, and soft skill cultivation represents a forward-thinking model aligned with global best practices in doctoral education.

Mobility

The Self-Assessment Report says that academic mobility is a key component of the DPAS, supporting the development of global academic perspectives and enhancing the quality of doctoral research. Mobility in this context includes both domestic and international activities, allowing students to engage with different institutions, cultures, and educational systems.

Several students have taken part in international academic activities, for example a summer course at CIRAD, France; the Behave Summer School (University of Milan, online) and a short course on Sustainable Agri-Food Systems (University of Adelaide, Australia). Another student received the international ISPEC Science Award in Turkey.

These cases demonstrate the programme's growing engagement in international academic networks. While participation remains limited – as was already mentioned throughout the report –, the current outcomes suggest strong potential for further expansion. Strengthening support for mobility initiatives will be essential in aligning DPAS more closely with global academic standards and its vision for international recognition.

Final assessment of the experts regarding criterion D 3:

Criterion fulfilled.

Criterion D 4 Supervision and Assessment

Evidence:

- Documents out of the daily use of the higher education institution that make apparent the existing advice and support concept
- Student handbook
- Rector's Decree No. 38/2021
- Discussion during the audit

Preliminary assessment and analysis of the experts:

Student supervision within the DPAS is governed by the Rector's Decree No. 38/2021. From the first semester through to completion, each doctoral candidate is supported by a Promoter Team, appointed within one month of enrolment. This team, consisting of a Chief Supervisor and up to two members, is proposed based on research relevance and coordinated with the Head of Programme.

Supervision is structured and continuous, with a minimum of four recorded meetings per semester. Supervisors are required to report student progress to the programme head every semester, ensuring transparent academic tracking.

Students are provided with a comprehensive Student Handbook, detailing academic guidance, counselling services, and career development resources. In parallel, the Academic Advising Policies and Procedures Manual clarifies the roles and expectations of advisors, reinforcing structured academic planning and degree progression. Support is further enhanced through regular distribution of information materials and the availability of academic and non-academic counselling services at both faculty and university levels. Feedback mechanisms, such as semesterly GForm surveys, are used to assess student satisfaction and guide improvements.

Institutional commitment is also reflected in dedicated financial resources for advisory services and in the collection of success stories that highlight the positive impact of these support structures. Overall, the supervision and advising system plays a pivotal role in fostering student success, offering a strong foundation for both academic progress and personal development.

The assessment framework for the DPAS is governed by the same decree. This robust system ensures academic rigour and quality research output through a multi-phase evaluation process aligned with programme objectives and ethical standards.

The assessment begins with the evaluation of a student's research proposal. In the first semester, students must draft the Introduction and Literature Review chapters and present them in a Research Proposal Progress Seminar. The complete proposal must be finalised by the third semester and is formally presented in a Research Proposal Seminar. This is evaluated by a panel of three opponents, one of whom must be external to UNPAD. A minimum score of 68 is required to pass; failure to meet this threshold after a second attempt results in dismissal from the programme. Once approved, the research phase commences. Students are required to present their progress in three sequential internal seminars, conducted across semesters three to five. These are essential checkpoints to monitor research advancement and ensure alignment with academic expectations. Following completion of their research, students submit and present their dissertation in a Research Result Seminar. The dissertation undergoes evaluation by a new panel of opponents and a professor. Revisions are mandatory, and once accepted, students advance to the final Doctoral Promotion Session.

To qualify for the final defence, students must have published at least one article in a reputable international journal indexed in Scopus (Q1–Q3). This publication requirement underscores the programme's emphasis on global academic contribution.

According to the expert team, assessment throughout the doctoral process is comprehensive, encompassing proposal reviews, seminar evaluations, peer reviews, and publication.

These mechanisms not only ensure academic integrity and timely progress but also uphold the programme's commitment to high research standards and international recognition.

Final assessment of the experts regarding criterion D 4:

Criterion fulfilled.

Criterion D 5 Infrastructure

Evidence:

- Self-Assessment Report
- Co-operation agreements, regulations for internal and external co-operations
- Discussion during the audit

Preliminary assessment and analysis of the experts:

The DPAS provides access to 48 specialised laboratories supporting practicum, teaching, and advanced research. Facilities include labs for soil science, agronomy, plant breeding, pest and disease management, and a central lab equipped for molecular and chemical analyses. Laboratories are well-maintained, adequately staffed, and accessible with flexible schedules, following standard operating procedures to ensure safety and efficiency. Students benefit from field-based research infrastructure through several experimental stations in Sumedang and Bandung Regencies, including hydroponic gardens and greenhouses. Facilities support practical research in horticulture, crop science, and weather monitoring. The Legok Muncang Garden, for example, serves as a conservation site for fruit crops and promotes collaboration with external partners.

The DPAS fosters a collaborative research culture through seminars, interdisciplinary discussions, and joint projects. Students are involved in partnerships with key external institutions. These collaborations offer access to industrial facilities, additional data sources, and real-world application of research findings.

Final assessment of the experts regarding criterion D 5:

Criterion fulfilled.

Criterion D 6 Funding

Evidence:

- Self-Assessment Report

- Rector Regulation No. 7 of 2020
- Cooperation agreements
- Discussion during the audit

Preliminary assessment and analysis of the experts:
The programme is supported by sufficient and sustainable funding to ensure the effective management and operation of educational and research activities. Funding is sourced from internal allocations by the Faculty of Agriculture, internal research grants for lecturers and supervisors, and external grants from both domestic and international partners. These funding streams encompass various schemes, including the Doctoral Dissertation Research Program, Applied Research, Basic Research, Higher Education Excellence Programs, and Community Service Programs.

Between 2021 and 2023, the total funding secured by the DPAS program reached Rp. 79.1 billion. Internal faculty funding contributed Rp. 409.5 million (0.52% of total funding), while research grants and community service funds accounted for Rp. 9.36 billion (11.83%) and Rp. 1.22 billion (1.54%) respectively. Additional contributions were received through educational collaboration (Rp. 135.6 million or 0.17%) and research collaboration (Rp. 4.2 billion or 5.30%). The most substantial support derived from partnership collaborations, totalling Rp. 63.8 billion (80.63%).

Cooperation agreements, governed by Rector Regulation No. 7 of 2020 on university collaboration, are integral to fund management and program execution. These include partnerships with higher education institutions such as the University of Kent and the University of Southampton; government entities like the Ministry of Agriculture and Bank Indonesia; and prominent industry partners including PT. Bayer Indonesia, PT. Syngenta Indonesia, PT. Corteva Agriscience, and other leading agricultural firms. These collaborations provide not only funding but also practical research opportunities, access to industry facilities, and curriculum development aligned with contemporary agricultural challenges.

All funds are allocated judiciously to support academic activities, research development, laboratory and infrastructure enhancement, and strategic initiatives that uphold the academic excellence and relevance of the DPAS program.

Final assessment of the experts regarding criterion D 6:

Criterion fulfilled.

Criterion D 7 Quality Assurance

Evidence:

- Self-Assessment Report
- Regulations and Guidelines for structured doctoral programmes
- Internal regulations about quality management
- Statistical data
- Discussion during the audit

Preliminary assessment and analysis of the experts:

The Doctoral Program employs a systematic, continuous quality improvement approach through regular supervision, curriculum refinement, and structured progress monitoring. Efforts include enhancing supervisor-student communication, scheduling regular research discussions, and providing scientific writing training since 2021 to improve joint publications.

Academic politics enforce timely milestones such as proposal seminars in the third semester and dissertation defences by the fifth, supplemented by administrative measures like warning letters for study delays and faster supervisor assignments to improve student support. Course evaluations are conducted consistently to enhance teaching quality and student satisfaction.

The program integrates learning outcomes aligned with stakeholder feedback, alumni tracer studies, and graduate competency assessments, focusing on both hard and soft skills critical for career success. The alumni tracking system reveals strong employment outcomes, with most graduates finding relevant work within six months and demonstrating high competency in ethics, core knowledge, communication, and self-development.

Graduate employment spans government, private sectors, and multilateral organizations, reflecting diverse career pathways. Employers emphasize ethics, expertise, IT skills, communication, collaboration, and self-development as key competencies.

Significant achievements in Intellectual Property Rights (IPR) underscore the program's research innovation, with a rising number of patents from 2013 to 2022, confirming the program's contribution to advancing agricultural science and industry

As with the rest of the programmes within the Faculty of Agriculture (see Chapter 5), the assessors are fully satisfied with the quality management system.

Final assessment of the experts regarding criterion D 7:

Criterion fulfilled.

E Additional Documents

No additional documents needed.

F Comment of the Higher Education Institution

The institution does not provide a statement on the findings of this report.

G Summary: Expert recommendations (01.06.2025)

The experts summarise their analysis and **final assessment** for the award of the seals as follows:

Degree Programme	ASIIN Seal	Maximum duration of accreditation
Ba Agrotechnology	With requirements for one year	30.09.2030
Ba Agribusiness	With requirements for one year	30.09.2030
Ma Agronomy	With requirements for one year	30.09.2030
Ma Agricultural Economics	With requirements for one year	30.09.2030
Ma Soil Science	With requirements for one year	30.09.2030
PhD Agricultural Science	With requirements for one year	30.09.2030

Requirements

For all degree programmes

A 1. (ASIIN 1.1) The PLO's and the graduate profiles should be clearly distinguished for the different EQF, and they should clearly define the future job perspectives.

For the Master's programmes and the PhD programme

A 2. (ASIIN 1.5) The admission requirements for the Master's and PhD programmes must be transparent and binding.

Recommendations

For all programmes

E 1. (ASIIN 1.1) It is recommended to harmonize the structure and phrasing of the learning outcomes.

E 2. (ASIIN 1.2) It is recommended to align the names of the study programmes among the different academic levels.

E 3. (ASIIN 1.3) It is recommended to enhance the amount of English courses or international classes throughout the curricula.

E 4. (ASIIN 1.3) It is recommended to enhance the student mobility.

For the Bachelor's degree programmes

E 5. (ASIIN 2) It is recommended to stop connecting the "cum laude" to publishing a paper.

For Ba Agrotechnology

E 6. (ASIIN 1.2) It is recommended to reconsider the name of the study programme.

H Comment of the Technical Committee 08 - Agriculture, Nutritional Sciences and Landscape Architecture (02.06.2025)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee discusses the procedure and decides to follow the expert team's opinion without changes

The Technical Committee 08 – Agriculture, Nutritional Sciences and Landscape Architecture recommends the award of the seals as follows:

Degree Programme	**ASIIN Seal**	**Maximum duration of accreditation**
Ba Agrotechnology	With requirements for one year	30.09.2030
Ba Agribusiness	With requirements for one year	30.09.2030
Ma Agronomy	With requirements for one year	30.09.2030
Ma Agricultural Economics	With requirements for one year	30.09.2030
Ma Soil Science	With requirements for one year	30.09.2030
PhD Agricultural Science	With requirements for one year	30.09.2030

Requirements

For all degree programmes

A 1. (ASIIN 1.1) The PLO's and the graduate profiles should be clearly distinguished for the different EQF, and they should clearly define the future job perspectives.

For the Master's programmes and the PhD programme

A 2. (ASIIN 1.5) The admission requirements for the Master's and PhD programmes must be transparent and binding.

Recommendations

For all programmes

E 1. (ASIIN 1.1) It is recommended to harmonize the structure and phrasing of the learning outcomes.

E 2. (ASIIN 1.2) It is recommended to align the names of the study programmes among the different academic levels.

E 3. (ASIIN 1.3) It is recommended to enhance the amount of English courses or international classes throughout the curricula.

E 4. (ASIIN 1.3) It is recommended to enhance the student mobility.

For the Bachelor's degree programmes

E 5. (ASIIN 2) It is recommended to stop connecting the "cum laude" to publishing a paper.

For Ba Agrotechnology

E 6. (ASIIN 1.2) It is recommended to reconsider the name of the study programme.

I Decision of the Accreditation Commission (27.06.2025)

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

The Accreditation Commission discusses the procedure and follows the recommendation of the experts and the Technical Committee, albeit making minor adjustments of the wording of the requirements. Also, the Accreditation Commission points out that A2 concerns the criterion 1.4 admission regulations instead of 1.5.

The Accreditation Commission decides to award the following seals:

Degree Programme	**ASIIN Seal**	**Maximum duration of accreditation**
Ba Agrotechnology	With requirements for one year	30.09.2030
Ba Agribusiness	With requirements for one year	30.09.2030
Ma Agronomy	With requirements for one year	30.09.2030
Ma Agricultural Economics	With requirements for one year	30.09.2030
Ma Soil Science	With requirements for one year	30.09.2030
PhD Agricultural Science	With requirements for one year	30.09.2030

Requirements

For all degree programmes

A 1. (ASIIN 1.1) The Programme Learning Outcomes and the graduate profiles have to be clearly distinguished for the different EQF, and they should clearly define the future job perspectives.

For the Master's programmes and the PhD programme

A 2. (ASIIN 1.4) The admission requirements for the Master's and PhD programmes have to be transparent and binding.

Recommendations

For all programmes

E 1. (ASIIN 1.1) It is recommended to harmonize the structure and phrasing of the learning outcomes.

E 2. (ASIIN 1.2) It is recommended to align the names of the study programmes among the different academic levels.

E 3. (ASIIN 1.3) It is recommended to enhance the amount of English courses or international classes throughout the curricula.

E 4. (ASIIN 1.3) It is recommended to enhance the student mobility.

For the Bachelor's degree programmes

E 5. (ASIIN 2) It is recommended to stop connecting the "cum laude" to publishing a paper.

For Ba Agrotechnology

E 6. (ASIIN 1.2) It is recommended to reconsider the name of the study programme.

Appendix: Programme Learning Outcomes and Curricula

According to the diploma supplement the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor degree programme Agrotechnology:

1. Able to demonstrate responsibility, self-confidence, ethics, discipline and have a leadership spirit and lifelong learners as religious who believing One God;

2. Mastering basic concepts, current technology, current issues, and policies related to sustainable crop production systems and bio-based industry;

3. Able to apply methods and technology to support sustainable crop production systems and analyze the advantages and constraints of its application;

4. Able to apply and design biological and agro-ecological engineering to support sustainable agriculture and industrial bio-based systems based on analysis of relevant information and data;

5. Able to identify crop production problems and formulate solution strategies based on analysis of relevant information and data;

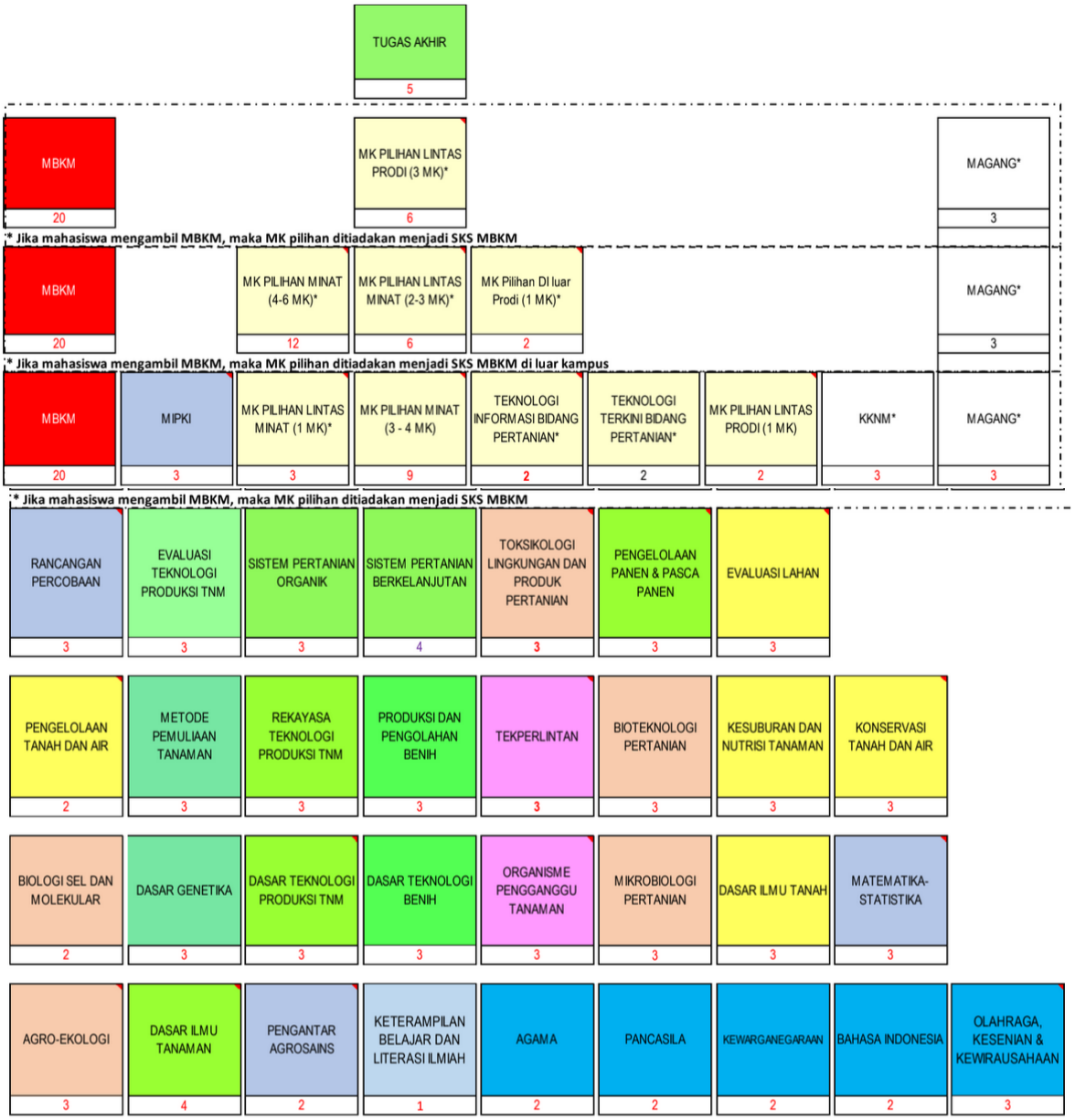
6. Able to plan and manage resources to support sustainable agriculture;

7. Able to plan and apply research methodologies according to the interests of the study as well as document, analyze and interpret data based on scientific procedures and ethics and describe the results in the form of thesis/final project/scientific articles

8. Able to work optimally independently and in multi-disciplinary teams and develop networks;

9. Able to demonstrate the ability to think logically, critically, systematically and communicate verbally and in writing in accordance with scientific ethics.

The following **curriculum** is presented:


TUGAS AKHIR
5
MBKM
20
MK PILIHAN LINTAS PRODI (3 MK)*
6
MAGANG*
3
* Jika mahasiswa mengambil MBKM, maka MK pilihan ditiadakan menjadi SKS MBKM
MBKM
20
MK PILIHAN MINAT (4-6 MK)*
12
MK PILIHAN LINTAS MINAT (2-3 MK)*
6
MK Pilihan DI luar Prodi (1 MK)*
2
MAGANG*
3
* Jika mahasiswa mengambil MBKM, maka MK pilihan ditiadakan menjadi SKS MBKM di luar kampus
MBKM
20
MIPKI
3
MK PILIHAN LINTAS MINAT (1 MK)*
3
MK PILIHAN MINAT (3 - 4 MK)
9
TEKNOLOGI INFORMASI BIDANG PERTANIAN*
2
TEKNOLOGI TERKINI BIDANG PERTANIAN*
2
MK PILIHAN LINTAS PRODI (1 MK)
2
KKNM*
3
MAGANG*
3
* Jika mahasiswa mengambil MBKM, maka MK pilihan ditiadakan menjadi SKS MBKM
RANCANGAN PERCOBAAN
3
EVALUASI TEKNOLOGI PRODUKSI TNM
3
SISTEM PERTANIAN ORGANIK
3
SISTEM PERTANIAN BERKELANJUTAN
4
TOKSIKOLOGI LINGKUNGAN DAN PRODUK PERTANIAN
3
PENGELOLAAN PANEN & PASCA PANEN
3
EVALUASI LAHAN
3
PENGELOLAAN TANAH DAN AIR
2
METODE PEMULIAAN TANAMAN
3
REKAYASA TEKNOLOGI PRODUKSI TNM
3
PRODUKSI DAN PENGOLAHAN BENIH
3
TEKPERLINTAN
3
BIOTEKNOLOGI PERTANIAN
3
KESUBURAN DAN NUTRISI TANAMAN
3
KONSERVASI TANAH DAN AIR
3
BIOLOGI SEL DAN MOLEKULAR
2
DASAR GENETIKA
3
DASAR TEKNOLOGI PRODUKSI TNM
3
DASAR TEKNOLOGI BENIH
3
ORGANISME PENGGANGGU TANAMAN
3
MIKROBIOLOGI PERTANIAN
3
DASAR ILMU TANAH
3
MATEMATIKA-STATISTIKA
3
AGRO-EKOLOGI
3
DASAR ILMU TANAMAN
4
PENGANTAR AGROSAINS
2
KETERAMPILAN BELAJAR DAN LITERASI ILMIAH
1
AGAMA
2
PANCASILA
2
KEWARGANEGARAAN
2
BAHASA INDONESIA
2
OLAHRAGA, KESENIAN & KEWIRAUSAHAAN
3

According to the diploma supplement the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor degree programme Agribusiness:

1. Graduates can demonstrate religious attitudes and tolerance and a responsible and committed attitude towards law enforcement, ethics, norms for social life, and environmental sustainability as lifelong learners;

2. Mastery of basic knowledge, current technology, current issues, and policies related to management in a sustainable agribusiness system, including input, production, marketing, processing, and supporting institutions sub-systems;

3. Mastering general knowledge about the concept of crop production and the concepts of efficiency, feasibility, community development, and entrepreneurship so that strategic and operational decisions can be made, and problems can be solved sustainably in agribusiness;

4. Ability to identify and analyze problems, potentials, and prospects as well as determine alternative decision-making in building agribusiness networks using quantitative and qualitative methods;

5. Ability to apply and design development engineering and innovative agribusiness business networks, creating added value and being environmentally friendly;

6. Ability to identify problems in agribusiness subsystems and formulate solution strategies based on analysis of relevant information and data;

7. Ability to plan and manage resources to support sustainable agribusiness;

8. Ability to apply logical, critical, systematic, and innovative thinking in implementing science and technology and applies humanities values in agribusiness;

9. Ability to work optimally independently and in a multidisciplinary team and develop a network of cooperation;

10. Ability to plan and apply research methodologies, document, analyze and interpret data, and compile a scientific description of the results of agribusiness studies in the form of reports that can be scientifically justified.

The following **curriculum** is presented:

Elective course	Community Service Program	Agribusiness Aesthetics	Research and Development Work	**Professional Agribusiness Internship**	Food Crop Production Technology					
2	**3**	**3**	**5**	5	3					
Agricultural Product Retail Modernization	International agribusiness	Supply Chain Engineering	Sustainable Agricultural Development	**Agribusiness Leadership and Organization**	Elective course	Elective course				
3	3	**3**	**3**	3	**3**	**2**				
Elective course	Agribusiness Financing	Agricultural & Rural Development Planning	Research methodology	**Agribusiness Innovation & Creation**	Community Development	Operation Research				
3	**3**	**3**	**3**	3	**3**	**3**				
Macro Economics	Plantation Plant Production Technology	Agribusiness Innovation System	Logistic management	**Agribusiness Entre-preuneurship**	Agroindustry engineering					
3	**3**	**3**	**3**	4	**3**					
Micro Economics	Applied statistics	Natural Resources & Environmental Economics	Farm Management	**Agribusiness Mapping and Planning**	Horticultural Plant Production Technology	Sosiology of Agribusiness				
3	**3**	**3**	**3**	4	**3**	**3**				
Basic Statistic	Agribusiness Accounting	Agribusiness Marketing	Agribusiness Communication		Agribusiness Management	Economic of agriculture	basic agronomy			
3	**3**	**3**	**3**		**2**	**3**	3			
English language	Indonesian Language	Citizenship Education	Pancasila		Religion	OKK	Mathematics	Agribusiness System	Digital Business	Intorduction to agroscience
0	2	2	2		2	3	3	3	2	2

According to the diploma supplement the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Master degree programme Agronomy:

1. Have a broad view, open mind, positive thinking, and responsibility.

2. Mastering knowledge and latest issues in the field of agronomy (plant ecophysiology, weed science, plant breeding, and plant protection);

3. Have the ability to apply logical, critical, and systematic thinking and develop science and technology in the field of agronomy through research to produce innovative and verified work;

4. Have the ability to improve the capacity of independent and/or collaborative lifelong learning;

5. Have the ability to communicate orally and in writing also to develop academic networking;

6. Have the ability to determine and apply knowledge and technology in the field of agronomy (plant ecophysiology, weed science, plant breeding, and plant protection) through inter and multidisciplinary approaches;

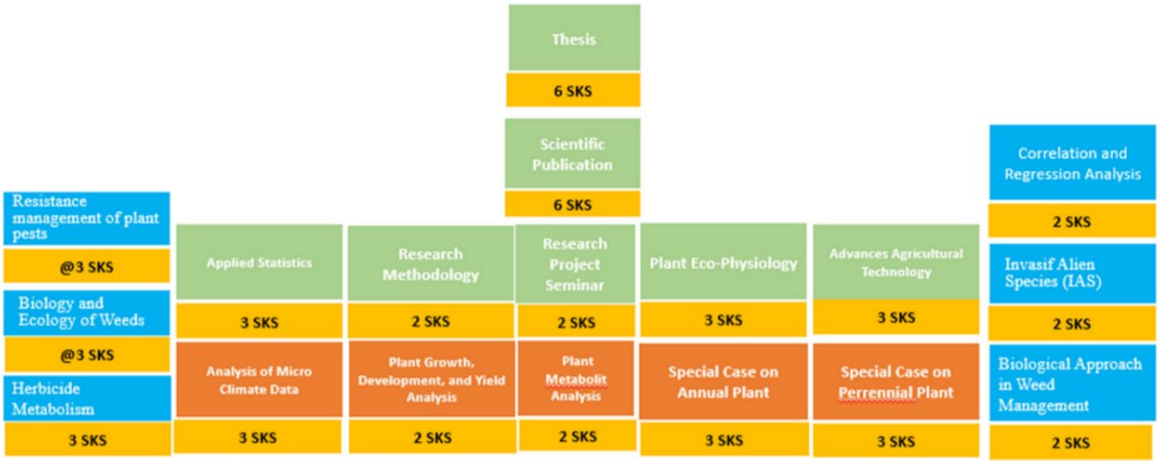
7. Have the ability to analyze, evaluate, and solve problems related to the field of agronomy (plant ecophysiology, weed science, plant breeding, and plant protection) through inter and multidisciplinary approaches; and

8. Have the ability to design and develop technology to solve problems in the field of agronomy (plant ecophysiology, weed science, plant breeding, and plant protection).

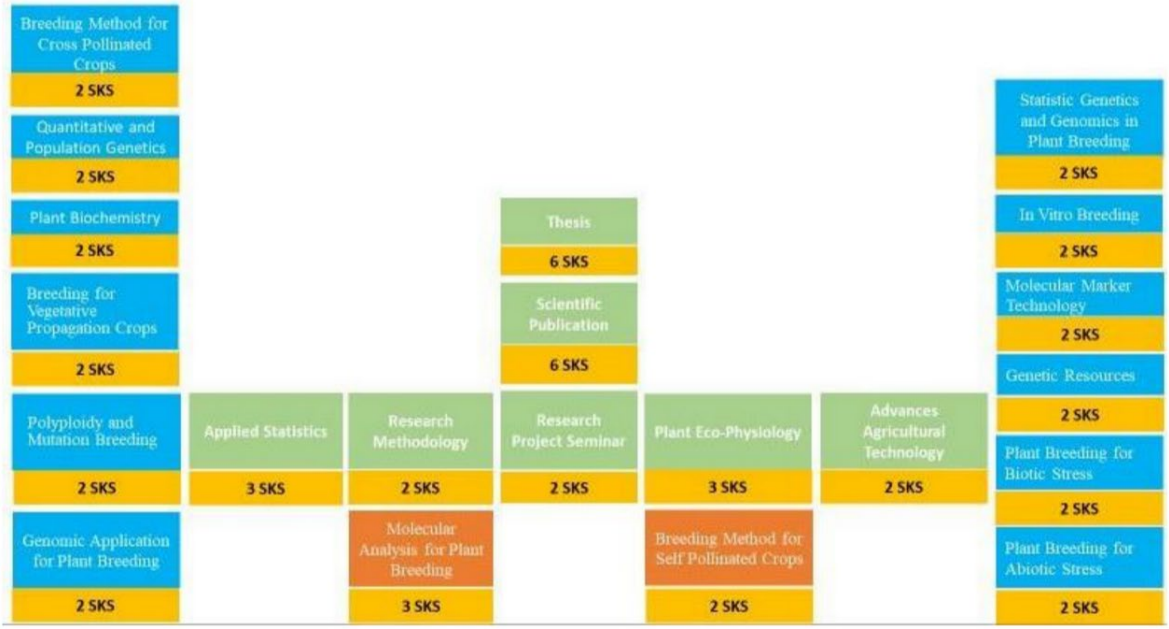
The following **curriculum** is presented:

For the specialisation Ecophysiology:

For the specialisation Weed Science:



For the specialisation Plant Breeding:



For the specialisation Plant Protection:


Development and Production of Biological control Agent
Ecology and Behaviour of Insect
Abiotics Diseases of Plant
Postharvest Pests & Diseases
Plant Quarantine
Insect Physiology and Biochemistry
Insect Identification and Taxonomy
Plant Mycology
Integrated biodiversity management
2 SKS
Resistance management of plant pests
3 SKS
Thesis
6 SKS
Scientific Publication
6 SKS
Applied Statistics
3 SKS
Research Methodology
2 SKS
Research Project Seminar
2 SKS
Plant Eco-Physiology
3 SKS
Advances Agricultural Technology
3 SKS
Integrated Management of Plant Pests and Diseases
4 SKS
Plant Pathogen Interactions
3 SKS
Insect-Plant Interactions
3 SKS
Information Technology of Plant Protection
Plant Disease Epimology & Plant Pest Population Dynamics
Toxicology of Pesticide
Botanical Pesticide
Plant Protection Biotechnology
Host Insect and Parasitoids/ Predator Interaction
Plant Nematology
2 SKS
Bacterial Plant Pathogen and Plant Virology
3 SKS

According to the diploma supplement the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Master degree programme Agricultural Economics:

1. Mastering the theoretical concepts in the field of agricultural economics knowledge and skills and their concentration in general and the theoretical concepts of specific parts in the field of knowledge and skills.

2. Collaborate and have social sensitivity and concern for society and the environment;

3. Have a broad view, open, and positive thinking

4. Able to apply and develop science and/or technology in the field of agricultural economics and its concentration in a humanistic way through reasoning and scientific research based on logical, critical, systems, creative, design and disruptive thinking;

5. Able to develop science and/or technology in the field of agricultural economics and its concentration through scientific research or producing work along with study concepts based on scientific principles, which are prepared in the form of a thesis;

6. Able to compile and communicate ideas and arguments based on the results of reviews and research that can be accounted for scientifically and academically, through various forms of media to the public, especially the academic community;

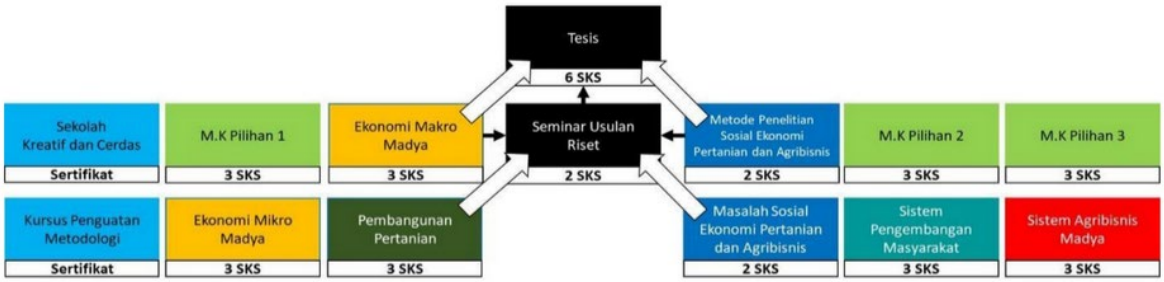
7. Able to design and prepare a structured collaborative development research plan in the form of a roadmap to solve problems in the field of agricultural economics and its concentrations

8. Able to carry out and evaluate development research based on the roadmap stages to solve problems in the field of agricultural economics and its concentration using deductive and inductive methodologies

9. Able to solve problems with proven innovations in the field of agricultural economics and concentrations resulting from interdisciplinary, multidisciplinary, and transdisciplinary research using various methodologies (deductive, inductive, subductive)

10. Able to apply various methods, designs, patterns, and models of inclusive and disruptive development, which are built based on research results to solve various problems in the field of agricultural economics and their concentrations.

The following **curriculum** is presented:


Tesis
6 SKS
Sekolah Kreatif dan Cerdas
Sertifikat
M.K Pilihan 1
3 SKS
Ekonomi Makro Madya
3 SKS
Seminar Usulan Riset
2 SKS
Metode Penelitian Sosial Ekonomi Pertanian dan Agribisnis
2 SKS
M.K Pilihan 2
3 SKS
M.K Pilihan 3
3 SKS
Kursus Penguatan Metodologi
Sertifikat
Ekonomi Mikro Madya
3 SKS
Pembangunan Pertanian
3 SKS
Masalah Sosial Ekonomi Pertanian dan Agribisnis
2 SKS
Sistem Pengembangan Masyarakat
3 SKS
Sistem Agribisnis Madya
3 SKS

According to the diploma supplement the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Master degree programme Soil Science:

1. Have the ability to demonstrate a responsible attitude towards the work of their field of expertise.

2. Have the ability to master and develop knowledge in the field of soil science, especially in dry land and paddy fields.

3. Have the ability and interest for lifelong learning from various issues that arise in dry land and paddy fields.

4. Have the ability to formulate ideas and scientific arguments responsibility, based on academic ethics.

5. Have the ability to design research that supports scientific knowledge that can be applied and recognized nationally and internationally.

6. Have the ability to analyze and evaluate various soil problems, especially in dry land and paddy fields, and design the integrated solution.

7. Have the ability to analyze various problem-solving related to soil science, especially in dry land and paddy fields, both independently and collaboratively within a team.

8. Have the ability in applying systematic and innovative thinking that can be effectively communicated to both the academic community and public.

The following **curriculum** is presented:

Semester 1

No	Code	Courses	Credit	ECTS
1	E20B101	Soil Physics	2	3,2
2	E20B113	Soil Biology	2	3,2
3	E20B.123	Pedogenesis and Soil Classification	3	4,8
4	E20B121	Agroclimatology	2	3,2
5	E20B.2XXX	Land Conservation and Land Reclamation	3	4,8
Total Compulsory MK in Semester I			**12**	**19,2**
No	**Code**	**Elective Courses**		
1	E20B.127	Watershed Management	2	3,2
2	E20B.116	Spatial Planning and Land Use	3	4,8
3	E20B.130	Bioremediation and Bioprocess Technology	2	3,2
4	E20B.107	Soil Quality	2	3,2
5	UNX20,117	Soil and Plant Analysis Technique Methods	3	4,8
		Total Credits in Semester I	**14-18**	**22,4 – 28,8**

Semester 2

No	Code	Courses	Credit	
1	E20B.229	Land Evaluation	3	4,8
2	E20B.001	Research Methods	2	3,2
3	E20B.227	Integrated Rice Field Management Technology	3	4,8
4	E20B.114	Soil Fertility and Plant Nutrition	3	4,8
5	E20B111	Soil Chemistry	3	4,8
		Total Compulsory MK Semester II	**14**	**22,4**
No	**Code**	**Elective Courses**		
1	E20B.130	Watershed Management	2	3,2
2	E20B.103	Spatial Planning and Land Use	3	4,8
3	E20B.224	Bioremediation and Bioprocess Technology	2	3,2
		Total Credits in Semester II	**16-20**	**25,6 - 32**

Semester 3

No	Password	Courses	Credit	ECTS
1		Research Proposal Seminar	2	3,2
Total credits in semester III			**2**	**3,2**

Semester 4

No	Password	Courses	Credit	ECTS
1		Thesis and Thesis Manuscript Examination	6	9,6
Total Credits in Semester IV			**6**	**9,6**

According to the diploma supplement the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the PhD degree programme Agricultural Science:

1. Upholding social and academic values, norms and ethics, having a spirit of nationalism, social sensitivity, discipline, respecting differences, and showing an attitude of responsibility, independence and never giving up.

2. Mastering the philosophy and research methods in the field of agricultural science and being able to demonstrate comprehensive and in-depth scientific mastery of the field being researched.

3. Able to develop new knowledge and technology through research in the field of agricultural science which produces creative, original and tested work and is beneficial for the benefit of humanity.

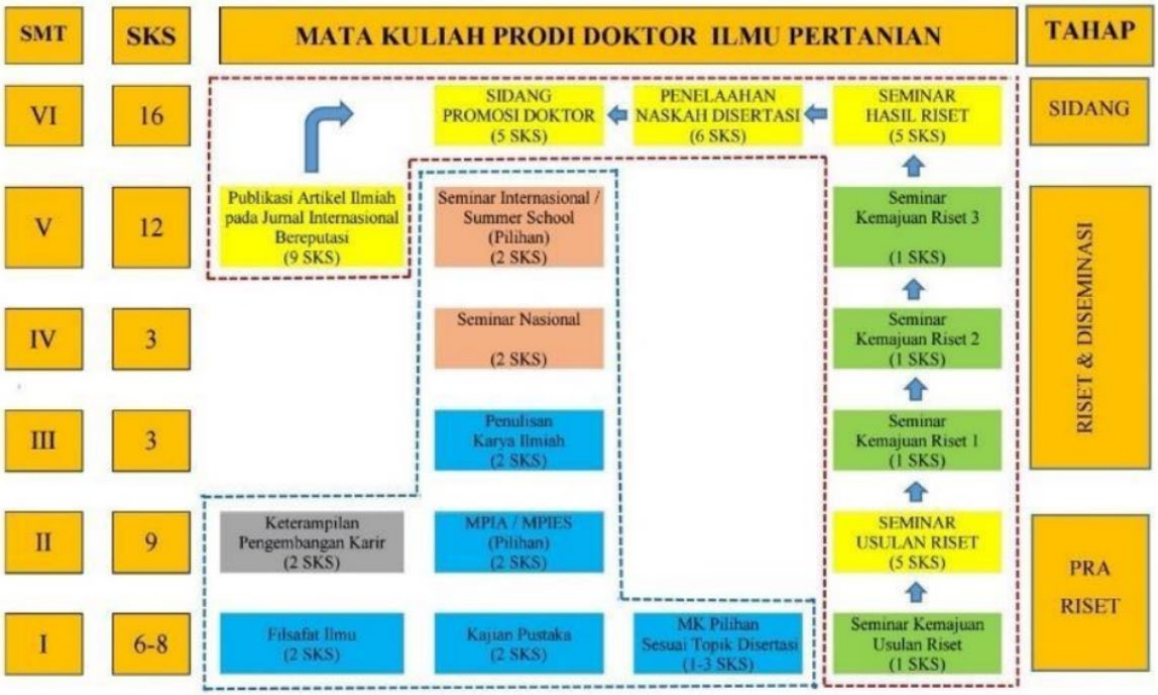
4. Able to manage, lead and develop interdisciplinary, multidisciplinary and transdisciplinary research roadmaps that are recognized nationally and internationally.

5. Able to compose scientific arguments and communicate research results effectively in national and international scientific forums and publish them in reputable international journals

6. Able to implement, design and develop innovations in the agricultural sector through an inter, multi or transdisciplinary approach.

7. Able to analyze and solve science and technology problems or recommend policies in the agricultural sector through an inter, multi and transdisciplinary approach.

The following **curriculum** is presented:


SMT
SKS
MATA KULIAH PRODI DOKTOR ILMU PERTANIAN
TAHAP
VI
16
SIDANG PROMOSI DOKTOR (5 SKS)
PENELAAHAN NASKAH DISERTASI (6 SKS)
SEMINAR HASIL RISET (5 SKS)
SIDANG
V
12
Publikasi Artikel Ilmiah pada Jurnal Internasional Bereputasi (9 SKS)
Seminar Internasional / Summer School (Pilihan) (2 SKS)
Seminar Kemajuan Riset 3 (1 SKS)
RISET & DISEMINASI
IV
3
Seminar Nasional (2 SKS)
Seminar Kemajuan Riset 2 (1 SKS)
III
3
Penulisan Karya Ilmiah (2 SKS)
Seminar Kemajuan Riset 1 (1 SKS)
II
9
Keterampilan Pengembangan Karir (2 SKS)
MPIA / MPIES (Pilihan) (2 SKS)
SEMINAR USULAN RISET (5 SKS)
PRA RISET
I
6-8
Filsafat Ilmu (2 SKS)
Kajian Pustaka (2 SKS)
MK Pilihan Sesuai Topik Disertasi (1-3 SKS)
Seminar Kemajuan Usulan Riset (1 SKS)