ASIIN Seal

Accreditation Report

Bachelor's Degree Programme
Nutrition and Health

Master's Degree Programmes
Agro-Industrial Technology
Forestry Science

PhD Programme
Forestry Science

Provided by
Universitas Gadjah Mada (UGM), Indonesia

Version: 10 October 2024

Table of Content

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]
Sarjana Gizi	Bachelor in Nutrition and Health	ASIIN	Indonesian Accreditation Agency for Higher Education in Health (IAAHEH), 2019-2024	08, 14
Magister Teknologi Industri Pertanian	Master in Agro-Industrial Technology	ASIIN	National Accreditation Body for Higher Education (BAN-PT), 2021-2026	08
Ilmu Kehutanan	Master in Forestry Science	ASIIN	ASIIN Accreditation for Master Programme 2020-2024 and National Accreditation Body for Higher Education (BAN-PT) 2020-2024	08

---

[1] ASIIN Seal for degree programmes

[2] TC: Technical Committee for the following subject areas: TC 08 - Agriculture, Forestry and Food Sciences, TC 14 - Medicine

Doktor Ilmu Kehutanan	Doctor in Forestry Science	ASIIN	National Accreditation Body for Higher Education (BAN-PT), 2022-2027	08

Date of the contract: 13.03.2023

Submission of the final version of the self-assessment report: 27.12.2023

Date of the onsite visit: 22.-23.04.2024

at: Universitas Gadjah Mada

Peer panel:

Prof. Dr. Carsten Mann, Eberswalde University of Sustainable Development

Prof. Dr. Markus Frank, Nuertingen-Geislingen University

Prof. Dian Handayani, BPH, MH, PhD, Universitas Brawijaya

Almansyah N. Sinatrya, Tobaco Leaf

Dina Riska, PhD student at Universitas Mulawarman

Representatives of the ASIIN headquarter: Daniel Seegers

Responsible decision-making committee: Accreditation Commission for Degree Programmes

Criteria used:

ASIIN General Criteria, as of December 12, 2021

Subject-Specific Criteria of Technical Committee 08 – Agriculture, Nutritional Sciences and Landscape Architecture as of March 27, 2015

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
Health and Nutrition	S.Gz. (Bachelor in Nutrition)	/	6	Full time	/	8 Semesters	156 SKS 294 ECTS	Once a year in July/August 2003
Agro-Industrial Technology	M.Sc. (Master of Science)	/	7	Full time	/	4 Semester	110.3 ECTS / 42 CU	Once a year in July/August 2005
Forestry Science	M.Sc. (Master of Science)	Tropical Forestry	7	Full time	/	4 Semester	103 ECTS / 40 CU	Once a year in July/August 2006
Forestry Science	Dr. (Doctor)	Tropical Forestry	8	Full time	/	6 Semester	172.5 ECTS / 46 CU	Once a year in July/August 2006

For the <u>Bachelor's degree programme Nutrition and Health,</u> the institution has presented the following profile in its academic handbook:

"A. VISION OF BACHELOR IN NUTRITION AND HEALTH

Becoming a superior, innovative and internationally reputable nutrition undergraduate study programme in promotive, preventive, curative and rehabilitative efforts with a nutritional service approach based on scientific evidence, technology and entrepreneurial independence and imbued with national cultural values based on Pancasila.

B. PURPOSE OF BACHELOR IN NUTRITION AND HEALTH

Purposes of bachelor in nutrition and health are:

---

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

1. Organizing education, research and community service with a national and international reputation based on local wisdom.

2. Be a study programme that conduct good and professional management.

C. LEVEL AND DEGREE OF EDUCATION

Study Programme Nutrition and Health at the Faculty of Medicine, Public Health, and Nursing of UGM opens the Regular class with the following conditions:

1. Hold Senior High School's degree

2. Load of Bachelor in Nutrition and Health (S.Gz) is 156 credits should taken for 8 to 10 semesters

3. Degree for graduated Bachelor in Nutrition and Health is Sarjana Gizi (S.Gz.)

D. CAREER OPPORTUNITY

Bachelor in Nutrition and Health graduates are expected to work and devote themselves to efforts to improve nutrition and dietetic efforts. These efforts can be carried out in the private sector, non-governmental organizations, government, institutions or other institutions engaged in the handling of food problems and improvement of nutrition and dietetics, both as independent and as a dietetic team at home and abroad. In general, the community is known as a nutritionist."

For the <u>Master's degree programme Agro-Industrial Technology,</u> the institution has presented the following profile in the academic handbook:

"**Vision**

To become a center of excellence for education and development of engineering technology, managerial, and systems in the field of sustainable agroindustry.

Mission

1. Organizing education and development that is able to produce human resources who have the ability of engineering technology, management, and systems in the field of sustainable agroindustry.

2. Develop and apply engineering technology, management, and sustainable agroindustry systems through research and community service activities.

3. Develop networks in order to build partnerships in the field of engineering technology, management, and agroindustry systems with government institutions, industries or universities both at home and abroad.

Targets

1. Producing graduates who are professionals in the field of sustainable agroindustry.

2. Producing agroindustry knowledge and technology that can be a reference both nationally and internationally.

3. Producing graduates who have the ability to develop networks and become leaders in the field of engineering technology, management, and sustainable agroindustry systems.

Profile of Graduates

Agro-industrialists who are agro-eco-techno-preneurs both in the fields of education and research, government, banking, as well as private entrepreneurial."

For the Master's degree programme Forestry, the institution has presented the following profile in the academic handbook:

"**Vision**
Our vision is to become a pioneer of a master's education programme in the field of tropical forestry that is outstanding, innovative, and prominent at the national and international level, as well as to serve the interests of the people and the nation imbued with cultural values based on Pancasila.

Mission
Our mission is to provide education, research, and community service, and to preserve and develop knowledge in the field of tropical forestry for the benefit of the community."

For the Doctorate in Forestry, the institution has presented the following profile in the academic handbook:

"**Vision**

The vision of PSDIK is "to become a doctoral education programme (S3) in the field of tropical forestry that is superior at the national level and internationally recognized, imbued with Pancasila and dedicated to the interests of the nation and humanity".

Mission

The mission of PSDIK UGM is all activities to achieve the vision that has been defined above. The mission of the Center is "to organize excellent and innovative doctoral education (S3) activities for the advancement of science, knowledge and technology in the field of tropical forestry and community service through research that supports sustainable forestry and environmental development".

Purpose

Based on the vision and mission above, then the goal (PEO, Programme Educational Objectives) of the implementation of PSDIK is to produce graduates who are characterized as follows:

- A lifelong learner in the field of tropical forestry with high quality, morality and integrity.
- Able to master and develop tropical forestry science in a sustainable and environmentally sound manner.
- Able to lead and manage organizations in producing superior and innovative research and community service products through collaborative networks in response to forestry and environmental developments."

C Peer Report for the ASIIN Seal[4]

1. The Degree Programme: Concept, content & implementation

> **Criterion 1.1 Objectives and learning outcomes of a degree programme (intended qualifications profile)**

Evidence:
- Objective-module matrices
- Self-Assessment Report
- Study plans of the degree programmes
- Curriculum handbooks
- Module descriptions
- Websites
- Discussions during the audit

Preliminary assessment and analysis of the experts:

The experts use the Subject Specific Criteria (SSC) from the Technical Committee for Agriculture, Forestry, and Food Sciences (TC 08) along with the SSC from the Technical Committee for Medicine (TC 14) as benchmarks to assess whether the intended learning outcomes set by the Universitas Gadjah Mada (UGM) align with the competencies described in the SSC. They come to the following conclusion:

The Bachelor of Nutrition and Health (BNH) aims to become an internationally recognised centre for education, research, and community service, emphasising professionalism and integrity in the field of nutrition and health. Its vision and mission guide the development of Programme Educational Objectives (PEOs), which inform specific Programme Learning Outcomes (PLOs) across its study programmes.

The programme's objectives include delivering high-quality education, conducting impactful research, providing beneficial community services, and ensuring good governance to meet stakeholder expectations. These initiatives foster a healthy, safe, and socially responsible academic environment.

The PLOs ensure that graduates embody the values of Pancasila, uphold academic integrity, and possess a deep interdisciplinary understanding relevant to nutrition and health. They are equipped to think critically and innovatively, apply scientific knowledge practically, and communicate effectively. Graduates are prepared to perform ethical nutritional practices, manage and lead professionally, and contribute to global nutritional strategies and policies. They also adeptly use information technology and international communication standards in their professional activities.

This educational framework prepares graduates for professional excellence and leadership in the evolving field of nutrition and health, aligning BNH's programmes with international educational standards.

The Master's in Agro-industrial Technology (MAiT) aims to excel internationally by educating graduates proficient in technology and management, promoting sustainable practices, and fostering global partnerships. The programme's educational objectives focus on producing industry leaders who are recognized for their innovative contributions to agro-industry.

The PLOs are aligned to ensure graduates demonstrate professional ethics, prioritize national interests, and engage in lifelong learning. They master theories and applications in systems engineering, processing technology, and management within the agro-industry. Additionally, graduates are skilled in research methodologies, effective communication, and the use of information technology to solve industry-specific problems.

By integrating practical skills with a strong theoretical foundation, MAiT prepares students to innovate and lead in the agro-industry, enhancing processes and contributing to policy development globally. This holistic approach ensures that graduates are well-equipped to address modern challenges in the agro-industrial sector.

The Master in Forestry Science (MFS) seeks to be a national leader in tropical forestry. The programme's mission encompasses delivering first-rate education, undertaking significant research, and providing community services that enhance and sustain forestry science beneficial to society.

Graduates from the MFS programme are expected to emerge as competent and innovative professionals, equipped with the necessary skills for a broad range of careers in forestry. They are trained to apply their knowledge creatively to solve problems, lead with an awareness of global, ethical, and environmental issues, and communicate effectively across various platforms.

The programme specifically focuses on developing an in-depth understanding of sustainable development practices within forestry and natural resources, considering the complexities of global challenges. Students learn to analyse and address contemporary issues in silviculture, forest management, forest products technology, and forest resource conservation, and recommend solutions based on clearly defined problems. They are also prepared to engage in multidisciplinary research, resulting in contributions that are publishable in reputable national and international journals.

Overall, the MFS programme is designed to align with international standards, ensuring that its graduates are not only well-prepared to advance their careers but also to contribute significantly to the field of tropical forestry.

The Doctor in Forestry Science (DFS) aspires to be a leading doctoral programme in tropical forestry, recognized for its excellence both nationally and internationally. Anchored in the principles of Pancasila, it is dedicated to advancing science, knowledge, and technology in tropical forestry through innovative education and research that promotes sustainable forestry and environmental development.

The DFS programme is committed to producing graduates who are lifelong learners with high moral and ethical standards, equipped to lead and innovate in forestry science. Students are trained to master and apply comprehensive forestry concepts and methods, manage complex projects, and contribute to sustainable environmental solutions. They are also prepared to publish their research in reputable journals and to communicate their findings effectively across interdisciplinary and international platforms.

Graduates are expected to lead with integrity, engage in collaborative efforts for environmental sustainability, and apply their skills to enhance the global discourse on tropical forestry practices. The programme not only focuses on academic and research excellence but also emphasizes ethical responsibility and a commitment to societal and environmental well-being.

The experts hold the view that the objectives and intended learning outcomes of the four degree programmes under review are reasonable and well-founded. They learn that various stakeholders (alumni, industrial and governmental representatives) are involved in the constant review and development of the curricula. The relevance of these objectives and learning outcomes is regularly reviewed by both internal and external stakeholders through curriculum review meetings and tracer studies. Industrial representatives and government agencies are regularly invited to provide input on the skills and expertise graduates must possess and suggest new materials or topics to be added to the curricula.

A comprehensive revision of the curricula occurs every five years, ensuring that the programmes remain current and relevant. Additionally, minor changes are addressed after each semester, allowing for more frequent fine-tuning of the course content and delivery.

This collaborative approach between UGM and their industrial partners results in excellent prospects for graduates in the national job market, as well as opportunities to transfer to other academic programmes or further their careers in research. The tracer studies indicate that the competence profiles of graduates are generally well-accepted in the labour markets, as they are not limited to a specific area of profession but offer a broad range of applicable skills.

During the audit discussions, employers confirmed a high demand for graduates from all programmes. Furthermore, they emphasized that UGM graduates are their first choice, as they are generally better qualified than graduates from other Indonesian universities.

This continuous engagement with stakeholders and regular curriculum reviews ensure that UGM's programmes remain responsive to industry needs and maintain their high standards of education.

Criterion 1.2 Name of the degree programmes

Evidence:
- Self-Assessment Report
- Diploma Supplements
- Discussions during the audit

Preliminary assessment and analysis of the experts:
The auditors confirm that the English translation and the original Indonesian names of the degree programmes under review correspond with the intended aims and learning outcomes as well as the main course language.

Criterion 1.3 Curriculum

Evidence:

- Self-Assessment Report

- Study plan of the degree programme

- Curriculum handbooks

- Academic guidelines

- Module descriptions

- Objective-module matrices

- Discussions during the audit

Preliminary assessment and analysis of the experts:

UGM has implemented a comprehensive Outcome-based Curriculum (OBC) across all study programmes, adhering to the constructive alignment concept to help students achieve the intended PLOs. These PLOs are carefully developed considering stakeholder needs and national higher education standards, grouping learning outcomes into attitudes, knowledge, general skills, and specific skills.

The curriculum structure is designed with a logical progression, starting from basic courses and advancing to more specialized content. Course content, workload, and structure are based on these learning outcomes, with each module having defined Course Learning Outcomes (CLOs) that contribute to overall programme objectives. This structure ensures a cohesive educational experience that builds upon itself as students progress through their studies.

To maintain relevance and effectiveness, the institution conducts regular curriculum adjustments. These updates occur at least every five years, with the possibility of minor annual changes based on market signals and scientific developments. This process involves a wide range of stakeholders, including faculty, students, staff, alumni, employers, and professional associations, ensuring that the curriculum remains responsive to both academic and industry needs.

Recent adjustments have included the implementation of the "Student Mobility/Merdeka Belajar Kampus Merdeka (MBKM)" policy for undergraduates, allowing for greater flexibility in course selection and practical experiences. At the graduate level, changes have included modifications to PLOs, course names, and loads, as well as the addition of new courses and earlier thesis or dissertation preparation.

The assessment methods employed by the institution are comprehensive and varied. At the undergraduate level, evaluation combines attendance, tests, reports, examinations, presentations, and internship evaluations. Graduate programmes focus on assessing practical abilities, problem analysis, report writing, presentation skills, and argumentation, ensuring that students are prepared for advanced academic work or professional roles.

Curriculum mapping is a key feature of the institution's approach, ensuring that modules are consistent and build upon each other to achieve the intended PLOs. Regular reviews involving faculty, programme coordinators, quality assurance teams, and students help maintain this alignment and ensure the curriculum's effectiveness.

Furthermore, the institution has made efforts to synchronize curricula across undergraduate, master's, and doctoral programmes, creating a seamless educational pathway for students who wish to pursue advanced degrees. The inclusion of elective modules allows students to broaden their skills and knowledge in specific areas of interest, providing flexibility within the structured curriculum.

This comprehensive approach to curriculum design and implementation demonstrates the institution's commitment to providing a high-quality, relevant, and adaptable education that prepares students for success in their chosen fields while meeting accreditation standards.

The BNH programme is structured to provide students with a comprehensive education in nutrition science and its applications to health. The curriculum is organised into three phases across eight semesters, aiming to build a strong foundation in nutrition principles and gradually progress to more specialised knowledge and practical skills.

The programme begins with fundamental sciences and basic nutrition concepts, then advances to more complex topics in metabolism, dietetics, and food service management. It incorporates modules in public health, epidemiology, and bioethics to contextualise nutrition within broader health systems.

Practical application is a key focus, particularly in the later stages of the programme. Students engage in clerkships covering clinical nutrition, food service management, and community nutrition, providing hands-on experience in various professional settings. The curriculum also emphasises research skills, culminating in an undergraduate thesis project.

Throughout the programme, there is a consistent thread of interprofessional education, preparing students to work effectively in multidisciplinary healthcare teams. The curriculum also offers optional modules, allowing students to explore specialised areas of nutrition such as sports nutrition, emergency nutrition, or nutrition entrepreneurship.

By combining theoretical knowledge, practical skills, research capabilities, and interprofessional experiences, the programme aims to produce well-rounded nutrition professionals capable of addressing diverse nutrition and health challenges in clinical, community, and food service settings.

The MAiT aims to provide advanced education in the field of agro-industrial technology and management. The curriculum is structured over four semesters, offering a blend of core courses, electives, and a significant research component.

In the first semester, the programme focuses on building advanced skills in research methodology, financial management, and strategic operations management. It also emphasises innovation and entrepreneurship, preparing students for leadership roles in the agro-industrial sector. The inclusion of elective courses allows students to tailor their learning to specific areas of interest within the field.

The second semester deepens students' technical knowledge with courses in quality engineering, system modelling and simulation, and agro-industrial processing technology. This semester also continues the elective options and introduces proposal seminars, laying the groundwork for the students' thesis research.

The final two semesters are dedicated entirely to the thesis project. This extended research period allows students to conduct in-depth investigations into specific areas of agro-industrial technology, contributing to the field's body of knowledge and developing advanced research skills.

Throughout the programme, there is a strong emphasis on practical application of theoretical concepts, preparing students for both academic and industrial careers. The curriculum aims to produce graduates with a comprehensive understanding of agro-industrial technology, capable of addressing complex challenges in the sector through innovative solutions and strategic management approaches.

The expert panel considers the curriculum of the MAiT programme to be well-structured and comprehensive. However, they suggest further embedding topics around sustainability (in particular sustainability assessment and certification, sustainability programmes in multinational companies), globalised value chains, and digitisation throughout the curriculum. This recommendation aims to enhance graduates' preparedness for the evolving agro-industrial sector, where these aspects are increasingly crucial. Integrating these elements would equip students with the knowledge and skills to address contemporary challenges in the field, such as sustainable resource management, operating in complex international supply chains, and leveraging digital technologies for improved efficiency and innovation.

This enhancement would align the programme more closely with current industry trends and future needs, thereby increasing graduates' competitiveness in the global job market.

The MFS offers a comprehensive curriculum that combines core compulsory modules with a wide range of elective courses across various forestry-related specializations.

The compulsory modules form the foundation of the programme, spanning the first two semesters. These courses cover essential aspects of forestry science, including sustainable forest development, scientific methods, statistics, tropical forest management, silviculture, conservation, and forest product value addition. The programme also emphasizes academic English skills to prepare students for international academic and professional environments.

The curriculum structure for compulsory courses is as follows:

- First semester: Students are introduced to sustainable forest development analysis, scientific methods for forestry, tropical forest management, and tropical forest silviculture.
- Second semester: The focus shifts to statistics for forestry, tropical forest resources conservation, added value of tropical forest products, and academic English.
- Third and fourth semesters: These are dedicated to the thesis project, which includes proposal development, seminars, data collection and analysis, writing, and publication.

The elective modules offer students the flexibility to specialize in various areas of forestry science. These electives are grouped into five major areas:

- Silviculture: Offering courses in ecosystem restoration, tree improvement, land rehabilitation, and forest protection.
- Forest Management: Covering topics such as forest economics, resource optimization, policy, and social forestry.
- Forest Product Technology: Including courses on wood chemistry, bio composites, pulp and paper technology, and biomass conversion.
- Forest Resource Conservation: Focusing on ecotourism, watershed management, wildlife ecology, and conservation policy.
- Extension: Providing courses in forestry extension, communication, and participatory methods.

This structure allows students to tailor their education to their specific interests and career goals within the broad field of forestry science, while ensuring a strong foundation in core forestry concepts and research skills.

The DFS offers two distinct tracks: a Regular Programme and a By Research Programme, both designed to provide advanced training in forestry science and research. The curriculum begins with a common first semester for both tracks, focusing on core courses in the philosophy of forestry science, research methodology and ethics, and sustainable tropical forest development, along with an elective course.

From the second semester onwards, the tracks diverge in their approach. The Regular Programme provides students with additional coursework, offering four elective courses to deepen their knowledge in specific areas of forestry. In contrast, the By Research Programme immediately transitions students into research-focused activities, including proposal development, presentation, and a comprehensive examination.

As the programmes progress, both tracks emphasize research seminars, academic publications, and dissertation writing, but with different timelines. The Regular Programme introduces these research components in the third semester, while the By Research Programme integrates them from the second semester onwards. This structure allows the By Research Programme to offer a more intensive research-focused approach earlier in the curriculum.

Throughout the programme, students in both tracks engage in multiple research seminars, where they present and discuss their ongoing work. They are also required to produce academic publications, contributing to the body of knowledge in forestry science. The dissertation writing forms a significant part of the latter half of the programme for both tracks.

The final stages of the PhD programme for both tracks culminate in a dissertation defence exam, where students present and defend their research before a panel of experts. This comprehensive structure ensures that graduates from either track are well-prepared for high-level careers in academia, research institutions, or industry leadership roles in the forestry sector.

By offering these two tracks, the DFS caters to different student needs and research orientations, while maintaining a rigorous standard of advanced forestry education and research training.

The expert panel praises the curricula of both forestry programmes but suggests enhancing the social sciences and conservation policy aspects. Modern forestry challenges are complex, involving more than just ecological issues. Adding social sciences would help students understand the human dimensions of forestry and the various social-ecological dependencies better, such as community engagement and socio-economic impacts. A focus on conservation policy would prepare graduates for the evolving regulatory landscape and global efforts in climate change, biodiversity, and sustainable development. Strengthening these

areas would produce well-rounded graduates capable of addressing all, ecological, technical and societal challenges in forestry, leading to more sustainable and equitable practices.

The programme coordinators asserted that topics around conservation policy were already integrated into the existing curriculum. However, the experts encountered difficulties in verifying this claim through their examination of module handbooks and other university-provided documentation. This discrepancy between the coordinators' statements and the experts' inability to confirm the inclusion of these crucial topics highlights a potential gap in communication or documentation. The lack of clear evidence supporting the incorporation of conservation policy, climate change, biodiversity, and sustainable development in the current curriculum raises questions about the true extent of coverage for these essential subjects and the preparedness of graduates to address evolving challenges in the field of forestry.

One more severe issue the experts observed in the DFS is the notable discrepancy between its research track and regular coursework track. The research track offers greater scientific depth, which is generally acceptable to the experts. However, the differing criteria for earning the PhD raise concerns: research track students must publish two papers, while coursework track students only need to publish one. The expert panel finds this problematic, emphasizing that all graduates should demonstrate the same level of scientific rigour, regardless of their chosen track.

While UGM justifies the difference by highlighting the distinct career paths of graduates—some returning to industry and others pursuing academia—the experts are not satisfied. They argue that the degree should reflect uniform scientific standards and should not vary based on the students' future career plans. Maintaining consistent academic standards across both tracks is crucial for the programme's credibility and integrity. This uniformity ensures that all graduates are equally equipped to contribute to the international field of forestry, whether in practical or scientific roles, thereby upholding the overall quality and reputation of the programme.

As for the PhD programme, the auditors confirm that graduates acquire advanced, cutting-edge knowledge and are able to demonstrate on the level of internationally recognised scientific research a deep and comprehensive understanding of their research field.

The auditors thus gain the impression that the graduates of all four programmes under review are well prepared for entering the labour market or continue their academic career and can find adequate professions in Indonesia. During the discussion with the auditors, UGM's partner from the industry/public sector confirm their satisfaction with the graduates' level of skills, competencies and professionalism.

With exception to the issue of the two tracks in the PhD programme, the experts are overall satisfied with the curricula. They see that the programmes are well-structured and that the modules build on each other in a reasonable way, enabling the students to effectively reach the learning outcomes as laid down for the programme.

Mobility

UGM has made commendable efforts to provide a range of international opportunities for its students. These initiatives include the MBKM programme for undergraduates, student exchanges, research collaborations, summer courses, internships, and participation in international conferences for the graduate programmes. However, the expert panel has observed that despite these offerings, student participation in these international activities remains relatively low.

The curricula at UGM are designed to accommodate a semester abroad, and mechanisms are in place to recognize credits and competencies acquired outside the university. The ASEAN International Mobility for Students (AIMS) programme, established in 2013, facilitates credit transfer among participating universities. However, only a small number of students currently take advantage of this opportunity.

While students express interest in international experiences, they also indicate a desire for more places, exchange programmes, and scholarships. The university has responded by developing partnerships with international institutions, creating fellowship programmes, and offering scholarships for foreign students. Summer courses with international participants and double degree programmes (MFS) have also been established.

Despite these efforts, the expert panel recommends that UGM increase its focus on internationalization. This could involve establishing more international cooperations and exchange programmes, as well as offering more generously endowed scholarships. The panel also noted that students may not be fully aware of the existing opportunities or may lack the confidence to pursue them. Therefore, it is recommended that UGM enhance its promotion of these programmes and actively encourage student participation.

A key recommendation from the expert panel is to enable students to spend an entire semester abroad. This extended period would allow for deeper cultural immersion and more comprehensive academic experiences, potentially leading to greater personal and professional growth for the students.

Criterion 1.4 Admission requirements

Evidence:

- Self-Assessment Report

- Academic Guidelines

- Websites

- Discussions during the audit

Preliminary assessment and analysis of the experts:

According to the Self-Assessment Report, student admission at UGM is managed centrally, with distinct processes for national and international applicants. The admission requirements and procedures are published on the university's website, though the primary information is only available in Bahasa Indonesia for national applicants.

For the BNH programme, applicants must be senior high school graduates with a science major in the last three years and must not be colour blind. They are also required to demonstrate a minimum level of English proficiency. The admission process for this undergraduate programme follows a national-level test, with successful candidates selected based on the highest scores and passing grades.

At the graduate level, including the MAiT, MFS, and DFS programmes, admission criteria are more comprehensive. These include consideration of the applicant's GPA, the relevance of their previous studies, English language skills, Academic Potential Test results, and recommendations from former supervisors. Some programmes, such as the MAiT and DFS, have introduced an additional requirement for applicants to present their research plans during an interview session.

International applicants are welcome to apply for the graduate-level programmes, with specific requirements detailed on the university's international admission website. The main distinction in requirements between national and international students lies in language proficiency: national students need a minimum TOEFL score of 450 (or equivalent), while international students from English-speaking countries are exempt from this requirement but must demonstrate moderate ability in the Indonesian language.

The university has mechanisms in place to evaluate and adjust admission processes if they do not meet programme objectives. For instance, the BNH provides individual guidance and mentoring by academic supervisors to support students who may need additional assistance.

For graduate programmes, applicants undergo an interview process to assess their prior knowledge. Those found to have insufficient background may be required to complete a

matriculation programme before beginning their studies. The MFS programme has a specific rule exempting applicants who graduated from an undergraduate programme less than ten years ago from taking matriculation courses.

In reviewing the information provided by the UGM and the experts' research on the university's website, the experts found that the translation of websites, particularly the admissions website, into English is not consistent. While some information is available in English, significant portions, particularly those relating to domestic applicants, are only available in Bahasa Indonesia. This inconsistency in language availability is seen as a potential barrier for international students wishing to apply to UGM's programmes. To improve the university's ability to attract and accommodate international applicants, the experts recommended that all relevant information on admission procedures and programme details be fully translated into English. This improvement would not only facilitate access to key information for non-Indonesian speaking applicants, but would also demonstrate the university's commitment to internationalisation. By ensuring that all relevant information is readily available in English, UGM could significantly improve its appeal to a global student body and streamline the application process for international applicants.

The admission system is, on the whole, deemed appropriate by experts, but the exclusion of colour-blind students from the Bachelor of Nutrition and Health (BNH) programme is viewed as unacceptable. This restriction is viewed as unnecessary and potentially discriminatory. The experts argue that colour blindness does not significantly impair one's ability to succeed in nutrition and health studies or related professions. Modern adaptive technologies and alternative methods of conveying colour-based information can easily accommodate colour blind individuals. Excluding these students may deprive the field of talented individuals who could make valuable contributions. The experts urge that this requirement be re-evaluated and removed to promote inclusivity and equal opportunity in education.

Criterion 1.5 Workload and Credits

Evidence:
- Self-Assessment Report
- Study plan of the degree programme
- Curriculum handbooks
- Survey of student satisfaction related to the workload
- Module descriptions
- Discussions during the audit
- Students handbook

Preliminary assessment and analysis of the experts:

Based on the National Higher Education policy, the programmes under review use a credit point system called SKS. In comparison to the ECTS credit system, wherein 1 ECTS equals 25-30 hours of students' workload per semester, it is determined that 1 SKS is awarded for 170 minutes of workload per week and the relation between the different kinds of learning (contact hours, self-studies) is fixed.

The Bachelor of Nutrition and Health (BNH) programme is designed to be completed in 8 semesters. The curriculum consists of modules that typically range from 2 to 4 ECTS credits, with the Bachelor's thesis being awarded 5 ECTS credits. This structure allows for a diverse range of courses while maintaining a manageable workload for students.

The Master of Agro-industrial Technology (MAiT) is a 4-semester programme. Its modules vary in size between 4 and 8 ECTS credits for regular courses, providing students with in-depth study in specific areas. The Master's thesis is given substantial weight, being awarded 36 ECTS credits, reflecting the importance of research in this programme.

The Master of Forestry Science (MFS) programme has a unique structure. Regular courses are consistently awarded 3.5 ECTS credits, ensuring a standardized approach to course workload. The Master's thesis, however, is given significant emphasis with a total of 54 ECTS credits. This is broken down into distinct work packages: Proposal (13.5 ECTS), Seminar (9 ECTS), Data Collection, Analysis and Writing (27 ECTS), and Publishing (4.5 ECTS). This structure highlights the programme's focus on research and academic publishing.

The Doctor of Forestry Science (DFS) programme offers two pathways, both starting with content-based courses of 7.5 ECTS credits in the first semester. The regular programme continues with more 7.5 ECTS credit courses, while the research programme allocates more credits to publishing, reflecting its emphasis on research output. Both tracks attribute 30 ECTS credits to the publication of one article. In the final stages, both programmes allocate 30 ECTS credits to the Dissertation Manuscript in the 5th semester and 15 ECTS credits to the defense in the 6th semester.

During discussions with the students, the experts found that students are satisfied with the workload, which is transparent to them and does not present any insurmountable obstacles.

Overall, the credit system appears to the experts to be well-structured across all programmes, with appropriate weightings given to coursework, research, and thesis components. The variation in credit allocation between programmes reflects the different focuses and requirements of each field of study. This system seems to provide students with a clear pathway through their studies while ensuring a balanced workload. The substantial credit

allocation for theses and dissertations across all programmes underscores UGM's commitment to research and academic rigor in higher education. The experts consider the workload distribution to be appropriate and appreciate the students' positive feedback

---

Criterion 1.6 Didactic and Teaching Methodology

Evidence:

- Photos and videos of laboratories
- Self-Assessment Report
- Module descriptions
- Samples of lecturer evaluation by students
- Websites
- Discussions during the audit

Preliminary assessment and analysis of the experts:

All degree programmes adopt outcome-based education as their main learning method, an approach that emphasises the continuity of the learning process innovatively and interactively.

UGM further has the goal to support the transition from a teacher-centered to a student-oriented teaching method, in order to involve all students in the learning process and to develop their thinking and analytical skills. In addition, blended learning is introduced as a modern way of teaching. The use of e-learning elements in the learning process allows for class activity without physical attendance. At UGM, it is possible to use e-learning for a maximum of 30 % of the course. To provide support and guidance to the teachers in utilizing these instruments, all members of teaching staff attended workshops on blended learning. To facilitate the use of blended learning, UGM has developed a moodle-based e-learning system (eLok) and has subscribed for using the webinar platform Cisco Webex.

All degree programmes make use of several different education methods for each course, such as lecturers, laboratory work, seminars or peer group presentations.

To ensure that students follow most teaching and learning activities, the faculty of agriculture requires students to meet a minimum of 75% of class attendance for each course they take. Students who fail to comply with the requirement will not be allowed to take the course exam. Furthermore, a failure in completing the required course component will also result in an incomplete grade for the course.

In addition to teaching and learning activities, all programmes also support students' personal development activities through company visits, seminars, workshops, trainings as well as research and community development grants.

In summary, the peer group judges the teaching methods and instruments to be suitable to support the students in achieving the intended learning outcomes.

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

Criterion 1.3

To address the recommendation made by the experts regarding the fine-tuning of the curriculum of the MAiT, UGM has presented a curriculum development plan that shall be concluded in the upcoming year. The experts are satisfied that their comment was taken into consideration and are awaiting the implementation of the envisaged changes.

Based on UGM's response, the experts understand that social sciences and conservation policy aspects are currently taught in the curricula of the Forestry programmes and that these topics are also supported by "several professors in the related field". Therefore, they are satisfied with the additional information provided.

One issue highlighted by the experts is the differing academic output between students following the regular or the by-research programme in the PhD. They are content to receive the extra information on the design of the dissertation evaluation and the dissertation exam, and can overcome their initial concerns focusing on the different number of publications expected from students in both tracks. They understand UGM's reasoning behind the two tracks and conclude that both tracks will result in a similar standard of scientific depth, though from slightly different perspectives.

Mobility

The experts are pleased to see that UGM has developed a promotional strategy to increase student awareness of internationalisation activities and that UGM is working diligently to improve students' readiness to participate in these activities. Therefore, they are of the opinion that their recommendation has already been fulfilled, and they look forward to seeing increasing numbers of student mobility in all programmes.

They also highlight the opportunities for MAiT and MFS students to engage in a Double Degree Programme with Kyoto University and the opportunity for DFS students to engage in the Joint Degree Programme with Utrecht University. Unfortunately, these options were not documented in the Self-Assessment Report and were therefore not part of the evaluation process. The experts suggest highlighting this more for any upcoming external review.

Criterion 1.4

The experts are satisfied that the admission requirements are now consistently available in the English language.

Another aspect that has been changed regarding the Admission Requirements is that colour-blind students are no longer excluded from applying to the BNH programme. The experts are pleased to see that UGM addressed their criticism and that a formal decree has been presented in this short period of time.

The experts consider criterion 1 to be **fulfilled.**

2. Exams: System, Concept and Organisation

Criterion 2 Exams: System, concept and organisation

Evidence:
- Self-Assessment Report
- Module descriptions
- Examination regulations
- Curriculum handbooks
- Samples of student's work (projects, exams and thesis)
- Statistical data
- Websites
- Academic Calendar

Preliminary assessment and analysis of the experts:

According to the Self-Assessment Report, student assessment at UGM is designed to measure competency and achievement of Course Learning Outcomes (CLO). The assessment system is comprehensive, covering grades, mentality, skills, knowledge, and values. Evaluation methods are aligned with learning methods and course outcomes to ensure graduates develop integrated competencies.

The academic calendar, including examination schedules, is published on the UGM website, with specific course and exam schedules available on faculty websites. This allows students to prepare adequately for upcoming modules and examinations. Assessment methods vary

and may include written exams, oral exams, practical skills tests, seminars, scientific papers, quizzes, or combinations thereof. Some courses incorporate pre-tests and post-tests to map student knowledge and monitor progress.

Examination dates and any changes are communicated through the respective programme websites and the digital academic portal (SIMASTER) system, ensuring up-to-date information for students. The university provides a week of study time before examination weeks, and regulations stipulate that teaching staff must submit grading results within two weeks after exams.

UGM has policies in place for students who miss examinations due to illness, emergencies, or official university activities. The university also facilitates examinations for students with disabilities. Various forms of examination documentation are maintained both in hard copy and electronically through the Outcome-Based Assessment Information System (SIOBA).

Grading uses a letter system (A to E), with marks converted to a 4.0 scale for Grade Point Average (GPA) calculation. Students have the right to request explanations of their grades from teaching staff. For undergraduate programmes, remedial exams or make-up tests are available under certain conditions to improve GPAs.

Each student is assigned an Academic Supervisor to guide them through their academic journey. Thesis requirements vary by programme, with graduate programmes typically requiring publication or submission of research articles. The university provides detailed thesis writing guidelines and supervision to ensure quality and timely completion of final projects.

The experts note that the examination system at UGM is well-structured and transparent. The assessment methods align with intended learning outcomes, and the workload appears to be appropriately distributed. The university's policies for academic misconduct, including plagiarism, are clearly defined. Overall, the examination and assessment processes at UGM seem to support the academic goals of the programmes while maintaining fairness and accountability.

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

UGM provides no comment on this criterion.

The experts consider criterion 2 to be **fulfilled.**

3. Resources

Criterion 3.1 Staff and Staff Development

Evidence:

- Self-Assessment Report

- Staff Handbooks

- Samples of lecturer evaluation by students

- Study plan of the degree programme

- Module descriptions

- Websites

- Discussions during the audit

Preliminary assessment and analysis of the experts:

At UGM, the academic staff structure varies across programmes. The following table presents the distribution in the programmes under review:

No	Study Programme	Teaching staff	Student body	Ratio (Teaching staff: Students)	Maximum ratio according to the regulation*
1	Bachelor of Nutrition and Health (BNH)	28	444	1:16	1:60
2	Master of Agro-industrial Technology (MAiT)	22	26	1:2	1:20
3	Master of Forestry Science (MFS)	59	82	1:2	1:20
4	Doctor of Forestry Science (DFS)	48	70	1:2	1:10

*National Accreditation Agency for Higher Education No. 1041/BANPT/LL/2020

All teaching staff are graduates of reputable national and international universities, ensuring a high standard of expertise across all programmes.

Staff-to-Student Ratios: UGM maintains impressive staff-to-student ratios that exceed national requirements. In the BNH programme, the ratio is 1:16 with 28 teaching staff to 444 students (requirement 1:60). The MAiT programme has a ratio of 1:2 with 22 teaching staff to 26 students (requirement 1:20). Both the MFS and DFS programmes have ratios of 1:2, with MFS having 59 teaching staff to 82 students (requirement 1:20) and DFS having 48 teaching staff to 70 students (requirement 1:10). These ratios ensure personalised attention and high-quality education across all programmes.

Recruitment and Career Progression: UGM follows a merit-based selection system for recruiting new staff and has developed a five-year recruitment plan. The BNH programme plans to recruit 2 new staff annually from 2023 to 2027. The MAiT programme will recruit

3 new staff in 2023, followed by 2 annually from 2024 to 2027. The MFS and DFS programmes, combined, will recruit 2 new staff annually from 2023 to 2025, then 3 annually in 2026 and 2027.

Staff Development and Training: All new teaching staff undergo mandatory PEKERTI training. The Centre of Academic and Innovation Affairs (PIKA) monitors and improves academic development university-wide, while faculties organise additional training and workshops.

Research and International Engagement: All programmes encourage staff participation in national and international seminars, publications, and exchange programmes. The university facilitates visiting professorships and collaborative research projects across all disciplines.

Performance Evaluation and Workload: The Teaching Staff Performance (BKD) system is used across all programmes. Average workloads per semester are as follows:

- BNH: 15.58 credits (8.40 teaching, 3.61 research, 2.00 community service, 1.57 additional tasks)

- MAiT: 15.57 credits (8.50 teaching, 3.68 research, 1.65 community service, 1.74 additional tasks)

- MFS: 17.57 credits (10.50 teaching, 3.72 research, 2.16 community service, 1.19 additional tasks)

- DFS: 17.5 credits (10.5 teaching, 3.6 research, 2.2 community service, 1.2 additional tasks)

All programmes exceed the minimum requirement of 12 credits set by the Ministry.

Supporting Staff and Facilities: Each programme is well-supported by administrative staff. The BNH programme has 13 supporting staff (ratio 1:35), the MAiT programme has 16 supporting staff (ratio 1:2), the MFS programme has 29 supporting staff (ratio 1:3), and the DFS programme has 28 supporting staff (ratio 1:3). These staff members assist with various services, including academic affairs, library management, and quality assurance.

Quality Assurance and Continuous Improvement: All programmes undergo regular internal quality audits conducted by the Quality Management Unit (UMM). Standard Operating Procedures (SOPs) for educational processes are regularly evaluated and adjusted across all programmes.

In conclusion, UGM demonstrates a strong commitment to maintaining high-quality staffing levels and supporting ongoing professional development across all four programmes. The university's comprehensive approach to staff management and development, tailored to the needs of each programme, contributes significantly to the success and sustainability

of its diverse degree offerings in nutrition, agro-industrial technology, and forestry sciences. The experts confirm that the composition, scientific orientation, and qualification of the teaching staff are suitable for successfully implementing and sustaining the degree programmes.

Criterion 3.2 Student Support and Student Services

Evidence:

- Self-Assessment Report

- Curriculum handbooks

- Students handbooks

- Discussions during the audit

Preliminary assessment and analysis of the experts:

UGM offers a comprehensive advisory system for all students. At the start of the first semester, every student is assigned to an academic advisor. The role of the academic advisor is to help the students with the process of orientation during the first semesters, the introduction to academic life and the university's community, and to respond promptly to any questions. They also offer general academic advice, make suggestions regarding relevant careers and skills development and help if there are problems with other teachers. The students confirm during the discussion with the peers that they all have an academic advisor.

In general, students stress that the teachers are open-minded and communicate well with them and take their opinions and suggestions into account and changes are implemented if necessary.

All students at UGM have access to SIMASTER which is integrated with the Registration Information System, the Academic Information System, the Library Information System, and the Scholarship Information System. The students' pro-files (student history, study plan, academic transcript and grade point average/GPA, lecturer evaluation, course list) are available via SIMASTER.

There is also medical, social, and psychological support for students at UGM (Gadjah Mada Medical Center/GMC and UGM Hospital). Furthermore, there is the alumni and career center that gives advice to students how to start and run a business.

Finally, there are several student organizations at UGM; they include student's activity clubs, which are divided into arts, sports, religious and other non-curricular activities.

The experts notice the good and trustful relationship between the students and the teaching staff; there are enough resources available to provide individual assistance, advice and support for all students. Overall, the support system helps the students to achieve the intended learning outcomes and to complete their studies successfully and without delay. The students are well informed about the services available to them even though the information about events could be communicated more smoothly.

Criterion 3.3 Funds and equipment

Evidence:

- List of laboratories and equipment
- Partnership agreements
- Recapitulation of budget
- Self-Assessment Report
- Discussions during the audit

Preliminary assessment and analysis of the experts:

As a state university, UGM's financial resources for the BNH, MAiT, MFS, and DFS programmes come from various sources: government funds, tuition fees, and third-party funds. Government funds finance routine expenses such as staff salaries and allowances, while operational and programme development expenses are primarily supported by student tuition fees (UKT). The average annual budget varies for each study programme due to factors like student body size and tuition fees, with detailed allocations available in the appendices.

Financial management at UGM follows the university's Financial Management Information System (SIMKEU), and both internal and external audits ensure transparency. Advanced IT systems support academic and administrative activities, including SIMASTER, which manages data on learning, research, and staff development. The university provides robust internet infrastructure and software tools like Webex, Microsoft Teams, and Zoom Pro to facilitate online lectures and academic activities.

UGM maintains its equipment and facilities through a well-organised system where students and staff can report issues via online platforms or direct meetings. The Equipment & Logistics unit addresses minor problems, while major purchases and maintenance are budgeted in the Annual Work Plan and Budget (RKAT).

To enhance academic success, UGM has established cooperation with national and international universities for research collaboration, conferences, student and faculty exchanges, and joint degrees. The university also offers extensive facilities to support student activities, including sports venues, arts and stage facilities, dormitories, local transportation, libraries, health services, and various museums. Each study programme is equipped with specific laboratories that support practical learning and the attainment of learning outcomes, ensuring students have access to the necessary resources to achieve their educational objectives.

During the audit, the experts were shown advanced research laboratories with modern equipment. These laboratories are managed by experienced technicians and are available for use by research staff and graduate students. The university received a grant from JICA (Japan International Cooperation Agency) for a qualified laboratory building and advanced equipment. Notable among these is the LICOR portable greenhouse gas emission measurement instrument, which is still rare in Indonesia. Other advanced tools include PCR machines, spectroscopy equipment, molecular analytics instruments, simulation software, robotics, and advanced photosynthesis measuring devices.

These state-of-the-art technologies, many funded by Japanese state aid programs, significantly enhance the research capabilities and student learning experiences. Despite the limited quantity of some specialized equipment, students are able to utilize the tools efficiently through effective management of usage schedules and rotations.

In contrast to these well-equipped research labs, the laboratories used for undergraduate training are at a more basic level.

During the visitation of the BNH, the Laboratory of Nutritional Education and Counseling has been identified as an area with potential for enhancement. While the laboratory currently supports student learning, there are opportunities to further optimize its effectiveness. It is recommendable to consider expanding the room capacity to better accommodate student numbers during practical sessions. Updating and augmenting the existing tools and equipment could provide students with exposure to the latest nutritional assessment and counseling technologies. Additionally, refining the lab activity and practicum schedule could maximize resource utilization and enrich students' hands-on learning experiences. These suggested improvements aim to build upon the current foundation, potentially elevating the quality of practical education in nutritional counseling and further preparing students for their future careers. By addressing these areas, the programme could enhance its educational offerings and maintain its strong position in nutritional science education.

The experts are satisfied that the teaching and office facilities, libraries and computer labs which are adequate for all students and staff. The experts can also assess that safety measures, such as safety policies and protocols, fire extinguishers and emergency showers, are available and in line with international guidelines. Students are also required to undergo safety training in order to work in the laboratories.

In summary, the experts confirm that current funding allows standards to be maintained and additional instrumentation to be purchased if required, that UGM generally has sufficient workspace and laboratories, and that all laboratories are equipped with modern and sophisticated instrumentation.

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

The experts appreciate that the BNH programme has shared its master plan to expand to a five-storey building starting from September 2024. They are looking forward to witnessing the realisation of this building plan in the future.

The experts consider criterion 3 to be **fulfilled.**

4. Transparency and documentation

Criterion 4.1 Module descriptions

Evidence:
- Module descriptions
- Websites

Preliminary assessment and analysis of the experts:
The students, as well as all other stakeholders, have access to the module descriptions via UGM's homepage. The more detailed syllabus is handed out to the students by the lecturers at the beginning of each semester. The syllabus includes a practical guideline and detailed description of the practical parts of each course.

After reviewing the module descriptions, the experts confirmed that they contain all the essential details, including information on the module coordinators, teaching methods, workload, credit points awarded, intended learning outcomes, content coverage, applicability, admission and examination requirements, as well as assessment methods and a comprehensive explanation of how the final grade is calculated.

However for the MFS, one crucial piece of information that is currently missing is the allocation of ECTS credits to individual courses. This information needs to be included for greater clarity and transparency of the workload.

Criterion 4.2 Diploma and Diploma Supplement

Evidence:

- Sample Transcript of Records

- Sample Diploma certificate

- Sample Diploma Supplement

Preliminary assessment and analysis of the experts:

The experts confirm that students receive a diploma and a diploma supplement upon graduation. The diploma consists of a diploma certificate and a transcript of records. The transcript of records lists all the courses taken by the graduate, the credits earned, the grades and the cumulative GPA. The Diploma Supplement contains information about the degree programme, including soft skills acquired and awards (extra-curricular and co-curricular activities).

However for the MFS, the Diploma Supplement does not currently provide information on the grade distribution within the student cohort and the ECTS credits earned, which is necessary for potential employers to be able to properly assess a student's performance. Therefore, UGM has to add this statistical information.

Criterion 4.3 Relevant rules

Evidence:
- Self-Assessment Reports

- Curriculum handbooks

- Academic Guidelines

- Examination regulations

- All relevant regulations as published on the university's website

Preliminary assessment and analysis of the experts:

The auditors confirm that the rights and duties of both UGM 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 programme at the beginning of each semester.

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

Criterion 4.1

UGM has submitted a new version of the Module Handbook for MFS. It now contains ECTS.

Criterion 4.2

UGM has submitted a new version of the Diploma Supplement. It now allows for a comparison of graduates in one cohort.

The experts consider criterion 4 to be **fulfilled.**

5. Quality management: quality assessment and development

Criterion 5 Quality management: quality assessment and development

Evidence:
- Self-Assessment Report
- Academic Guidelines
- Discussions during the audit

Preliminary assessment and analysis of the experts:
UGM implements a continuous quality improvement process for its degree programmes through internal and external evaluations. The internal quality assurance system is managed by the Office of Quality Assurance (KJM), the Quality Assurance Unit (K3A) at the faculty level, and the Semester Coordination Team (TKS) at the department level.

Internal Evaluation:

- **Student and Alumni Feedback:** Students provide feedback on courses via an online questionnaire (EDOM), which is mandatory for account access on the SIMASTER platform. This feedback covers 12 categories and is shared with lecturers. Annual tracer studies and alumni surveys also contribute to this evaluation.

- **Internal Quality Audit (AMI):** Conducted annually by auditors appointed by KJM, AMI evaluates all aspects of the educational process. Auditors interview lecturers, students, administrative staff, and management to ensure learning objectives are met.

- **Student Involvement:** Students participate through EDOM, informal feedback, and representation in TKS. They also evaluate laboratory performance and equipment.

Results and Actions:

- The results of internal assessments are reviewed in Management Review Meetings (RTM) at the faculty level, involving key faculty members and the Quality Assurance Unit. Corrective actions are initiated as required. The results of the student evaluations, along with the corrective actions derived from these evaluations, are discussed and shared with the students.

External Quality Assurance:

- **Accreditations:** The degree programmes are accredited by the Board of National Accreditation (BAN-PT) and ASEAN University Network Quality Assurance (AUN-QA).

Stakeholder Involvement:

- UGM regularly engages with partners from public institutions and private companies to discuss employer needs and curriculum changes. An advisory board, comprising alumni and industry representatives, assists in curriculum design and reviews. Feedback from these stakeholders ensures the curriculum remains relevant and up-to-date.

Continuous Improvement Cycle:

- **Annual Self-Evaluation:** Each study programme conducts an annual self-evaluation covering nine educational standards, integrated with SIMASTER.

- **Quality Assurance Guidelines:** SPMRU provides guidelines for quality assurance, ensuring tools are tailored to each programme's needs.

- **Internal Quality Audits:** Coordinated by SPMRU, these audits ensure compliance with academic standards set by UGM's academic senate. Results from these audits inform further improvements at faculty and university levels.

Selection and Training of Auditors:

- Auditors are selected to avoid conflicts of interest and undergo annual refreshment programmes to maintain audit quality and update regulations. Feedback on auditor performance is collected from auditees.

Review and Improvement:

- Management Review Meetings (RTM) evaluate actions taken in response to audit findings and stakeholder feedback. These meetings occur at both study programme and faculty levels, with results conveyed to the university level.

Alumni and Employer Surveys:

- Tracer studies and user surveys gather feedback from alumni and employers to assess the impact of education on career paths and workplace performance. Exit surveys at graduation periods capture students' experiences and achievements.

In summary, the expert group confirms that UGM's quality management system effectively identifies and addresses weaknesses in its degree programmes through a structured process involving all relevant stakeholders. This system ensures continuous improvement and alignment with stakeholder needs and industry standards.

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

UGM provides no comment on this criterion.

The experts consider criterion 5 to be **fulfilled.**

D Additional Criteria for Structured Doctoral Programmes

Criterion D 1 Research

Evidence:

- Self-Assessment Report

- Module Handbooks

- Audit Discussions

Preliminary assessment and analysis of the experts:

The DFS is dedicated to producing highly competent and professional doctors recognized both nationally and internationally. The programme aims to cultivate graduates capable of planning and executing research projects and publishing their findings in reputable international journals. Significant efforts have been made to ensure that DFS students possess advanced research methodologies and deep knowledge in project design and implementation.

A critical component of the DFS programme is the Dissertation Proposal course, which requires students to achieve at least a grade B. This course ensures that students master the concepts, theories, and methods relevant to their research fields. To further support research excellence, DFS mandates that students publish their research in reputable international journals or present at a minimum of two international seminar forums. Over the past three years, DFS students have published 34 articles in Scopus-indexed journals (Q1 – Q4) and have actively participated in various international scientific forums.

To enhance students' ability to publish their research, the programme manager organizes mandatory research workshops every semester. These workshops cover a range of topics, including systematic literature reviews, journal referencing, handling journal reviews, and utilizing library databases. Additionally, DFS provides incentives for students who successfully publish in reputable journals, rewarding them at the end of each year.

At the university level, students have access to various facilities that support high-quality research publication. Tools such as Turnitin software for similarity checks and language services for proofreading manuscripts are available to ensure the quality and integrity of their research articles.

As has been previously stated, the experts have identified a significant discrepancy between the research track and the regular coursework track within the DFS. The research track, which requires the submission of two papers for publication, offers a greater depth of scientific knowledge than the coursework track, where students are only required to publish one paper. This discrepancy in the criteria for obtaining a PhD has prompted concerns among experts and raises questions about whether students are exposed to the same level of research experience. In light of the aforementioned considerations, the experts have determined that this is a formal issue. They have observed that the research environment is identical for both tracks and that it offers the same opportunities for both.

In conclusion, the DFS doctoral programme exemplifies a comprehensive and robust approach to research training. The structured support system, mandatory workshops, and incentives for publication collectively contribute to the programme's success in producing proficient researchers who significantly impact the field of tropical forestry. The programme's dedication to fostering a continuous and immersive research experience aligns seamlessly with contemporary research standards.

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

UGM does not comment on this criterion.

The experts consider criterion D1 to be **fulfilled.**

Criterion D 2 Duration and Credits

Evidence:
- Self-Assessment Report
- PhD Regulation
- Statistical data

Preliminary assessment and analysis of the experts:
The DFS is designed as a three-year full-time study programme, comprising 172.5 ECTS credits. The credit distribution varies between regular and research-focused students, with 60 ECTS allocated to courses and 112.5 ECTS to dissertation research for regular students, or 30 ECTS for courses and 142.5 ECTS for dissertation research for research-focused students. The programme structure and regulations are detailed in the Academic Handbook, which is accessible to students online and on the DFS website.

Despite the intended three-year duration, the average graduation time over the past three years has been approximately 5 years and 1 month. This extended study period is primarily

attributed to delays in dissertation research. The experts express concern about the overall significant extension of studies. However, they acknowledge that UGM is aware of this problem and has initiated measures to address it.

To tackle this issue, the 2022 curriculum encourages students to begin their dissertation research earlier, starting from the first semester. Previously, students would start their dissertation research steps (e.g., proposing supervisor team, drafting research proposal) after finishing their theoretical courses, which was considered too late for timely completion. Progress is now closely monitored every three months by programme coordinators and every semester by the supervisor team. The dissertation research is now divided into several components with assigned credits, allowing for easier tracking of student progress throughout each semester.

Graduation requirements include at least one international (or two national accredited) publication from the dissertation research. The final steps involve a doctoral defence and subsequent revision of the dissertation. The defence process includes review by a supervisor team and a reviewer team, followed by a formal defence exam led by the dean or its representative. Students have up to three months to revise their dissertation based on examiners' feedback.

While it is currently unclear whether these measures will effectively address the issue of extended study durations, the experts note that this aspect should be addressed in the reaccreditation process. They suggest that continued monitoring and analysis of graduation times would be beneficial to fully assess the effectiveness of these measures and to ensure that the programme achieves its intended timely completion goals.

The reviewers also note that UGM has provided detailed data on graduates and graduation times from 2018 to 2022, demonstrating transparency and a commitment to monitoring student progress. This data will be valuable for future evaluations of the programme's effectiveness in reducing study duration.

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

UGM reports that the measures taken to shorten the average study duration have already shown an effect. The experts appreciate this information and hope that this positive trend continues into the future.

The experts consider criterion D2 to be **fulfilled.**

Criterion D 3 Soft Skills and Mobility

Evidence:
- Self-Assessment Report
- Module Handbooks
- Audit Discussions

Preliminary assessment and analysis of the experts:

UGM offers various opportunities for students to develop their soft skills and gain international exposure. In the second semester, the programme conducts a workshop focusing on soft skill development, covering topics such as nation character building, UGM values, learning mechanisms in DFS, philosophy of research, and strategies for publishing in international scientific journals. This workshop also provides students with the opportunity to present their proposed dissertation research, enhancing their presentation skills and receiving valuable feedback.

The DFS continues to support soft skill development in the third semester, offering programmes on systematic literature review, journal referencing, and writing rebuttal letters. These initiatives aim to foster students' writing skills, which are crucial for meeting the programme's requirement of publishing in international scientific journals.

Regarding international mobility, the DFS actively supports students' exposure to international experiences by providing financial assistance for visa issuance to those participating in study-related activities abroad, such as attending international seminars or engaging in international student exchanges. While the programme has not yet established formal joint or double degree programmes for international exposure, it does support students with overseas supervisors by funding the attendance of these supervisors at defense examinations.

The experts acknowledge the DFS's efforts in providing soft skill development opportunities and supporting international experiences. Nevertheless, while the current initiatives are to be applauded, the experts propose that the DFS pursue avenues for enhancing international mobility and formalising collaborations with overseas academic institutions. Such an approach would not only enhance the academic experience of students but also reinforce the international standing of the programme.

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

UGM does not comment on this criterion.

The experts consider criterion D3 to be **fulfilled.**

Criterion D 4 Supervision and Assessment

Evidence:
- Self-Assessment Report
- Audit Discussions

Preliminary assessment and analysis of the experts:

The programme follows a structured process for student supervision. Candidates submit a research proposal and suggest a principal promotor, followed by a presentation to the dissertation committee. The committee then recommends a suitable principal supervisor based on experience and subject matter. Two additional supervisors are assigned based on the research topic, resulting in a team of three supervisors guiding each doctoral candidate intensively throughout their studies, as per UGM Rector's Decrees.

Supervisors are responsible for guiding candidates through proposal completion, research execution, presentations, publications, and dissertation finalization, adhering to established Standard Operating Procedures. To be awarded a Doctoral degree, candidates must pass several assessments, including coursework, a comprehensive examination, dissertation review, and a defence examination. The defence examination is conducted only after the candidate has met the programme's publication requirements.

The experts are satisfied with the level of support provided to PhD students at UGM. They note that the clearly defined supervision process, coupled with the comprehensive assessment structure, ensures that students receive adequate guidance throughout their doctoral journey. The experts appreciate the programme's emphasis on publication requirements, which helps maintain high academic standards and prepares students for future academic careers.

In general, the experts felt that the services provided by the University and the Faculty in terms of guidance, supervision and advice were adequate. This view was generally confirmed by the doctoral students during the review meeting.

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

UGM provides no comment on this criterion.

The experts consider criterion D4 to be **fulfilled.**

Criterion D 5 Infrastructure

Evidence:
- Self-Assessment Report
- On-Site Visit

Preliminary assessment and analysis of the experts:

The DFS is supported by a comprehensive infrastructure conducive to advanced study and research. The programme's facilities encompass well-appointed classrooms, state-of-the-art laboratories, extensive library resources, and collaborative spaces.

The Faculty of Forestry's main campus houses the primary academic facilities, complemented by two field campuses and integrated laboratories. Notably, the faculty maintains 20 specialized laboratories across four departments, each staffed with technical experts to facilitate practical work and research activities. Students also have access to UGM's accredited Integrated Research and Testing Laboratory, further enhancing research capabilities.

Library resources are substantial, with the faculty library offering a range of materials and the university's main library providing extended access hours and a comprehensive collection, including digital resources. To foster a collaborative research environment, the faculty has implemented multiple coworking spaces equipped with high-speed internet connectivity.

During the on-site evaluation, the experts were able to verify the adequacy and quality of these facilities. They concluded that the infrastructure effectively supports the rigorous academic demands of doctoral-level research in forest sciences. The experts noted that this well-developed infrastructure significantly contributes to the programme's overall quality and enhances the research capabilities of doctoral candidates.

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

UGM provides no comment on this criterion.

The experts consider criterion D5 to be **fulfilled.**

Criterion D 6 Funding

Evidence:
- Self-Assessment Report
- Audit Discussions

Preliminary assessment and analysis of the experts:

The financial underpinnings of the DFS are robustly structured to ensure sustainable operation and development. At the core of its fiscal management is the Annual Work Plan and Budget (RKAT), a comprehensive document that meticulously outlines the programme's income and expenditure projections for each fiscal year.

The RKAT is developed through a collaborative process, engaging all academic staff in identifying various cost categories, including fixed, variable, and incidental expenses. This draft undergoes a thorough vetting process, initially scrutinised at the faculty level by the Dean, Vice Dean, and the Faculty of Forestry Senate. Subsequently, it is forwarded to the University's Directorate of Finance and Academic Senate for final ratification prior to implementation.

The programme's funding is derived from three primary sources: government allocations, tuition fees, and partnership projects. Tuition fees, which average 101,470.9 Euro annually, cover lecture, practical, and management service costs. Government funding encompasses academic and non-academic staff remuneration, laboratory equipment, research funds, scholarships, and grants. The total annual budget for the DFS amounts to approximately 147,500 Euro, a sum deemed sufficient for both basic operations and programme enhancement.

Upon thorough evaluation, the experts have concluded that this funding structure is adequate for the programme's requirements. They noted that the diverse funding sources and the systematic budgeting process contribute significantly to the financial stability of the DFS. The experts consider the funding depth to be sufficient for maintaining the programme's quality and supporting its ongoing development. This robust financial foundation is viewed as an essential component in sustaining the high academic standards and research capabilities of the doctoral programme.

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

UGM provides no comment on this criterion.

The experts consider criterion D6 to be **fulfilled.**

Criterion D 7 Quality Assurance

Evidence:

- Self-Assessment Report

- PhD Regulation
- PhD Theses

Preliminary assessment and analysis of the experts:

Rigorous oversight underpins the quality assurance framework of the DFS, ensuring excellence across all academic activities. The system is grounded in comprehensive regulations and documented procedures that govern students, lecturers, and support staff alike.

Quality measures align with national standards set by Indonesia's Ministry of Education and Culture, as well as the UGM's own benchmarks. These have been further refined to reflect the programme's unique vision, responding to scientific advancements and market demands whilst maintaining its distinctive character in forestry education.

An academic handbook serves as the cornerstone of this quality system, detailing the educational framework, operational procedures, and curriculum specifics. This comprehensive guide, available both offline and online, covers topics ranging from credit systems and workload assessment to evaluation procedures and graduation requirements.

Particular emphasis is placed on clearly defining doctoral candidates' rights and duties, encompassing standards for educational services, facility usage, academic freedoms, and ethical considerations. Regular evaluations of these aspects occur through bi-semester student assessments and face-to-face meetings.

Good scientific practices are integral to the curriculum, woven into various modules including research methodology, ethics, and dissertation preparation. These practices are continuously assessed as part of the professional skills development central to the programme's educational objectives.

To gauge effectiveness, data on student progression, research timelines, completion rates, and career trajectories are routinely collected through tracer studies. This monitoring reveals an annual output of around 10 graduates, representing approximately 75% of incoming students. However, average completion time exceeds the standard 3–4-year period, prompting the implementation of strategies such as earlier dissertation commencement and more rigorous progress monitoring.

The experts commend this comprehensive approach to quality assurance, noting it demonstrates a strong commitment to maintaining high academic standards. The regular collection and analysis of performance data, coupled with responsive strategy adjustments, indicate a robust approach to continuous improvement. Nevertheless, they suggest that reducing study duration while maintaining quality should remain a priority for future development.

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

UGM provides no comment on this criterion.

The experts consider criterion D7 to be **fulfilled.**

E Additional Documents

No additional documents needed.

F Comment of the Higher Education Institution (19.08.2024)

The University has provided a detailed statement.

G Summary: Expert recommendations (03.09.2024)

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

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Nutrition and Health	Without Requirements	30.09.2030	-	-
Ma Agro-Industrial Technology	Without Requirements	30.09.2030	-	-
Ma Forestry Science	Without Requirements	30.09.2031	-	-
PhD Forestry Science	Without Requirements	30.09.2030	-	-

Recommendations

For Ma Agro-Industrial Technology

E 1.   (ASIIN 1.3) It is recommended to further embed topics around sustainability, globalized value chains, and digitization.

For Ba Nutrition and Health

E 2.   (ASIIN 3.3) It is recommended to enhance the Laboratory of Nutritional Education and Counseling by improving its capacity, equipment, and scheduling.

H Comment of the Technical Committees (16.09.2024)

Technical Committee 08 – Agriculture, Forestry and Food Sciences (16.09.2024)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee discusses the accrediting procedure and follows the assessment of the peers without any changes.

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

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Nutrition and Health	Without Requirements	30.09.2030	-	-
Ma Agro-Industrial Technology	Without Requirements	30.09.2030	-	-
Ma Forestry Science	Without Requirements	30.09.2031	-	-
PhD Forestry Science	Without Requirements	30.09.2030	-	-

Recommendations

For Ma Agro-Industrial Technology

E 1.   (ASIIN 1.3) It is recommended to further embed topics around sustainability, globalized value chains, and digitization.

For Ba Nutrition and Health

E 2.   (ASIIN 3.3) It is recommended to enhance the Laboratory of Nutritional Education and Counseling by improving its capacity, equipment, and scheduling.

Technical Committee 14 – Medicine (09.09.2024)

Assessment and analysis for the award of the ASIIN seal:

As Mr. Winter explains the Technical Committee 14 is only involved in one of four degree programs in this cluster. The procedure was straightforward and the assessors were able to determine a high quality of the programs, which is reflected in a total of only two recommendations, one of which was for the Ba Nutrition and Health degree program.

The Technical Committee 14 – Medicine recommends the award of the seals as follows:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Nutrition and Health	Without Requirements	30.09.2030	-	-

Recommendations

For Ma Agro-Industrial Technology

E 1. (ASIIN 1.3) It is recommended to further embed topics around sustainability, globalized value chains, and digitization.

For Ba Nutrition and Health

E 2. (ASIIN 3.3) It is recommended to enhance the Laboratory of Nutritional Education and Counseling by improving its capacity, equipment, and scheduling.

I   Decision of the Accreditation Commission (23.09.2024)

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

The Accreditation Commission discusses the procedure and follows the assessment of the experts and the Technical Committee without changes.

The Accreditation Commission decides to award the following seals:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Nutrition and Health	Without Requirements	30.09.2030	-	-
Ma Agro-Industrial Technology	Without Requirements	30.09.2030	-	-
Ma Forestry Science	Without Requirements	30.09.2031	-	-
PhD Forestry Science	Without Requirements	30.09.2030	-	-

Recommendations

For Ma Agro-Industrial Technology

E 1.   (ASIIN 1.3) It is recommended to further embed topics around sustainability, globalized value chains, and digitization.

For Ba Nutrition and Health

E 2.   (ASIIN 3.3) It is recommended to enhance the Laboratory of Nutritional Education and Counseling by improving its capacity, equipment, and scheduling.

Appendix: Programme Learning Outcomes and Curriculum

According to Self-Assessment Report the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor degree programme Nutrition and Health:

Aspect	Code of PLO	Description of Competence
Attitude (Pancasila)	1a	*Able to learn and practice Pancasila values in every aspect of life.*
Attitude (Character)	1b	*Able to live and practice the principles of academic integrity, ethics, and professionalism as well as an entrepreneurship.*
Knowledge (Academic Integrity)	2a	*Understand the concept and application of the principle of academic integrity.*
Knowledge (Body of knowledge)	2b	*Understand the concepts, applications, and development of nutrition, food, biomedical, molecular, pathophysiology, communication, management, sociohumanities and culinary arts in nutrition practice and research both independently and in groups in various conditions.*
Knowledge (Applied Knowledge in Health Service)	2c	*Understand the concept of service management and carry out nutrition care in health service facilities, the community and mass food delivery institutions.*
General Skills (Nutrition Service)	3a	*Able to implement logical, critical, systematic, and innovative thinking, show qualified and measurable individual and group performances, and make decisions based on data and information analysis for the development and implementation of sciences and technology with regard to humanities values according to the area of expertise in the community.*

Aspect	Code of PLO	Description of Competence
General Skills (Communication)	3b	*Able to construct study reports of the development and implementation of sciences and technology in order to produce solutions, ideas, designs or art criticism in the form of undergraduate thesis and assure data validity to prevent plagiarism.*
General Skills (Research)	3c	*Able to organize leadership styles which ensure individual and groups work accountability by means of supervision and evaluation and encourage the development of collaborative networks.*
Specific Skills (Nutrition Service)	4a	*Able to conduct nutritional practices according to the standard of competence and profession ethic codes both individually and in teams.*
Specific Skills (Academic Communication)	4b	*Able to communicate scientific ideas, ciritical evaluation, and innovative creations to support the development of nutritional science and practice, decision making, and life-long learning.*
Specific Skills (Managerial)	4c	*Able to implement manajerial functions and leadership in accordance with profession and competences.*
Specific Skills (Research Conduct)	4d	*Able to review and develop sciences which contribute to improve the practice of nutritionists, strategic programme and policy at global level in accordance to academic integrity.*
Specific Skills (Technology and Foreign Languages)	4e	*Able to utilise information technology and internasional language in skills development and implementation.*

The following **curriculum** is presented:

PHASE 1

1	Mathematics	KUGK222101	2.00	3.02
	Human Anatomy	KUGK222102	2.00	3.02
	Inorganic Chemistry	KUGK222103	2.00	3.02
	Principles of Human Nutrition	KUGK222104	2.00	3.02
	Psychology	KUGK222105	2.00	3.02
	Applied English for Nutrition	KUGK222106	2.00	3.02
	Basic Communication and Nutrition Counselling	KUGK222107	2.00	3.02
	Food Science	KUGK222108	3.00	4.53
	Principles of Management	KUGK222109	2.00	3.02
	Community and Family Health Care Inter-Professional Education 1	KUGK222110	1.00	1.51
Subtotal Semester 1			**20.00**	**30.22**
2	Organic Chemistry	KUGK222201	2.00	3.02
	Sociology and Anthropology	KUGK222202	3.00	4.53
	Macronutrient Metabolism	KUGK222203	2.00	3.02
	Human Psychology	KUGK222204	3.00	4.53
	Food Analysis	KUGK222205	3.00	4.53
	Principles of Nutrition Education	KUGK222206	2.00	3.02
	Public Health Science	KUGK222207	2.00	3.02
	Biomolecular Science	KUGK222208	2.00	3.02
	Community and Family Health Care Inter-Professional Education 2	KUGK222209	1.00	1.51
Subtotal Semester 2			**20.00**	**30.22**
3	Nutritional Immunology	KUGK222301	2.00	3.02
	Micronutrient Metabolism	KUGK222302	2.00	3.02
	Nutrition Assessment	KUGK222303	2.00	3.02
	Food Consumption Analysis	KUGK222304	2.00	3.02
	Culinary Nutrition	KUGK222305	3.00	4.53
	Biostatistics	KUGK222306	3.00	4.53
	Nutrition in Lifecycle	KUGK222307	3.00	4.53
	Principles of Epidemiology	KUGK222308	2.00	3.02
	Food Security*	KUGK222309	2.00	3.02
	Indonesian Health Care System*	KUGK222310	2.00	3.02
	Community and Family Health Care Inter-Professional Education 3	KUGK222311	1.00	1.51
Subtotal Semester 3			**22.00**	**33.24**

PHASE 2

4	Pancasila	KUGK222401	2.00	3.02
	Civics	KUGK222402	2.00	3.02

	Religion	KUGK222403	2.00	3.02
	Clinical Biochemistry	KUGK222404	3.00	4.53
	Food Microbiology	KUGK222405	3.00	4.53
	Basic Sports Nutrition	KUGK222406	2.00	3.02
	Nutrition Care Process	KUGK222407	2.00	3.02
	Nutrigenomics*	KUGK222408	2.00	3.02
	Food and Nutrition Data Management*	KUGK222409	2.00	3.02
	Dietetics and Disease 1	KUGK222410	3.00	4.53
	Community and Family Health Care Inter-Professional Education 4	KUGK222411	1.00	1.51
Subtotal Semester 4			**21.00**	**34.75**
5	Bahasa Indonesia	KUGK222501	2.00	3.02
	Food Safety	KUGK222502	2.00	3.02
	Dietetics and Disease 2	KUGK222503	4.00	6.04
	Food Technology	KUGK222504	3.00	4.53
	Research Methodology	KUGK222505	3.00	4.53
	Food Service Management System 1	KUGK222506	2.00	3.02
	Bioethics	KUGK222507	2.00	3.02
	Nutrition for Fitness*	KUGK222508	2.00	3.02
	Functional Foods and Nutraceutical*	KUGK222509	2.00	3.02
	Community Nutrition Program*	KUGK222510	2.00	3.02
	Community and Family Health Care Inter-Professional Education 5	KUGK222511	1.00	1.51
Subtotal Semester 5			**22.00**	**39.27**
6	Dietetics and Disease 3	KUGK222601	4.00	6.04
	Food Service Management System 2	KUGK222602	2.00	3.02
	Nutrition Epidemiology	KUGK222603	2.00	3.02
	Project Management in Nutrition	KUGK222604	2.00	3.02
	Nutrition in Emergencies	KUGK222605	2.00	3.02
	Nutrition Entrepreneurship	KUGK222606	2.00	3.02
	Strategic Health Communication	KUGK222607	2.00	3.02
	Workforce Nutrition*	KUGK222608	2.00	3.02
	Advanced Sports Nutrition*	KUGK222609	2.00	3.02
	Qualitative Research	KUGK222610	2.00	3.02
	Community and Family Health Care Inter-Professional Education 6	KUGK222611	2.00	3.02
	Community Service Program**		8.00	25.60
Subtotal Semester 6			**27.00**	**60.35**
Phase 2 Total			**70.00**	**134.39**

PHASE 3

7	Clerkship in Clinical Nutrition	KUGK222701	4.00	12.80
	Clerkship in Food Service Management	KUGK222702	3.00	9.60
	Clerkship in Community Nutrition	KUGK222703	4.00	12.80

	Community and Family Health Care Inter-Professional Education 7	KUGK222704	1.00	1.51
	Research Proposal	KUGK222705	1.00	6.00
Subtotal Semester 7			**13.00**	**42.71**
8	Undergraduate Thesis	KUGK222801	5.00	30.00
	Nutrition Programs for Population at Risk*	KUGK222802	2.00	3.02
	Current Development in Community Nutrition*	KUGK222803	2.00	3.02
	Culinary Dietetics*	KUGK222804	2.00	3.02
	Product Development*	KUGK222805	2.00	3.02
Subtotal Semester 8			**9.00**	**45.11**
Phase 3 Total			**64.00**	**87.82**
OVERALL TOTAL			**196.00**	**315.88**

According to Self-Assessment Report the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Master degree programme Agro-Industrial Technology:

I. Knowledges LOs	Performance Indicator
(a). Mastering the theory and application methods of systems engineering, processing technology, and management in agro-industry;	(1). Mastering theory of systems engineering, processing technology, and management in agro-industry (A_1) (2). Mastering the application methods of systems engineering, processing technology, and management in agro-industry (A_2)
(b). Mastering the theory of research methodology in the field of agroindustry;	(1). Mastering coherent and systematic steps in carrying out research in agro-industry (B_1) (2). Able to determine the data needed to achieve research objectives (B_2) (3). Able to select and use appropriate tools, verify and validate the results to achieve research objectives (B_3)
(c). Mastering scientific communication theory, both written, visual and verbal on a national/international scale and able to identify and use appropriate technical literatures;	(1). Able to write following the rules of scientific writing with the target reader's level of understanding (C_1) (2). Able to display chart correctly (C_2) (3). Able to write with proper grammar (C_3) (4). Able to communicate verbally clearly and easy to understand (C_4)
(d). Mastering learning strategies to gain new knowledge in the field of agro-industry, apply and develop it independently.	(1). Able to collect relevant new knowledge (D_1) (2). Able to apply the new knowledge and develop it independently (D_2)
II. Specific Skills LOs	**Performance Indicator**
(e). Able to develop knowledge, technology, and agro-industry policies through research, to produce innovative and tested works;	(1). Able to collect and sort relevant information from previous scientific literatures for further development (E_1) (2). Able to use the collected knowledges in developing policy and work creation in agro-industry (E_2)
(f). Able to identify, formulate, and solve agro-industry problems through an inter or multidisciplinary approach;	(1). Able to identify and formulate problems correctly (F_1) (2). Able to choose correctly the method and procedure to solve the problem (F_2) (3). Able to solve problems appropriately, reasonable, using more than one approach (F_3)
(g). Able to manage research in agro-industry, that is beneficial to society and science development, and able to get national or international recognition;	(1). Able to plan research in detail and on schedule (G_1) (2). Able to implement the research plans in effective and efficient ways (G_2)

(h). Able to develop test and measurement alternatives, analyze, and interpret an experiment result; and apply it for improvement.	(1). Able to analyze and interpret data from an experiment or survey (H1) (2). Able to use the results of experiments or surveys in for improvement (H2)
(i). Able to design and develop systems, system components, or processes in the field of agro-industrial engineering technology	(1). Able to identify system components and explain interactions between the components (I1) (2). Able to design systems, system components, or system processes (I2) (3). Able to formulate systems, system components, or system processes for solving agro-industrial problems (I3)
III. Generic Skills LOs	**Performance Indicator**
(j). Able to apply logical, critical, systematic, and innovative thinking by utilizing information technology to produce solutions according to the field of expertise with integrity and embodied in scientific documents;	(1). Able to apply logical, critical, and creative thinking in producing solutions to agro-industry problems (J1) (2). Able to utilize information technology in producing solutions to agro-industry problems (J2) (3). Able to produce scientific documents (J3)
(k). Able to develop networks, adapt, be creative, contribute,supervise, evaluate and makedecisions in order to show independent and group performance to apply knowledge in social life;	(1). Able to develop network (K1) (2). Able to adapt and be creative in applying agro-industry science (K2) (3). Able to contribute to the achievement of group goals both as a leader and a member (K3)
IV. Attitudes LOs	**Performance Indicator**
(l). Demonstrate a Pancasilaist attitude and awareness of the interests of the nation and state;	(1). Demonstrate Pancasilaist attitude (L1) (2). Demonstrate awareness to prioritise the interests of the nation and country (L2)
(m). Demonstrate honesty, responsibility, self-confidence, emotional maturity, ethics, and awareness of being a lifelong learner	(1). Have an honest, responsible, confident attitude, emotional maturity and ethics (M1) (2). Able to develop awareness for lifelong learning (M2)

57

The following **curriculum** is presented:

1st Semester

Code	Course Name	ECTS
TPIP215006	Research Workshop	8.0
TPIP215101	Financial Management	5.4
TPIP215102	Strategic Operations Management	5.4
TPIP215103	Innovation and Entrepreneurship	8.0
TPIP2151xx	Elective Course 1*	5.4
TPIP2151xx	Elective Course 2*	5.4
Sub-Total		37.6

2nd Semester

Code	Course Name	ECTS
TPIP215201	Quality Engineering	8.0
TPIP215202	System Modelling and Simulation	5.4
TPIP215203	Agro-Industrial Processing Technology	8.0
TPIP2152xx	Elective Course 3*	5.4
TPIP2152xx	Elective Course 4*	5.4
TPIP216001	Proposal Seminars	4.5
Sub-Total		36.7

3rd and 4th Semester

Code	Course Name	ECTS
TPIP216098	Thesis	36
Sub-Total		36

According to Self-Assessment Report the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Master degree programme Forestry:

PEO	Program Learning Outcomes
PEO-2) Demonstrate effective communication and act with global, ethical, environmental and societal awareness in performing leadership.	**ATTITUDE** **PLO 1.** Have high academic achievement with an awareness of the interests of people and nation based on Pancasila values
	PLO 2. Having responsibility, confidence, emotional maturity, ethics, and awareness of being a lifelong learner and able to develop network

PEO	Program Learning Outcomes
(PEO-1) Competent, excellent, creative, and innovative in practicing forestry knowledge and skill for a broad range of professional career; and	**KNOWLEDGE** **PLO 3.** Able to compare and criticize the theory, philosophy, and design of sustainable development of forest and natural resources, considering the complexity of global issues . **PLO 4.** Able to connect and criticize science, knowledge, technology, and art of forestry based on ecosystem and landscape, covering silviculture, forest management, forest products technology and forest resource conservation. **PLO 5.** Able to analyze comprehensively updated issues in the specific fields of silviculture, forest management, forest products technology or forest resource conservation, and to recommend possible solutions based on difined problems.
	GENARAL SKIL **PLO-6** Able to apply logical, critical, systematic and innovative thinking skills by utilizing information technology to produce solutions in form of scientific documents individually as well as in a team.
	SPECIFIC SKIL

	PLO-7 Able to formulate research questions, developing and conducting appropriate plan and methods, collecting and analyzing data, synthesizing and inferring research findings in forestry by multidisciplinary approaches that publishable on nationally accredited and/or reputable international journal.

The following **curriculum** is presented:

No	Course Code	Name of Course	Work Load (ECTS)	Semester
1	KTU 698	Sustainable Forest Development Anaysis	3.5	1
2	KTU 697	Scientific Method for Forestry	3.5	1
3	KTU 695	Statidtic for Forestry	3.5	2
4	KTU 694	Tropical Forest Management	3.5	1
5	KTU 693	Tropical Forest Silviculture	3.5	1
6	KTU 692	Tropical Forest Racecourses Conservation	3.5	2
7	KTU 691	Added Value of Tropical Forest Products	3.5	2
8	KTU 690	*Academic English*	3.5	2
9	KTU 700	Tesis - Proposal (13.5) - Seminar (9) - Collecting Data, analysis and writting (27) - Pubication(4.5)	54	3-4

According to Self-Assessment Report the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Doctorate in Forestry:

PEO	PLO	Description of Competence
1	1	Able to be honest, disciplined, and responsible in the development of tropical forestry science, knowledge and technology based on religious, moral, ethical, legal and humanitarian values (Attitude)
1	2	Able to contribute and collaborate for the advancement of civilization and environmental sustainability critically and innovatively (Attitude)
2	3	Mastering the concepts, theories, methods and philosophy of tropical forestry systematically obtained through reasoning in the process of learning, research and community service (Knowledge)

PEO	PLO	Description of Competence
2	4	Able to provide appropriate solutions to the latest tropical forestry problems based on forestry science (Knowledge)
3	5	Able to lead, develop organizational resources, and cooperate in designing, implementing, and managing data and information on research results that are useful for the benefit of society based on creative, innovative and comprehensive scientific methodologies in the form of dissertations and scientific papers that are accepted and or published in reputable journals (General skill)
3	6	Able to communicate the research, receive opinions, and convey arguments with analytical sharpness through an interdisciplinary, multidisciplinary or transdisciplinary approach with national and international languages (General skill)
3	7	Able to apply and develop science, knowledge and technology in the field of forest management, silviculture, forest product utilization technology and forest conservation that supports the sustainability of tropical forest ecosystems (Specific skill)

The following **curriculum** is presented:

SEMESTER 1 - REGULAR & BY RESEARCH PROGRAMS

Course code	Course name	ECTS
KTDU22801	The Philosophy of Forestry Science	7.5
KTDU22802	Methodology and Ethics of Forestry Research	7.5
KTDU22803	Sustainable Tropical Forest Development	7.5
KTDx228xx	Elective course 1	7.5
Total ECTS		30

SEMESTER 2 - REGULAR PROGRAM

Course code	Course name	ECTS
KTDx228xx	Elective course 2	7.5
KTDx228xx	Elective course 3	7.5
KTDx228xx	Elective course 4	7.5
KTDx228xx	Elective course 5	7.5
Total ECTS		30

SEMESTER 2 - BY RESEARCH PROGRAM

Course code	Course name	ECTS
KTDU22804	Proposal manuscript	15
KTDU22805	Seminar of research proposal	3.75
KTDU22806	Comprehensive exam	7.5
Total ECTS		26.25

SEMESTER 3 - REGULAR PROGRAM

Course code	Course name	ECTS
KTDU22804	Proposal manuscript	15
KTDU22805	Seminar of research proposal	3.75
KTDU22806	Comprehensive exam	7.5
Total ECTS		26.25

SEMESTER 3 - BY RESEARCH PROGRAM

Course code	Courses	ECTS
KTDU22901	Seminar of research result 1	3.75
KTDU22902	Publication 1	30
Total ECTS		33.75

SEMESTER 4 - REGULAR PROGRAM

Course code	Courses	ECTS
KTDU22901	Seminar of research result 1	3.75
KTDU22902	Publication	30
Total ECTS		33.75

SEMESTER 4 - BY RESEARCH PROGRAM

Course code	Courses	ECTS
KTDU22903	Seminar of research result 2	3.75
KTDU22902	Publication 2	30
Total ECTS		33.75

SEMESTER 5 - REGULAR PROGRAM

Course code	Courses	ECTS
KTDU22903	Seminar of research result 2	3.75
KTDU22904	Manuscript of Dissertation	30
Total ECTS		33.75

SEMESTER 5 - BY RESEARCH PROGRAM

Course code	Courses	ECTS
KTDU22904	Manuscript of Dissertation	30
Total ECTS		30

SEMESTER 6 - REGULAR & BY RESEARCH PROGRAMS

Course code	Courses	ECTS
KTDU22906	Seminar of research result 3	3.75
KTDU22907	Defense exam	15
Total ECTS		18.75