



ASIIN Seal

Accreditation Report

Bachelor's Degree Program
Agricultural Microbiology

Master's Degree Program
Phytopathology
Pest Science
Fisheries Science

Provided by
Universitas Gadjah Mada – Indonesia

Version: 26 September 2025

Table of Content

A About the Accreditation Process.....	3
B Characteristics of the Degree Programs	4
C Expert Report for the ASIIN Seal	9
1. The Degree Program: Concept, Content & Implementation	9
2. Exams: System, Concept and Organisation.....	29
3. Resources	33
4. Transparency and Documentation.....	41
5. Quality management: quality assessment and development	44
D Additional Documents	48
E Comment of the Higher Education Institution (14.08.2025)	49
F Summary: Expert recommendations (27.08.2025)	97
G Comments of the Technical Committees.....	99
Technical Committee 08 – Agriculture, Forestry and Food Sciences (11.09.2025).....	99
Technical Committee 10 - Life Sciences (18.09.2025)	99
H Decision of the Accreditation Commission (26.09.2025)	102
Appendix: Program Learning Outcomes and Curricula	104

A About the Accreditation Process

Name of the degree program (in original language)	(Official) English translation of the name	Labels applied for ¹	Previous accreditation (issuing agency, validity)	Involved Technical Committee (TC) ²
Sarjana Mikrobiologi Pertanian	Bachelor in Agricultural Microbiology	ASIIN	BAN-PT ³ Rank: Excellent Until 10 April 2029	08, 10
Magister Fitopatologi	Master in Phytopathology	ASIIN	BAN-PT Rank: Excellent Until 3 May 2025	08, 10
Magister Ilmu Hama Tanaman	Master in Pest Science	ASIIN	BAN-PT Rank: Excellent Until 23 June 2025	08, 10
Magister Ilmu Perikanan	Master in Fisheries Science	ASIIN	BAN-PT Rank: Excellent Until 29 June 2026	08, 10
Date of the contract: 17.10.2023 Submission of the final version of the self-assessment report: 03.02.2025 Date of the on-site visit: 24.– 25.06.2025 At: Universitas Gadjah Mada Location: Yogyakarta, Indonesia.				
Expert panel: Prof. Dr. rer. Nat. Markus Frank, Nürtingen-Geislingen University of Applied Science Dr. Uwe Sayer, FSC International (industry representative) Prof. Dr. Yosep Seran Mau, Universitas Nusa Cendana				

¹ ASIIN Seal for degree programs

² TC: Technical Committee for the following subject areas: TC 08 – Agriculture, Forestry and Food Sciences and TC 10 – Life Sciences.

³ Indonesian National Accreditation Body for Higher Education

Prof. (Assoc.) Dr. Mochammad Riyanto, IPB University Ms. I Gusti Ayu Widyastiti, student at IPB University	
Representative of the ASIIN headquarter: Emeline Jerez, PhD	
Responsible decision-making committee: Accreditation Commission for Degree Programs	
Criteria used: European Standards and Guidelines as of 15.05.2015 ASIIN General Criteria as of 28.03.2023 Subject-Specific Criteria of Technical Committee 08 – Agriculture, Forestry and Food Sciences as of 27.03.2015 Subject-Specific Criteria of the Technical Committee 10 – Life Sciences as of 28.06.2019	

B Characteristics of the Degree Programs

a) Name	Final degree (original/English translation)	b) Areas of Specialization	c) Corresponding level of the EQF ⁴	d) Mode of Study	e) Double/Joint Degree	f) Duration	g) Credit points/unit	h) Intake rhythm & First time of offer
Bachelor in Agricultural Microbiology	Sarjana Pertanian (S.P.) / Bachelor in Agriculture		6	Full time	no	8 Semesters	144-160 credits / 217.44-241.6 ECTS	Once a year (August) 1963
Master in Phytopathology	Magister Sains (M.Sc.) / Master of Science		7	Full time	no	4 Semesters	40-50 credits / 98.4-116.4 ECTS	Twice a year (February & August) 1993
Master in Pest Science	Magister Sains (M.Sc.) / Master of Science		7	Full time	no	4 Semesters	41-45 credits / 100.2-107.4 ECTS	Twice a year (February and August)

⁴ EQF = The European Qualifications Framework for lifelong learning

								1980/81
Master in Fisheries Science	Magister Sains (M.Sc.) / Master of Science	1.Processing Technology 2.Aquaculture 3.Aquatic Resources Management	7	Full time	no	4 Semesters	40-50 CSU / 98.4-116.4 ECTS	Twice a year (February and August) 2015/16

The experts acknowledged and considered the contextual framework within which the bachelor's and master's study programs, currently being assessed, are offered:

Universitas Gadjah Mada (UGM) is a public research university and one of the leading institutions in Indonesia. Established in 1949, UGM is located in the Special Region of Yogyakarta, and its primary campus is Bulaksumur, Yogyakarta.

With 18 Faculties, one Postgraduate School (S-2 and S-3), and one Vocational School, UGM has several departments and study programs. Its offering ranges from vocational and undergraduate to postgraduate programs, including specialist, professional, master's, and doctoral programs.

UGM's vision is "to be an excellent and innovative world-class university, imbued with nation's cultural values based on Pancasila as the state ideology and dedicated to the nation's interest and humanity."

In the 2025 QS World University Rankings, UGM is ranked 2nd in Indonesia and 238th in the world.

The Faculty of Agriculture

Fakultas Pertanian traces its origins to the High School for Agriculture, which was integrated into UGM as a faculty at the time of the university's establishment. Currently, the Faculty of Agriculture comprises six departments: 1. Department of Agricultural Microbiology, 2. Department of Plant Protection, 3. Department of Soil Science, 4. Department of Agricultural Socio-Economics, 5. Department of Agronomy and 6. Department of Fisheries

The faculty's vision is to become an "internationally outstanding higher education institution for agriculture and fisheries with research focusing on national priority and

mutual prosperity as the realisation of the national philosophical foundation, Pancasila.” In realising this vision, the Faculty of Agriculture’ states its mission as:

“...dedicated to national development and mutual prosperity through advancement of knowledge, pursuing relevant and purposive academic programs, and excellent teaching, research, extension and community services.”

ASIIN accreditation is pursued for one program at the Department of Agricultural Microbiology, the Bachelor in Agricultural Microbiology (BAM), two programs at the Department of Plant Protection, the Master in Phytopathology (MP) and Master in Pest Science (MPS), and one program at the Department of Fisheries, the Master in Fisheries Science (MFS). The programs are introduced with the following profile in the Self-Assessment Report:

i. Bachelor in Agricultural Microbiology

Vision

“Becoming the Pioneer of Education and Research in the Field of Agricultural Microbiology in Indonesia with an International Standard and Upholding the Nation’s Interests Based on Pancasila”.

Mission

1. “Organizing the bachelor's degree education in the field of Agricultural Microbiology based on the international standard to encourage the successful career development of the graduates to revamp the national livelihood merit.
2. Underpinning the advancement of Agricultural Microbiology research to foster education and science and technology excellence, and nurturing national culture.
3. Achieving a better alignment of educational and research programmes with community service activities.
4. Administering and spear-heading cooperation programmes both at national and international level with educational, research, government, business and community institutions.”

ii. Master in Phytopathology

Vision

“Becoming a world-class research-based educational institution to produce human resources capable of developing Tropical Phytopathology theories, concepts, and technology to promote sustainable agriculture based on smarteco bioproduction principles.”

Mission

1. “Organizing education in phytopathology to produce Human Resources capable of developing the science of phytopathology based on smart-eco bioproduction principles.
2. Conducting research that supports education and community services related to plant health management in tropical areas to realize a sustainable agricultural system.
3. Developing tropical phytopathology theories, concepts, and technologies as a reference (trendsetter) for stakeholders in plant protection.”

iii. Master in Pest Science

Vision

“Becoming a postgraduate study program capable of developing and advancing science and technology, specifically in the field of Plant Pests, through a human resource development program, thereby supporting the development of productive, quality, energy efficient and environmentally friendly agriculture (Smartbioecoproduction).”

Mission

1. “Educating students to become graduates who are superior, have character in the field of Plant Protection and are reliable, and able to compete at the international level both in the implementation of work and to continue to the Doctoral level.
2. Conduct research on plant pests based on integrated pest management.
3. Organizing community service activities through integrated education and research in the field of plant protection for the welfare of society.”

iv. Master in Fisheries Science

Vision

“Becoming a pioneer of a world-class master's program in fisheries and to serve the interests of the nation and humanity based on Pancasila.”

Mission

1. “Conducting education, research, and community service, as well as preserving and developing excellent fisheries science for the benefit of society.
2. Implementing and advancing outstanding research in sustainable fisheries that can serve as national and international references.
3. Establishing partnerships with educational and research institutions, both domestically and internationally.

4. Actively participating in the development and management of tropical marine living resources.
5. Serving as an information center and manager for tropical marine living resources fisheries.”

C Expert Report for the ASIIN Seal

1. The Degree Program: Concept, Content & Implementation

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

Evidence:

- Self-Assessment Report
- Objectives-Module-Matrices as an appendix to the Self-Assessment Report
- President of the Republic of Indonesia's Regulation No. 8 of 2012 on the Indonesian National Qualification Framework
- Ba Agricultural Microbiology website: <https://mikro.faperta.ugm.ac.id/>
- Ma Phytopathology website: <https://master-in-phytopathology.faperta.ugm.ac.id/>
- Ma Pest Science website: <https://master-in-pest-science.faperta.ugm.ac.id/>
- Ma Fisheries Science: <https://mscfishsci.faperta.ugm.ac.id/>
- Curriculum documents, all programs under review
- Tracer Study 2024 results, all programs under review
- Discussions during the audit

Preliminary assessment and analysis of the experts:

The experts base their assessment of the objectives and learning outcomes on the information provided on the websites and in the Self-Assessment Report for the four study programs under review.

UGM presents Program Educational Objectives (PEOs) and Program Learning Outcomes (PLOs), which are designed in response to internal and external inputs and benchmarked against relevant national and international standards and references. While the PEOs are rather general and refer to the vision and mission of the university and the Faculty of Agriculture, the PLOs cover a number of specific competences students should acquire in their respective study programs (see [Appendix](#)).

As explained by the program coordinators during the audit, the PLOs derive from the graduate profile and align with the requirements set by the Indonesian National Qualification Framework (*Kerangka Kualifikasi Nasional Indonesia*, KNNI) and the National

Standards for Higher Education (*Standar Nasional Pendidikan Tinggi*, SN-DIKTI). The PLOs are distinguished as aspects of Attitude, Knowledge, General Skills, and Special Skills.

PEOs and PLOs can be accessed through various venues, including the Academic Guidelines and the study program websites. The university also presents tabular mappings of linkages between PLOs and ASIIN's subject-specific criteria within the provided documentation.

According to the graduate profile, graduates of the Bachelor Agricultural Microbiology are expected to contribute their knowledge and skills as:

1	Microbiology lab specialists	Able to master the principles of growing, isolating, identifying, storing microbes, and their use in sustainable farming
2	Microbiology research assistants	Capable of facilitating high-quality research in microbiology, proficient in monitoring, evaluating, and reporting research activities within the field of microbiology.
3	Prospective microbiology scientists	Having the ability to carry out some basic microbiology research to be further developed through linear further education.
4	Farm-field assistants with microbiology expertise	Having the ability to use a microbiological approach to support plant growth that can increase the profit.
5	Microbiology entrepreneurs	Able to utilize microorganisms as entrepreneurial opportunities.

Graduates of the Master Phytopathology are expected to embark on the following career paths:

1	Educators	Competent in delivering lessons in the field of phytopathology, being able to pursue doctoral program studies, developing innovative and collaborative scientific research, and gaining national or international recognition.
2	Researchers	Having the competences to pursue study in the Doctoral program and develop innovative and collaborative scientific research in accordance with institutional goals.
3	Professionals in plant quarantine and other plant protection areas.	Having competences to conduct testing and develop techniques for disease diagnosis and management, performing risk analysis of plant pest organisms, and building collaboration in communities in accordance with the role in the job.

Graduates of the Master Pest Science are anticipated to pursue careers as:

1	Analysts of pest science in the government.	Competent as a graduate in navigating complex pest-related challenges and able to contribute effectively to pest management strategies, including competency in the field of plant protection policy.
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2	Scientists in national and multinational institution or companies.	Able to carry out several basic and advanced research in the field of Plant Pest Science that is realistic and innovative.
3	Consultants in Plant Protection.	As a Plant Protection Consultant who has the ability to be consistent with the latest developments in Pest Science and pest management technology, and is flexible in dealing with unexpected situations and changing conditions.
4	Entrepreneurs	Master in Pest Science graduates are able to utilize fields related to insects or pests as entrepreneurial opportunities.

Graduates of the Master Fisheries Sciences are expected to contribute their knowledge and skills as:

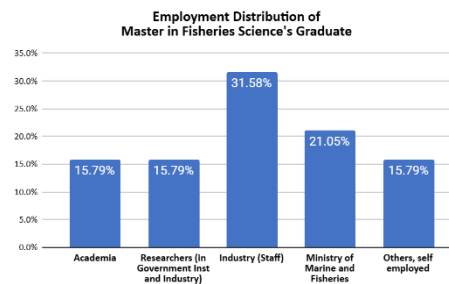
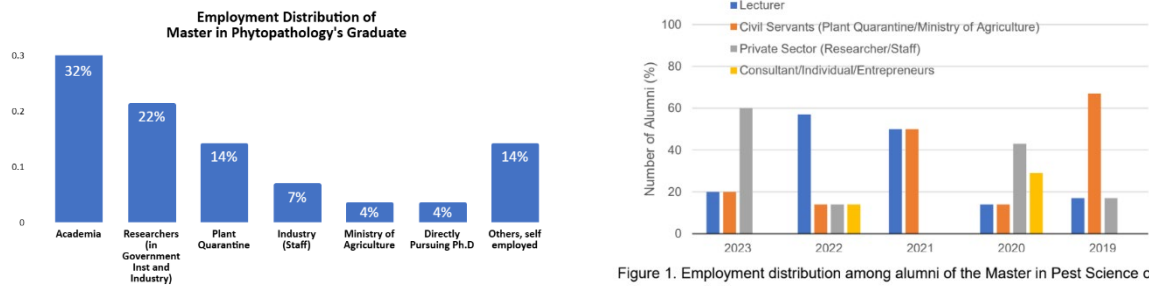
1	Academicians or lecturers.	Possess technical knowledge in teaching, scientific research, and community engagement to contribute to the advancement of fisheries science
2	Researchers	Capable of elaborating theories and applications comprehensively in the field of fisheries to develop science and technology through inter/multi discipline research.
3	Industrial managers or practitioners.	Having the ability to oversee operations and ensure the efficiency, sustainability, and profitability, as well as formulate appropriate solutions in the fisheries industry
4	Policy makers	Able to plan, organize, implement, supervise, and evaluate programs, as well as make appropriate policies in the field of fisheries and marine affairs.

During the discussion with the assessment team, students and alumni expressed their satisfaction with the programs under review, the learning experience, and job prospects. The team found the students' enthusiasm particularly noteworthy. The experts were also impressed by the strong engagement of alumni with the university, demonstrated through active WhatsApp groups, regular meetings, and participation as guest speakers and mentors, reflecting their ongoing commitment to UGM.

The experts appreciate that UGM aims to provide high standards to give its graduates good chances in the national job market and a good starting point for pursuing further education. They see evidence that the intended qualification profiles of the four study programs under review allow students to take up an occupation that corresponds to their qualifications.

When asked about the acceptance of graduates in the labour market, the program coordinators explained that they conduct tracer studies to monitor this. These studies have shown, for example, that about 44% of BAM graduates work as laboratory specialists, microbiology research assistants, or are pursuing careers as future microbiologists in government, academic, or private laboratories. 10% of graduates have become entrepreneurs in microbiology-related industries, while 8% are employed as field assistants

or technical officers in agriculture-related projects. The results for the Master's programs are presented in the figures below:



The acceptance of UGM graduates in the labour market was ensured after discussions with external partners who expressed willingness to accommodate interns and recruit graduates. They reported positive results regarding technical competence, personal attributes, and alumni character. However, they also identified areas for further improvement: students' communication skills and problem formulation. The partners emphasized the importance of preparing students to confidently express themselves, articulate their ideas effectively, present their work clearly, and demonstrate leadership skills. They noted the value of soft skills and recommended placing greater emphasis on their development, particularly in areas such as oral and written communication (e.g., presenting students' ideas, reporting on their work, public speaking, and leadership skills).

Nevertheless, there is considerable evidence that UGM has successfully prepared its students to enter and adapt to the workforce. Users expressed satisfaction with the knowledge and technical skills of the graduates.

In summary, the experts hold the view that the objectives of degree programs are well-established and the intended learning outcomes are coherent with these objectives on the different levels. The degree programs are designed in such a way that they meet the goals set for them. The experts conclude that the degree programs' objectives and intended learning outcomes adequately reflect the intended level of academic qualification - EQF 6 for the Bachelor's program, and EQF 7 for the Master's programs.

Criterion 1.2 Name of the Degree Program

Evidence:

- Self-Assessment Report
- Diploma certificate, all programs under review

Preliminary assessment and analysis of the experts:

According to the Self-Assessment Report, the nomenclature for the degrees awarded adheres to the regulations established by the Minister of Research, Technology and Higher Education.

Graduates of the Bachelor in Agricultural Microbiology are awarded the title *Sarjana Pertanian* (S.P.) or Bachelor of Agriculture. Those completing the Master in Phytopathology, Master in Pest Science, and Master in Fisheries Science receive the title Master of Science (M.Sc.).

The experts confirm that the names of all four degree programs appropriately reflect the focus and content of the respective program. Moreover, the English translation and the original Indonesian names of BAM, MP, MPS, and MFS correspond with the intended aims and learning outcomes, as well as the main course language (Bahasa Indonesia)

Criterion 1.3 Curriculum

Evidence:

- Self-Assessment Report
- Academic Handbook
- Module descriptions
- Ba Agricultural Microbiology website: <https://mikro.faperta.ugm.ac.id/>
- Ma Phytopathology website: <https://master-in-phytopathology.faperta.ugm.ac.id/>
- Ma Pest Science website: <https://master-in-pest-science.faperta.ugm.ac.id/>
- Ma Fisheries Science: <https://mscfishsci.faperta.ugm.ac.id/>
- Discussions during the audit

Preliminary assessment and analysis of the experts:

The curricula, structure, and composition of the study programs under review are presented in the Academic Handbook and program websites.

Structure and contents

Each semester is equivalent to 16 weeks, including 14 weeks of learning activities and 2 weeks for midterm and final exams. The odd semester starts in August, and the even semester starts in January.

Bachelor in Agricultural Microbiology

BAM's curriculum is aligned with the national standards in Indonesia and is designed for eight semesters. It encompasses 144 - 160 credits, equivalent to 217.44 – 241.6 ECTS points, divided into compulsory and elective courses.

In the early stages of the program, students take general foundational courses (refer to the curricular overview in the [Appendix](#)). These include subjects in biology, chemistry, mathematics, introductory subjects in agronomy and agricultural sciences, as well as English for academic purposes. In the fourth and fifth semesters, students are required to complete compulsory national curriculum courses. These include Civics Education, Indonesian Language, Pancasila Education, Religious Education, and others. These courses aim to develop students' understanding of the socio-cultural context and foundational principles of Indonesian society.

As students progress through the program, the courses become more focused and specific, allowing them to delve deeper into the field. Practical laboratory work is incorporated into the curricula, enabling students to gain hands-on experience. In the later stages of the program, students take specialized subjects and engage in professional development activities. They also complete community service and write a thesis in the final year.

The curriculum incorporates the Independent Learning–Independent Campus initiative (*Merdeka Belajar – Kampus Merdeka*, MBKM), a government-led program regulated by the Minister of Education and Culture Regulation No. 3/2020. This initiative encourages students to participate in activities outside their study program. These activities include: 1) Student Exchange, 2) Internship, 3) Teaching, 4) Humanitarian Project, 5) Independent Study, 6) Research, 7) Entrepreneurship, 8) Community Development, and 9) State Defense Program.

Master in Phytopathology and Master in Pest Science

MP and MPS span 4 semesters (2 years) with a study load of 40–50 credits (98.4–116.4 ECTS) and 41-45 credits (100.2-107.4), respectively. As outlined in the curricular overview presented in the [Appendix](#), during the first two semesters, students are provided with a foundational understanding of the discipline through compulsory and elective courses. The students are expected to embark on their thesis project in the third semester.

During the audit, the experts engaged in discussions with the program coordinators regarding the content of these two Master's programs, which primarily focus on tropical pests and diseases. The coordinators emphasized that, given Indonesia's tropical climate, the programs are designed to address methods relevant to the Indonesian context while also anticipating emerging diseases in the region. While the experts acknowledge that Indonesian topics are well-covered, they suggest that the programs could broaden their scope to include non-tropical topics. Expanding the scope in this way could enhance the programs' attractiveness to international students from diverse geographical backgrounds, not only those from tropical countries.

Furthermore, the experts sought clarification from the program coordinators regarding the availability of a course on statistics and data analysis as preparatory training for research, as such a course is not explicitly listed. The program coordinators clarified that data analysis subjects are offered in other study programs, and students are informed of this during their initial meeting. If students require this training, they can take those subjects. However, the experts strongly recommend that data analysis courses be integrated into the curriculum to enhance preparation for research activities.

Master in Fisheries Science

MFS also spans 4 semesters (2 years) with a study load of 40–50 credits (98.4–116.4 ECTS). As outlined in the curricular overview presented in the [Appendix](#), the first two semesters provide students with a foundational understanding of fisheries and aquatic bioresources through a combination of compulsory courses, study interest-specific compulsory courses, and electives. The program has three study interest:

1. Processing Technology
2. Aquaculture
3. Aquatic Resources Management

Students are expected to concentrate on their thesis in the third semester.

During discussions with the program coordinators, the experts inquired about how the Master's program in Fisheries accommodates research interests related to capture fisheries. The coordinators explained that the program offers 17 elective courses for three areas of study interest. They acknowledged that content related to capture fisheries is currently limited due to constraints in available facilities. Nevertheless, the coordinators believe that the combination of compulsory courses, study interest-specific courses, and electives is sufficient to achieve the PLOs for both general and specialized skills. While the experts commend the current offerings and recognize the facility limitations, they recommend that the program strengthen the content on capture fisheries.

In their overall appreciation of the four programs under review, an important additional recommendation from the experts is that the programs should further strengthen the integration of sustainability and global change issues within the curriculum. They emphasize the need for a more strategic approach to align with the priorities of the global marketplace, where sustainability is increasingly at the forefront of industry and policy agendas.

In addition, as noted under Criterion 1.1 for the four programs, the experts encourage greater emphasis on the development of students' soft skills, based on feedback from stakeholders. They highlight that bringing innovations forward requires leadership and communication abilities. Therefore, they recommend evaluating the curriculum to identify appropriate points where soft skills development can be further integrated.

International Mobility

UGM provides opportunities for students to conduct stays abroad and to join exchange programs. The UGM's Office of International Affairs is responsible for managing and coordinating international activities such as organizing student mobility programs, developing and maintaining relationships with partner institutions and organizations around the world, recruiting and admitting international students, and providing support and assistance to international students during their time at UGM, such as helping with housing, visa issues, and other practical matters.

Students' international academic mobility is supported by the Indonesian Government. For example, through the Indonesian International Students Mobility Awards (IISMA), a scholarship program administered by the Ministry of Education, Culture, Research, and Technology, starting in 2021. In addition, lecturers are encouraged to conduct joint research with international partners and involve students in their projects.

As mentioned earlier, the Indonesian government supports activities outside the university through the MBKM program. UGM recognizes these activities based on the comparability of the intended learning outcomes. The experts consider this regulation sufficient.

According to the Self-Assessment Report, the Bachelor Agricultural Microbiology program promotes international exposure through both outbound and inbound student mobility programs. Outbound programs enable students to participate in short-term studies, research collaborations, and cultural exchanges with partner universities in countries such as Japan and South Korea. Between 2022 and 2025, around 15 BAM students participated in these programs.

Similar efforts have been made by the Master's programs. The Master Phytopathology enables students to engage in research collaborations with partners in Australia, Finland, and Japan. These collaborations allow students to participate in exchange programs and complete their master's theses in the host institution. Additionally, the program invites guest lectures from these collaborations. The Master Pest Science engages students and teaching staff in scientific forums, collaborative discussions, and visiting scholar programs. The program also invites guest lectures, organises workshops in collaboration with international partners, and encourages participation in international conferences. The Master Fisheries Science's efforts include sending delegations and collaborating with international partners. Since 2018, the Department of Fisheries has been a part of a regional initiative aimed at enhancing university work and alumni employability through training courses, international symposia, workshops, podcasts, and innovative technology events.

The students confirmed during the discussion with the experts that opportunities for international academic mobility exist. For instance, Bachelor's students mentioned the opportunity to conduct research in Japan, and their credits were recognized as part of their thesis requirements. Master's students in Phytopathology discussed internships in Japan during their second semester, where credits earned were transferred to UGM. Additionally, an international student in the Master's program in Fisheries Science talked about receiving a scholarship from UGM, which was supported by the Department of Fisheries. The student studied in Bahasa Indonesia during the first year, with presentations for the subjects conducted in English.

The experts discussed with UGM's management whether there is a strategic concept to increase the international mobility of students and teaching staff. They learned that UGM has numerous international partnerships, has developed a fellowship program, and offers scholarships for foreign students wishing to study at the university. UGM aims to optimize

exchanges with Asian countries, including China, Korea, and Japan. The Faculty of Agriculture has established strong collaborations with Japan, including joint publications with Japanese partners.

The experts recognize that UGM is making efforts to increase its international profile. They also appreciate that UGM has already initiated national and international collaboration with different institutions to provide international mobility opportunities for students and teaching staff.

During the audit, the students expressed satisfaction with the use of English in the study programs. They also rated the English proficiency of the lecturers as generally good or very good. The experts commend the ongoing efforts to enhance the English skills of both students and teaching staff, and they encourage the Faculty of Agriculture and UGM to continue advancing in this direction. The experts highlight that in alignment with the programs' aspirations to enhance their presence on the international stage, sustained efforts to increase the integration of English in the study programs becomes a critical area of development.

Curriculum review

According to the information provided during the audit, the curriculum review is carried out every five years. The curriculum review of the four study programs is conducted independently, involving internal stakeholders such as faculty leaders, program managers, course lecturers, and external stakeholders. The most recent major review of the Bachelor Agricultural Microbiology took place in 2019, with adjustments in 2024 to mandatory courses and the Community Service Program course. The latest review of the Master's programs was conducted in 2022. The curricula were revised to align with new regulations issued by the government and the university, including adjustments to course workload.

Based on the evidence gathered during the audit, the experts attest that through these periodic review processes, the programs have strategically targeted the needs of potential employers. However, during the meetings, the experts observed little representation from the corporate sector. They emphasize that, when it comes to continuous improvement, the university should not focus solely on the government or academia but also consider the corporate sector as a key player in informing market needs. It is essential to incorporate their insights into the programs and reflect their viewpoints.

Individual modules are evaluated annually at the beginning of each new semester and revised as needed to ensure alignment with the PLOs mandated for each course.

Additionally, at the end of each semester, the study programs conduct a portfolio analysis to assess the extent to which the PLOs have been achieved for each course.

After analyzing the module descriptions and study plans, the experts confirm that the four study programs are divided into modules, and each module is a sum of coherent teaching and learning units. All working practice intervals and internships are well integrated into the curriculum, and the supervision by the Faculty of Agriculture guarantees their respective quality in terms of relevance, content, and structure. The study plans are developed in a way that ensures a balance between theoretical knowledge and practical application, preparing graduates for various roles within the agricultural and fisheries sectors.

In addition, the experts gained the impression that the choice of modules and the structure of the curriculum ensure that the intended learning outcomes of the respective degree program can be achieved.

The experts confirm that the graduates of the degree program under review are well-prepared for entering the labour market and can find adequate jobs in Indonesia. While there is some room for further strengthening soft skills, UGM's graduate users confirmed that the graduates have a broad scientific education, are very adaptable, and have manifold competences, which enable them to secure and excel in suitable employment opportunities.

Criterion 1.4 Admission Requirements

Evidence:

- Self-Assessment Report
- UGM Admission website: <https://um.ugm.ac.id>
- UGM tuition fees: <https://um.ugm.ac.id/uang-kuliah-tunggal-ukt-snbp-dan-snbt-ta-2025-2026/>
- Discussions during the audit

Preliminary assessment and analysis of the experts:

The admission and selection process for prospective students in the undergraduate and graduate programs within the Faculty of Agriculture adheres to UGM's established guidelines for new student admissions. Information regarding admission requirements, schedules, registration locations, and selection tests is published online via the official website, ensuring accessibility for all stakeholders.

Bachelor Agricultural Microbiology

According to the website, there are three different ways by which students can be admitted to a Bachelor's program at UGM:

1. National Entrance Selection of State Universities (*Seleksi Nasional Berdasarkan Prestasi - SNBP*), a national admission system based on the academic performance during high school (40% of students at UGM are admitted through this pathway).
2. Joint Entrance Selection of State Universities (*Seleksi Nasional Berdasarkan Tes - SNBT*), a national selection test held every year for university candidates. It involves a nationwide written test in subjects such as mathematics, Bahasa Indonesia, English, physics, chemistry, biology, economics, history, sociology, and geography (It accounts for 30% of the admitted students at UGM).
3. Independent Entrance Selection: Students are either selected based on a computer-based test (similar to SNBT) specifically held by UGM or on merit/social reasons. (30 % of the undergraduate students at UGM are admitted this way).

The annual intake quota of the Bachelor Agricultural Microbiology is 35 students each year. The table below presents the admission data for the period 2018-2022. Based on the data, the number of applicants has declined, but still exceeds the number of available places. For example, in 2022, there were 314 students applying for admission, and only 42 candidates were accepted. This is equivalent to an admission rate of 13%.

Table 1: Applicants, Selected and registered for BAM in 2018-2022
Source: Self-Assessment Report, UGM.

SP	Year	2018	2019	2020	2021	2022
BAM	Applicants	635	439	906	448	314
	Accepted	46	35	36	40	42
	Registered	42	33	30	35	38

Further details of the application process, as well as information on admission criteria and deadlines, can be found on UGM's homepage and in the Academic Guidelines, which are also published on the university's website.

Master's programs Phytopathology, Pest Science and Fisheries Science

For admission to the master's program, prospective students can apply via the official website. Candidates are assessed based on the following criteria: their undergraduate cumulative GPA, English proficiency (TOEFL ITP score ≥ 400), academic ability (Academic Potential Test (TPA) ≥ 450), and recommendations from two individuals who can evaluate the candidates' academic performance. Additionally, there are special requirements for students applying from outside the independent pathway, and the previous institution must have a national accreditation level (BAN-PT) of at least "B"

The Faculty of Agriculture also offers a Fast Track Program that allows undergraduate students to transition directly into master's programs during their 6th semester. Through this program, outstanding students can earn both their Bachelor's and Master's degrees in five years.

The Master Phytopathology has a capacity of 30 students per year (15 per semester), following an increase from 20 in 2021 and 25 in 2022. The table below shows the fluctuations in application, acceptance, and registration numbers over the 2019-2023 period. During this time, the number of applicants and accepted/registered students has ranged from 3 to 14, with an increase in the last two years.

Table 2: Applicants, Selected and registered for MP in 2019-2024

Source: Self-Assessment Report, UGM.

SP	Year	2019		2020		2021		2022		2023	
		odd	even	odd	even	odd	even	odd	even	odd	even
MP	Applicants	8	9	8	3	8	6	14	6	14	12
	Accepted	6	7	8	3	8	6	14	6	14	12
	Registered	6	7	8	3	8	6	14	6	14	12

The Master Pest Science currently admits up to 30 students annually, an increase from the previous limit of 20 in 2021. The table below presents the variation in application, acceptance, and registration numbers from 2019 to 2023. During this period, the number of applicants ranged from 3 to 22, while the number of accepted/registered students varied from 3 to 17, indicating a rising trend over the past three years.

Table 3: Applicants, Selected and registered for MPS in 2019-2024

Source: Self-Assessment Report, UGM.

SP	Year	2019		2020		2021		2022		2023	
		odd	even	odd	even	odd	even	odd	even	odd	even
MPS	Applicants	8	11	3	6	9	6	10	6	22	6
	Accepted	8	7	3	6	9	6	10	6	17	6
	Registered	6	7	3	6	9	6	10	6	17	6

The Master Fisheries Science program has an intake quota of 40 students per semester. The data in the table below outlines the changes in the number of applicants and students accepted/registered between 2019 and 2023. During this period, the number of applications ranged from 8 to 28, while the figures for acceptance/registration varied from 3 to 20. These metrics have shown growth over the last three years.

Table 4: Applicants, Selected and Registered for MFS in 2019-2024

Source: Self-Assessment Report, UGM.

SP	Year	2019		2020		2021		2022		2023	
		odd	even	odd	even	odd	even	odd	even	odd	even
MFS	Applicants	20	11	17	8	15	11	15	12	28	25
	Accepted	10	3	12	4	12	10	12	8	22	20
	Registered	10	3	8	4	10	9	12	8	20	17

Overall, for the four programs under review, the experts find the terms of admission to be binding and transparent. They confirm that the admission requirements support the students in achieving the intended learning outcomes

The tuition fees for the Bachelor Agricultural Microbiology program depend on the parents' income and can range from 0 to 606 EUR per semester, which aligns with the national range. Similarly, the tuition fees for the Master's programs in Phytopathology (ranging from 556 to 741 EUR), Pest Science (ranging from 578 to 1,011 EUR), and Fisheries Science (1,108 EUR) are comparable to the fees of similar programs at other top universities in Indonesia.

Criterion 1.5 Workload and Credits

Evidence:

- Self-Assessment Report
- Module Handbooks
- Study Plans
- Academic Guidelines
- Discussions during the audit.

Preliminary assessment and analysis of the experts:

All degree programs at UGM must follow the Indonesian credit system (*SKS*, Semester Credit Unit (SCU)). One SCU is distributed between guided and independent learning activities, as well as between face-to-face activities, laboratory activities/practicum, and project and field practice.

For regular classes, 1 SCU corresponds to 170 minutes per week per semester, divided into 50 minutes of lecture, 60 minutes of structured assignments, and 60 minutes of self-study per week per semester. Since there are 16 weeks in a semester, 1 SCU is equivalent to 45.33 ($170 \times 16 \div 60$) hours of educational activity in one semester.

The details and the students' total workload are described in the respective module description.

Bachelor in Agricultural Microbiology

The bachelor's program comprises 113 SCU (170.63 ECTS) of compulsory courses and 31 - 47 SCU (46.81 – 70.97 ECTS) of elective courses. The compulsory courses include student seminar, fieldwork and undergraduate thesis.

The semester GPA determines the maximum number of credits students can take the following semester, with a maximum of 24 SCU if $GPA \geq 3.00$ according to the Academic Guidelines. Bachelor's students are required to attend their classes in accordance with established regulations. They must be present for at least 75% of the theoretical courses and 100% of the practical courses. If a student's attendance falls below these percentages, they are not allowed to take the final examination.

The maximum time to complete the bachelor's program is 14 semesters.

Master's programs in Phytopathology, Pest Science, and Fisheries Science

The workload in the Master's programs is distributed as follows:

*Table 5: Types of Courses in MP, MPS, and MFS
Source: Self-Assessment Report, UGM.*

No	Types of courses	SCU			ECTS		
		MP	MPS	MFS	MP	MPS	MFS
1	Compulsory	12	17	25	21.6	30.6	45
2	Electives of specialization		8			14.4	
3	Elective	16-26	4-8	7-15	28.8-46.8	7.2-14.4	12.6-27
4	Master thesis	12	12	12	48	48	48
Total		40-50	41-45	41-52	98.8-116.4	100.2-107.4	105.6-120

Regarding the master's thesis, each credit carries a value of 4 ECTS. This equivalence assumes 25 working days with 8 hours per day over a period of 6 months, resulting in a total workload of 1200 hours ($1200 \div 25 = 48$ ECTS).

The requirements for graduation and obtaining a master's degree must be fulfilled within a maximum of six semesters.

During the audit, the experts focused on the different conversions from SCU to ECTS between the Bachelor's and Master's programs. According to the Self-Assessment Report. for the Bachelor's program, 1 SCU equals 1.51 ECTS (calculated as $45.33 \div 30$), whereas in the Master's programs, 1 SCU corresponds to 1.8 ECTS ($45.33 \div 25$). The experts sought clarification on this difference, as both degree levels apply the same time, that is, 50 minutes for lectures, 60 minutes for structured assignments, and 60 minutes for independent study per week, and 16 weeks per semester.

The program coordinators explained that the variation in ECTS allocation between undergraduate and postgraduate programs is attributed to the greater academic workload and responsibilities expected from postgraduate students. Furthermore, as the learning methods at the master's program level are primarily research-based and project-based, the calculation and assessment approaches for undergraduate and master's programs at the

Faculty of Agriculture are distinguished and conducted separately to accommodate the differing pedagogical characteristics and academic orientations of each program level.

The experts appreciate the information provided. However, they find the use of these fixed conversion rates between SCU and ECTS points to be somewhat arbitrary. In their opinion, ECTS points should be calculated individually for each course, since the amount of self-study time required can vary depending on the course.

The experts also point out that the indicated conversions are not applied consistently across the programs. For instance, the Module Handbook for the Master's program in Fisheries, available on the official website, states that 1 SCU is equivalent to 1.51 ECTS, which does not reflect the explanation previously provided. Additionally, several module descriptions do not specify the credit load in converted ECTS units and do not explain the conversion system used, as seen for the Master's program in Phytopathology.

From the Self-Assessment Report, the experts also learned that student workload details are documented in module manuals and portfolios, with the evaluation of each module's workload featured in the portfolio at the end of the semester. During the audit, the students did not report any significant imbalance or excessive workload. They mentioned having sufficient time to participate in other activities outside study.

However, the experts could not find clear evidence confirming that instruments are in place to regularly monitor whether the credits awarded for each module correspond to the actual student workload. Consequently, the panel sees that the University needs to verify the students' total workload and adjust the awarded ECTS points accordingly.

The university also provided data on enrolments and average study duration in its Self-Assessment Report.

During the academic years 2018/2019 to 2022/2023, the Bachelor in Agricultural Microbiology program had 178 students registered. The average completion time for the program has decreased from 5.7 to 4.7 years, primarily due to improvements in the procedures for the bachelor's thesis.

Data from the 2019 odd to 2021 odd-semester cohorts show the following total student registrations: 32 for the Master Phytopathology, 31 for the Master Pest Science, and 35 for the Master Fisheries Science. For these cohorts, the average time to complete the Master Phytopathology ranged from 2.8 to 1.8 years. For the Master Pest Science, it ranged from 2.6 to 2.0 years, and for the Master Fisheries Science, from 2.9 to 1.4 years.

The longer study durations in earlier cohorts are attributed to disruptions caused by the COVID-19 pandemic. Completion times have since improved, supported by the implementation of post-pandemic regulations, a more effective internal quality assurance system, streamlined core research programs led by supervisors, and better performance of the research commission.

Although the Bachelor's program slightly exceeds the standard study duration of four years, the data indicate that students generally complete the programs within a reasonable timeframe. This suggests that the programs under review are structured in a way that supports successful completion.

Criterion 1.6 Didactic and Teaching Methodology

Evidence:

- Self-Assessment Report
- Academic Guidelines
- UGM Learning Management System: <https://simaster.ugm.ac.id/>
- Discussions during the audit.

Preliminary assessment and analysis of the experts:

The programs under review have adopted a student-centered learning approach, employing methods that actively engage students and promote the development of critical thinking and analytical skills. The teaching methods employ a range of pedagogical strategies, including contextual, collaborative, case-based, project-based, and research-based learning. Corresponding examples of these activities are presented in the table below.

Table 6: Teaching methodology and related activities

Source: Self-Assessment Report, UGM.

No	Teaching Method	Related Activities
1	Contextual learning	Lecture, presentation, and discussion
2	Collaborative learning	Group discussion, interactive lectures, group assignments, laboratory work
3	Case-based learning	Discussion, group assignments, presentation, laboratory work
4	Project-based learning	Organizing a scientific writing project and seminar materials, as well as a thesis.
5	Research-based learning	Field observation, Data collection and analysis, Report composition, Presentation.

Learning strategies are tailored to the Program Learning Outcomes, with different techniques emphasized depending on the PLOs being supported. As indicated in the table,

the Bachelor Agricultural Microbiology utilizes various educational methods for each course, including practical laboratory work, field studies, lectures, Community Service, and a Bachelor's thesis. During the classes, active and interactive teaching methods (e.g., lectures, discussions, reports, presentations, and group work) are applied.

In the Master's programs, lectures, discussions, problem-based learning, research-based learning, project-based learning, cooperative learning, and tutorials are conducted. Presentations and seminars involve students, either individually or in groups, to actively communicate their ideas by explaining or describing the analysis of case studies, reports, or other specific topics in a systematic manner. This method is also used for disseminating students' research proposals and theses.

At the first meeting, lecturers explain the course details, including objectives, schedules, teaching methods, materials, and assessment systems. Teaching is supported by UGM's information systems, including eLOK for online learning and SIMASTER, which enables lecturers to manage course materials, assignments, and exams. The study programs also use Google Classroom. Additionally, EDoM (Lecture Evaluation by Students) collects student feedback to improve course delivery, integrating it with SIMASTER for streamlined access and use. The experts commend UGM for ensuring good access to IT platforms to support academic activity.

The experts summarize that UGM has integrated a variety of teaching methods and didactic means into the study programs under review to promote the achievement of learning outcomes. This includes strategies and guidelines from blended learning and hybrid learning to which UGM offers a suitable infrastructure and staff development options. Furthermore, the experts acknowledge that the programs monitor the utilized learning and teaching methods and implement improvements based on the findings.

However, the experts advocate for greater use of English in the learning process, as noted earlier. Other than the English modules themselves, there are no modules fully organized in English. In some courses, bilingual materials are used, which involves mainly slides and reading materials. The main spoken language, nonetheless, remains Bahasa Indonesia. A possible way to improve stepwise could be a first focus on increasing the number of research papers in English language.

In addition, the expert observed unclear views on the use of artificial intelligence, which is becoming more predominant in higher education. The university should reflect on this issue and progress towards the development of a policy on the use of this tool (more under Criterion 2).

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

The experts thank UGM for the provided statements and additional documentation concerning criterion 1.

(ASIIN 1.1, 1.3) Students' soft skills – all programs

UGM describes various initiatives implemented by the study programs to enhance students' communication skills and problem formulation. These include structured presentation assignments, classroom discussions, communication training such as public speaking workshops and academic writing sessions, as well as participation in student organizations, seminars, competitions, and the Community Service Program. Additionally, action plans have been developed to strengthen students' problem formulation skills. The experts commend the university's commitment to developing students' soft skills. They note that this recommendation is based on feedback from stakeholders, and therefore emphasize the importance of regularly gathering stakeholder input on the progress and effectiveness of these efforts. The experts recommend continued and sustained development in this area (Recommendation E1).

(ASIIN 1.3) Non-tropical topics within the curriculum – Master's programs Phytopathology and Pest Science

UGM clarifies that the focus of the programs is not limited to tropical areas. The MP program has an emphasis on the tropical field to establish a specific focus and rationale, but also includes teaching and research in subtropical regions. Plans are in place to revise the program's presentation to convey its education offerings more clearly. Regarding the MPS program's curriculum, it is designed to develop both foundational and advanced competencies in general pest science. These scientific foundations apply to various agroecological settings, including non-tropical regions. The experts appreciate the orientation of the programs and support the inclusion of non-tropical perspectives (Recommendation E10).

(ASIIN 1.3) Data analysis within the curriculum - Master's programs Phytopathology and Pest Science

The university recognizes the importance of incorporating statistical data analysis into the curriculum. In response, the MP program plans to address this recommendation during the upcoming triennial curriculum evaluation. Currently, the MPS program is developing a new course titled "Biostatistics, Modelling, and Data Analytics in Pest Science." This course aims to provide essential preparatory training for research activities, enhancing students' capabilities to conduct evidence-based scientific investigations in both academic and professional contexts. As these changes are still in the planning stages, the experts have issued Recommendation E11.

(ASIIN 1.3) Capture fisheries within the curriculum – Master Fisheries Science

UGM indicates that the MFS program covers three main study areas, including aquatic resource management, which involves capture fisheries. The Department of Fisheries currently collaborates with various organizations related to capture fisheries. The experts appreciate these partnerships and acknowledge the university's ongoing efforts to regularly review and update the program, including the consideration of incorporating capture fisheries courses into the curriculum (Recommendation E12).

(ASIIN 1.3) Sustainability and global change within the curriculum – all programs

UGM recognizes the importance of integrating sustainability and global change issues into the curriculum. It outlines how these topics are addressed across the four programs under review, through both existing and newly introduced mandatory and elective courses. The university states its commitment to regularly reviewing and revising the curriculum to ensure that sustainability-related content is more integrated and aligned with international standards and industry best practices. The experts support these initiatives and recommend maintaining a strong emphasis on further developing this area (Recommendation E2).

(ASIIN 1.3, 1.6, 2, 3.1) English language – all programs

The university affirms its commitment to enhancing English skills and describes the initiatives implemented across the four study programs to support this goal. For example, at the Bachelor's level, this involves integrating English language courses into the curriculum and offering the International Undergraduate Class (IUC). For Master's students, submitting a publication in English is a prerequisite for thesis examination, and guest lectures by international experts are also organized. Looking ahead, the university plans to further develop and expand initiatives to reinforce the role of English within the curriculum, efforts that the experts fully support (Recommendation E3).

(ASIIN 1.3) Curriculum review – all programs

UGM recognizes the important role of the corporate sector and is taking concrete steps to strengthen its engagement. Curriculum evaluations involving industry representatives have already been conducted, and plans are in place to increase both the frequency and diversity of corporate involvement in future reviews to better align the programs with labour market needs. The university also promotes regular interaction between academia and industry through seminars, webinars, alumni gatherings, and guest lectures by industry professionals. The experts appreciate these efforts and have no further comments on this matter.

(ASIIN 1.5) Student workload – all programs

The university acknowledges that the use of fixed credit conversion rates may not fully capture the varying levels of independent learning required across different courses. To address this, the university states its commitment to reviewing and improving its credit conversion methodology to more accurately reflect the actual workload for each course.

This process may include course-level workload evaluations and the collection of feedback from students and academic staff.

The experts appreciate this commitment and emphasize the importance of verifying total student workload to ensure that awarded ECTS credits accurately reflect it (Requirement A1). They particularly highlight the need for consistency, noting, for example, that in the MFS program, the thesis is allocated 3.84 ECTS but converted into 12 local credit points, whereas the course "Practicum in Sustainable Fisheries Management Business" is also assigned 3.84 ECTS but converted only into 2 credit points.

(ASIIN 1.6, 2) Policy on Artificial Intelligence – all programs

Addressed under criterion 2.

The experts regard this criterion to be mostly fulfilled.

2. Exams: System, Concept and Organisation

Criterion 2 Exams: System, Concept and Organisation
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Evidence:

- Self-Assessment Report
- Module handbooks
- Academic Guidelines for Undergraduate program
- Academic Guidelines for Master's program
- Academic Calendar
- Samples of student's work (projects, exams and thesis)
- Discussions during the audit.

Preliminary assessment and analysis of the experts:

Forms of Examinations and Exam Schedule

General provisions and procedures for the assessment of students are outlined in the Faculty of Agriculture's Academic Guidelines for the Undergraduate Program and the Academic Guidelines for the Master's Program. As described in the table below, assessment is conducted using formative and summative methods.

Table 7: Assessment methods

Source: Self-Assessment Report, UGM.

Assessment Methods	Teaching Class	Lab Work	Field Work	Student Community Services	Thesis
Quizzes	v				
Assignments	v				
Presentation s	v		v		v
Exam (Mid/Final)	v				
Written Report/Paper		v	v	v	v
Activities		v	v	v	v
Pretest/posttest		v		v	
Teamwork		v	v	v	

From the evidence gathered during the audit, the experts confirm that different forms of examination are used, and these are competence-oriented and suitable overall for verifying the achievement of the intended learning outcomes. The form of examination is determined individually for each course based on the main content, and the level is appropriate for the respective degree programs.

During the meeting with the teaching staff, the experts learned that information about exam types and schedules is written in the Semester Learning Plan and Learning Contract, which are informed to students in the first session of each course. The form and length of each exam are specified in the course description available to students via the university's E-learning management system (SIMASTER). Through the latter, lecturers can conduct quizzes and examinations and provide feedback on assessments. The students also learn about mid-semester and end-of-semester exams via the academic calendar.

The experts appreciate the information provided to students through both lecturers and the SIMASTER platform. However, upon reviewing the module descriptions available on the program websites, they observe that these descriptions lack sufficient detail concerning the assessment methods. For example, in the Bachelor Agricultural Microbiology, several module descriptions refer to "high order thinking skills examinations" as the examination forms. In the Master Fisheries Science, the module descriptions indicate "Midterm exam: Examination and Final exam: Examination by Simaster, g form, and Elok" as Examination forms. Therefore, to ensure transparency and accessibility of information for interested parties, the experts expect that for the four programs under review, the assessment methods are clearly defined in the module descriptions (further discussion under Criterion 4.1).

Grading and Graduation Requirements

The final grade of each module is a combination of the scores of the individual types of assessments. The final grade of the course is given as a quality letter and quality score as follows:

Table 8: Numerical Value of each Grading Scale
Source: UGM Rector's Decree No. 1666/UNI.P.I/SK/HUKOR/2016, UGM.

Letter Grade	Score	Letter Grade	Score	Letter Grade	Score
A	4.00	B-	2.75	C/D	1.50
A-	3.75	B/C	2.50	D+	1.25
A/B	3.50	C+	2.25	D	1.00
B+	3.25	C	2.00	E	0.00
B	3.00	C-	1.75		

If students fail to fulfill the minimum requirement of the course and obtain an E grade, they have to repeat the related course in the following semester or year. Students can also retake the course to improve their competency and understanding of the specified subjects. However, the final grade will be based on the latest mark.

Students facing difficulties attending exams as per the schedule for valid reasons such as health problems, bereavement, or institutional obligations can request re-sits or replacement exams by submitting a formal request letter. Once the request is accepted, the examination committee will coordinate a new exam schedule. Additionally, for students with disability, the study programs will provide tailored facilities to accommodate their special needs.

Final grades are available on students' academic accounts (SIMASTER) no later than 2 weeks after the last exams. When students have objections to their exam results, they have the opportunity to appeal directly to the relevant lecturer within one week of the grade announcement. The students confirmed that an appeal mechanism exists if they perceive their grades as unfair.

In order to graduate from the programs under review, students must:

1. Bachelor of Agricultural Microbiology: not exceed the maximum study period, have active student status, and fulfil all administrative and academic requirements, achieving a minimum GPA of 2.50, with no grade E. Grade D should not be surpassed to a maximum of 25% of the total credits, the grades for Religious Education, Pancasila, Citizenship, Indonesian language, and Community Service Program (KKN) must be at least C, and the student should have prepared and passed the graduate thesis examination.
2. Master's programs: not exceed the maximum study period, have an active student status, and fulfil all administrative and academic requirements. Students are required to have a minimum GPA of 3.00, and do not have E, D, or TL (not passed)

scores. Students are also required to have a scientific publication/manuscript published in a scientific journal, at least 1 article from the results of thesis research with a minimum status of submitted, and prepare and pass the thesis examination.

UGM has a policy on academic integrity in educational activities, including examinations and assignments. If students engage in plagiarism, they will face sanctions that correspond to the severity of their actions. To help prevent plagiarism, the university provides its teaching staff and students with access to anti-plagiarism software, which can be used to detect similarities in written work.

In connection with this, the experts engaged in discussions with both teaching staff and students during the audit regarding the use of Artificial Intelligence (AI) tools in the learning process. The teaching staff emphasized the importance of teaching students critical thinking skills, indicating that students should not rely on AI to generate reports. The students mentioned that they are told to use AI wisely for brainstorming purposes. The experts also inquired whether there is a dedicated teaching program that instructs students on how to use AI effectively. Master's students mentioned that certain lecturers do teach them how to utilize AI for research.

In light of this discussion, the experts note that Artificial Intelligence is becoming increasingly prevalent in higher education. They recommended that the university reflect on this trend and work towards developing a policy on the use of AI tools. This policy should provide clear guidelines on what is permissible for students, outlining whether specific practices are allowed or not.

Thesis

In accordance with academic guidelines, Bachelor's and Master's students must complete a final thesis prior to graduation. This final assignment aims to demonstrate that students are able to work independently on a task at the intended level of the degree program.

In their assessment of this criterion, the expert group finds that appropriate rules and regulations, which govern the examination systems university-wide, are in place. These rules and regulations are adequately communicated and transparently published.

During the audit, the students indicated satisfaction with the organization of exams. The students confirmed that they were aware of all necessary information regarding examination schedules, forms, and grading rules. They reported that they are provided with sufficient time to prepare for exams and are given the opportunity to complain about their grades due to dissatisfaction.

The expert group also examined a selection of final theses/academic work and determined that they were of an appropriate academic level. However, as outlined earlier in this report, students write their theses predominantly in Bahasa Indonesia. To align with the programs' international aspirations, the experts suggest incorporating titles and abstracts in English.

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

The experts thank UGM for the provided statements and additional documentation concerning criterion 2.

(ASIIN 4.1, 2) Specification of assessment methods in the module descriptions – all programs

Addressed under criterion 4.

((ASIIN 1.6, 2) Policy on Artificial Intelligence – all programs

UGM has established a university-wide policy framework regarding the use of AI in academic settings. In line with this blueprint, the faculty is engaged in internal discussions to evaluate the pedagogical, ethical, and operational aspects of integrating AI, with the goal of developing a strategy that is appropriate for the context. Additionally, each study program has taken concrete steps in response to the advancements in AI, which are detailed in the response. The experts appreciate and support the ongoing reflections at the university, faculty, and program levels regarding the use of this tool (Recommendation E4).

ASIIN 1.3, 1.6, 2, 3.1) English language – all programs

Addressed under criterion 1.

The experts appreciate that current policy requires all bachelor's and master's theses to include both the title and abstract in English, and that this is consistently implemented across all study programs to enhance the international visibility and accessibility of student research. They also note the plan to introduce a standardized thesis template to ensure consistency in formatting and structure.

The experts regard this criterion to be mostly fulfilled.

3. Resources

Criterion 3.1 Staff and Staff Development
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Evidence:

- Self-Assessment Report
- Staff handbooks

- Study plans
- Module descriptions
- Discussions during the audit

Preliminary assessment and analysis of the experts:

Staff at the Faculty of Agriculture consists of academic staff/teaching staff (lecturers) and non-academic staff (support staff). Teaching staff members have different academic positions: professors, associate professors, assistant professors, and instructors. The academic position of each staff member is based on research activities, publications, academic education, supervision of students, and other supporting activities. For example, a full professor needs to hold a PhD degree, along with a robust and sustained record of research contributions. In addition, the responsibilities and tasks of a staff member with respect to teaching, research, and supervision depend on the academic position.

The composition of the teaching staff in the programs under review, according to their academic position, is shown in the following table. All lecturers in BAM, MP, MPS and MFS have doctoral degrees from domestic and overseas universities (e.g., Japan, Australia, South Korea, Germany, USA, and the UK)

Table 9: Total number of academic staff
Source: Self-assessment report (p.51, 53), UGM

Position/education level	BAM	MP	MPS	MFS
Professor	2	3	4	6
Associate Professor	4	4	4	8
Assistant Professor	1	2	2	9
Instructor	4	-	-	-
Total	11	9	10	23
Lecturer-to-student ratio	1:14.6	1:7.9	1:7.9	1:3.20

All members of the teaching staff are expected to be involved in teaching, research, community service, and administration. As the experts learned during the audit, all teachers have a workload between 12 and 16 credits per semester (equal to 544 to 725.33 hours). However, the workload can be distributed differently between the three areas from lecturer to lecturer. For professors, approximately 35% of their responsibilities involve teaching, while associate professors spend 40%, assistant professors 45%, and instructors 55%. As their academic career advance, a greater portion of their time shifts to research, with less focus on teaching.

Regarding promotions, those who are public servants must follow the system regulated by the government. The teaching staff's promotion to a higher academic position is based on several factors, such as achievement in teaching, research (publications), and community service activities.

During their exchange with the teaching staff, the experts inquired about their satisfaction with the current workload. The staff responded that, although the workload can be demanding at times, they are still able to carry out their Tridharma responsibilities: teaching, research, and community service. They also noted that students are actively involved in these activities. Moreover, collaboration across study programs fosters a supportive academic community. In terms of teaching, staff members can rely on team-based approaches, while for research, they are supported by research assistants.

However, a comment raised was that alongside the responsibilities related to teaching, research, and community service, lecturers are expected to undertake administrative duties, potentially leading to an overload. The experts support this concern and recommend reducing administrative tasks to mitigate their negative impact on scientific outputs (Tridharma).

Apart from the comment above, the experts confirm that the composition, scientific orientation and qualification of the teaching staff are suitable for successfully implementing and sustaining the degree programs.

Regarding non-academic staff, the Faculty of Agriculture reported, in its Self-Assessment Report, a total of 33 laboratory staff and 81 administrative staff. During the audit, the experts learned that the Bachelor Agricultural Microbiology is experiencing an influx of students every year. The faculty is also expanding its facilities, which is a positive development in terms of meeting future demands. However, this growth also highlights the need to increase the number of laboratory technicians. The experts concur with this appreciation, emphasizing that shortages in support staff in the laboratories for the Bachelor's program should not compromise the quality of support provided to the Master's programs. Therefore, in light of the increasing number of undergraduate students, the experts recommend increasing the number of laboratory technicians to meet the growing demand and to ensure continued quality of service for both Bachelor's and Master's students.

Staff Development

Most staff members in the programs under review are civil servants employed by the Ministry of Research, Technology, and Higher Education. However, to meet additional staffing needs, UGM also conducts public recruitment for both academic and non-academic positions. These recruits are employed directly by UGM as non-civil servant staff, with the recruitment process managed centrally by the university.

Upon recruitment, teaching staff gain access to a range of initiatives within UGM's and the Faculty of Agriculture's staff development program. This includes various grant schemes designed to help lecturers meet their achievement and publication goals, as well as support in applying for research and community service grants from both national and international institutions.

Each study program also supports the professional development of its teaching staff through participation in capacity-building initiatives organized by the government. One example is the Reflective Lecturer Program, which functions similarly to a sabbatical. It allows academic staff to travel abroad to engage in scientific activities such as research, proposal writing, book development, and lecturing, all within their field of expertise.

In addition to supporting academic staff, the study program also focuses on the development of non-academic staff. It periodically sends them, along with financial support, to various in-house training sessions at UGM and to external organizations, depending on their specific needs for improvement.

Teaching staff must submit lecturer performance reports each semester. Performance is not only measured by teaching activities, supervising activities, and research activities, but also by community service activities and other activities that lecturers conduct to increase their competence and skills. Performance appraisal programs are implemented to ensure that staff meet established performance targets. Staff who achieve these targets are eligible for additional incentives. Conversely, those who do not meet the expected performance levels may have their incentives withheld until the required improvements are made.

During the audit, the experts sought to verify the available development opportunities by inquiring with the teaching staff about the various programs accessible to them. The teaching staff members reported that there is a wide array of programs offered by the university, the faculty itself, and the government for them to collaborate and increase international exposure.

The lecturers highlighted that funding support, such as for conferences, is openly available, so they just need to submit an application. There are equal opportunities for participation in international conferences abroad. They shared their experiences attending workshops in Vietnam, the UK, and Thailand, highlighting the many opportunities for young lecturers to engage in international activities. The discussion also covered international collaboration, which includes guest lecturers and joint supervision, where students are overseen by a counterpart from another institution.

Overall, the teaching staff are highly satisfied with the opportunities to enhance their personal skills and with the internal qualification program at UGM. The institutional support for research is well-recognised by the young academia. Senior lecturers actively mentor young lecturers, particularly in enhancing their research productivity and supporting the development of research outputs. There are also numerous opportunities to further develop didactic abilities, as well as the chance to spend time abroad attending conferences, workshops, or seminars. Additionally, sabbatical leave is available for professional growth.

In summary, the experts confirm that UGM offers sufficient support mechanisms and opportunities for staff members who wish to further develop their professional and teaching skills. The staff is very satisfied with the working conditions and the support provided by the university.

Student Support and Student Services

UGM offers a comprehensive advisory system for all undergraduate students. At the start of the first semester, every student is assigned to an academic advisor. Each academic advisor is a member of the academic staff and is responsible for several students from their classes. The academic advisor is a student's first port of call for advice or support on academic or personal matters.

The role of the academic advisor is to help students with the process of orientation during the first semester, the introduction to academic life and the university's community, and 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 members of the teaching staff. The students confirmed during the discussion with the experts that they all have an academic advisor.

In general, the students stressed 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 the digital academic portal (SIMASTER), which is integrated with the Registration Information System, the Academic Information System, the Library Information System, and the Scholarship Information System. The students' profiles (student history, study plan, academic transcript, and grade point average/GPA, lecturer evaluation, and 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 noticed 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. 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.

Criterion 3.2 Funds and equipment

Evidence:

- Self-Assessment Report
- Visitation of participating institutes and laboratories
- Discussions during the audit.

Preliminary assessment and analysis of the experts:

Funds

UGM is a state university that operates with autonomous status, allowing it to manage its own funding and expenditures. According to the data provided in the Self-Assessment Report, in 2023, the Faculty of Agriculture's funding sources primarily consisted of student tuition fees, which accounted for about 55% of the total. Government funding, accounting for approximately 4%, primarily covers the salaries of state employees. The remaining funding came from research and industry collaborations, donations, and various business activities.

The Faculty of Agriculture allocated the largest portions of its annual budget to education (30%), infrastructure investment (24%), and human resource development (22%), with the rest directed toward facility investment (13%), research (10%), and community service (1%).

At the program level, an Annual Work Plan and Budget (RKAT) is prepared by the respective department in alignment with the Faculty Master Plan. The study programs are granted autonomy in managing funds, including the authority to plan and allocate their own budgets.

Based on the information gathered during the audit, the experts gained the impression that funding is generally sufficient to support the operational needs of the study programs under review. However, concerns were raised regarding recent reductions in government funding. The university management explained that government contributions to UGM's total funding have decreased from 30% to 25% this year. This reduction has impacted all academic units, including the Faculty of Agriculture, which now faces increased pressure to diversify its revenue sources through business ventures and strengthened external collaborations.

Collaborations

As part of its self-assessment report, a list of local and international partners was presented. The Faculty of Agriculture collaborates with various universities, government agencies, non-governmental organizations, and businesses. Memoranda of understanding have been established at national and international levels to support the implementation of the curriculum and Tridharma activities.

The experts commend the faculty for its strong research collaborations with other faculties. Although there is potential to enhance collaboration with the corporate sector, as indicated in [Criterion 1.3](#), the experts also highlight the existing partnerships with government institutions and academia.

Infrastructure and technical equipment

The facilities for BAM, MP, MPS, and MFS are located in several buildings within the Faculty of Agriculture. During the audit, the experts visited the following locations:

- Exhibition Stage - Lecturer and Student Innovation Corner
- Laboratories of MP, MPS, and MFS (Agrotropica Learning Center Level 3)
- Classrooms and Student Health Office (Agrotropica Learning Center Level 1)
- Offices for International Affairs, Student Academic Affairs, and Dean's Room
- Laboratory of BAM
- Library – book collection section and reading room
- Canteen (walkthrough only)
- Teaching Farm of MFS
- Laboratory of MFS

In their evaluation of the quality of the infrastructure and technical equipment, the experts noted that there are no significant bottlenecks caused by missing equipment or inadequate

infrastructure. Currently, the basic technical equipment for teaching and research is sufficient.

This positive perception was confirmed during the meeting with students, who expressed satisfaction with the laboratory facilities and equipment available on campus. They rated access to the software necessary for their study programs as good to very good. Furthermore, students reported that there are sufficient workspaces on campus to support both individual study and group projects.

However, when it comes to the current management of data and processes in the laboratories, the experts believe that there is room for improvement. An important recommendation is that the programs incorporate a LIMS (Laboratory Information Management System) to increase productivity and efficiency in laboratory operations.

During the audit, the students also expressed satisfaction with the library services available to them. They highlighted that the libraries within the Faculty of Agriculture grant access to a wide range of books relevant to their study programs and thesis research. Additionally, through the online library, students have access to many academic journals. The library also provides study rooms for students.

During the tour of facilities, the experts also learned about the specialized teams in place to support students' mental health and overall well-being. They visited dedicated units that provide services for students with disabilities. The experts are highly impressed by the comprehensive support systems and commend UGM for its commitment to student welfare, as well as for taking the needs of students with disabilities very seriously.

The experts conclude that the available funds, the technical equipment, and the infrastructure (laboratories, library, seminar rooms, etc.) comply with the requirements for sustaining the degree programs.

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

The experts thank UGM for the provided statements and additional documentation concerning criterion 3.

(ASIIN 3.1) Teaching staff's administrative load – all programs

UGM recognizes that excessive administrative duties can hinder productivity and distract from the focus needed for high-quality scientific outputs. In this context, the university is evaluating its administrative structures and exploring strategies to streamline processes. This includes the use of digital systems and additional administrative support staff to enable lecturers to concentrate more effectively on fulfilling their Tridharma obligations.

The experts appreciate these measures and recommend sustained efforts to ensure that academic staff can focus on achieving impactful research outcomes (Recommendation E5).

(ASIIN 3.1, 3.2) Laboratory technicians – all programs

UGM reports conducting a review, which has confirmed the adequacy of laboratory staffing at the Faculty of Agriculture, both in terms of quantity and quality. At the Bachelor's level, laboratory activities are conducted within the individual study programs, each supported by dedicated technical personnel. For the Master's program, practical and experimental work is centralized at the Agricultural Graduate Laboratory Center (AGLC), which is staffed with qualified personnel and equipped with shared facilities to provide consistent and efficient technical support. The experts appreciate that the university aims to provide proper laboratory staffing and resources. They recommend maintaining staffing standards, particularly in the event of increased student enrolment (Recommendation E6).

(ASIIN 3.2) Laboratory Information Management System – all programs

The university reports that the Faculty of Agriculture has developed a Laboratory Information System for the Bachelor of Agricultural Microbiology program, streamlining the management of laboratory activities and accessible through the UGM network. At the postgraduate level, a similar system is in place at the Agricultural Graduate Laboratory Center (AGLC) to support centralized services for Master's students. The experts commend UGM's efforts in advancing digital transformation in laboratory management and recommend continuing to innovate in this area to further enhance efficiency (Recommendation E7).

While recommendations have been considered, the experts regard this criterion to be fulfilled.

4. Transparency and Documentation

Criterion 4.1 Module Descriptions

Evidence:

- Self-Assessment Report
- Module handbooks
- Ba Agricultural Microbiology website: <https://mikro.faperta.ugm.ac.id/>
- Ma Phytopathology website: <https://master-in-phytopathology.faperta.ugm.ac.id/>
- Ma Pest Science website: <https://master-in-pest-science.faperta.ugm.ac.id/>
- Ma Fisheries Science: <https://mscfishsci.faperta.ugm.ac.id/>

Preliminary assessment and analysis of the experts:

The experts acknowledge that UGM organizes module handbooks for each study program under review and that the students, as all other stakeholders, have access to them via the program websites. However, the experts have identified several issues with the presented module descriptions that need to be addressed:

- The module descriptions should indicate the relationship between Course Learning Outcomes and Program Learning Outcomes.
- The experts note that the module descriptions of the Master Fisheries Science do not specify Course Learning Outcomes and expect that these are included in a revised version.
- Although the module descriptions include information on examination forms, the experts believe that greater clarity is needed to ensure transparency. As previously noted under Criterion 2, a clearer description of the assessment methods would enhance understanding of students and other stakeholders.
- Finally, the experts consider that some of the literature in the reading lists is outdated and needs, therefore, to be updated in a revision of the module handbooks.

The experts overall believe that the university should establish a structured and supervised process to ensure the module handbook is regularly reviewed and updated.

Criterion 4.2 Diploma and Diploma Supplement**Evidence:**

- Self-Assessment Report
- Sample Diploma/Degree Certificate
- Sample Transcript of Records
- Sample Diploma Supplements

Preliminary assessment and analysis of the experts:

According to the information provided in the Self-Assessment Report, students receive upon graduation a Diploma Certificate, a Transcript of Records, and a Diploma Supplement. The ASIIN experts are provided with samples of these documents.

The Diploma Certificate provides details about the student's academic profile and the degree conferred, including the date of graduation. It is signed by the Rector and Dean of the Faculty of Agriculture.

The Transcript of Records lists all the courses a graduate has completed, the achieved credits, grades, cumulative GPA, and the thesis title.

The Diploma Supplement (*Surat Keterangan Pendamping Ijazah* - SKPI) is an official statement letter issued by the Faculty of Agriculture. It contains information about the degree program, including Program Learning Outcomes, acquired soft skills and student achievement in academic, co-curricular, extracurricular, or non-formal education. It also provides information about the Indonesian higher education system.

The experts acknowledge that all documents are issued bilingually in Bahasa Indonesia and English. However, they observe that the Diploma Supplement does not include information about the student's GPA relative to the cohort. They believe that in order to ensure fair transfer and recognition of grades for mobile students, it would be recommended to provide information about the graduate's position/rank within a cohort of the same year/period of graduation.

Criterion 4.3 Relevant Rules

Evidence:

Self-Assessment Report

- Self-Assessment Report
- Ba Agricultural Microbiology website: <https://mikro.faperta.ugm.ac.id/>
- Ma Phytopathology website: <https://master-in-phytopathology.faperta.ugm.ac.id/>
- Ma Pest Science website: <https://master-in-pest-science.faperta.ugm.ac.id/>
- Ma Fisheries Science: <https://mscfishsci.faperta.ugm.ac.id/>

Preliminary assessment and analysis of the experts:

The experts 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 materials in the language of the degree programs at the beginning of each semester.

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

The experts thank UGM for the provided statements and additional documentation concerning criterion 4.

(ASIIN 4.1) Module descriptions – all programs

UGM acknowledges the importance of clearly articulating the relationship between Course Learning Outcomes (CLOs) and Program Learning Outcomes (PLOs). The experts welcome this recognition and emphasize that these linkages should be explicitly presented in the module handbooks for all four programs under review (Recommendation E8).

Regarding the module descriptions for the Master Fisheries Science program, the university expresses its commitment to revising the documentation to clearly present the Course Learning Outcomes (CLOs). The university also indicates that the module descriptions for the four programs have been revised and standardized to provide clearer and more detailed information on assessment methods, criteria, and components. The experts appreciate these improvements and emphasize that attention should also be given to ensuring that the recommended literature remains up to date. The experts request that the university ensure that these revisions are implemented (Requirements A2 and A3).

(ASIIN 4.2) Diploma Supplement – all programs

UGM recognizes the importance of including comparative academic information in the Diploma Supplement, specifically the student's Grade Point Average (GPA) relative to their cohort. The experts take note that the university is currently exploring the feasibility of incorporating this information. However, since no concrete measures have been implemented yet, they continue to recommend actions in this area (Recommendation E9).

The experts regard this criterion to be mostly fulfilled

5. Quality management: quality assessment and development

Criterion 5 Quality management: quality assessment and development

Evidence:

- Self-Assessment Report
- Academic Guidelines
- Faculty of Agriculture website: <https://en.faperta.ugm.ac.id>
- Results from student surveys 2023/2024
- Results from tracer studies, 2024
- Discussions during the audit

Preliminary assessment and analysis of the experts:

During the audit, the experts held discussions about the quality management system at UGM during the meetings with representatives from the Rector's office, program coordinators and students. They learned that there is an ongoing process aimed at

improving the quality of the degree programs, which is achieved through both internal and external evaluations.

The quality assurance system at UGM is overseen by the Quality Assurance Office (SPMRU), with support from the Quality Assurance Unit at the faculty level. SPMRU plans, implements, and evaluates UGM's quality assurance system through internal quality audits (AMI). Faculty audits are conducted every two years, while audits for departments, study programs, and laboratories take place every year. These audits involve students, support staff, lecturers, alumni and graduate users. Each audit concludes with a Management Review Meeting to discuss findings and follow-ups, which the auditors later verify.

Important sources of insights for improving the quality of degree programs include the Evaluation of Lecturers by Students (EDoM). Students provide feedback on the delivery of their courses by completing an online questionnaire integrated into the SIMASTER learning platform. It is mandatory for students to give feedback on their classes; failure to do so will restrict their access to their accounts on the platform.

The online questionnaire covers 12 areas, including adherence to the lecture schedule, effective use of lecture time, lecture planning, materials provided, knowledge of the lecturer, opportunities for discussion, assignments, assessments, and other relevant aspects. Student evaluations are collected three times in the semester: prior to the midterm, following the midterm, and following the final term exam. On a scale of 1 to 4, student survey results for the four programs under review indicate that most lecturers receive average scores above 3.2.

A compilation of student feedback is sent to the respective lecturers for follow-up and improvement actions. The experts also learned that survey results are accessible to students and published on the Faculty of Agriculture website. During the discussion with the experts, the students mentioned that the faculty organizes regular meetings where they can provide direct feedback to the Dean. The experts appreciate UGM's culture, where students feel that their input in improving the program is valued and taken seriously.

Other valuable inputs for improving the quality of degree programs come from the Course Evaluation by Lecturers (SIMONI), exit surveys, employer surveys and alumni tracer studies. The results of the 2024 tracer study indicate employment outcomes for graduates across the Bachelor's and Master's programs. Among respondents, 87% of MP alumni, 82% of MPS alumni and 83% reported to be working.

As part of the monitoring process, the university also evaluates the achievement of Program Learning Outcomes (PLOs) and takes action based on the results, which inform

curriculum development. The data presented show that PLOs generally exceed the target achievement ratings (70 for the Bachelor's and 80 for the Master's programs), indicating strong alignment and effective learning strategies.

UGM furthermore monitors the overall performance of the graduates considering their GPA. The data show that most students graduate with a GPA surpassing 3.5 in the study programs under review (on a scale of 0 to 4).

Aside from such internal quality assurance mechanisms, recurring external quality assurance exercises at UGM and the Faculty of Agriculture are related to the legal obligation to submit every degree program for national accreditation in addition to the compulsory institutional accreditation.

To maintain communication with alumni, the Faculty of Agriculture offers several social media platforms to inform them about job opportunities, ongoing development through offline or online seminars, and information on scholarships for Master's and Doctoral programs at UGM or abroad.

The experts discussed with representatives of UGM's partners from academia, research centres, and industry whether there are regular meetings at the faculty level and how they are involved in further developing the degree programs. They learned that some are invited to give their feedback on the content of the degree programs. In addition, alumni and external partners are invited to give lectures. As the experts consider the input of the employers to be very important for the further improvement of the degree programs, they suggest more involvement of the corporate sector as a key actor in informing the market's needs.

Furthermore, as a general observation from the experts, the Self-Assessment Report demonstrates planning and effective implementation across various areas. The quality assurance processes also place significant emphasis on monitoring and evaluation. However, equal attention should be given to the final phase of taking action based on monitoring results. This step is essential to ensure the quality assurance cycle is fully closed and that lessons learned are systematically applied and integrated over time.

While the above comments are noted, the expert group confirms that the quality management system is suitable for identifying weaknesses and improving the degree programs. Internal and external stakeholders are involved in the process.

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

UGM does not comment on this criterion in its statement.

The experts consider criterion 5 to be fulfilled.

D Additional Documents

Before preparing their final assessment, the experts ask for the following missing or unclear information together with the comment of UGM on the previous chapters of this report:

- none

E Comment of the Higher Education Institution (14.08.2025)

The institution provided the following additional information [links have been deactivated]:

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
1. The Degree Program: Concept, Content & Implementation				
1	Criterion 1.1 Objectives and Learning Outcomes of a Degree Program (Intended Qualifications Profile) <i>Page 9, Paragraph 2</i> UGM presents Program Educational Objectives (PEOs) and Program Learning Outcomes (PLOs), which are designed in response to internal and external inputs and benchmarked against relevant national and international standards and references. While the PEOs are rather general and refer to the vision and mission of the university and the Faculty of Agriculture, the PLOs cover a number of specific competences	All Programs	Study programs within the Faculty of Agriculture have clearly defined Program Learning Outcomes (PLOs), which are structured into four key components: attitudes, knowledge, general skills, and specific skills. These components collectively ensure that graduates possess not only domain-specific expertise but also the soft skills and ethical grounding necessary for professional and societal engagement. The attitude component of the PLOs is standardized at the university level, ensuring alignment with institutional values such as integrity, responsibility, and respect for diversity. Meanwhile, the knowledge and specific skills components are developed and mandated by the faculty, allowing for contextualization based on disciplinary needs and advancements in agricultural science and practice. The specific skills component, in particular, serves as the foundation for translating each study program's unique learning objectives into tangible	Link PLO study programs: BAM http://ugm.id/correlationPEOPLOBAM MP http://ugm.id/correlationPEOPLO MPS http://ugm.id/PLOMPS MFS http://ugm.id/PLOMFS

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
	students should acquire in their respective study programs (see Appendix).		student competencies. It reflects the technical, methodological, and professional abilities students are expected to master upon graduation, including problem-solving, critical thinking, application of scientific methods, and the use of relevant tools and technologies in agriculture and related fields.	
2	Criterion 1.1 Objectives and Learning Outcomes of a Degree Program (Intended Qualifications Profile) <i>Page 12, Paragraph 1</i> The acceptance of UGM graduates in the labour market was ensured after discussions with external partners who expressed willingness to accommodate interns and recruit graduates. They reported positive results regarding technical competence, personal attributes, and alumni character. However, they also identified areas for further improvement: students'	All Programs	The enhancement of students' communication skills undertaken by the study program includes: - the integration of structured presentation assignments and classroom discussions into the curriculum - communication training such as public speaking workshops and academic writing sessions, and - active participation in student organizations, seminars, and competitions such as debates or speech contests - public Speaking through Practical Classes and Tutorship - Community Service program in collaboration between Lecturers and Students In addition, the provision of constructive feedback from lecturers and peers, along with the implementation of case-based and project-based learning that requires active interaction, has	Activities aimed at enhancing students' communication skills BAM Bachelor of Agricultural Microbiology website: https://mikro.faperta.ugm.ac.id/Faculty_of_Agriculture_UGM_Hosts_Innovation_&Entrepreneurship_Bootcamp_Workshop_on_Public_Speaking_with_Cultural_Ambassador_of_Yogyakarta MP MP website: https://master-in-phytopathology.faperta.ugm.ac.id/http://ugm.id/UCGraduatehttp://ugm.id/studentPresent2024

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
	communication skills and problem formulation.		contributed to strengthening students' oral and written communication competencies. Students' problem formulation skills were identified through lecturer evaluations conducted by the university. The results of this monitoring are published on the faculty's website, allowing all students to access the follow-up action plans. In addition, several lecturers also provide direct feedback regarding students' problem formulation during class sessions, which is then further discussed in subsequent meetings.	http://ugm.id/workshopaciar MPS MPS website: https://master-in-pest-science.faperta.ugm.ac.id/ MPS UGM Hosts Entomopreneur Fair MPS UGM Hosts National Seminar MPS UGM participate in international training course MPS UGM participate in a international seminar presentation MPS UGM participate in 3 minutes scientific paper MFS Ma Fisheries Science: https://mscfishsci.faperta.ugm.ac.id/ https://mscfishsci.faperta.ugm.ac.id/en/curriculum/ Monitoring results and feedback Bachelor: https://web.faperta.ugm.ac.id/evaluasi-dosen-oleh-mahasiswa-edom/

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
				Magister: https://web.faperta.ugm.ac.id/evaluasi-dosen-oleh-mahasiswa-edom-pascasarjana/ Follow-ups: https://web.faperta.ugm.ac.id/rencana-tindak-lanjut-edom/
3	Criterion 1.1 Objectives and Learning Outcomes of a Degree Program (Intended Qualifications Profile) <i>Page 12, Paragraph 1</i> The partners emphasized the importance of preparing students to confidently express themselves, articulate their ideas effectively, present their work clearly, and demonstrate leadership skills. They noted the value of soft skills and recommended placing greater emphasis on their development, particularly in areas such as oral	All Programs	In response to the recommendation to strengthen soft skills, particularly in oral and written communication, the study program plans to enhance their integration into both curricular and co-curricular activities. This includes incorporating structured assignments that emphasize communication skills, organizing workshops on public speaking, academic writing, and leadership, as well as encouraging student participation in student organizations, debates, and academic competitions. Additionally, the program will implement assessment rubrics and feedback mechanisms to monitor students' progress, ensuring that soft skill development becomes an integral part of the learning process.	Student soft skill development BAM https://mikro.faperta.ugm.ac.id/en/2025/04/14/permahami-spreads-care-and-joy-at-sayap-ibu-foundation/ https://www.instagram.com/p/DJdpDiwSldH/?igsh=MWVwMTJlNTIhmemw2MA== https://www.instagram.com/p/DJdpDiwSldH/?igsh=MWVwMTJlNTIhmemw2MA== https://www.instagram.com/p/DK1C8Noze3k/?igsh=MTg2Zmd1cjdvMWI2cQ==

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
	and written communication (e.g., presenting students' ideas, reporting on their work, public speaking, and leadership skills).			https://www.instagram.com/p/Dlnw2FqTi0E/?img_index=5&igsh=bmE0dWEyeW00d2pwMP http://ugm.id/studentsPublications2024 http://ugm.id/tesisEirene http://ugm.id/UCGraduate http://ugm.id/studentPresent2024 http://ugm.id/PrestasiMhsS2Fito MPS Article published by lecturer-student collaboration of MPS UGM MPS student participating in competition MFS [Link here]
4	Criterion 1.3 Curriculum <i>Page 15, Paragraph 2</i> During the audit, the experts engaged in discussions with the program coordinators regarding	MP and MPS	MP We sincerely appreciate your constructive feedback. In fact, our focus is not limited solely to tropical areas. We also teach and conduct research in	Some studies conducted for subtropical plants, such as citrus, leatherleaf fern by MP academia and students:

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
	the content of these two Master's programs, which primarily focus on tropical pests and diseases. The coordinators emphasized that, given Indonesia's tropical climate, the programs are designed to address methods relevant to the Indonesian context while also anticipating emerging diseases in the region. While the experts acknowledge that Indonesian topics are well-covered, they suggest that the programs could broaden their scope to include non-tropical topics.		subtropical regions, as well as in both tropical and subtropical contexts. The reason we emphasize our strength in the tropical field is due to the following considerations: 1. The Indonesian National Accreditation Board requires each study program to clearly define its specific focus and rationale for establishment. 2. The MP founding fathers envisioned the program as a trendsetter in plant disease management technologies for tropical regions, given that disease management approaches developed for subtropical areas are not always applicable in tropical climates. Nevertheless, we highly value the suggestions provided by the ASIIN experts and will take it as a recommendation to do the following steps: 1. We will incorporate your input by providing clarification in the introductory section of the curriculum that our program offers comprehensive education in the field of plant pathology. This is why the program is named "Master in Phytopathology" and not "Tropical Phytopathology." The tropical aspect is one of	• https://apsjournals.apsnet.org/doi/abs/10.1094/PDIS-12-23-2593-RE • https://doi.org/10.5423/RPD.2024.30.1.82 • https://journals.pan.pl/Content/132557/PDF/02_OA_JPPR_64_3_2890_Marisna.pdf • http://dx.doi.org/10.20961/carakatani.v39i2.83675

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
			the defining characteristics that contributes to the program's strength. 2. In line with our triennial curriculum review cycle, we will revise the relevant wording to better reflect the explanation provided in point 1 above. MPS We sincerely appreciate the experts' constructive comments regarding the current thematic focus of the MPS program on tropical pests. While it is true that many courses and research topics are tailored to Indonesia's tropical agroecosystems reflecting the country's biodiversity and agricultural context, we would like to clarify that the MPS program does not exclusively focus on tropical pests. 1. Broader Pest Science Coverage Beyond the Tropics The curriculum is designed to develop both foundational and advanced competencies in general pest science, including insect taxonomy, insect physiology, pest ecology, biological control, pest resistance management, and integrated pest management. These scientific foundations are universally applicable, enabling students to analyze	MPS Material course of PRA Workshop SupAgro Montphelie Thesis UGM Repository MPS student https://etd.repository.ugm.ac.id/p/enelitian/detail/196106 Publication journal MPS student https://jurnal.ugm.ac.id/jpti/article/view/62855 Guest Lecture from MARS (Australia)

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
			pest problems in a variety of agroecological settings, including non-tropical regions. Furthermore, in the course Pest Risk Analysis (PRA), students are introduced to pests of quarantine concern, including many subtropical and temperate species that are not yet present in Indonesia. Through PRA frameworks based on international standards (e.g., ISPM No. 11), students learn how to assess the likelihood and consequences of entry, establishment, and spread of exotic pests. This includes: • Identifying high-risk pests from temperate countries (e.g., Europe, North America, East Asia), • Understanding global pest distribution patterns, and • Designing strategies to prevent their introduction into Indonesia. This reflects the program's awareness of global pest threats and its alignment with international plant protection policies. 2. International Exposure and Non-Tropical Topics	

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
			The MPS program further supports international exposure through student exchange and mobility programs. Notable examples include: • Gesang Pratyadhiraksana, who participated in a student exchange program at SupAgro Montpellier, France, studying European insect pests in temperate agricultural systems. • Imam Zulfahmi, who joined the JASSO Exchange Program at Yamagata University, Japan, where he conducted studies on insect pests specific to temperate zones, particularly those found in Yamagata Prefecture. These cases illustrate that students are encouraged and supported to pursue non-tropical topics when opportunities arise. 3. Curricular Support for Internationalization In alignment with UGM's internationalization mission, the MPS program is enhancing its content and delivery through: • Comparative pest studies from tropical, subtropical, and temperate zones, • Guest lectures and collaboration with international partners, and	

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
			Bilingual academic activities such as English thesis abstracts, student seminars, and publications. While the tropical setting is a strength of the MPS program, its curriculum and student activities are globally oriented and include both tropical and non-tropical pest science perspectives to ensure international relevance and graduate competitiveness.	
5	Criterion 1.3 Curriculum <i>Page 15, Paragraph 3</i> Furthermore, the experts sought clarification from the program coordinators regarding the availability of a course on statistics and data analysis as preparatory training for research, as such a course is not explicitly listed. The program coordinators clarified that data analysis subjects are offered in other study programs, and students are informed of this during their initial meeting. If students require this training,	MP and MPS	MP We would like to express our sincere gratitude for your valuable and constructive comments and suggestions. In the MP program, we have already incorporated bioinformatics analysis into both lectures and laboratory sessions through a course currently titled Practicum of Plant Disease Diagnosis and Bioinformatics Analysis (as of the 2024 curriculum). In the practical sessions, we provide comprehensive materials covering both plant disease diagnosis and related bioinformatics analysis.	MP: Practicum of Plant Disease Diagnosis and Bioinformatics Analysis [Link here] https://www.instagram.com/p/DBxVK_US725/?utm_source=ig_web_copy_link&igsh=MzRIODBiNWFIZA==

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
	they can take those subjects. However, the experts strongly recommend that data analysis courses be integrated into the curriculum to enhance preparation for research activities.		The content includes complete sequence data analysis, phylogenetic tree construction, submission of sequences to the NCBI GenBank, bioinformatics analysis for metagenomic data, and primer design. Regarding statistical data analysis, we acknowledge the recommendation from the ASIIN experts and will bring it forward in our upcoming triennial curriculum evaluation. We also welcome the idea of collaboration between the MP and MPS programs in offering a data analysis course for master's students. MPS In addition, the reviewers noted that the current curriculum does not explicitly include a course dedicated to statistics and data analysis, which is essential for research competence in pest science. Although elements of data interpretation are embedded in several modules, the panel strongly recommended that a formal, dedicated course on statistical analysis be integrated into the curriculum to strengthen students' research skills and enhance the scientific rigor of their theses.	MPS Biostatistics, Modelling, and Data Analytics in Pest Science

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
			In response to this recommendation, the MPS program has accepted the suggestion from the ASIIN reviewers and is currently planning to incorporate a new course titled “Biostatistics, Modelling, and Data Analytics in Pest Science” into the curriculum. This course will provide students with structured training in experimental design, hypothesis testing, statistical software, modeling approaches, and data interpretation relevant to pest science. It is intended to serve as preparatory training for research activities and will reinforce students' ability to conduct evidence-based scientific investigations in both academic and professional settings.	
6	Criterion 1.3 Curriculum <i>Page 16, Paragraph 1</i> Students are expected to concentrate on their thesis in the third semester. During discussions with the program coordinators, the experts inquired about how the Master’s program in Fisheries accommodates research interests related to capture fisheries. The	MFS	Thank you for your insightful input for MFS. The Master of Fisheries program encompasses three distinct areas of study. One of these topics is aquatic resource management, which includes capture fisheries. Currently, the Department of Fisheries has been working together with a number of other organizations and establishments that are associated with capture fisheries. These organizations and institutions include fishing ports like the Cilacap Fishing Port. The department will	[Link here]

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
	coordinators explained that the program offers 17 elective courses for three areas of study interest. They acknowledged that content related to capture fisheries is currently limited due to constraints in available facilities. Nevertheless, the coordinators believe that the combination of compulsory courses, study interest-specific courses, and electives is sufficient to achieve the PLOs for both general and specialized skills. While the experts commend the current offerings and recognize the facility limitations, they recommend that the program strengthen the content on capture fisheries.		also conduct periodic assessments and evaluations of the curriculum in the future, and it is possible that classes on capture fisheries will be included in the overall curriculum.	
7	Criterion 1.3 Curriculum <i>Page 16, Paragraph 2</i>	All Programs	BAM: Thank you for the recommendation. We fully agree that integrating sustainability and global change issues into the curriculum is essential to prepare	The new proposed curriculum at BAM is presented below: [Link here]

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
	In their overall appreciation of the four programs under review, an important additional recommendation from the experts is that the programs should further strengthen the integration of sustainability and global change issues within the curriculum. They emphasize the need for a more strategic approach to align with the priorities of the global marketplace, where sustainability is increasingly at the forefront of industry and policy agendas.		students for the evolving demands of the global marketplace, where these topics are increasingly prioritized. To address this, we have introduced several new courses that directly relate to sustainability, including: 1. Evolusi Mikrobia (Microbial Evolution) – Mandatory 2. Mikrobiologi Pangan (Food Microbiology) – Elective 3. Termobakteriologi (Thermo-bacteriology) – Elective In addition, several existing courses already align with sustainability and global change themes, such as: 1. Ekologi Mikrobia (Microbial Ecology) 2. Pengantar Biodegradasi dan Bioremediasi (Introduction to Biodegradation and Bioremediation) 3. Automasi dalam Proses Mikrobiologi (Automation in Microbiology Processes) 4. Bioinformatika (Bioinformatics) 5. Mikrobioma Pertanian (Agricultural Microbiome)	

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
			6. Mikrobiologi Perairan (Aquatic Microbiology) 7. Biosafety We are continuously reviewing and updating our curriculum to ensure stronger integration of sustainability-related content and to align more closely with international standards and industry expectations.	
			MP We would like to express our gratitude for the recommendations provided by the ASIIN experts. To ensure that the Master in Phytopathology (MP) program remains aligned with global developments in the field of phytopathology, we have undertaken the following efforts: Establishing international research collaborations with global researchers while actively involving students. This enables students to gain experience and develop competencies in conducting research at an international level, as well as stay updated with the latest scientific advancements. Conducting regular curriculum evaluations, such as the inclusion of courses like Molecular Interactions between Pathogens and Hosts, to ensure that	MP: http://ugm.id/internasrisetS2Fito http://ugm.id/khusnulStudentExchange https://www.instagram.com/reel/DMji8vYJ-1D/?utm_source=ig_web_copy_link&igsh=MzRIODBiNWFIZA== https://www.instagram.com/p/CzXNU-3SQnz/?utm_source=ig_web_copy_link&igsh=MzRIODBiNWFIZA==

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			students acquire up-to-date molecular knowledge in phytopathology. Organizing guest lectures by international experts, facilitating student exchange programs, and providing opportunities for students to engage in research abroad. Collaborating with industry partners in research projects and learning process to develop studies that are applicable and beneficial to the industrial sector. MP conducts some practicum activities in industry such as PT Pagilaran for Plant Disease Forecasting and Modelling Practicum, and PT Syngenta for Plant Disease Diagnosis and Bioinformatics Analysis Practicum.	
			MPS We thank you for your recommendation. We wholeheartedly agree that combining sustainability and global change issues into our curriculum will be more competitive in this evolving international economy, wherein said topics are becoming increasingly paramount. In response to this need, we developed several courses with a clear concentration on sustainability and global issues, including:	MPS Workshop AW-IPM Fruit Fly in Mango MeloRisk Australasia MPS: International Research Collaboration AW-IPM Fruit Fly in Mango MeloRisk Australasia Diaphorina citri spread huanglongbing

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
			Compulsory courses such as <i>Toxicology of Insecticides</i> and <i>Landscape Integrated Pest Management</i> address sustainability through environmentally responsible pest control strategies, adaptive management under changing climate conditions, and the broader ecological and socio-economic implications. Elective courses including <i>Insect Resistance Management</i>, <i>Precision Crop Protection</i>, <i>Molecular Entomology</i>, and <i>Insect Pest Forecasting</i> integrate discussions on global change drivers, the impact of climate variability on pest dynamics, and innovative technologies supporting sustainable agriculture. In addition, we have incorporated these courses in our current syllabus. These are well-included with the issues of global change and sustainability, building on research conducted by lecturers in partnership with foreign institutions. For example, the Landscape Integrated Pest Management course includes AW-IPM fruit flies and MeloRisk Australasia discussion, and the Molecular Entomology course discussion of <i>Diaphorina citri</i> symbionts.	

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
			We continue to be dedicated to reviewing and revising our curriculum regularly to offer a more integrated sustainability-related material so that it gets aligned with international standards and industry best practices.	
			MFS Thank you very much for your insightful input for MFS. Some courses in the curriculum already meet the sustainability requirements of the global market. The curriculum development, which was financed by Erasmus+, has yielded the following outcomes: sustainable fish and human nutrition, scientific and industrial skills, sustainable smart aquaculture, and sustainable fisheries business management. These outcomes are intended to address the sustainability requirements of global change.	MFS [Link here] [Link here]
8	Criterion 1.3 Curriculum <i>Page 16, Paragraph 3</i> In addition, as noted under Criterion 1.1 for the four programs, the experts encourage	All Programs	We appreciate the experts' recommendation regarding the enhancement of soft skills development. Both bachelor and master programs have incorporated various activities and courses aimed at strengthening students' leadership, communication, and other soft skills.	Development of students' soft skills BAM: Student soft skill development BAM

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	greater emphasis on the development of students' soft skills, based on feedback from stakeholders. They highlight that bringing innovations forward requires leadership and communication abilities. Therefore, they recommend evaluating the curriculum to identify appropriate points where soft skills development can be further integrated.		At the bachelor level, students are equipped with soft skills through several initiatives, including: • Leadership course, PPSMB (Student Orientation and Development Program), and Entrepreneurship course, which are directly aimed at building leadership, communication, and problem-solving abilities. • Active participation in student organizations to foster teamwork and organizational skills. • Involvement in community service programs and research activities, which develop collaboration, empathy, and presentation skills. At the master level, students engage in: • Participation in student organizations. • Attendance and involvement in national and international seminars to improve academic communication and networking abilities. • Engagement in both academic and non-academic competitions, encouraging critical thinking and creativity.	https://mikro.faperta.ugm.ac.id/en/2025/04/14/permahami-spreads-care-and-joy-at-sayap-ibu-foundation/ https://www.instagram.com/p/DJdpDiwSIdH/?igsh=MWVwMTJlNTNmZWw2MA== https://www.instagram.com/p/DJdpDiwSIdH/?igsh=MWVwMTJlNTNmZWw2MA== https://www.instagram.com/p/DK1C8Noze3k/?igsh=MTg2Zmd1cjdvMWl2cQ== https://www.instagram.com/p/Dlnw2FqTi0E/?img_index=5&igsh=bmE0dWEyeW00d2pw MP https://www.instagram.com/imfugm/ http://ugm.id/PrestasiMhsS2Fito MPS Student Association (SCoPS) SCoPS activity

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
			• Participation in the Future Skills course, designed to equip students with skills relevant to the demands of the future workforce. • Courses such as Entomopreneurship (MPS) and programs like Primestep, which provide interdisciplinary exposure, innovation, and entrepreneurial mindset development. These initiatives contribute to the comprehensive development of soft skills across all levels of study.	MPS UGM Hosts National Seminar MPS UGM participate in international training course MPS UGM participate in a international seminar presentation MPS UGM participate in 3 minutes scientific paper MPS student participation in competition MPS UGM Hosts Entomopreneur Fair MFS ISMFR 2025 – Universitas Gadjah Mada Achievements of UGM Fisheries Science Master's Students at the 2024 International Conference of Fisheries and Marine Research – Master of Fisheries Science UGM Getting to Know the Fisheries Master's Program More Deeply through Academic Traveling 2024
9	Criterion 1.3 Curriculum	All Programs	We sincerely appreciate the experts' recognition of our ongoing efforts to improve the English	English enhancement program for students

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	<i>Page 18, Paragraph 3</i> During the audit, the students expressed satisfaction with the use of English in the study programs. They also rated the English proficiency of the lecturers as generally good or very good. The experts commend the ongoing efforts to enhance the English skills of both students and teaching staff, and they encourage the Faculty of Agriculture and UGM to continue advancing in this direction. The experts highlight that in alignment with the programs' aspirations to enhance their presence on the international stage, sustained efforts to increase the integration of English in the study programs becomes a critical area of development.		proficiency of both students and academic staff. Strengthening English skills is indeed a strategic priority for the Faculty of Agriculture and UGM in supporting internationalization and academic competitiveness. In response to this encouragement, we will continue to implement and expand initiatives such as English language training, academic writing workshops, and the integration of English-medium instruction where appropriate, to further enhance the global readiness of our academic community. At the Bachelor level, students' English proficiency is supported through several initiatives, including: English language courses that are part of the curriculum, The International Undergraduate Class (IUC), where selected courses are fully delivered in English to enhance academic and professional language skills in an international setting. At the Master's level, students are required to submit a publication in English (with a minimum status of "submitted") as a prerequisite for the thesis examination, thereby fostering academic writing and communication in English. In addition,	BAM: The event of last semester which will be continued for the next semester can be seen below: https://web.faperta.ugm.ac.id/faperta-ugm-dan-central-queensland-university-cqu-jalin-kerja-sama-dalam-field-trip-cqu-2025/ MP http://ugm.id/tesisEirene http://ugm.id/studentsPublications2024 http://ugm.id/khusnulStudentExchange MFS [Link here] MPS • Article published by student of MPS UGM • Thesis published by student of MPS UGM

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			the program regularly organizes guest lectures delivered in English by international experts to expose students to global insights and practices. Across both undergraduate and graduate programs, the use of English-language references and the requirement to prepare presentation materials (PPTs) in English are consistently encouraged to strengthen academic communication in English. To improve the English proficiency of academic staff, Faculty also provides access to English language training programs, enabling lecturers to enhance their ability to teach and publish in English, as well as participate in international collaborations. These comprehensive efforts reflect our strong commitment to building an English-proficient academic community in alignment with our internationalization agenda. MPS In response to the experts' observation, we would like to highlight that the Master in Pest Science (MPS) program has implemented the <i>Student Community of Pest Science (SCoPS)</i>, which includes an English Club specifically designed to strengthen	• English Speaking by SCoPS English enhancement program for academic staff http://ugm.id/Englishenhancementprogramforacademicstaff

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
			students' English presentation skills and public speaking abilities. This initiative not only prepares students for academic and governmental engagement but also enhances their readiness to interact with the corporate sector where effective communication, confidence in delivering ideas, and persuasive presentation are critical to meeting market and employer expectations. Through SCoPS, students are trained in presenting technical and research content to diverse audiences, including industry stakeholders, thereby fostering stronger connections between the program outcomes and corporate sector needs.	
10	Criterion 1.3 Curriculum <i>Page 18, Paragraph 5</i> Based on the evidence gathered during the audit, the experts attest that through these periodic review processes, the programs have strategically targeted the needs of potential employers.	All Programs	We sincerely thank the experts for highlighting the importance of involving the corporate sector in the university's continuous improvement efforts. We fully agree that collaboration with industry is essential for ensuring that our academic programs remain responsive to evolving market needs. In response, the Faculty of Agriculture has taken and will continue to take concrete steps to strengthen engagement with corporate stakeholders. Curriculum evaluations involving industry	Memorandum of Understanding (MoU) between the Faculty of Agriculture and corporate partners http://ugm.id/MoUbetweenFAPER TAandCorporatePartners BAM: One such example can be seen in the activity below:

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
	However, during the meetings, the experts observed little representation from the corporate sector. They emphasize that, when it comes to continuous improvement, the university should not focus solely on the government or academia but also consider the corporate sector as a key player in informing market needs.		representatives have already been conducted, and we plan to increase the frequency and diversity of corporate involvement in future reviews to ensure alignment with labor market dynamics. In addition, we are actively facilitating regular interaction between academia and industry through: Seminars and webinars featuring speakers from the private sector to share real-world insights with students and staff Alumni gatherings to build strong networks and gather feedback from graduates working in industry Guest lectures delivered by industry professionals to provide students with practical perspectives on current trends and challenges Furthermore, industry stakeholders are involved in internship supervision and tracer studies, contributing valuable input on graduate performance and skill gaps. These integrated efforts support the continued relevance of our programs and significantly enhance the employability of our graduates.	Getting to Know More About ISO, HACCP, and SNI https://web.faperta.ugm.ac.id/li-batkan-pengguna-dan-alumni-fakultas-pertanian-ugm-rancang-kurikulum-smart-eco-bioproduction/ MP https://www.instagram.com/reel/DMji8vYJ-1D/?utm_source=ig_web_copy_link&igsh=MzRIODBiNWFIZA== https://www.instagram.com/p/CzXNU-3SQnz/?utm_source=ig_web_copy_link&igsh=MzRIODBiNWFIZA== https://www.instagram.com/p/DAmzXx2SVNy/?utm_source=ig_web_copy_link&igsh=MzRIODBiNWFIZA== MPS

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
				Guest lecture from Industry Experts Bayer Crop Science - Singapore MARS Inc. Visiting Industry Bayer Indonesia MFS [Link here] https://fish.faperta.ugm.ac.id/en/collaboration/
11	Criterion 1.3 Curriculum <i>Page 19, Paragraph 4</i> The experts confirm that the graduates of the degree program under review are well prepared for entering the labour market and can find adequate jobs in Indonesia. While there is some room for further strengthening soft skills, UGM's graduate users confirmed that the graduates have a broad scientific education,	All Programs	We are grateful for the experts' acknowledgement of our graduates' strong employability. The affirmation that our alumni demonstrate a solid academic foundation, adaptability, and a wide range of competencies reinforces our dedication to delivering education that is relevant to current labor market demands. We also value the suggestion to further reinforce the development of soft skills. In response, the study programs are intensifying their initiatives by embedding soft skill enhancement across academic curricula, co-curricular engagement, and collaborations with industry partners. These efforts	Development of students' soft skills BAM: https://mikro.faperta.ugm.ac.id/en/2025/04/14/permahami-spreads-care-and-joy-at-sayap-ibu-foundation/ https://www.instagram.com/p/DJdpDiwSIdH/?igsh=MWVwMTJlNThtmemw2MA== https://www.instagram.com/p/DJdpDiwSIdH/?igsh=MWVwMTJlNThtmemw2MA==

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
	are very adaptable, and have manifold competences, which enables them to secure and excel in suitable employment opportunities.		are designed to ensure that students not only excel academically but also possess the essential interpersonal and professional attributes needed to succeed in their future careers. At the bachelor level, soft skills are cultivated through multiple channels, including: Leadership, PPSMB (student induction and development), and Entrepreneurship courses, which focus on nurturing communication, initiative, and problem-solving skills. Student organization involvement, which strengthens collaboration and leadership experiences. Participation in community service projects and research activities, which help students develop empathy, teamwork, and analytical thinking. At the postgraduate level (S2), students engage in a variety of activities that support soft skill acquisition, such as: Active roles in student-led organizations, which enhance organizational and interpersonal abilities. Attendance at national and international seminars, promoting confidence and academic dialogue.	https://www.instagram.com/p/DK1C8Noze3k/?igsh=MTg2Zmd1cjdvMWI2cQ== https://www.instagram.com/p/Dlnw2FqTi0E/?img_index=5&igsh=bmE0dWEyeW00d2pw MP https://www.instagram.com/p/DNAYvhyperR/?utm_source=ig_web_copy_link&igsh=MzRIODBiNWFIZA== https://www.instagram.com/p/DNCj6MMp3al/?utm_source=ig_web_copy_link&igsh=MzRIODBiNWFIZA== https://www.instagram.com/p/C-wtFAKSbf0/?utm_source=ig_web_copy_link&igsh=MzRIODBiNWFIZA== MPS Student Association (SCoPS) SCoPS activity MPS UGM Hosts National Seminar

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
			Participation in competitions across academic and non-academic domains, fostering creativity and adaptability. Enrollment in the Future Skills course, which prepares students for dynamic and interdisciplinary work environments. Specialized learning opportunities such as Entomopreneurship (MPS) and Primestep, which combine entrepreneurship, innovation, and leadership training. Through these integrated efforts, we remain committed to producing well-rounded graduates who are capable of navigating and contributing meaningfully in diverse professional settings.	MPS UGM participate in international training course MPS UGM participate in a international seminar presentation MPS UGM participate in 3 minutes scientific paper MPS student participation in competition MPS UGM Hosts Entomopreneur Fair MFS ISMFR 2025 – Universitas Gadjah Mada Achievements of UGM Fisheries Science Master's Students at the 2024 International Conference of Fisheries and Marine Research – Master of Fisheries Science UGM Getting to Know the Fisheries Master's Program More Deeply through Academic Traveling 2024

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
12	Criterion 1.5 Workload and Credits <i>Page 24, Paragraph 2-3</i> The experts appreciate the information provided. However, they find the use of these fixed conversion rates between SCU and ECTS points to be somewhat arbitrary. In their opinion, ECTS points should be calculated individually for each course, since the amount of self-study time required can vary depending on the course. The experts also point out that the indicated conversions are not applied consistently across the programs. For instance, the Module Handbook for the Master's program in Fisheries, available on the official website, states that 1 SCU is equivalent to 1.51 ECTS, which does not reflect the explanation previously		We acknowledge that fixed conversion rates may not fully capture the variations in students' self-study time across different courses. In light of this, we will consider reviewing and refining our credit conversion practices to ensure they better reflect the actual workload associated with each course. This may include conducting course-level workload analyses and gathering feedback from students and faculty to support a more accurate and transparent alignment with ECTS standards. Adjustments have been made in accordance with institutional policy, where the ECTS calculation has been revised by averaging the workload of bachelor and master programs. This revision is also aligned with the latest national regulations, including Regulation of the Minister of Education, Culture, Research, and Technology of the Republic of Indonesia No. 53 of 2023 and UGM Rector's Regulation No. 23 of 2024. Furthermore, in line with recent curriculum changes, master programs now require a minimum of 54 credits. These changes have been formally established through Dean's Decree No. 567/UN1/KPT/KP/2025,	Regulation of the Minister of Education, Culture, Research, and Technology of the Republic of Indonesia No. 53 of 2023 http://ugm.id/PermendikbudridtekNo53of2023 UGM Rector's Regulation No. 23 of 2024 http://ugm.id/PRno23of2024 Dean's Decree http://ugm.id/DeansDecree Module handbook BAM: https://mikro.faperta.ugm.ac.id/en/module-handbook/# MP http://ugm.id/modulhandbookrev MPS

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
	provided. Additionally, several module descriptions do not specify the credit load in converted ECTS units and do not explain the conversion system used, as seen for the Master's program in Phytopathology.		which regulates the implementation of ECTS conversion for both bachelor and master programs. The updated ECTS information has also been reflected in the module handbooks, ensuring that both students and academic staff have access to accurate, consistent, and standardized workload data across all courses.	https://master-in-pest-science.faperta.ugm.ac.id/module-handbook/ MFS [Link here]
13	Criterion 1.5 Workload and Credits <i>Page 24, Paragraph 5</i> However, the experts could not find clear evidence confirming that instruments are in place to regularly monitor whether the credits awarded for each module correspond to the actual student workload. Consequently, the panel sees that the University needs to verify the students' total workload and adjust the awarded ECTS points accordingly.	All Programs	We recognize that using fixed conversion rates may not adequately reflect the diverse levels of students' independent learning time across different courses. Therefore, we are committed to revisiting and improving our credit conversion methodology to more accurately represent the actual learning workload required for each course. This process may involve detailed workload evaluations at the course level and collecting input from both students and academic staff, with the aim of enhancing transparency and ensuring better alignment with ECTS standards. In line with institutional policy, adjustments have already been implemented by averaging the workload data from both undergraduate and postgraduate programs in calculating ECTS. These changes are consistent with national regulations,	

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
			including Permendikbud No. 53 of 2023 and Peraturan Rektor No. 23 of 2024. Additionally, curriculum updates now require a minimum of 54 credits (sks) for Master's degree (S2) programs. These adjustments have been formally regulated through a Dean's Decree No. 567/UN1/KPT/KP/2025, which outlines the ECTS calculation approach applied to both bachelor and master programs. To ensure the accuracy and relevance of credit allocations, regular monitoring of study workload is conducted through course coordination meetings involving team teaching responsible for each subject.	
14	Criterion 1.6 Didactic and Teaching Methodology <i>Page 26, Paragraph 5</i> However, the experts advocate for greater use of English in the learning process, as noted earlier. Other than the English modules	All Programs	We acknowledge and appreciate the experts' suggestion to enhance the use of English in the learning process. While currently most courses are still delivered primarily in Bahasa Indonesia, the Faculty of Agriculture is taking progressive steps to foster English proficiency and gradually increase the use of English in academic settings. At the undergraduate level, English language development is integrated into the curriculum	English learning process BAM: Implementation of International Undergraduate Class (IUC): • https://en.faperta.ugm.ac.id/commitment-to-asiin-international-accreditation-implementation-faculty-of-agriculture-ugm-

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
	themselves, there are no modules fully organized in English. In some courses, bilingual materials are used, which involves mainly slides and reading materials. The main spoken language, nonetheless, remains Bahasa Indonesia. A possible way to improve stepwise could be a first focus on increasing the number of research papers in in English language.		through formal English courses and the implementation of the International Undergraduate Class (IUC), where selected courses are fully conducted in English. These efforts aim to strengthen students' academic and professional communication skills in an international context. At the master's level, students are required to submit at least one English-language publication (with a minimum status of "submitted") before their thesis examination, thereby promoting scholarly writing in English. Guest lectures by international speakers are also held regularly to expose students to global academic perspectives and practices. To support both undergraduate and graduate students, the use of English-language references and the preparation of presentation materials (such as PowerPoint slides) in English are consistently encouraged across courses. These steps serve as a foundation for gradually increasing English-medium instruction. In terms of staff development, the Faculty provides English training programs to support lecturers in enhancing their ability to teach, publish, and	organizes-iuc-for-the-2024-cohort-student/ • https://web.faperta.ugm.ac.id/international-undergraduate-class/ • https://en.faperta.ugm.ac.id/faculty-of-agriculture-ugm-hosts-innovation-entrepreneurship-bootcamp-preparing-resilient-and-innovative-generations/ MP • https://doi.org/10.1016/j.pmpp.2024.102559 • http://dx.doi.org/10.20961/carakatani.v39i2.83012 • http://dx.doi.org/10.20961/carakatani.v39i2.83675 • https://doi.org/10.1016/j.jssas.2024.03.005 • https://doi.org/10.1080/03235408.2022.2086026 • https://doi.org/10.1016/j.funbio.2022.02.004 MPS

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
			collaborate internationally in English. These initiatives are part of our broader commitment to internationalization and academic competitiveness. While we recognize that full English-taught modules are still limited, our stepwise approach—emphasizing academic writing, international exposure, and increased use of English in course components—reflects a deliberate and sustainable pathway toward greater integration of English in the learning process.	• https://master-in-pest-science.faperta.ugm.ac.id/publications/ • Thesis by MPS Student MFS Graduate thesis: [Link here] Student publication: [Link here]
15	Criterion 1.6 Didactic and Teaching Methodology <i>Page 27, Paragraph 2</i> In addition, the expert observed unclear views on the use of artificial intelligence, which is becoming more predominant in higher education. The university should reflect on this issue and progress towards the development of a policy on the	All Programs	We appreciate the experts' timely observation regarding the growing significance of artificial intelligence (AI) in higher education and acknowledge the current need for clearer institutional direction on its utilization. AI brings both promising opportunities and critical challenges, particularly in the domains of teaching, learning, assessment, and academic integrity. At the institutional level, Universitas Gadjah Mada has already established a university-wide policy framework regarding the use of AI in academic settings. In alignment with this policy, the faculty	The University's Artificial Intelligence Policy http://ugm.id/TheUniversitysAIPolicy Application of AI in the teaching and learning process across study programs [Link here] [Link here]

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
	use of this tool (more under Criterion 2).		will continue to hold internal discussions to evaluate the pedagogical, ethical, and operational aspects of AI integration, aiming to develop a context-appropriate implementation strategy. These collective efforts demonstrate our proactive stance in embracing innovation while safeguarding academic standards, ethical practices, and quality assurance. In practice, each study program has taken concrete steps in response to the development of AI, as outlined below: BAM: Thank you for the insightful observation. We acknowledge the growing significance of artificial intelligence (AI) in higher education and agree that clear guidelines are essential for its responsible use. While waiting for the university to arrange the regulation in detail, at present, the university and our study program has subscribed to plagiarism detection tools such as iThenticate and Turnitin to uphold academic integrity. In addition, AI-powered tools like QuillBot are being used to detect the similarity of our students writing to detect the AI. For example, in the student assignment, we	

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
			mention that we continuously monitor on their similarity and AI-generated content. Discussions on the ethical use of AI have already begun at the individual faculty level, with increasing awareness among lecturers. These discussions have been communicated to the university and there is ongoing dialogue to establish a formal policy that addresses the use of AI in teaching, learning, and research. We are committed to supporting the development of clear institutional guidelines to ensure responsible, ethical, and effective integration of AI tools in our academic environment. MPS Thank you for your insight regarding the use of AI in higher education. In conformity with regulations stipulated by the Directorate of Learning and Student Affairs, Ministry of Education, Culture, Research, and Technology, the use of Generative AI by students and lecturers is structured in conformity with UNESCO's educational recommendations.	

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
			For the students, the utilization of AI can facilitate different assignments such as assisting in securing proper references and sources, formulating ideas for writing assignments, assisting in preparing and structuring presentations and multimedia materials, designing instructional practice materials, and assisting in comprehension of intangible subject matter. Students are encouraged to reflect on the use of AI as a tool for productivity and lifelong learning, critically assessing its application. For lecturers, AI is a means to assist pedagogical methods and pedagogic strategies, enhance knowledge and expertise, perform redundant tasks, and develop co-operative learning platforms. Lecturers must master the art of adapting and using AI technologies to enhance their professionalism and pedagogical capability. Such co-operative synergy among lecturers and students, with assistance from AI can potentially significantly enhance the learning experience. MFS	

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
			We sincerely appreciate the observation regarding the increasing relevance of Artificial Intelligence (AI) in higher education. Artificial Intelligence (AI) is an emerging issue, and its use within the academic environment will be regulated through a formal policy document currently under development.	
2. Exams: System, Concept and Organization				
1	Criterion 2 Exams: System, Concept and Organization <i>Page 28, Paragraph 3</i> The experts appreciate the information provided to students through both lecturers and the SIMASTER platform. However, upon reviewing the module descriptions available on the program websites, they observe that these descriptions lack sufficient detail concerning the assessment methods. For example, in the Bachelor Agricultural Microbiology, several	All Programs	We appreciate the experts' observations regarding the need for clearer articulation of assessment methods in the publicly available module descriptions. While we acknowledge that some module descriptions on the program websites currently use general terms—such as “high order thinking skills examinations” or mention examination platforms—we would like to clarify that detailed information on assessment methods, forms, and criteria has been included in the Course Outlines and Lesson Plans, which have been made available on the Faculty's official website. These documents provide comprehensive guidance on assessment types (e.g., written exams, assignments, presentations, project-based evaluations), timing (e.g., midterm, final), and	Link Semester Course Outlines and Lesson Plans study programs: BAM: https://mikro.faperta.ugm.ac.id/rp-kps-iku-7/ MP: https://web.faperta.ugm.ac.id/rencana-program-dan-kegiatan-pembelajaran-semester-rpkps-pascasarjana/ http://ugm.id/modulhandbookrev MPS: Module Handbook MPS

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
	module descriptions refer to “high order thinking skills examinations” as the examination forms. In the Master Fisheries Science, the modules descriptions indicate “Midterm exam: Examination and Final exam: Examination by Simaster, g form, and Elok” as Examination forms. Therefore, to ensure transparency and accessibility of information for interested parties, the experts expect, that for the four programs under review, the assessment methods are clearly defined in the module descriptions (further discussion under Criterion 4.1).		evaluation criteria. They are prepared and reviewed regularly to ensure alignment with learning outcomes and consistency in implementation across courses. We remain committed to continuously improving the clarity and accessibility of academic information and will update the module descriptions accordingly to better serve both students and external stakeholders.	MFS: Module handbook https://docs.google.com/document/d/1N_QFKIAKloMyXapinhWwj-FkX2eUXLS7sXwunPZ1mqk/edit?usp=sharing RPKPS https://drive.google.com/drive/folders/1621xTNTerfCKPIBmj9S-7KBsbNdmdCIL?usp=sharing
2	Criterion 2 Exams: System, Concept and Organization <i>Page 30, Paragraph 3</i> In light of this discussion, the experts note that Artificial Intelligence is becoming increasingly prevalent in higher	All Programs	We acknowledge the experts' observation regarding the growing presence of Artificial Intelligence (AI) in higher education and the importance of establishing clear institutional guidelines for its use. In response to this, we would like to inform you that Universitas Gadjah Mada has	The University's Artificial Intelligence Policy http://ugm.id/TheUniversitysAIPolicy

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
	education. They recommended that the university reflect on this trend and work towards developing a policy on the use of AI tools. This policy should provide clear guidelines on what is permissible for students, outlining whether specific practices are allowed or not.		already developed and implemented a university-wide AI Policy. This policy provides clear guidance on the ethical and responsible use of AI tools, particularly in academic contexts such as learning, research, assessment, and publication. It outlines permissible and prohibited practices for students and staff, helping to safeguard academic integrity while supporting innovation. The Faculty of Agriculture aligns with this institutional policy and continues to socialize its implementation through academic coordination meetings and capacity-building activities, ensuring that both students and lecturers understand and adhere to the guidelines in their academic work.	
3	Criterion 2 Exams: System, Concept and Organization <i>Page 31, Paragraph 2</i> The expert group also examined a selection of final theses/academic work and determined that they were of an appropriate academic level. However, as outlined	All Programs	In line with the university's internationalization efforts, the current policy already requires that all bachelor and master theses include both the title and abstract in English. This practice is consistently implemented across all study programs to enhance international visibility and accessibility of student research. We will continue to ensure compliance	Link Student Abstract of study programs: BAM: [Link here] MP Thesis in English: http://ugm.id/tesisEirene

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
	earlier in this report, students write their theses predominantly in Bahasa Indonesia. To align with the programs' international aspirations, the experts suggest incorporating titles and abstracts in English.		and improve the quality of English usage through academic writing support and supervision. Regarding the Electronic Thesis and Dissertation (ETD) system, this practice has also been implemented consistently. Furthermore, we plan to recommend the adoption of a standardized thesis template to improve consistency in formatting and structure. The development of this template will take into account institutional regulations and best practices.	Abstract in English from UGM Repository (ETD): https://etd.repository.ugm.ac.id/p/nelitian/detail/248562 MPS Thesis in UGM Repository https://etd.repository.ugm.ac.id/p/nelitian/detail/228316 Abstract from UGM Repository [Link here] Thesis summary in English [Link here] MFS [Link here] Thesis in UGM Repository: https://etd.repository.ugm.ac.id/p/nelitian/detail/248061

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
				https://etd.repository.ugm.ac.id/p/nelitian/detail/217835
3. Resources				
1	Criterion 3.1 Staff and Staff Development <i>Page 32, Paragraph 5</i> However, a comment raised was that alongside the responsibilities related to teaching, research, and community service, lecturers are expected to undertake administrative duties, potentially leading to an overload. The experts support this concern and recommend reducing administrative tasks to mitigate their negative impact on scientific outputs (Tridharma).	All Programs	We appreciate the experts' acknowledgment of the administrative workload carried by academic staff in addition to their core responsibilities in teaching, research, and community service. We recognize that excessive administrative duties can hinder the productivity and focus needed for high-quality scientific outputs. In response, the Faculty is currently reviewing internal administrative structures and exploring strategies to streamline processes, including the use of digital systems and administrative support staff, to allow lecturers to concentrate more effectively on fulfilling their <i>Tridharma</i> obligations. In particular, academic staff often experience a significant administrative burden when managing externally funded research grants, especially those sourced through UGM, as they involve the management of state funds that require strict financial accountability. This includes extensive documentation such as <i>SPTJM</i> (Statement of Absolute Responsibility) and other financial	Temporary staff (<i>Tenaga Harian Lepas</i>) and part-time personnel BAM https://mikro.faperta.ugm.ac.id/magang-2/ MP Example of SPTJM: http://ugm.id/SPTJMenglish Temporary staff (THL): http://ugm.id/THLtranslate MPS Employment Letter Agreement MPS MFS [Link here]

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
			reports. Grants from the Ministry of Education (DIKTI) are also known to involve complex administrative procedures. To address these challenges, the Faculty has taken steps to support lecturers by providing administrative assistance through temporary staff (<i>Tenaga Harian Lepas</i>) and part-time personnel. Additionally, as more research grants are now output-based, which links funding to deliverables, administrative compliance has become increasingly important. The Faculty remains committed to facilitating and simplifying these processes to ensure that academic staff can focus on achieving impactful research outcomes.	
2	Criterion 3.1 Staff and Staff Development <i>Page 33, Paragraph 2</i> Regarding non-academic staff, the Faculty of Agriculture reported, in its Self-Assessment Report, a total of 33 laboratory staff and 81 administrative staff. During the audit, the experts	All Programs	We fully agree that adequate technical support is essential to maintaining the quality of laboratory-based learning and research across both Bachelor's and Master's programs. In response, the Faculty has conducted a review of current staffing allocations and found that both the quantity and quality of laboratory personnel are well-maintained. The number of laboratory staff (laborans) is sufficient, and they are competent in	Laboratory Technician of the Study Program BAM: https://mikro.faperta.ugm.ac.id/staf-kependidikan/ https://mikro.faperta.ugm.ac.id/magang-2/ Laboratory Technician of the AGLC

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
	learned that the Bachelor Agricultural Microbiology is experiencing an influx of students every year. The faculty is also expanding its facilities, which is a positive development in terms of meeting future demands. However, this growth also highlights the need to increase the number of laboratory technicians. The experts concur with this appreciation, emphasizing that shortages in support staff in the laboratories for the Bachelor's program should not compromise the quality of support provided to the Master's programs. Therefore, in light of the increasing number of undergraduate students, the experts recommend increasing the number of laboratory technicians to meet the growing demand and to ensure continued		supporting both educational and research activities. At the Bachelor's level, laboratory-based activities are primarily conducted within the laboratories of each study program, with dedicated technical support available for each discipline. Meanwhile, for the Master's program, practical and experimental work is centralized at the Agricultural Graduate Laboratory Center (AGLC), which is equipped with qualified personnel and shared facilities to ensure consistent and efficient technical assistance. These measures reflect the Faculty's ongoing commitment to providing high-quality laboratory experiences through strong technical support structures tailored to the needs of each academic level.	[Link here] MPS Laboratory technician

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
	quality of service for both Bachelor's and Master's students.			
3	Criterion 3.2 Funds and equipment <i>Page 37, Paragraph 6</i> However, when it comes to the current management of data and processes in the laboratories, the experts believe that there is room from improvement. An important recommendation is that the programs incorporate a LIMS (Laboratory Information Management System) to increase productivity and efficiency in the laboratory operations.	All Programs	We agree that continuous improvement in laboratory management is essential to support high-quality education and research. In line with this, the Faculty has developed a Laboratory Information System specifically for the Bachelor of Agricultural Microbiology (BAM) program. This system facilitates the management of laboratory activities, including the ordering and use of materials, chemicals, and instruments, inventory tracking, and the evaluation of laboratory usage. Currently, the system is accessible within the UGM network. At the postgraduate level, a similar system has been implemented at the Agricultural Graduate Laboratory Center (AGLC) to support centralized laboratory services for Master's students. Furthermore, Universitas Gadjah Mada has been actively supporting digital transformation in laboratory management through the university-wide Sistem Informasi Laboratorium (SILAB). In addition, UGM has established a Laboratory Marketplace platform that allows users to access	Laboratory Information System BAM: Laboratory Management System BAM 2025.pptx AGLC [Link here] SILAB [Link here] [Link here] SIMPATI Apps (MP and MPS) https://simpati.hptugm.id/Lab.SOPMPS Utilization SIMPATI Apps

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
			analytical services provided by various laboratories across the university, promoting transparency, service integration, and broader accessibility. These integrated digital systems reflect our commitment to enhancing the efficiency, transparency, and responsiveness of laboratory services in both undergraduate and graduate programs.	
4. Transparency and Documentation				
1	Criterion 4.1 Module Descriptions <i>Page 39, Paragraph 1</i> The experts acknowledge that UGM organizes module handbooks for each study program under review and that the students, as all other stakeholders, have access to them via the program websites. However, the experts have identified several issues with the presented module descriptions that need to be addressed:	All Programs	We acknowledge the importance of clearly articulating the linkage between Course Learning Outcomes (CLOs) and Program Learning Outcomes (PLOs) within each module description. In response to the feedback concerning the Master in Fisheries Science program, we are committed to revising the module descriptions to explicitly present the CLOs and demonstrate their alignment with the corresponding PLOs. This enhancement will improve curriculum transparency, strengthen the coherence of the learning process, and further support the implementation of outcome-based education (OBE) principles across the program. We have revised and standardized the module descriptions to include clearer and more detailed	Link Semester Course Outlines and Lesson Plans study programs: BAM • [Link here] • https://mikro.faperta.ugm.ac.id/en/module-handbook/# MP: • http://ugm.id/modulhandbookre v • [Link here] MPS Module Handbook MPS

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
	The module descriptions should indicate the relationship between Course Learning Outcomes and Program Learning Outcomes. The experts note that the module descriptions of the Master Fisheries Science does not specify Course Learning Outcomes and expect that these are included in a revised version. Although the module descriptions include information on examination forms, the experts believe that greater clarity is needed to ensure transparency. As previously noted under Criterion 2, a clearer description of the assessment methods would enhance understanding of students and other stakeholders. Finally, the experts consider that some of the literature in the reading lists is outdated and needs therefore to be updated in		information on assessment forms, criteria, and components. This improvement enhances alignment with the intended learning outcomes and ensures that assessment strategies are communicated transparently and consistently. It also supports fairness and strengthens the overall quality of the academic experience for students and stakeholders. In practice, monitoring and review of module handbooks have been conducted prior to the start of each semester to ensure that all course descriptions, learning outcomes, and assessment components remain up to date and aligned with current academic standards.	MFS [Link here]

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
	a revision of the module handbooks			
2	Criterion 4.1 Module Descriptions <i>Page 39, Paragraph 2</i> The experts overall believe that the university should establish a structured and supervised process to ensure the module handbook is regularly reviewed and updated.	All Programs	We appreciate the experts' recommendation regarding the need for a structured and supervised process to regularly review and update the module handbooks. We fully agree that such a mechanism is essential to maintain the relevance, accuracy, and consistency of course information. In practice, monitoring and review of module handbooks have been conducted prior to the start of each semester to ensure that all course descriptions, learning outcomes, and assessment components remain up to date and aligned with current academic standards.	Course coordination meetings BAM https://mikro.faperta.ugm.ac.id/2024/05/08/departemen-mikrobiologi-pertanian-ugm-gelar- rapat-pemutakhiran-kurikulum/ MP Learning process/Module evaluation meeting: https://www.instagram.com/reel/C6aZgPjLiAy/?utm_source=ig_web_copy_link&igsh=MzRIODBiNWFIZA== Internal Quality Assurance Process: https://www.instagram.com/p/DBfmIlgSZTK/?utm_source=ig_web_copy_link&igsh=MzRIODBiNWFIZA==

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
				Benchmarking for curriculum improvement: https://www.instagram.com/p/DBGyMp7S2Rb/?utm_source=ig_web_copy_link&igsh=MzRIODBiNWFlZA== MPS Benchmarking in ITB Bandung Curriculum review and evaluation in 2024 Curriculum review and evaluation in 2023 Internal Quality Assurance National Quality Assurance MFS Internal quality assurance: [Link here] Bench marking: https://fish.faperta.ugm.ac.id/?s=bench+marking

No.	Comments from ASIIN Experts (Section, Page, Paragraph)	Programme	Explanations from the University to Clarify the ASIIN Comments	Related/Additional Evidence (Link/File)
3	Criterion 4.2 Diploma and Diploma Supplement <i>Page 40, Paragraph 1</i> The experts acknowledge that all documents are issued bilingually in Bahasa Indonesia and English. However, they observe that the Diploma Supplement does not include information about the student's GPA relative to the cohort.	All Programs	We acknowledge the importance of providing comprehensive and comparative academic information in the Diploma Supplement, including the student's Grade Point Average (GPA) in relation to their cohort. In response, we already explore the feasibility of incorporating this information of the Diploma Supplement to enhance its transparency, credibility, and alignment with international standards.	BAM [Link here] MP [Link here] MPS [Link here] MFS [Link here]

F Summary: Expert recommendations (27.08.2025)

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

Degree Program	ASIIN Seal	Maximum duration of accreditation
Bachelor Agricultural Microbiology	With requirements for one year	30.09.2031
Master Phytopathology	With requirements for one year	30.09.2031
Master Pest Science	With requirements for one year	30.09.2031
Master Fisheries Science	With requirements for one year	30.09.2031

Requirements

For all programs

- A 1. (ASIIN 1.5) Verify the students' total workload and adjust the awarded ECTS points accordingly.
- A 2. (ASIIN 4.1, 2) Ensure that the module descriptions contain up-to-date literature and the assessment methods are clearly defined.

For the Master program Fisheries Science

- A 3. (ASIIN 4.1) Ensure that the module descriptions clearly indicate the Course Learning Outcomes.

Recommendations

For all programs

- E 1. (ASIIN 1.1, 1.3) It is recommended to further develop the students' soft skills, especially in oral and written communication, as well as leadership.
- E 2. (ASIIN 1.3) It is recommended to place greater emphasis on aspects of sustainability and global change within the curriculum.
- E 3. (ASIIN 1.3, 1.6, 2, 3.1) It is recommended that the role of English be further

strengthened to drive internationalization goals.

- E 4. (ASIIN 1.6, 2) It is recommended that the university reflect on the increasing prevalence of Artificial Intelligence in higher education and move toward developing a policy for its use.
- E 5. (ASIIN 3.1) It is recommended that administrative tasks be reduced to mitigate their negative impact on scientific outputs (Tridharma).
- E 6. (ASIIN 3.1, 3.2) It is recommended to ensure that the shortage of laboratory technicians in the Bachelor's program does not adversely affect the Master's programs.
- E 7. (ASIIN 3.2) It is recommended to develop a LIMS (Laboratory Information Management System) to improve efficiency in the laboratories.
- E 8. (ASIIN 4.1) It is recommended that the module descriptions indicate the relationship between Course Learning Outcomes and Program Learning Outcomes.
- E 9. (ASIIN 4.2) It is recommended that the diploma supplement include information about the graduate's position or rank within their cohort for the same graduation year or period.

For the both Master programs Phytopathology and Pest Science

- E 10. (ASIIN 1.3) It is recommended to broaden the scope of teaching to include non-tropical topics.
- E 11. (ASIIN 1.3) It is recommended to integrate courses related to data analysis.

For the Master program Fisheries Science

- E 12. (ASIIN 1.3) It is recommended that the content on capture fisheries be further strengthened.

G Comments of the Technical Committees

Technical Committee 08 – Agriculture, Forestry and Food Sciences (11.09.2025)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee (TC) reflects on the high quality of UGM as one of the top universities in Indonesia, noting that only formal requirements are involved. Regarding the proposed recommendations, the TC considers E 4, on an AI concept, to be already fulfilled. For better clarity, E 6 is reformulated. Additionally, it is established that the provision of statistical data for the evaluation of the individual performance of students is mandatory and, therefore, must be implemented. Otherwise, the TC follows the experts' assessment without any further changes.

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

Degree Program	ASIIN Seal	Maximum duration of accreditation
Bachelor Agricultural Microbiology	With requirements for one year	30.09.2031
Master Phytopathology	With requirements for one year	30.09.2031
Master Pest Science	With requirements for one year	30.09.2031
Master Fisheries Science	With requirements for one year	30.09.2031

Technical Committee 10 - Life Sciences (18.09.2025)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee discusses the requirements and recommendations proposed by the expert group, which are accepted without making any changes

The Technical Committee 10 - Life Sciences recommends the award of the seals as follows:

Degree Program	ASIIN Seal	Maximum duration of accreditation
Bachelor Agricultural Microbiology	With requirements for one year	30.09.2031
Master Phytopathology	With requirements for one year	30.09.2031
Master Pest Science	With requirements for one year	30.09.2031
Master Fisheries Science	With requirements for one year	30.09.2031

Requirements

For all programs

- A 1. (ASIIN 1.5) Verify the students' total workload and adjust the awarded ECTS points accordingly.
- A 2. (ASIIN 4.1, 2) Ensure that the module descriptions contain up-to-date literature and the assessment methods are clearly defined.
- A 3. (ASIIN 4.2) Include statistical data in the Diploma Supplement to allow for an assessment of the individual student performance.

For the Master program Fisheries Science

- A 4. (ASIIN 4.1) Ensure that the module descriptions clearly indicate the Course Learning Outcomes.

Recommendations

For all programs

- E 1. (ASIIN 1.1, 1.3) It is recommended to further develop the students' soft skills, especially in oral and written communication, as well as leadership.
- E 2. (ASIIN 1.3) It is recommended to place greater emphasis on aspects of sustainability and global change within the curriculum.
- E 3. (ASIIN 1.3, 1.6, 2, 3.1) It is recommended that the role of English be further strengthened to drive internationalization goals.
- E 4. (ASIIN 3.1) It is recommended that administrative tasks be reduced to mitigate their negative impact on scientific outputs (Tridharma).
- E 5. (ASIIN 3.1, 3.2) It is recommended to increase the number of technical staff to maintain the level of supervision despite the increase of student numbers.

- E 6. (ASIIN 3.2) It is recommended to develop a LIMS (Laboratory Information Management System) to improve efficiency in the laboratories.
- E 7. (ASIIN 4.1) It is recommended that the module descriptions indicate the relationship between Course Learning Outcomes and Program Learning Outcomes.

For the both Master programs Phytopathology and Pest Science

- E 8. (ASIIN 1.3) It is recommended to broaden the scope of teaching to include non-tropical topics.
- E 9. (ASIIN 1.3) It is recommended to integrate courses related to data analysis.

For the Master program Fisheries Science

- E 10. (ASIIN 1.3) It is recommended that the content on capture fisheries be further strengthened.

H Decision of the Accreditation Commission (26.09.2025)

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

The Accreditation Commission (AC) agrees with TC 08 to upgrade the original E 9 to a requirement (A 3), incorporating a minor editorial revision. It also supports the deletion of E 4, based on the university's documented progress on an AI use policy. Additionally, the AC decides to remove E 7 and E 8, in light of the submitted documentation. The AC proposes editorial changes to E 5 and accepts the rewording of E 6 suggested by TC 08. Otherwise, the AC follows the experts' assessment without any further changes.

The Accreditation Commission decides to award the following seals:

Degree Program	ASIIN Seal	Maximum duration of accreditation
Bachelor Agricultural Microbiology	With requirements for one year	30.09.2031
Master Phytopathology	With requirements for one year	30.09.2031
Master Pest Science	With requirements for one year	30.09.2031
Master Fisheries Science	With requirements for one year	30.09.2031

Requirements and recommendations for the applied labels

Requirements

For all programs

- A 1. (ASIIN 1.5) Verify the students' total workload and adjust the awarded ECTS points accordingly.
- A 2. (ASIIN 4.1, 2) Ensure that the module descriptions contain up-to-date literature and the assessment methods are clearly defined.
- A 3. (ASIIN 4.2) Include statistical data in the Diploma Supplement to allow for an assessment of the individual student performance in relation to their cohort.

For the Master program Fisheries Science

- A 4. (ASIIN 4.1) Ensure that the module descriptions clearly indicate the Course Learning Outcomes.

Recommendations

For all programs

- E 1. (ASIIN 1.1, 1.3) It is recommended to further develop the students' soft skills, especially in oral and written communication, as well as leadership.
- E 2. (ASIIN 1.3) It is recommended to place greater emphasis on aspects of sustainability and global change within the curriculum.
- E 3. (ASIIN 1.3, 1.6, 2, 3.1) It is recommended that the role of English be further strengthened to drive internationalization goals.
- E 4. (ASIIN 3.1) It is recommended to organize administrative tasks so as to mitigate their negative impact on scientific outputs (Tridharma).
- E 5. (ASIIN 3.1, 3.2) It is recommended to increase the number of technical staff to maintain the level of supervision despite the increase of student numbers.

For the both Master programs Phytopathology and Pest Science

- E 6. (ASIIN 1.3) It is recommended to broaden the scope of teaching to include non-tropical topics.
- E 7. (ASIIN 1.3) It is recommended to integrate courses related to data analysis.

For the Master program Fisheries Science

- E 8. (ASIIN 1.3) It is recommended that the content on capture fisheries be further strengthened.

Appendix: Program Learning Outcomes and Curricula

According to the Self-Assessment Report, the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor's degree program Agricultural Microbiology:

Program Educational Objectives:

1. Produce graduates at the undergraduate level in the field of Agricultural Microbiology who fear God Almighty, have a nationalist spirit, are egalitarian, firmly hold on to the mandate, and are disciplined.
2. To produce graduates who master the knowledge of biology and production technology of plants and microorganisms, master the engineering and propagation of microorganisms, and are able to carry out agricultural business based on the use of microorganisms that are environmentally friendly and sustainable.
3. Produce graduates who are able to think and behave scientifically, independently, and competitively so that they are able to continue to postgraduate level, both at home and abroad.
4. Produce scientific papers to be published in national and international journals and developed into technology in the field of Agricultural Microbiology that can be utilized by the community, farmers, government, and industry.
5. Produce cooperation in the fields of education, researchers and community services with institutions at home and abroad.

Program Learning Outcomes:

Attitude (A)	A1 (PLO 1)	Demonstrate a Pancasila attitude and awareness of the interests of the nation and state.
	A2 (PLO 2)	Demonstrate honesty, responsibility, self-confidence, emotional maturity, ethics, and awareness of a lifelong learner.
Knowledge (K)	K1 (PLO 3)	Analyze theoretical concepts regarding plant production technology by giving attention to economic and social-humanitarian aspects to achieve quality, sustainable and profitable agriculture.
	K2 (PLO 4)	Analyze theoretical concepts of biology microorganism and develop microbial-based technology to increase plant production and environmental services.
	K3 (PLO 5)	Evaluate the latest methodology in the field of microbiology to create environmentally friendly and sustainable agricultural development.
General Skills (G)	GS1 (PLO 6)	Analyzing and applying logical, critical, systematic, and innovative thinking by utilizing the technology of information to produce solutions according to the field of expertise with integrity and embodied in scientific documents.
	GS2 (PLO 7)	Evaluating and developing networks, adapt, shape, contribute, supervise, evaluate and make decisions to demonstrate independent and group performances to apply the knowledge in social life.
	GS3 (PLO 8)	Implementing science and technology in the field of agricultural microbiology in order to produce solutions, ideas, compile scientific descriptions of the results of their studies and be able to use at least one international language for oral and written communication.
	GS4 (PLO 9)	Analyzing and implementing procedures for archiving, storing, securing, and retrieving data to ensure validity and prevent plagiarism.
Specific Skills (G)	SS1 (PLO 10)	Analyze and assess the challenges in the implementation of agricultural businesses, including the design, implementation, and resolution of these problems.
	SS2 (PLO 11)	Evaluate and propose solutions to problems encountered in the field of microbiology, considering their implications for industrial and agricultural applications.
	SS3 (PLO 12)	Analyze and optimize the selection, utilization, and management of microbes and microbiomes to enhance industrial and agricultural systems.
	SS4 (PLO 13)	Assess, interpret, and present research data effectively, and evaluate the use of biological data banks for insights and applications.

**CURRICULUM MAP 2023 UNDERGRADUATE PROGRAM DEPARTEMENT OF AGRICULTURAL MICROBIOLOGY,
FACULTY OF AGRICULTURE, UNIVERSITAS GADJAH MADA**

Semester I	Semester II	Semester III	Semester IV	Semester V	Semester VI	Semester VII	Semester VIII
Plant protection (2/1 sks / 4.54 ECTS)	English for Academic Purposes (2/0 sks / 3.03 ECTS)		Agricultural Biotechnology (2/0 sks / 3.03 ECTS)	Indonesian Language (2/0 sks / 3.03 ECTS)	Leadership (0/1 sks / 1.51 ECTS)	Undergraduate Thesis (0/6 sks / 9.18 ECTS)	Elective Subjects or MBKM (2 sks / 3.03 ECTS)
Introduction to Agricultural Science (2/0 sks / 3.03 ECTS)	Biochemistry (2/0 sks / 3.03 ECTS)	Enzimology (2/0 sks / 3.03 ECTS)	Civics Education (2/0 sks / 3.03 ECTS)	Pancasila Education (2/0 sks / 3.03 ECTS)	Community Services Program (0/4 sks / 6.04 ECTS)	Elective Subjects or MBKM (10-14 sks / 15.1 - 21.14 ECTS)	
Botany (2/0 sks / 3.03 ECTS)	Laboratory Classes in Biochemistry (0/1 sks / 1.53 ECTS)	Agroclimatology (2/1 sks / 4.54 ECTS)	Agricultural Water Management (2/0 sks / 3.03 ECTS)	Chemical and Molecular Biological Analysis (2/0 sks / 3.03 ECTS)	Public Communication (0/2 sks / 3.03 ECTS)		
Agronomy (2/1 sks / 4.54 ECTS)	Organic Chemistry (2/0 sks / 3.03 ECTS)	Microbial Genetics (2/1 sks / 4.54 ECTS)	Plant Physiology (2/1 sks / 4.54 ECTS)	#Religious Education (2/0 sks / 3.03 ECTS)	Application of Practicable Technology (0/2 sks / 3.03 ECTS)		
Agricultural Management and Economics (2/1 sks / 4.54 ECTS)	Agricultural Ecosystem (2/1 sks / 4.54 ECTS)	Microbial Physiology (2/1 sks / 4.54 ECTS)	Agricultural Extension and Communication (2/1 sks / 4.54 ECTS)	Research Methodology (2/0 sks / 3.03 ECTS)	Elective Subjects or MBKM (10-15 sks / 15.1 - 22.65 ECTS)		
Agricultural Microbiomes (2/1 sks / 4.54 ECTS)	Genetics in Agriculture (2/1 sks / 4.54 ECTS)	Microbial Ecology (2/1 sks / 4.54 ECTS)	Soil and Plant Microbiology (2/1 sks / 4.54 ECTS)	Experimental Designs (2/1 sks / 4.54 ECTS)			
Fundamental of Physics (2/0 sks / 3.03 ECTS)	Nature and Properties of Soil (2/1 sks / 4.54 ECTS)	Microbial Systematic and Taxonomy (2/1 sks / 4.54 ECTS)	Aquatic Microbiology (2/1 sks / 4.54 ECTS)	Basics Bioinformatics (2/0 sks / 3.03 ECTS)			
Applied Mathematics (2/0 sks / 3.03 ECTS)	Biology of Microorganisms (2/1 sks / 4.54 ECTS)		Agroindustrial Microbiology (2/1 sks / 4.54 ECTS)	Field Work (0/2 sks / 3.06 ECTS)			
Success skills (0/1 sks / 1.51 ECTS)	Statistics for Agriculture (2/0 sks / 3.03 ECTS)	Elective Subjects (5-7 sks / 7.55-10.57 ECTS)	Elective Subjects (2-3 sks / 3.03 - 4.54 ECTS)	Seminar (0/1 sks / 1.51 ECTS)			
				Elective Subjects (4-6 sks / 6.04 - 9.06 ECTS)			
21 sks / 31.71 ECTS	21 sks / 31.71 ECTS	Max 24 sks / 36.24 ECTS	Max 24 sks / 36.24 ECTS	Max 24 sks / 36.24 ECTS	Max 24 sks / 36.24 ECTS	Max 20 sks / 30.2 ECTS	2 sks / 3.03 ECTS

According to the Self-Assessment Report, the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Master's degree program in Phytopathology:

Program Educational Objectives:

1. Human resources capable of developing science and technology in Tropical Phytopathology through research and producing innovative and tested work.
2. Human resources having expertise and professionalism in solving problems in phytopathology through a comprehensive inter-/multidisciplinary approach.
3. Human resources capable of managing research and development beneficial to society and science in Tropical Phytopathology and gaining recognition from the national and international community.

Program Learning Outcomes:

Attitude (A)	A1 (PLO 1)	Demonstrate a Pancasila attitude and awareness of the interests of the nation and state.
	A2 (PLO 2)	Demonstrate honesty, responsibility, self-confidence, emotional maturity, ethics, and awareness of being a lifelong learner
Knowledge (K)	K1 (PLO 3)	Analyzing and evaluating the theory and applicable theory of all aspects in tropical plant pathology
	K2 (PLO 4)	Analyzing and formulating problems in tropical plant pathology and plant disease management based on comprehensive approach
General Skills (G)	GS1 (PLO 5)	Organize scientific research based on logical, analytical and creative thinking based on scientific ethics, and communicate the results through oral presentation and/or scientific writing
	GS2 (PLO 6)	Develop and appraise critical awareness for assessing issues and making decision, communicate, and collaborate to institutions, nationally or internationally
Specific Skills (G)	SS1 (PLO 7)	Develop solution of tropical plant disease problem based on critical analysis on research result, information, data and inter- or multidiscipline approach
	SS2 (PLO 8)	Critically assess and improve methods for plant disease diagnose and strategy on integrated plant disease management along with the emerging technologies

CURRICULUM MAP 2023 MASTER IN PHYTOPATOLOGY DEPARTMENT OF PLANT PROTECTION, FACULTY OF AGRICULTURE, GADJAH MADA UNIVERSITY

Semester I	Semester II	Semester III	Semester IV
Tropical Phytopathology (2/0 credits)	Tropical Phytopathology (2/0 credits)	Thesis (0/12 credits)	Thesis (0/12 credits)
Bioinformatics and Diagnosis of Plant Disease (2/1 credits)	Bioinformatics and Diagnosis of Plant Disease (2/1 credits)		
Tropical Plant Disease Management (2/0 credits)	Tropical Plant Disease Management (2/0 credits)		
Philosophy of Research (2/0 credits)	Philosophy of Research (2/0 credits)		
Scientific Writing (0/2 credits)	Scientific Writing (0/2 credits)		
Seminar (0/1 credits)	Seminar (0/1 credits)		
Soil Borne Plant Pathogens (2/0 credits)	Host - Pathogen Molecular Interaction (2/0 credits)		
Insect Borne Plant Pathogens (2/0 credits)	Postharvest Pathology of Agricultural Products (2/0 credits)		
Biology and Pathogenesis of Plant Virus (2/1 credits)	Fungicide Toxicology and Management (2/0 credits)		
Bacteria-Plant Interactions (2/1 credits)	Bioecology and Taxonomy of Fungal Plant Pathogen (2/1 credits)		
Pests Risk Analysis (2/0 credits)	Phytopathogenic Mollicutes (2/0 credits)		
	Modelling and Plant Disease Forecasting (2/1 credits)		
Compulsory Course : 12 credits Elective Course Max : 26 credits Min : 16 credits	Total Credits Exclude Thesis (Compulsory and Elective) Max : 38 Min : 28	Thesis : 12 Credits	Thesis : 12 Credits
Total Credits 40 - 50 Credits (Chancellor's Regulation No.11 of 2016)			

Note :

- The thesis includes: Proposal Preparation, Proposal Seminar and Comprehensive Examination, Research Implementation, Thesis Manuscript, Publication Manuscript, and Final Examination.
- Publication: Graduation requirements in accordance with Chancellor's Regulation No.11 of 2016

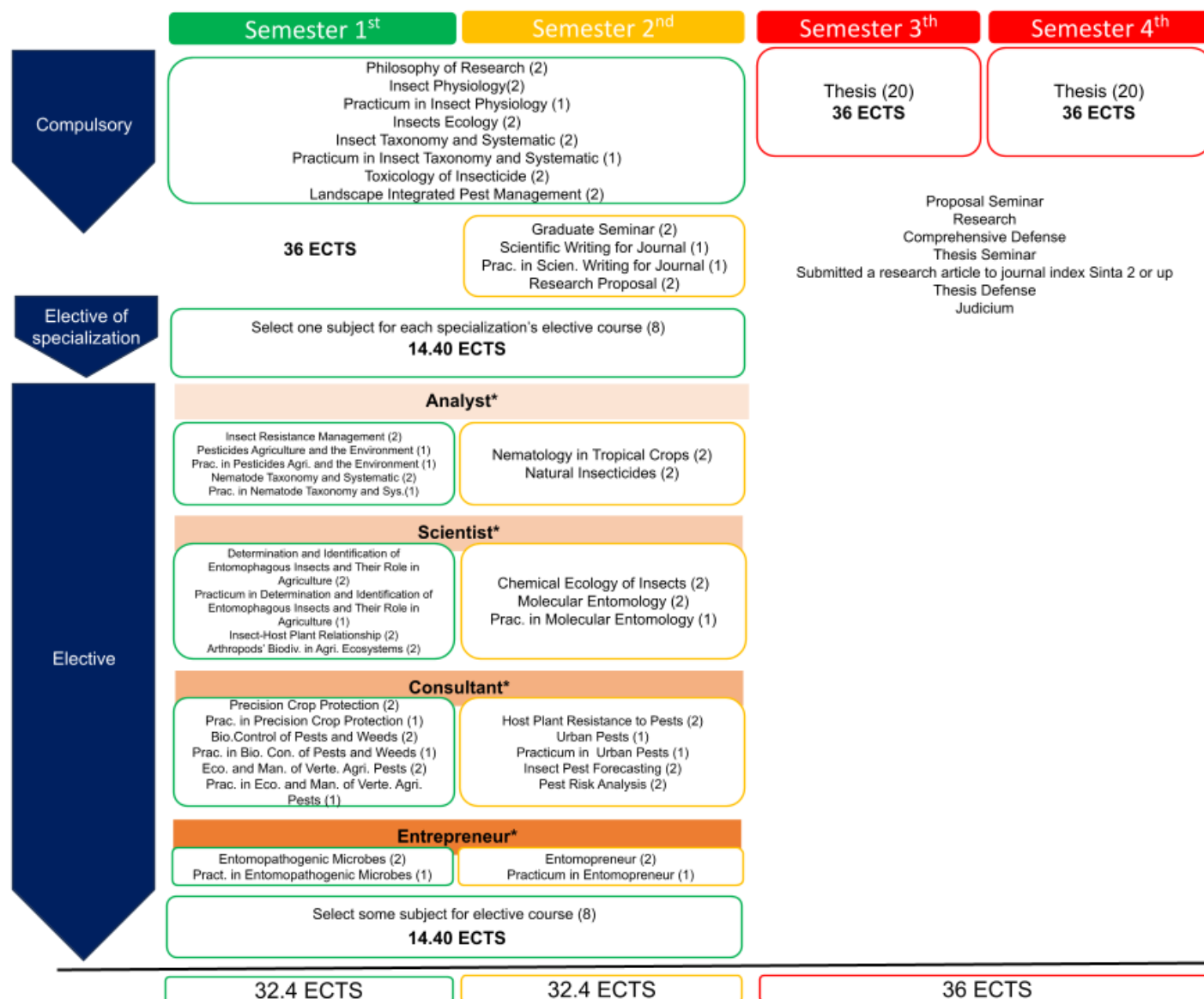
According to the Self-Assessment Report, the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Master's degree program in Pest Science:

Program Educational Objectives:

1. Graduates will demonstrate an understanding and application of Pancasila principles in all aspects of pest science, reflecting a commitment to the philosophical and ethical values integral to Indonesian society.
2. Graduates will be prepared to continuously update their knowledge and skills in response to the rapidly evolving field of pest science, adapting to new challenges and technologies in the field.
3. Graduates will be equipped to solve pressing societal or industrial problems, particularly in the context of pest management. They will learn to manage research data effectively to ensure validity and prevent plagiarism and to communicate their findings effectively to academic, professional, and broader communities.
4. Graduates will be able to perform accurate and efficient pest identification using state-of-the-art methods and tools, keeping up with advancements in the field and will be skilled in applying advanced technologies and methodologies in pest science.

Program Learning Outcomes:

Attitude (A)	A1 (PLO 1)	Demonstrate high integrity in professional practice in the field of pest science which states Pancasila and has awareness of the interests of the nation and state of Indonesia.
	A2 (PLO 2)	Demonstrate honesty, responsibility, self-confidence, emotional maturity, ethics, and awareness of being a lifelong learner.
Knowledge (K)	K1 (PLO 3)	Evaluating the mechanisms and impacts of various pest control methods, including biological, chemical, physical, molecular, quarantine and cultural approaches.
	K2 (PLO 4)	Demonstrating in-depth and advanced knowledge of the taxonomy, physiology, ecology and toxicology of agricultural pests in Integrated Pest Management as well as recognizing the challenges and opportunities posed by emerging crop pests due to climate change.
General Skills (G)	GS1 (PLO 5)	Develop logical, critical, systematic and creative and scientific thinking through scientific research, creating research designs, based on scientific principles and ethics, using an inter/multi/transdisciplinary approach, to solve community/industry problems, and managing research data for validity and prevention plagiarism, as well as communicating it through the media to the academic, professional and wider community.
	GS2 (PLO 6)	Make decisions in solving problems of developing science and technology in the field of pest science, and developing inter/multi/transdisciplinary work networks, as well as increasing independent learning capacity.
	GS3 (PLO 7)	Assess and create entomological business including innovative solutions for pest management, considering sustainability and business viability.
Specific Skills (G)	SS1 (PLO 8)	Technical Skills: Gain proficiency in modern pest identification, monitoring, management technologies and apply advanced laboratory and field techniques for pest control effectively, efficiency and safely.
	SS2 (PLO 9)	Practical and Professional Skills: Evaluate and implement Integrated Pest Management strategies in an inter/multi/transdisciplinary manner in a real world agricultural environment, considering economic, ecological, and sociocultural implications.



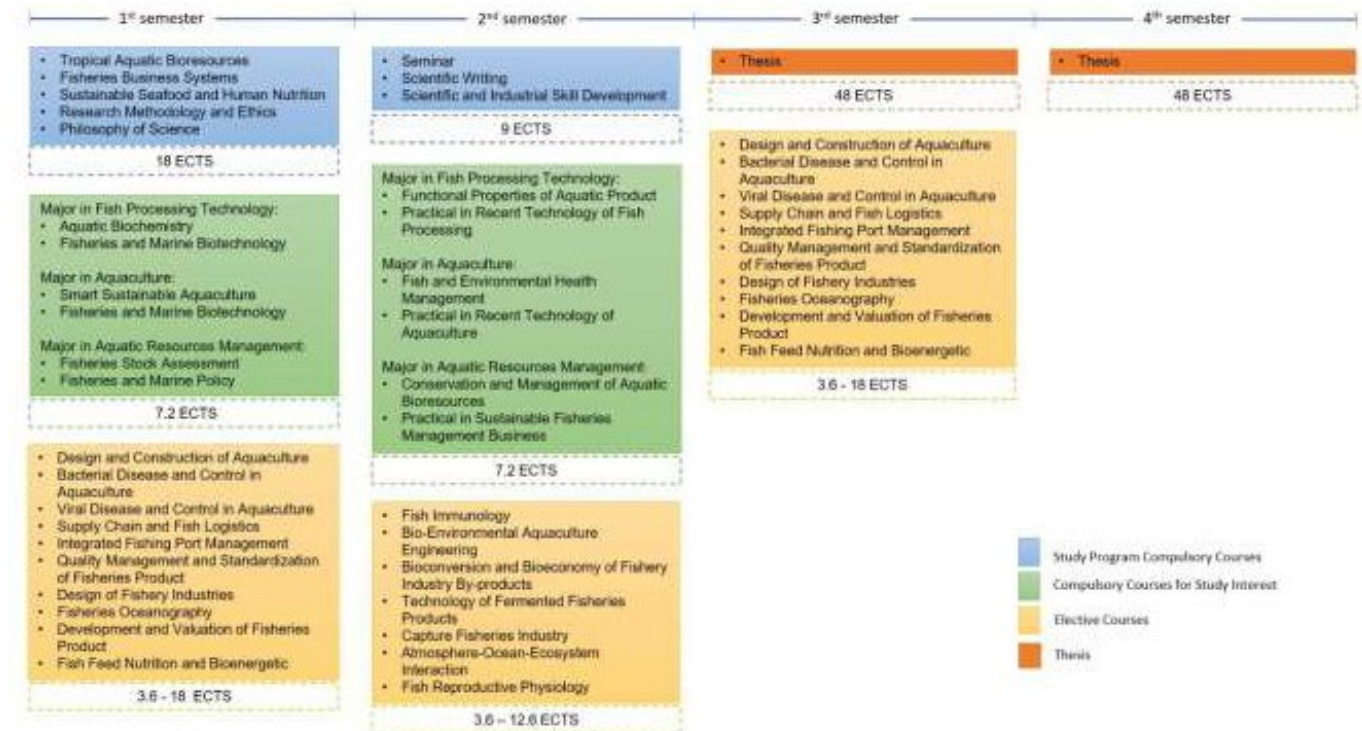
According to the Self-Assessment Report, the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Master's degree program in Fisheries Science:

Program Educational Objectives:

1. Develop strong leadership graduates with noble character based on Pancasila who prioritize humanity, ethical practices, environmental stewardship, and social equity.
2. Develop graduates who capable of optimizing knowledge, technology, and/or art in planning, utilizing, and managing fisheries resources, especially in fisheries cultivation, resource management, and fishery product processing wisely, sustainably, and beneficial to society.
3. Develop graduates capable in performing scientifically valid, innovative, ethical, and responsible research in the field of fisheries
4. Develop skilled professionals with advanced knowledge and practical skills to address global challenges in fisheries management, aquaculture, and fish processing field.

Program Learning Outcomes:

Attitude (A)	A1 (PLO 1)	Demonstrate a Pancasilaist attitude and awareness of the interests of the nation and state
	A2 (PLO 2)	Demonstrate honesty, responsibility, confidence, emotional maturity, ethics, and awareness of being a lifelong learner.
Knowledge (K)	K1 (PLO 3)	Applying logical, critical, systematic, and innovative thinking by utilizing information technology for fish farming, fishery resource management, or fishery product processing
	K2 (PLO 4)	Developing work networks, adapt, create, contribute, supervise, evaluate, and make decisions to demonstrate independent and group performance and apply knowledge to social life
General Skills (G)	GS1 (PLO 5)	Critically evaluate and innovate to solve problems in aquaculture, aquatic resource management, or the processing of fishery products.
	GS2 (PLO 6)	Assess and compile scientific concepts and research findings based on scientific principles, procedures, and ethics, producing theses and publications in accredited scientific journals.
	GS3 (PLO 7)	Evaluate and develop research proposals and scientific and technical studies to solve problems and advance new engineering technologies.
Specific Skills (G)	SS1 (PLO 8)	Evaluate and develop science and technology through inter-, multi-, and trans-disciplinary research and innovation in aquaculture, the processing of fishery products, or fisheries resources management.
	SS2 (PLO 9)	Assess and enhance managerial skills in the fishery business.



SEMESTER, COURSE		Credits
Semester 1	Tropical Aquatic Natural Resources (WP-SP)	2/0
	Fisheries Business Systems (WP-SP)	2/0
	Sustainable Fish-Based Food and Human Nutrition (WP-SP)	2/0
	Research Methodology and Ethics (WP-SP)	2/0
	Aquatic Biochemistry (WM-AKU WM-THP)	2/0
	Philosophy of Science (WP-SP)	2/0
	Fisheries and Maritime Biotechnology (WM-THP)	2/0
	Smart Sustainable Aquaculture (WM-AKU)	2/0
	Assessment of Fish Stock (WM-MSA)	2/0
	Fisheries and Maritime Policy	2/0
Semester 2	Seminar (WP-SP)	0/1
	Scientific Writing (WP-SP)	1/1
	Functional Characteristics of Fishery Products (WM-THP)	2/0
	Practical of Current Technologies for Processing of Fishery Products (WM-THP)	0/2
	Management of Fishery and Environmental Health (WM-AKU)	2/0
	Practical of Current Aquaculture Technology (WM-AKU)	0/2
	Conservation and Management of Aquatic Resources (WM-MSA)	2/0
Semester 3	Practical of Sustainable Fishery Business Management	2/0
	Thesis (WP-SP)	0/12
Semester 4	Scientific and Industry Skills (WP-SP)	0/2
	Thesis (WP-SP)	0/12
Elective Courses 1	Aquaculture Design and Construction (P)	2/0
	Management of Aquatic Bacterial Diseases (P)	2/0
	Management of Aquatic Viral Disease (P)	2/0
	Fishery Supply Chain and Logistic (P)	2/0
	Management of Integrated of Fishery Harbors (P)	2/0
	Quality Control and Standarization of Fishery Products (P)	2/0
	Fishery Oceanography (P)	2/0
	Fishery Industry Planning (P)	2/0
	Development and Valuation of Fishery Products (P)	2/0
	Fish Feed Nutritions and Bioenergetics (P)	2/0
Elective Courses 2	Aquaculture Immunology (P)	2/0
	Aquatic Bio-environment Engineering (P)	2/0
	Bioconversion and Bioeconomy of Fishery by-products (P)	2/0
	Fermentation Technology of Fishery Products (P)	2/0
	Capture Fishery Industry (P)	2/0
	Atmosphere-Ocean-Ecosystem Interaction (P)	2/0
	Fish Reproduction Physiology (P)	2/0