ASIIN Seal

Accreditation Report

Bachelor's Degree Programmes

Agrotechnology

Animal Science

Food Technology

Provided by

Universitas Sumatera Utara – Medan, Indonesia

Version: 27 March 2026

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A About the Accreditation Process

Name of the degree programme (in original language)	(Official) English translation of the name	Labels applied for [1]	Previous accreditation (issuing agency, validity)	Involved Technical Committees (TC)[2]
Sarjana Agroteknologi	Bachelor of Agrotechnology	ASIIN	BAN-PT Grade Very Good; valid until 22.March.2027	08
Sarjana Peternakan	Bachelor of Animal Science	ASIIN	BAN-PT Grade Excellent; valid until 11.January.2027	08
Sarjana Teknologi Pangan	Bachelor of Food Technology	ASIIN	BAN-PT Grade A; valid until 30.March.2027	08
Date of the contract: 10.10.2023 **Submission of the final version of the Self-Assessment Report:** 30.03.2024 **Date of the audit:** 02.– 03.12.2024 **At:** Universitas Sumatera Utara, Medan				
Assessment panel: Prof. Dr. Dr. Matthias Gauly, Freie Universität Bozen Prof. Dr. Peter Braun, Geisenheim University Dr. Riska Rian Fauziah, S.Pt., M.Sc., M.P., University of Jember M. Sc. Yayang Vionita, Verstegen Spices & Sauces BV				

[1] ASIIN Seal for degree programs

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

Ms Levina Putri Wijaya, Bachelor Food Technology student at IPB University	
Representative of the ASIIN headquarter: Dr. Emeline Jerez	
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	

B Characteristics of the Degree Program

a) Name	Final degree (original/English translation)	b) Areas of Specialization	c) Corresponding level of the EQF[3]	d) Mode of Study	e) Double/Joint Degree	f) Duration	g) Credit points/unit	h) Intake rhythm & First time of offer
Bachelor of Agrotechnology	Sarjana Agroteknologi/ Bachelor of Agrotechnology	Agronomy, Soil Science, Plant Breeding, Plant Protection	Level 6	Full time	No	8 semesters	146-147 credits equivalent to 233.6-235.2 ECTS	Annually First offered in 1984
Bachelor of Animal Science	Sarjana Peternakan / Bachelor of Animal Science		Level 6	Full time	No	8 semesters	146 credits equivalent to 233.6 ECTS	Annually First offered in 1984

[3] EQF = The European Qualifications Framework for Lifelong Learning

a) Name	Final degree (original/English translation)	b) Areas of Specialization	c) Corresponding level of the EQF3	d) Mode of Study	e) Double/Joint Degree	f) Duration	g) Credit points/unit	h) Intake rhythm & First time of offer
Bachelor of Food Technology	Sarjana Teknologi Pangan/ Bachelor of Food Technology		Level 6	Full time	No	8 semesters	144 credits equivalent to 230.4 ECTS	Annually First offered in 2007

The ASIIN experts acknowledged and considered the contextual framework within which the Bachelor's programs under review are offered:

Universitas Sumatera Utara (USU) is a state university located in Medan, Indonesia. It was officially established in 1952

USU comprises 17 faculties/schools encompassing diverse fields such as agriculture, social sciences, engineering, medicine, mathematics and natural sciences. The university offers a wide range of educational programs, including vocational and undergraduate studies, as well as postgraduate programs such as specialist, professional, master's, and doctoral studies.

USU's vision is "to become a university that has academic excellence as a barometer of scientific progress that is able to compete in the global world." In the 2025 QS World Universities Ranking, USU is ranked 18th in Indonesia and 1201-1400 in the world.

The Faculty of Agriculture[4]

Fakultas Pertanian was founded in 1956 and currently offers 13 study programs, including eight at the undergraduate level, four at the master's level, and one at the doctoral level. With more than 1,100 alumni and 6,500 active students, the faculty's vision is "to become a leading agricultural higher education institution in the development of science, technology, and human resources with the main competence of plantations to support national food sovereignty covering the fields of food crop agriculture, animal husbandry, and fisheries in a global order in 2039."

The faculty has presented the following mission statement on its website:

1. "Organizing superior agricultural higher education that produces graduates with BINTANG characters and gets international recognition.
2. Carry out and develop innovative applied agricultural research in the field of TALENTA at national and international scope.
3. Providing expertise services in agriculture, especially plantations, to support national food security in the food crop, livestock and fisheries sectors.

The term BINTANG is defined as graduates who are devoted to God Almighty, embracing diversity, demonstrating innovation with integrity, and exhibiting strength and wisdom. TALENTA encompasses the concepts of Tropical Science and Medicine, Agroindustry, Local

[4] https://fp.usu.ac.id/en/about-us

Wisdom, Energy (sustainable), Natural Resources (biodiversity, forests, marine, mining, and tourism), Technology (appropriate), and the Arts (Ethnic).

The Faculty of Agriculture is seeking ASIIN accreditation for its undergraduate programs in Agrotechnology, Animal Science, and Food Technology, which are also referred as to AT, AS and FT within the documentation. The educational objectives (PEOs) and graduate profile of the programs are presented as follows:

i. Agrotechnology Study Program

Program educational objectives
"1. Producing graduates who are reliable, tough and creative, and able to develop knowledge and technology in the fields covered by agrotechnology, especially plantations. 2. Carrying out active participation in the development of science and technology (research) in plant cultivation to meet community needs. 3. Carrying out community service based on the results of innovative research work to meet community needs, especially in the fields of agriculture and smallholder plantations. 4. Expanding participation and potential of human resources in global commitments in the agricultural sector that supports domestic agricultural development policies. 5. Expand participation and potential of human resources in global commitments in the agricultural sector that supports domestic agricultural development policies. 6. Building an information and technology center for developing entrepreneurship in the field of agriculture that is environmentally friendly and sustainable**."**
Graduate profile
"PLO1 Able to apply agrotechnology theory creatively, innovatively and internalize the character of BINTANG to create a sustainable agricultural system. PLO2 Able to solve problems in the fields of plantation, food and horticulture to increase productivity and quality of agricultural products. PL03 Able to apply agrotechnology and management theories in the fields of plantation, food and horticulture to manage sustainable natural resources and human resources. PL04 Able to compile research by applying scientific principles in the field of agrotechnology both in the field and in the laboratory and publish it PLO5 Able to develop business in the field of plantations, food and horticulture in a professional and innovatibe manner"

ii. Animal Science Study Program

Program educational objectives

"a. To produce Animal Husbandry Bachelors with STAR character who can develop science and technology based on morals, religion and compete in national and international levels; b. To produce quality and innovative research so that it can develop science, technology in the field of integrative animal husbandry both on national and international scales; c. To produce devotion to the public which can applied, own benefits based on integrative livestock so that it can advance general welfare and enlighten national life as well as be innovative; d. To continuously improve the quality of innovative learning management to reach superiority and competition on national and international cooperations. e. To implement the Independent Learning Campus Independent (MBKM) program and develop the potential of students to become human beings who are devoted to Almighty God, healthy, knowledgeable, capable, creative, independent, skilled, and competent for the purposes of the nation**."**
Graduate profile
"PLO1 Able to apply basic science and innovative technology in animal science by applying logical, critical, systematic and innovative thinking in the field of animal science. PLO2 Able to apply the concepts of leadership and teamwork within the scope of government or private institutions in the field of animal science. PLO3 Able to disseminate information as a driver of development in the community in the field of animal science in formal and informal institutions. PLO4 Able to develop a livestock business either alone or join a group."

iii. Food Technology Study Program

Program educational objectives
"1. Producing scholars in the field of Food Technology with BINTANG character and becoming actors of change as a force for food modernization, who have scientific competence, relevance and strong competitiveness with ethical intellectual behavior and are able to compete at the national and international levels. 2. Creating an academic atmosphere to support the implementation of a good Food Technology education process that meets quality standards towards the development of innovative research in the field of TALENTA as part of USU's academic excellence in the national and international scope. 3. Producing research-based community service to solve problems in the field of food technology to realize food independence."
Graduate profile
"PLO1 Ability to apply and integrate the principles of food processing and post-harvest technology. PLO2 Ability to design agricultural food products and produce food that has certain nutritional and functional characteristics.

PLO3 Ability to apply and evaluate food quality control methods both microbiological, chemical and physical quality.
PLO4 Ability to apply the principles of food chemistry analysis and laboratory Instrumentation.
PLO5 Ability to implement the principles of developing new food products."

Based on the discussion with representatives from the Rector's Office, the expert team learned that USU is in the early stages of its internationalization process. In this context, ASIIN accreditation is an integral part of the university's strategy to enhance its international recognition. The team acknowledges and commends the university for its efforts and resource allocation aimed at increasing its international profile.

C Accreditation 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
- Outcomes-Module-Matrices, as appendices to the self-assessment report
- Faculty website: https://fp.usu.ac.id/en
- Agrotechnology website: https://fp.usu.ac.id/en/undergraduate-program-in-agrotechnology
- Animal Science website: https://fp.usu.ac.id/en/undergraduate-program-in-animal-husbandry
- Food Technology website: https://fp.usu.ac.id/en/undergraduate-program-in-food-technology
- Discussions during the audit

Preliminary assessment and analysis of the experts:

The experts refer to the Subject-Specific Criteria (SSC) of the Technical Committee Agriculture, Forestry and Food Sciences and general ASIIN Criteria for the Accreditation of Degree Programmes as a basis for judging whether the intended learning outcomes of the

undergraduate study programs in Agrotechnology, Animal Science, and Food Technology, as defined by USU, correspond with the competences as outlined in the SSC. They come to the following conclusions:

i. Learning Outcomes

At the program level, the experts observe three tiers of development for the educational objectives of the programs under review:

- **Program Educational Objectives (PEOs)**, which establish the program's purposes based on the defined vision and mission statements (see section B).
- **Graduate profile (PLOs),** which relates to the formation of the graduate profession during the completion of the study period (see section B).
- **Intended Learning Outcomes (ILOs)**, which derive from the study program objectives/graduate profile and guide the design and assessment of the curriculum (see Appendix).

ILOs are formulations to achieve graduate competency standards and involve a consultation process with internal (students and lecturers) and external (alumni, government agencies, professional associations and industry) stakeholders, and benchmarking against pertinent national and international standards and references. The ILOs align with the Indonesian National Qualification Framework, the National Higher Education Standards, USU's vision and mission, and the mandates of the Faculty of Agriculture.

Based on the Indonesian National Qualification Framework (*Kerangka Kualifikasi Nasional Indonesia, KKNI*), the ILOs of the programs are distinguished as aspects of Attitude (*sikap*), Knowledge (*pengetahuan*), General Skills (*kemampuan umum*), and Special Skills (*kemampuan khusus*).

Within the provided documentation, the university presents tables with the correlations between PEOs and ILOs, ILOs and the ASIIN Specific-Subject Criteria (SSC), and ILOs and courses (modules) for the three programs under review. The auditors also verified and confirmed that the learning outcomes are published on the program websites and thus accessible to interested stakeholders. **However, they also suggest that the program websites could be made more user-friendly, as some essential information is difficult to find, particularly for non-local users. For example, the English version of the program websites is not easily accessible from the faculty home page.**

At the module level, course learning outcomes (CLO) are defined in the respective module description. Each course also has a Semester Learning Plan as a curriculum tool where the relationship between CLO and LO is further documented.

The expert team believes that most program objectives are well-established and the intended learning outcomes are generally coherent with these objectives. The team attests that the learning outcomes of the Bachelor's programs under review correspond to level 6 of the European Qualification Framework.

ii. Graduate Qualification Profiles

According to the self-assessment report, graduate profiles are developed by analyzing the needs of the community (market). The programs are designed to align with national standards while also addressing stakeholder requirements. Stakeholders are regularly engaged to provide input through surveys, workshops, and focus group discussions.

Drawing on this stakeholder process, graduates of the Agrotechnology study program are expected to embark on diverse career paths, ranging from roles as consultants, extension workers, planters, research assistants, managers, and entrepreneurs.

Regarding those completing the Animal Science study program, they are anticipated to possess relevant skills, enabling them to perform as entrepreneurs, supervisors, extension workers, government employees, private employees, community leaders, and research assistants.

In the Food Technology study program, graduates are expected to contribute with their expertise as food analysts, quality controllers, research and development assistants, researchers, food entrepreneurs, government employees, and private employees.

During the discussions, the experts focused on the results of the tracer study, noting that 64% of graduates from the AT program, 82% from AS, and 89% from FT align with the graduate profile. The experts inquired with the program coordinators whether this meant that, for the AT program, 36% of graduates did not fit the profile by the end of their studies. The coordinators clarified that 64% of AT graduates are working in fields directly related to their program, while 36% are employed outside the field but still applying the skills they gained. The experts emphasized that the reasons behind this proportion of graduates working outside their field should be further explored and addressed.

That said, several lines of evidence indicate that students are prepared to enter the job market, and employers are overall satisfied with the knowledge and technical skills of the graduates. During the discussion with the experts, representatives from various companies confirmed their willingness to take in student interns and graduates, highlighting their

technical knowledge. **However, feedback from industry partners and alumni highlights the need for improvement in the development of general soft skills among graduates. Key areas identified include communication (oral and written), leadership, critical thinking, problem-solving and organizational abilities. The experts recommend that the university intensify its efforts to address these gaps, ensuring that students are better equipped with these essential skills for their professional careers.**

Likewise, students and alumni are satisfied with the programs under review and happy to have joined USU. During the discussions, they expressed overall satisfaction with the learning experience, as well as their future job and academic prospects. Alumni, in particular, highlighted that their education at USU has met their expectations by providing a good understanding of the discipline, which has positively impacted their careers.

The experts gained the overall impression that the imparted qualification profiles meet the expectations from all sides, and allow the students to take up an occupation corresponding to their qualifications upon graduation.

iii. Review of Learning Outcomes

As documented in the self-assessment report, former and current students, as well as other internal and external stakeholders, have been involved in developing the program's intended learning outcomes. During the audit, the experts sought more information about the stakeholder selection process and the criteria used. The program coordinators explained that this process adheres to institutional and governmental regulations, which mandate an evaluation every four years. In this context, lecturers, students, alumni, and other stakeholders provide recommendations regarding the learning outcomes and the curriculum. For employers, the programs select companies by analyzing where most alumni are employed and invite them to participate based on the number of alumni at those companies.

When asked during the audit if the university seeks feedback on the competences of its graduates, industry representatives confirmed that several methods are used to collect their insights. This includes invitations to dedicated meetings on campus, surveys, and alumni feedback via online platforms.

From the provided documentation, their exchanges during the audit, as well as the further discussion about the university's quality assurance mechanisms under Criterion 1.3 and Criterion 5, the experts gained the impression that appropriate, recurring review mechanisms concerning the learning outcomes of the programs under review are in place.

In summary, the assessment team believes that the degree programs are designed in such a way that they meet the objectives set for them and judge the objectives and learning outcomes of the programs as suitable to reflect the intended level of academic qualification. They correspond with the ASIIN Subject-Specific-Criteria (SSC) of the Technical Committee 08 – Agriculture, Forestry and Food Sciences and suffice the ASIIN Criteria for the Accreditation of Degree Programmes.

Criterion 1.2 Name of the degree program

Evidence:

- Self-assessment report
- Curriculum documents, all programs under review
- Agrotechnology website: https://fp.usu.ac.id/en/undergraduate-program-in-agrotechnology
- Animal Science website: https://fp.usu.ac.id/en/undergraduate-program-in-animal-husbandry
- Food Technology website: https://fp.usu.ac.id/en/undergraduate-program-in-food-technology
- Sample Diploma Certificate, all programs under review

Preliminary assessment and analysis of the experts:

The naming of the degrees awarded follows the regulation of the Indonesian Minister of Research, Technology and Higher Education No. 163/DIKTI/KEP/2007 concerning structuring and codification of study programs in higher education.

Graduates of the Animal Science (*Peternakan*) study program are conferred the title *Sarjana Peternakan(S.Pt.)* or Bachelor of Animal Science.

The experts confirm that the English translation and the original Indonesian names of the abovementioned study program correspond to the programs' intended aims and learning outcomes.

Graduates of the Agrotechnology (*Agroteknologi*) study programs receive the title *Sarjana Aghroteknologi (S.Agr.)* or Bachelor of Agrotechnology.

Graduates of the Food Technology (*Teknologi Pangan*) study programs are awarded the title *Sarjana Teknologi Pangan (S.T.P.)* or Bachelor of Food Technology.

After analyzing the correspondence between the names of the Agrotechnology and Food Technology study programs and their intended aims and learning outcomes, the experts

recommend that faculty members rethink the naming of these programs. In their opinion, the current names do not accurately reflect the specific expected learning outcomes of each program. An element to consider, for example, is that Agrotechnology has special characteristics in the field of plantations.

Criterion 1.3 Curriculum

Evidence:

- Self-assessment report
- Curricular overview, all programs under review
- University website: https://www.usu.ac.id/en
- Agrotechnology website: https://fp.usu.ac.id/en/undergraduate-program-in-agrotechnology
- Animal Science website: https://fp.usu.ac.id/en/undergraduate-program-in-animal-husbandry
- Food Technology website: https://fp.usu.ac.id/en/undergraduate-program-in-food-technology
- USU Academic Calendar 2023/2024: https://www.usu.ac.id/en/education/academic-calendar
- Discussions during the audit

Preliminary assessment and analysis of the experts:

After analysing the module descriptions and curricular overview, the experts confirm that the study programs are divided into modules and that each module is a sum of coherent teaching and learning units. Working practice intervals are integrated into the curriculum, and the supervision by the university/Faculty of Agriculture/department structures allows for their respective quality in terms of relevance, content, and structure. In addition, the experts gain the impression that the choice of modules and the structure of the curriculum ensure that the intended learning outcomes can be achieved.

i. Structure of the Programs

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 ends in December, and the even semester lasts from January to July. The mode of study for the three programs under review is full-time.

The minimum study load for the Agrotechnology and Food Technology programs is 144 Indonesian Credits (SKS), while the Animal Science program requires 146 Indonesian Credits. All three programs have an expected duration of 8 semesters.

The curricula consist of modules in the categories of compulsory and elective courses as follows:

- AT: compulsory university, compulsory study program, compulsory specialization, specialization elective, elective outside study program and elective outside specialization.
- AS and FT: compulsory university, compulsory study program and elective courses (inside and outside the study program).

The curricula integrate the Independent Leaning-Independent Campus (*Merdeka Belajar - Kampus Merdeka*, *MBKM*) program, which provides opportunities for students to learn independently in the field and interact with the community and entrepreneurs.

As seen in the Appendix, each program presents a curricular overview that outlines the structure and organisation of the modules over time, including the sequence and progression by semester. However, these overviews lack consistency in their presentation. The experts believe that the faculty must standardise the template and structure used. This would provide a clear and uniform presentation of the curriculum, enhancing understanding for students and stakeholders and ensuring a more coherent and professional communication of the program's structure.

ii. Contents

At the beginning of the study programs, students are introduced to general education subjects such as Religion Education, Pancasila and Civic Education, Bahasa Indonesia, as well as natural science and introductory subjects. These courses help students understand socio-cultural aspects and foundational principles of their discipline.

As students advance through the programs, 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 programs, the curricula further narrow their focus on advanced areas. Students take specialised subjects and engage in professional development activities. They also undertake a final-year project, which involves a proposal seminar, a result seminar and writing an undergraduate thesis.

Specifically for the Agrotechnology study program, the study materials are grouped into four specializations, namely:

1. Agronomy
2. Plant breeding
3. Soil Science
4. Plant protection

The experts appreciate the efforts to equip students with both theoretical knowledge and practical skills. **However, after examining the content of all three programs, they found that there are insufficient topics covering socio-environmental issues. These important aspects of the discipline are not adequately addressed or included in the curricula. During the visit, the experts engaged in discussions with the program coordinators about the importance of incorporating up-to-date content to better prepare students for the labour market and the contemporary challenges in the agriculture industry. A key recommendation is for the university to consider the possibility of strengthening and increasing the visibility of aspects of sustainability, environmental protection and climate change in the curricula.**

The experts also focused on the change in the name of the FT program from Food Science Technology to Food Technology. The program coordinators explained that this change was driven by a decline in demand and was mandated by Indonesian government regulations. The experts acknowledged this explanation but inquired whether the adjustment had been reflected in the program's learning outcomes. They noted some compulsory modules centred on non-food agricultural products. They also observed that the technology component of the curriculum appears to be limited, while the food-related content is more substantial. Considering these points, the experts recommend making the engineering aspect of the curriculum mandatory. Additionally, they pointed out that some modules from the old curriculum remain in the program, suggesting that the content of the curriculum should be revised to better align with the current program's profile.

iii. Internship

Internships are integrated into the Bachelor's programs through the Independent Learning - Independent Campus (MBKM) activities. Through MBKM, students are facilitated to take courses in the same study program or different study programs outside of USU. They can also carry out other activities that are included in the MBKM category for a maximum of 2 semesters or the equivalent of 40 credits. These activities encompass eight components, representing a mode of autonomous and flexible learning:

1. Student exchange,
2. Internship/practical work in industry or other workplaces,
3. Teaching assistantship in education units,
4. Research,
5. Humanitarian project,
6. Entrepreneurial activities,
7. Independent projects, and
8. Village development/Thematic real work lectures (KKNT)

Students taking part in the MBKM program must have activity outputs, consisting of a logbook, progress report and final report.

When the experts inquired whether the internship is mandatory under the MBKM scheme, the program coordinators clarified that it is optional. During the audit, industry representatives confirmed that their companies have hosted students as interns.

The industry representatives emphasized the significance of these internships, noting that other universities in Indonesia place considerable importance on this aspect, which contributes to a competitive advantage for their graduates. They expressed the sentiment that graduates require more hands-on experience in the field to better prepare for real-world job scenarios. Based on this feedback, the recommendation that emerges for the three programs is that internships should be made mandatory to enhance the employability of the graduates.

iv. Mobility

As noted above, the MBKM program enables the participation of Bachelor's students in student exchanges at both domestic and international universities. The experts reviewed the student mobility data for the period 2022/2023 for each program under review, which is presented below.

Table 1: Independent Student Exchange 2022/2023
Source: Self-assessment report, USU.

Form of Activity	Odd Semester			Even Semester		
	AT	AS	FT	AT	AS	FT
Independent student	1	3	1	1	3	1

During the audit, the experts inquired with the students present about their participation in student exchange programs and whether the university supports them in studying abroad or domestically. One Agrotechnology student shared that USU offers opportunities for international activities, such as student exchanges. The student mentioned having travelled to Japan to enhance their knowledge of technology, expressing the view that the university provides valuable opportunities.

While the experts appreciate the university's efforts to support students, they noted that the data suggest low participation in these activities. To gain further insight, the experts asked the students if they would be interested in going abroad, and all students responded positively. However, they indicated that the main barrier to participating is the competition for funding and available spaces, which they perceive as a high obstacle to accessing these opportunities.

Students and program coordinators confirmed that funding opportunities to support students' mobility abroad include the international student exchange program for undergraduate students, known as IISMA. Established in 2022 by the Ministry of Education, Culture, Research, and Technology, the program aims to encourage more students to participate in international mobility. Students, however, find accessing this program to be very challenging.

Based on the strategic aspirations of all three study programs, the experts see that the programs should further enhance internationalisation efforts by expanding staff and student mobility.

Additionally, the experts noted that the curricular overview does not clearly indicate when students have the opportunity to participate in mobility opportunities. To improve this, the programs should explicitly define a designated mobility window within the curriculum, allowing students to be informed and plan accordingly.

In terms of credit recognition for study performance achieved abroad, students confirmed to have successfully converted credits after mobility, indicating a straightforward process (more under criterion 1.5).

v. Curriculum review

The intended learning outcomes and curricula of the three programs undergo review every four years. The last changes and adjustments were made in 2021. Since then, the programs have transitioned to a curriculum with an Outcome-Based Education (OBE) approach and implementation of MBKM in alignment with the Indonesian National Qualification Framework.

Monitoring and assessment of the curriculum involve stakeholders such as lecturers, students, alumni, and employers. The strategy for updating the curriculum involves conducting focus group discussions and tracer study surveys with alumni and employers. Input and suggestions, particularly from employers, serve as key references for revising the curriculum to ensure that graduates meet market demands.

Once the draft curriculum revision is prepared, it is reviewed by the dean before being submitted to the USU Curriculum and Learning Innovation Institute (Link-up). After ensuring that the revisions meet the necessary standards, they are then sent to the Chancellor for approval. Once approved, the new curriculum is communicated and implemented within the study program.

In the course of their assessment, the experts acknowledged the faculty's commitment to conducting regular curriculum reviews in consultation with both internal and external stakeholders. They specifically appreciate that there is a good relationship with different stakeholders.

Criterion 1.4 Admission requirements

Evidence:

- Self-assessment report
- University website: https://www.usu.ac.id/en
- USU admission website: https://www.usu.ac.id/en/admission
- USU Academic Calendar 2024/2025: https://www.usu.ac.id/en/education/academic-calendar
- Admission-related regulation as part of the self-assessment report
- Statistical data about the progress of studies, all programs under review
- Discussions during the audit

Preliminary assessment and analysis of the experts:

Admission and selection of prospective students at USU are governed by a framework outlined in the Rector's regulation for new student admissions. The admission requirements, procedures, schedules, and steps are published and announced on the New Student Admission Information Center (PMB) website and are thus accessible to all stakeholders.

There are several pathways for admission:

Regular Path:

1. SNBP—National Selection Based on Merit (formerly SNMPTN): A mechanism that selects students based on their academic achievements during secondary school.
2. SNBT—National Selection Based on Tests: A selection mechanism that assesses students' reasoning and problem-solving abilities, measuring cognitive potential, mathematical reasoning, and literacy in both Indonesian and English.

3. SBPU TALENTA - USU TALENTA Excellent Achievement-Based Selection Program: A selection program based on students' talents and achievements in both academic and non-academic fields, including special talents recognized at the national or international level.

Independent Path:

4. SMMPTN-West Program - A selection process for new independent pathway students, jointly organized by state universities in the Western Indonesia BKS-PTN consortium.
5. SMM USU – Independent Student Selection USU: Conducted independently by USU, using a computer-based examination.
6. SMI - International Independent Selection: A selection process carried out by USU to recruit prospective international students.

Currently, USU allocates at least 20% of the total capacity of undergraduate programs through the SNBP pathway and a minimum of 30% through the SNBT route.

In examining the admission pathways for prospective international students, the assessment team expressed specific concerns regarding the International Independent Selection criteria. They noted that the General Provisions and Requirements outlined on the institution's website stipulate a maximum age of 23 years for applicants. The experts argue that this age limit may be unduly restrictive. They, therefore, suggest that the current maximum age requirement of 23 years should be reconsidered.

Intake occurs annually, with studies beginning in August. According to the data provided in the self-assessment report, which is presented below, the average starting cohort fills 99% of the intake capacity for Agrotechnology, 73% for Animal Science, and 95% for Food Technology.

Table 2: Intake capacity and average starting cohort size
Source: Self-assessment report

Program	Intake capacity	Average starting cohort size
Agrotechnology	300	298
Animal Science	180	132
Food Technology	100	95

Tuition fees for local students admitted to undergraduate programs at USU are divided into eight categories. For the programs under review, tuition fees range from 500,000 to 9,000,000 IDR (approximately 30 to 530 euros) per semester, depending on the parents' financial situation. Additionally, students from disadvantaged backgrounds may be eligible for scholarships provided by the central government, with some students studying at no cost.

All in all, the experts find the admission rules to be binding, transparent, and based on decrees by the Ministry of Research, Technology, and Higher Education and on USU's written regulations.

Criterion 1.5 Workload and Credits

Evidence:

- Self-assessment report
- Curriculum Documents, all programs under review
- Rector's decision No. UN5.1.R/SK/SPB/2023 concerning guidelines for calculating the conversion of European credit transfer and accumulation system (ECTS) credits for students at USU
- Discussions during the audit.

Preliminary assessment and analysis of the experts:

Study programs at USU must follow the Indonesian credit system (SKS). At USU, the components of 1 credit in the teaching and learning process include lectures, structured assignments, and independent study, detailed as follows:

a. Lecture activities: 50 minutes per week per semester;

b. Structured assignments: 60 minutes per week per semester; and

c. Independent study: 60 minutes per week per semester.

One semester equals 16 weeks, including 2 weeks for midterm exams and final exams. Consequently, the total hours spent for 1 SKS course in one semester will be 2,380 minutes (170 minutes x 14 weeks) or 39.7 hours per semester. 1 ECTS = 25 – 30 hours, so 1 ECTS is set at 25 hours as the minimum standard = 1.6 ECTS.

The following table_shows the minimum study load required by each program under review:

Table 3: Total Credits (SKS)
Source: Appendix to the self-assessment report, USU

Course categories	Agrotechnology	Animal Science	Food Technology
Compulsory university	32	28	32
Compulsory study program	80	98	74
Compulsory specialization	23-24		
Elective inside and outside department		20	38
Specialization elective	6-7		
Elective outside study program	2		
Elective outside specialization	3		
Total	**146-147**	**146**	**144**
ECTS	**233.6-235.2**	**233.6**	**230.4**

The programs employ a questionnaire disseminated via Google Forms to assess student perceptions of the predetermined workload. This assessment focuses on various components, including the frequency and duration of in-person lecture sessions, the number and length of practical laboratory meetings, as well as both group and individual assignments. Analysis of the survey results indicates that for the AT program, 37% of students rated their study load as "very suitable," and 51% as "suitable." In the AS program, 46% of respondents categorized the load as "very suitable," and 46% as "suitable." For the FT program, 19% indicated the load as "very suitable" and 79% as "suitable."

These findings were further corroborated during an audit, where students expressed an overall satisfaction with the course workload.

However, the experts observed that in all three programs, the 8th semester allocates a total of 6 credits in compulsory study program courses, distributed as follows: 1 Indonesian credit for the Thesis Seminar Proposal (1.6 ECTS), 1 Indonesian credit for the Thesis Results Seminar (1.6 ECTS), and 3 Indonesian credits for the final Thesis (4.8 ECTS). The experts believe that the credits assigned to the thesis seem to underrepresent the actual workload required by the students. They, therefore, ask that the university ensure that credits equivalent to the actual workload of students during the thesis project are given in the curricula and that students are not overloaded.

The maximum study period in the Bachelor's programs is 14 semesters. In the first and second semesters, students are required to take all the courses specified in the curriculum. For the subsequent semesters, the maximum number of credits students can take is determined by the previous semester's GPA, with a maximum of 24 SKS if the GPA is ≥ 3.00.

Upon analyzing the curricular overviews, the experts observed that the semester workload is composed of multiple modules, each with a credit load ranging from 1 to 3 credits. This structure contributes to a high exam load. To create a more balanced and manageable workload, the experts recommend reducing the number of exams.

As shown in the table below, USU also presents key performance indicator data, including dropouts.

Table 4: Dropouts 2019-2023
Source: Appendix to the self-assessment report, USU

Indicator	Agrotechnology	Animal Science	Food Technology
Dropouts (number of students)	7	1	6

The data shows a low dropout rate, suggesting that nearly all students complete the study programs. While this seems to indicate successful program completion, a closer examination reveals a discrepancy. During discussions with program coordinators, the experts referred to the self-assessment report (p. 6), which highlights a difference

between the 'average starting cohort size' and the 'average number of graduates per cohort'. For example, 298 vs 237 students in Agrotechnology, which results in a difference of 61 students. This difference suggests higher dropout numbers than those indicated. The same applies to the other two programs. The experts request that the university clarify the discrepancy in the reported figures and provide their definition of "dropout".

In connection with the above, the experts remark on the importance of the university ensuring that program data, including information on the number of students and the dropout rate, is accurate and readily available upon request.

Furthermore, according to the self-assessment report, the average time required to complete studies exceeds the standard duration:

Bachelor Agrotechnology: 4 years, 5 months

Bachelor Animal Science: 4 years, 5 months

Bachelor Food Technology: 4 years, 11 months

During the discussion with the students and the teaching staff, the experts learned that the longer time for Food Technology is primarily due to limited availability of equipment for thesis work and the overall workload involved in completing the thesis. The program coordinators noted that efforts to promote innovation while preventing plagiarism during the development of the final project/thesis may contribute to challenges in maintaining the program's standard duration.

The experts strongly believe that the faculty must actively monitor the reasons behind students exceeding the foreseen time for graduation. They also believe that the faculty needs to implement measures to support timely completion within the program's prescribed duration.

The experts confirm that regulations for the transfer of credits obtained outside of USU exist. The experts also attest that the program's module handbooks distinguish between credits given for various forms of supervised studies and self-study time.

Apart from the comments above, the experts are under the impression that, overall, a credit system centred on student workload is in place, that this workload encompasses both contact hours and self-study time and that credits are granted in accordance with the associated workload.

Criterion 1.6 Didactic and Teaching Methodology

Evidence:

- Self-assessment report
- Academic Guidelines, all programs under review
- Discussions during the audit

Preliminary assessment and analysis of the experts:

In the self-assessment report, USU records that appropriate didactical instruments and methods are implemented for the programs. The variations in learning methods and tools are adjusted to the level of knowledge, skills, and competences set in each module. Learning methods are listed in each course's Semester Learning Plan (RPS), which serves as a roadmap for both lecturers and students during the learning process. Through USU e-learning platform (https://kelas.usu.ac.id/), students can read learning materials in advance to prepare themselves for class. The platform also facilitates the distribution of assignments, and supports blended learning.

The programs have adopted Outcome Based Education (OBE) since 2021 with teaching methods that prioritize the student's involvement in the learning process. The MBKM program has been integrated into the Bachelor's curricula to give students more flexibility in achieving their goals. With MBKM, students can learn from different institutions and communities. Furthermore, the availability of laboratory facilities, including education, research, advanced labs, and field labs, enables students to conduct independent research.

The diverse array of teaching methods employed within each program include but are not limited to lectures, project-based learning, case studies, field trips, practicum, e-learning and scientific writing. The module handbooks state the teaching methods applied in each learning unit, providing instructions for laboratory work, learning resources, and the learning plan and assessment. The medium of instruction is Bahasa Indonesia, although most courses incorporate English.

The programs have courses on research methodology, which guide students in developing, writing, and publishing papers and theses. In the discussions with students, the experts learn that they are generally satisfied with the quality of teaching and learning in the programs under review.

In summary, the expert panel considers the range of teaching methods and instruments suitable to support the students in achieving the intended learning outcomes. They confirm the study concepts of the three programs comprise a variety of teaching and learning forms

as well as practical parts adapted to the respective subject culture. Finally, they attest that the imparting of academic research skills is sufficiently ensured.

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

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

(ASIIN 1.1) More user-friendly program websites – All degree programs

USU has noted that the program websites offer essential information, including English versions, which can be accessed relatively easily. However, upon reviewing the provided links, the experts recommend improvements. They observe that the English versions are not easily accessible and that the websites pose navigation challenges.

(ASIIN 1.1) Student soft-skills development – All degree programs

The experts positively note the several initiatives to improve students' soft skills. Among these are soft skills training sessions aimed at final-year students to prepare them for the job market. The university employs project-based learning methods for students to collaborate and develop essential skills such as communication and problem-solving. Public lectures featuring industry practitioners provide additional insights into the soft skills necessary for success in the workforce. Students also gain practical experience through fieldwork practice in industrial environments and are encouraged to participate in MBKM programs for independent study internships and community service. The experts support these initiatives and encourage ongoing support for this area.

(***ASIIN 1.2) Name of the programs - Agrotechnology and Food Technology***

USU has indicated that the naming of study programs in Indonesia is governed by the Regulation of the Minister of Education, Culture, Research, and Technology, which follows guidelines set forth in the Government Regulation. This regulation establishes the types, levels, and naming conventions for study programs within higher education institutions. The experts recognize that government regulations dictate these names, limiting the possibility for re-evaluation. However, they emphasize the importance of ensuring the programs correspond with the intended aims and learning outcomes.

(ASIIN 1.3) Harmonized presentation of the curriculum – All degree programs

The experts commend the efforts made to harmonize the presentation of the curricular overviews for the three programs under review. They recommend that the Faculty of Agriculture continue to refine this approach, ensuring a more professional and consistent presentation for stakeholders.

(ASIIN 1.3) More visibility of socio-environmental issues in the curriculum – All degree programs

USU has noted that the three study programs already include courses that address socio-environmental issues, sustainability, environmental protection, and climate change. The experts appreciate the detailed breakdown of courses that cover these topics in each program. However, they believe there is an opportunity to further highlight these aspects in the curriculum document and module descriptions for greater visibility.

(ASIIN 1.3) Non-food agricultural products and engineering aspect in the curriculum – Food Technology

USU has stated that the Food Technology curriculum includes non-food products, such as rubber, as part of an introductory topic. This is due to the significance of rubber as a major commodity in North Sumatra and the need for graduates to be familiar with it. Additionally, the study program has made minor revisions to the Semester Learning Plan and related modules concerning the processing technology of plantation crops into food products. While the experts appreciate these updates, they emphasize the importance of incorporating the engineering aspect into the curriculum in light of the program's new profile. Therefore, they recommend that the curriculum review consider making this element mandatory.

(ASIIN 1.3) Internship as a mandatory component – All degree programs

It is noted that a mandatory internship (named as Fieldwork Practice) is integrated within the curriculum of the three study programs. This module encompasses internships in both large (companies, factories, research centers) and small to medium enterprises (street vendors). The experts appreciate this information and believe that the disparity on the internship locations could be the reason behind the stakeholders' feedback during the audit. The experts see no need to issue a recommendation in this regard.

(ASIIN 1.3) Enhanced internationalization efforts – All degree programs

The experts take note of the various outbound programs, including Summer Job Japan (funded by an industry partner), the Scholarship Program to NPUST and UPM (funded by the Taiwan government), and the Summer Course (funded by Universitas Sumatera Utara). They also appreciate that USU has facilitated internationalization courses, such as Basic Speaking, TOEFL and IELTS Preparation, and English for Business and Professional Communication. The experts appreciate these efforts and recommend ongoing development in this area.

(ASIIN 1.3) Designated mobility window within the curriculum – All degree programs

The curriculum overview states that students can participate in outbound programs during semesters 5, 6, or 7 in all study programs, in accordance with Rector's Regulation Number 2329/UN.5.1.R/SK/SPB/2022. However, the experts still believe that further efforts should be made to clearly state a mobility window for students.

(ASIIN 1.4) Age requirement for international applicants – All degree programs

The experts commend the Faculty of Agriculture and its study programs for their initiative to propose a change in the age limit for international students during the selection process. They recommend taking specific actions to implement this change effectively.

(ASIIN 1.5) Credit allocated to the Bachelor's thesis – All degree programs

The experts acknowledge that the thesis or final project for undergraduate students in Indonesia is generally worth 6 credits. They also recognize the reasons provided for this allocation, including student workload, academic standards, and higher education curriculum. However, the experts maintain their original recommendation, as they believe the credits assigned to the thesis do not adequately reflect the actual workload required from students.

(ASIIN 1.5) Reduction in the exam load – All degree programs

The experts acknowledge the use of various assessment methods to achieve learning outcomes in the courses. These methods include midterm exams, final exams, quizzes, assignments, project-based learning, and the case method. They appreciate that lecturers have the flexibility to choose assessments that best fit their courses. However, they recommend regularly evaluating the number of exams included in courses to ensure that students are not overburdened.

(ASIIN 1.5) Dropout numbers – All degree programs

The experts review the updated data, which shows that in the analyzed cohorts, 12 students dropped out of Agrotechnology, one student dropped out of Animal Science, and eight students dropped out of Food Technology. The differences between the average starting cohort size and the average number of graduates per cohort do not align with the number of dropouts, as they also include students who have not yet graduated—61, 72, and 31 students, respectively, in each program. The experts appreciate this clarification and do not see the need for further information on the matter.

(ASIIN 1.5) Timely completion - All degree programs

The experts appreciate the efforts made to shorten the study period, including the assignment of one lecturer per student and improved access to laboratory facilities. Additionally, the focus on completing student research within a shorter timeframe (approximately 3 months). However, they request that USU develop a concept to address the issue of the average study duration, which currently exceeds the expected length. This concept should include clear mitigation measures and a system for monitoring the effectiveness of these measures.

The experts consider criterion 1 to be partially fulfilled.

2. Exams: System, Concept and Organization

Criterion 2 Exams: System, concept and organization

Evidence:

- Self-assessment report
- Module descriptions, all programs under review
- Academic Guidelines, all programs under review
- USU Academic Calendar 2024/2025: https://www.usu.ac.id/en/education/academic-calendar
- Examination-related procedures and regulations, as appendices
- Samples of student's work (projects, exams and thesis)
- Discussions during the audit.

Preliminary assessment and analysis of the experts:

i. Forms of Examinations and Exam Schedule

According to the self-assessment report, formative and summative assessments, based on OBE, are used to evaluate students' academic performance. These assessments gauge the students' learning outcomes, including their knowledge, attitude and skills, based on a predefined grading scale reference. The assessment methods encompass student participation (e.g., presentations, discussions, and attendance), project assessments (e.g., case study-based or project-based learning), and cognitive/knowledge assessments (e.g., quizzes, assignments, midterm exams, final semester exams, and practicum).

The Semester Learning Plan (*RPS*) specifies the Course Learning Outcomes (CLOs) and identifies the types of examinations used to assess the achievement of these learning objectives. This information is also available in the module description. During the on-site visit, the teaching staff explained that in the first meeting of each course, they inform the students about the semester learning plan, including the distribution of assessments and rubrics. These are then agreed upon through the approval of a "lecture contract." The measurement of CLOs is supported by the USU learning platform (Kelas USU), which tracks the competency achievements assigned by the study program for each student participating in the CLO.

While appreciating the transparency in the examination system, the expert panel, in line with the assessment in Criterion 1.5, find that the number of exams is generally high and exceeds the necessary number of exams to prove the students´ skills obtained per course.

Therefore, they suggest that, in order to reduce the workload of both students and lecturers, it might be an option to reduce the number of exams per course.

Based on the academic calendar, 14 weeks of the semester are dedicated to lectures, and there are two exam periods. The first half of the module is evaluated through the midterm exam, conducted in week 8th/9th, while the final half is evaluated on the final exam at the end of the semester.

Apart from the comment above, the experts confirm the programs use various forms of examination. Overall, these examinations are suitable for verifying the achievement of the intended learning outcomes as specified in the respective module descriptions. The examination form is determined individually for each course based on the main content and published in the respective semester learning plan and module description.

ii. Grading and Graduation Requirements

The final grade of each module is a combination of the scores of the individual types of assessment. The exam grade is presented in an absolute numeric value with a range of 0-100. The final grade of the course is given as a quality letter and quality score as follows:

Table 5: USU Assessment Weight
Source: Appendix Self-assessment report, USU.

Number value	Presentation letters	Achievement rate	Category
≥ 80	A	4.0	Excellent
75 - 79	B+	3.5	Very Good
70 - 74	B	3.0	Good
65 - 69	C+	2.5	Good enough
60 - 64	C	2.0	Enough
50 - 59	D	1.0	Less
≤ 49	E	0	Fail

Students at the bachelor's level pass if they obtain at least a D grade, while an E is considered a fail. Based on the regulations, for bachelor's students to be eligible to take the final exam, they must have attended at least 80% of the total 14 face-to-face sessions and 100% attendance for practical work.

During the audit, the experts inquired about the protocol when a student is unable to attend practical sessions due to illness, especially considering that 100% attendance is required. The teaching staff explained that practical sessions consist of 4 to 5 parallel sessions, so there is some flexibility regarding attendance. Students can arrange alternative times with the lecturer or switch to a different lab session for the same practical, allowing them to fulfil the attendance requirements.

Students are permitted to skip an exam due to serious illness, pregnancy or other reasons, as long as they provide appropriate documentation (e.g., a medical certificate). In such

cases, they will receive a "T" grade for the exam. To improve their grades, students can take the Intermediate Semester, which is held after the end of the even semester exams, or repeat courses in the same semester the following year. Courses eligible for grade repetition or correction include those with grades of E, D, C, or C+.

The experts asked the students about the process in the event of failing an exam and whether it can be retaken. It was explained that students who fail an exam are eligible for a remedial option. If they fail the exam again, they must repeat the course in the following semester. The students did not report any issues with this process.

According to the regulation, exam correction time should not exceed 10 days after the final semester exam schedule. The assessment results from the lecturer team are recorded within the application Satu USU. When students have objections to their exam results, they have the chance to appeal within the period established in the academic calendar. The students confirmed during the audit that an appeal mechanism exists if they perceive their grades as unfair.

USU has a policy on academic integrity in all student activity, including examinations and assignments. If students engage in plagiarism, they will face sanctions that correspond to the severity of their actions, which may range from academic penalties and suspension to expulsion. To help prevent plagiarism, the university offers teachers and students access to anti-plagiarism software, which can be used to check for similarities in written work.

Students are declared graduates if they have met the administrative and academic requirements of each program. Among these are to have completed the required 144-147 credits, with a minimum GPA of 2.0 and a maximum of 8% D grades. They are also required to have passed the thesis examination. The maximum study period for undergraduate students is 14 semesters, except for students who get an extension of their studies.

iii. Thesis

In accordance with academic guidelines, bachelor's students are required to complete a research project as their final assignment before graduation. This project involves creating and presenting a research proposal, conducting research, analysing and interpreting data, and writing a thesis. After finishing the research and thesis writing, students must defend their thesis in front of a panel of examiners, which includes their supervisor, co-supervisors and nominated lecturers related to the field of science of the research topic.

The expert panel examined a selection of final theses and determined that they were of an appropriate academic level. **However, as highlighted in criterion 1.5 of their assessment, the group express concerns regarding the allocation of credits for the bachelor's thesis.**

They emphasize the importance of ensuring that the credit system accurately reflects the actual workload required to complete these theses.

Apart from this, the expert group finds that appropriate university-wide and Faculty-specific rules and procedures govern the examination systems. These rules and procedures are adequately communicated and transparently published. The students in the interviews confirmed that they were aware of all necessary information regarding examination schedules, forms, and grading rules. They are reportedly given sufficient time to prepare for the exams.

Lecturers in the discussion report that a variety of exam forms are used to check the attainment of the respective learning outcomes, including a mix of oral and written exams. The experts acknowledge that forms and assessment rubrics to assess the quality of the student's work are available for the three programs under review.

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

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

(ASIIN 2) Credit allocated to the Bachelor's thesis – All degree programs

Addressed under Criterion 1.

(ASIIN 2) Reduction in the exam load – All degree programs

Addressed under Criterion 1.

The experts consider criterion 2 to be mostly fulfilled.

3. Resources

Criterion 3.1 HR Resources, Staff Development and Student Support

Evidence:

- Self-Assessment Report
- Staff-related regulation and procedures
- Discussions during the audit

Preliminary assessment and analysis of the experts:

i. <u>Staff</u>

The programs are facilitated by a team comprising teaching and educational support staff. Lecturer qualifications for each program are based on functional positions, including professors, associate professors, assistant professors, expert assistants, and teaching staff members. The specific responsibilities and duties related to teaching, research, and supervision vary depending on the functional position. Under government regulations, teaching staff assigned to undergraduate programs must hold at least a Master's degree.

Based on the self-assessment report, the Agrotechnology study program has a total of 60 teaching staff members: 11 full professors (18%), 29 associate professors (48%), 13 assistant professors (22%), 4 expert assistants (7%), and 3 teaching staff members (5%). 60% hold a doctoral degree.

The Animal Science study program has 18 teaching staff members: 2 full professors (11%), 3 associate professors (17%), 9 assistant professors (50%), 2 expert assistants (11%), and 2 teaching staff (11%). 44% hold a doctoral degree.

The faculty also provides information on the academic staff for the Food Technology study program, which consists of 16 teaching staff members: 3 professors (19%), 3 associate professors (19%), 4 assistant professors (25%), 4 expert assistants (25%), and 2 teaching staff (12%). Among them, 31% hold a doctoral degree.

The Indonesian government has set specific in-service lecturer-to-active student ratios for universities, which are outlined in the Directorate General of Higher Education’s regulation. The maximum ratio of the total number of active lecturers and active students is 1:60. Currently, Agrotechnology has a ratio of 1:25, while Animal Science has a ratio of 1:36, and Food Technology has a ratio of 1:30.

The expert team confirms that the ratio of lecturers to students for the bachelor’s programs is appropriate to fulfil the current needs of the programs. They appreciate the university's efforts to maintain this standard.

During the meeting with representatives from the Rector’s office, the experts inquired about the appointment and recruitment process for lecturers at USU. This process consists of two primary systems.

In the government recruitment system, recruitment is managed at the national level. The university submits proposals for the number of lecturers needed, and the government makes the final decision on the number of positions to be filled.

The representatives from the Rector’s office also explained that while the university is a public institution, it operates with a degree of autonomy. It follows its own recruitment system, which emphasizes expertise. Staff members are recruited through public

processes; however, it is challenging to find experts with doctoral degrees. The university focuses on its doctoral students, aiming to support them in studying abroad and ultimately becoming faculty members. The goal is for 60% of staff members to hold a doctoral degree. Attracting and supporting high-quality doctoral students presents a significant challenge. To encourage this, the university offers incentives for the best students to progress from a master's program to a doctoral program.

Regarding promotion, lecturers 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, and community service activities (*Tri Dharma Perguruan Tinggi*). In order to be promoted to the position of a full professor, the applicant must hold a doctoral degree and demonstrate robust scientific production.

ii. Job Conditions and Performance Review of Staff

USU has implemented evaluation methods based on staff performance targets within the framework of the *Tri Dharma* activities (education, research, and community service). Monitoring, assessment, and recognition of lecturer credit scores are supported by various information systems, including PDDikti (Higher Education Database), SISTER (Integrated Resource Infomation System), SINTA (Science and Technology Index), and BIMA (Research and Community Service Information Base).

During the discussion with the experts, the teaching staff members indicated that the workload for lecturers in *Tri Dharma* each semester ranges from 12 to 16 credits. They also mentioned that any additional workload is compensated with incentives.

Additionally, at the end of every semester, students are required to evaluate the lecturer's performance through a student satisfaction survey. These evaluation results are used as feedback for lecturers to enhance the learning process (more under Criterion 5).

iii. Staff Development

The formal recognition of the quality of academic staff within the study programs is achieved through the 'Certification of Lecturers', which is a process overseen by the government in accordance with Regulation No. 37/2009 on Lecturers.

To support this process, USU offers a range of training opportunities. The annual programs offered comprise language and research-oriented training, as well as programs designed to enhance pedagogic skills, such as Basic Technical Instructional Skills Training (PEKERTI) for junior lecturers and the Applied Approach (AA). Additionally, academic staff can improve

their skills through degree and non-degree training programs from Indonesian universities and abroad.

The experts discussed with the teaching staff about opportunities for skill development. The university offers them various opportunities to improve their teaching skills, including the chance to attend conferences abroad for short periods, participate in workshops and seminars, and strengthen their international networks. For example, the Animal Science program conducts research on buffalo and is part of a consortium that facilitates collaboration with international institutions. The Agrotechnology program has an established partnership with the University of Western Australia.

However, as noted earlier, the three programs under review aim to achieve international recognition to attract international talent and foster collaboration in education and research. In light of this ambition, the experts believe there is potential for further improvement by expanding the network of international partners and enhancing opportunities for staff mobility.

Aside from the above, the experts confirm that the teaching staff's composition, scientific orientation and qualification are suitable for successfully implementing and sustaining the programs under review.

The teaching staff members were overall satisfied with the internal qualification program at USU and demonstrated a strong commitment to their students.

iv. Student Support and Student Services

As mentioned previously, USU utilises online platforms serving academic and administrative purposes. Via Kelas USU, lecturers provide students with learning material ahead of the class and conduct online exams. Satu USU allows students access to their academic information, including course contracts, schedules, scholarships, and academic performance. During the auditors' interactions with students on-site, the students expressed their satisfaction with these online platforms

Every student is assigned to an academic advisor lecturer who is responsible for student activities from beginning to end. The students confirmed during the discussion with the expert group that they all have an academic advisor, that they meet regularly, and that they can always contact their advisor personally and ask for help or advice. When students have completed a study load of 100 credits, they are entitled to a thesis supervisor who carry out intensive thesis supervision.

Besides the above, students can rely on several dedicated support units, such as the Library, Career Services, Counselling and Psychological Services and accommodation facilities.

Additionally, there are various events and developmental programs available for students to participate in outside of the classroom, including student organisations and clubs.

The experts noted a strong and trustful relationship between the students and the teaching staff; characterised by good communication. Enough resources are available to provide individual assistance, advice and support for all students. The support system helps students adjust to the university environment, achieve the intended learning outcomes and complete their studies successfully. The students are well-informed about the services available to them, and identify themselves with the university.

Criterion 3.2 Funds and equipment

Evidence:

- Self-assessment report
- University website: https://www.usu.ac.id/en
- Collaboration data, all programs under review
- Library website: https://library.usu.ac.id/en/
- Visitation of participating institutes and laboratories
- Discussions during the audit.

Preliminary assessment and analysis of the experts:

i. Funds

According to the self-assessment report, the Faculty of Agriculture secures funding from two primary sources: the Indonesian government, allocated through salaries and government assistance, and student tuition fees.

During the discussion with representatives from the Rector's office, the experts asked whether, in addition to government funding and tuition fees, there are other collaborations with stakeholders, particularly industry partners, to secure additional funds and in-kind support. The representatives explained that, currently, the university's funding structure consists of 30% from government sources, 30% from tuition fees, and the remaining 40% from revenue-generating activities and collaborative partnerships, with approximately 100 billion rupiah generated through these collaborations.

The experts were additionally informed that the university has a specific program from the government aimed at internationalization. The university has been selected to receive additional funding to expand international activities. Strategic planning is focused on the

attraction of global excellence. Key considerations include the allocation of budget resources to support the implementation of this strategy.

Furthermore, as discussed with the program coordinators, there is basic funding for operational activities consisting of teaching, laboratory work, research, community service, and other routine tasks. Regarding research grants, the teaching staff explained to the experts that students are involved in these research activities in order to support the completion of their final projects.

While the experts acknowledge the support provided by lecturers who engage students in research grants, they also learned that students are charged for using lab equipment when working on their Bachelor theses. For example, Food Technology final-year students must pay a maintenance fee of IDR 500,000 for doing research in the laboratories. This amount of fee is deemed a bit too high, especially considering that students still have to provide their own materials and chemicals.

The expert team noted that, since students have already paid tuition fees for their study programs, these fees should ideally cover the costs of necessary lab work, including the use of equipment for thesis-related research.

ii. Collaborations

As part of its self-assessment report, a list of local and some international partners (e.g., Thailand and the US) was presented. The faculty collaborates with universities, government agencies, industries, non-governmental organisations, and businesses through implementation agreements to support the implementation of the curriculum and *Tri Dharma* activities.

The collaborators attending the discussion during the on-site visit expressed satisfaction with their partnership with the university. This was further demonstrated by their willingness to participate in the accreditation meeting.

In terms of research, academic staff of the degree programs under review conduct their research projects collaboratively in research groups. Most research projects are supported by grants from the university, the government, and some private companies. Some researchers are also engaged in collaboration with other domestic and overseas universities as well as research centres and other institutions specifically for industry-related research. The academic staff is requested to disseminate research results at national and international conferences and publish them in reputable national and international journals.

iii. Infrastructure and technical equipment

During the audit, the expert group visited the listed facilities in order to evaluate whether the three programs under review are committed to supporting both practical work and research, with well-equipped facilities designed for extensive laboratory and field activities.

After visiting shared facilities, the expert group was divided into three groups to focus on program-specific facilities due to time constraints:

All group members:

- Digital Learning Center Building 8st floor
- Digital Learning Center Building 3st floor
- Integrated Laboratory
- Library
- Biotechnology Laboratory
- Sport center, Orchid Garden, Soeratman Auditorium and Mosque to Exhibition Room (passing by)
- Exhibition Room

Group 1 Agrotechnology	Group 3 Animal Science	Group 2 Food Technology
Greenhouse Classroom I Agrotechnology Study Program Office	Closed house Classroom II Animal Science Study Program Office	Chemical Analysis of Food Ingredients and Biochemistry Laboratory Classroom III Food Technology Program Office

The experts' comments are as follows:

The central library provides services to USU faculty members, administrative staff, and students. It is open Monday to Friday, with operating hours from 08:00 to 16:00 Monday through Thursday, and 08:00 to 16:30 on Fridays. The library also offers continuous access to online resources.

The services encompass lending physical and e-books, as well as access to diverse scientific databases. E-Resources services that can be accessed in the library are SpringerLink, ScienceDirect, Sage Journals, ProQuest, JSTOR, Sage Research Methods, ClinicalKey, EBSCOhost, IEEE Xplore, AIP, APSphysics, IOP Publishing, Taylor Francis Online, Emerald Insight, Thomson Reuters Westlaw and CNKI.

Both lecture rooms and online library access appeared well-suited for the study programs. The library's online system is particularly appreciated by the students as it gives them 24/7 access to bibliographical resources. **However, it is recommended that the university reconsider the library's opening hours to better accommodate the needs of all users, particularly those who may require physical access outside the current hours.**

Furthermore, the expert group was shown a new and stylish video room, as well as a number of well-equipped laboratories for the industry to buy analyses. The group believes that the laboratory equipment intended for commercial use is of a high standard.

Agrotechnology

After visiting the greenhouse facilities for the students, the experts noted that the number of greenhouses and space appeared low in comparison to the number of students each year. **It is, therefore, recommended to reconsider possibilities for improvement both in size and in quality.**

Animal Science

Following their visit to the laboratories at the Animal Science, the experts noted that the facilities for housing animals for research and teaching (e.g. animal handling, and demonstrations) are up-to-date. The experts recognise the laboratory's role as a center for practical learning and research. The available equipment and facilities in the Animal Science program are sufficient. The field laboratory facilities are good for practical training. **However, the experts highlight the need for ongoing improvements in the sense of quantity to the department's teaching and research laboratories to provide students with practical experience**.

Food Technology

The facilities in general (classes, laboratories, common areas, etc.) are well-maintained for learning and also support the described teaching methods.

The laboratories in particular are also in good condition and provide equipment/tools that support the majority of the curriculum, especially with the current development of the sensory laboratory. **Areas of improvement are in:**

a. **the quantity of the equipment/tools in the teaching labs,**
b. **the lack of safety equipment (eye wash station) in one of the chemistry laboratories, and**
c. **equipment/tools for quantitative physical analysis to fulfill the intended graduate profile/PLOs.**

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

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

(ASIIN 3.1) Expansion of international partners network – All degree programs

USU has implemented several initiatives to enhance staff opportunities and achieve international recognition. The Equity Program focuses on improving educational quality, fostering world-class networking, and enhancing the reputation of TALENTA-based lecturers through increased research quality and quantity. Key activities include International Mobility Staff, guest lectures, and summer courses.

Additionally, USU encourages participation in international seminars where lecturers can serve as speakers and reviewers. Research collaborations with foreign universities further strengthen the academic network. Annual international seminars, such as the AEFS and the International Conference on Food Technology, Nutrition and Sustainable Agriculture, also promote the publication of research results on an international scale. Lastly, faculty members are encouraged to pursue further studies at foreign institutions, thereby enhancing their educational and research collaboration network.

The experts support these initiatives and encourage USU to further promote and strengthen efforts in this area.

(ASIIN 3.2) Elimination of charges for the use of laboratory equipment – All degree programs

USU has observed that the single student tuition fee, ranging from IDR 500,000 to 6,000,000, falls short of covering student research costs. As a result, Food Technology students are charged IDR 500,000 for laboratory use. However, these students can engage in research projects with lecturers, alleviating their financial burden for research activities. Additionally, some Food Technology students receive research funding from institutions like Indofood Research Nugraha (IRN), further reducing their expenses. The experts appreciate these opportunities but continue emphasizing the importance of ensuring students are not charged for using laboratory equipment.

(ASIIN 3.2) Library's opening hours – All degree programs

The experts commend USU for its commitment to finding the best solution to meet the needs of all users. They are pleased with the proposal to extend the operating hours to 8 AM - 9 PM and recognize that there are resource limitations and a waiting period associated with the release of university regulations. While this process is ongoing, the experts continue to recommend accommodating the needs of those requiring physical access outside the current hours.

(ASIIN 3.2) Improvement in greenhouses and space - Agrotechnology

USU has described that the Agrotechnology study program provides sufficient laboratories, greenhouses, screen houses, and experimental fields for students to conduct their thesis project research. USU has provided a list of facilities and infrastructure. They commend these efforts and recommend that the university continue to improve teaching and research facilities in both size and quality to accommodate the needs of the students.

(ASIIN 3.2) Improvements in teaching and research laboratories – Animal Science and Food Technology

USU has noted that the Animal Science study program includes two teaching and research laboratories, field laboratories with closed houses, poultry research pens, and small ruminant research pens. In addition, the program collaborates with various government and private agencies for teaching and research, utilizing facilities from partners such as BRIN, PT Charoen Pokphand Indonesia Tbk, the Veterinary Center, Provincial and District Livestock Services, and the National Standardization Agency for Small Ruminants.

The Food Technology study program includes three laboratories: Food Technology and Engineering, Food Microbiology, and Food Chemical and Biochemical Analysis. Each lab has updated equipment and materials to enhance teaching and support graduation rates while fulfilling graduate profiles. Additionally, occupational safety and health equipment, such as an eyewash station, has been added to each lab. The experts appreciate this information but believe that the Foodtech study program should sort out a proper sensory lab, as it would support the graduate profile formation.

After reviewing the information and links provided, the experts acknowledge the resources available to students and recommend ongoing support for this area.

The experts consider criterion 3 to be partially fulfilled.

4. Transparency and documentation

Criterion 4.1 Module descriptions

Evidence:

- Self-assessment report
- Agrotechnology website: https://fp.usu.ac.id/en/undergraduate-program-in-agrotechnology
- Animal Science website: https://fp.usu.ac.id/en/undergraduate-program-in-animal-husbandry
- Food Technology website: https://fp.usu.ac.id/en/undergraduate-program-in-food-technology
- E-learning USU: https://elearning2.usu.ac.id/login/index.php
- Module Descriptions, all programs under review

Preliminary assessment and analysis of the experts:

After reviewing the module descriptions, the experts confirm that the template used aligns with the ASIIN criteria, including information on the persons responsible for each module,

the teaching methods and workload, the awarded credit points, the intended learning outcomes, the content, the applicability, the admission and examination requirements, and the forms of assessment and details explaining how the final grade is calculated.

However, the expert group identified inconsistencies in the information presented, including, but not limited to, the following: not all modules are described with the same level of detail, indicating a need for consistency in presentation. While the module handbook is written in English, the teaching language is specified in Indonesian. Additionally, a clearer specification of the relation to the curriculum is necessary. Therefore, the group requires the faculty to revise and correct the module handbook to address these issues.

Each module description is a condensed version of the Semester Learning Plan (RPS), which provides a more detailed outline of the objectives, content, teaching methods and other relevant aspects for the semester. This plan is presented to students during the first week of lectures and is made available on the digital platform accessible to all students.

While the experts appreciate the provision of information accessible to students, they observed that some course details are missing from the program websites. To improve transparency and ensure broader access for all stakeholders, the experts request that the faculty make the most recent version of the module handbooks publicly available. Additionally, the revised version of the curricular overview should be displayed on the faculty´s website and included in the academic handbook.

In connection with this, and as outlined in Criterion 1.1, the experts believe that the faculty's homepage should undergo a revision to improve its usability and accessibility, ensuring it is more user-friendly.

Criterion 4.2 Diploma and Diploma Supplement

Evidence:

- Self-assessment report
- Sample Transcript of Records, all programs under review
- Sample Diploma/Degree Certificate, all programs under review
- Sample Diploma supplements, all programs under review

Preliminary assessment and analysis of the experts:

According to the information provided in the self-assessment report, Bachelor's students receive upon graduation a Diploma Certificate and an Academic Transcript. The issuance of

Diploma certificates is the university's authority and is signed by the Rector and Dean of the Faculty of Agriculture.

Along with these documents, the graduates receive a Diploma Supplement, an official statement letter issued by the Faculty of Agriculture. It contains information about the degree program, including program educational objectives, intended learning outcomes, and relative position of the graduate's GPA.

The ASIIN experts are provided with samples of these documents. They confirm that the students of the degree programs under review are awarded a Diploma Certificate, as well as a Transcript of Records and a Diploma Supplement. The Transcript of Records lists all the courses the graduate has completed, the achieved credits, grades, cumulative GPA, and the seminar and thesis title.

Criterion 4.3 Relevant rules

Evidence:

- Self-assessment report
- University website: https://www.usu.ac.id/en
- All relevant regulations as published on the faculty website: https://fp.usu.ac.id/en

Preliminary assessment and analysis of the experts:

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

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

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

(ASIIN 4.1) Revision and correction of module descriptions – All degree programs

After reviewing the links to the module descriptions, the experts noted that some of the previously identified issues remain. For instance, in the Agrotechnology study program, the module descriptions contain specifications in Indonesian (e.g., "Indonesia dan Inggris," "Ujian Mid Semester," and others). Additionally, the "relation to the curriculum" is only described as "required courses." The experts emphasize the need to revise and correct the documents.

(ASIIN 4.1) Display program documentation on the website – All degree programs

The experts could not locate the required documents after reviewing the program websites. Therefore, they request that the university make these publicly available for all interested parties to access.

(ASIIN 4.1) More user-friendly program websites

Addressed under Criterion 1.

The experts consider criterion 4 to be partially fulfilled.

5. Quality management: quality assessment and development

Criterion 5 Quality management: quality assessment and development

Evidence:

- Self-assessment report
- Tracer study reports 2022, all programs under review
- Student survey reports, all programs under review
- Discussions during the audit.

Preliminary assessment and analysis of the experts:

The USU quality management system has been institutionalized in accordance with government regulations. In compliance with Law No. 12/2012, concerning the Higher Education System, all Indonesian higher education institutions are required to implement a Higher Education Quality Assurance System. The self-assessment report indicates that quality is overseen internally by dedicated quality assurance teams/units across the program (Quality Control Group), faculty (Quality Assurance Group), and university levels (Quality Assurance Agency - BPM).

Based on the USU Quality Policy, the study programs undergo internal screening processes employing student surveys, lecturer performance assessments, evaluation of graduate competency achievements and data obtained from external stakeholders through tracer study and labour market observation.

When asked by the experts how they provide feedback on the programs, the students explained that they are required to complete surveys after their final exams in order to access their scores. These surveys are conducted through an online platform (EDOM) and are anonymous, which encourages them to express their opinions more openly.

Additionally, each program has a student organization that uses social media to facilitate communication, providing another avenue for students to share concerns. Examples of changes directly resulting from student feedback include the installation of air conditioning in classrooms and the dissemination of scholarship information to support students facing financial challenges. Moreover, students highlighted the availability of private meetings to discuss and address their concerns.

The experts also asked the representatives from the Rector's office whether students are informed about the results of their evaluations. The representatives noted that the results are published on the university's website. In case the satisfaction of the students with staff members is deficient, the matter will be discussed in the annual semester meeting of the department. The Head of the Study Program will contact the respective lecturer, discuss the issue and propose solutions.

The experts had access to evaluation results for the three programs under review. However, these reports are yet to provide satisfactory detail regarding the process and data collection, including key information such as the report date. In this context, the experts ask the university to improve its reporting practices, providing a clear explanation of the process and data obtained. As emphasized in Criterion 1.5, the experts also reiterate the importance of ensuring the accuracy and availability of the data.

The implementation of tracer studies is conducted by the Quality Control Group in collaboration with the academic community of the study programs. This process involves distributing questionnaires to graduates through various channels, including mail and email. During the discussion with the experts, the alumni confirmed the existence of tracer studies. Furthermore, industry representatives acknowledged that the university is receptive to feedback regarding new developments and trends that could enhance the employability of its graduates.

In accordance with the Rector's regulations, USU conducts an Internal Quality Audit (AMI) every year across all Quality Control Groups (GKM). These audits focus on the implementation of national higher education standards in three key areas: Education, Research, and Community Service. According to the self-assessment report, the scores are as follows: Animal Science achieved an average score of 3.55 (Very Good), Agrotechnology scored 3.32 (Good), and Food Technology received a score of 3.26 (Good).

Together with internal quality assurance mechanisms, recurring external quality assurance exercises at USU relate to the legal obligation to submit every degree program for accreditation by a recognised agency in addition to the compulsory institutional accreditation. Agrotechnology has been awarded a "Very Good" grade, Animal Science has received an "Excellent" grade, and Food Technology has been given an "A" grade by the

National Accreditation Body for Higher Education (BAN-PT).The validity period for study program accreditation is five years.

Apart from the abovementioned issues, the expert panel holds an overall good impression of the quality assurance system for the programs under review. Quality management has been prioritised within the university, and various functioning structures have been created to support this commitment. The panel notes that both USU and the Faculty of Agriculture have implemented a series of evaluations designed to regularly gauge the perspectives of students, stakeholders, and staff.

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

The experts thank USU for the provided statements and additional documentation concerning criterion 5.

(ASIIN 5) Improvement of reporting practices and data availability – All degree programs

The experts appreciate that USU uses indicators such as curriculum, teaching, and learning evaluation to assess and improve the Animal Science, Agrotechnology, and Food Technology study programs. While appreciating the provision of data links related to the programs, they recommend that the university focus on how this information is reported to stakeholders. Specifically, they emphasize the importance of clearly describing the data collection process, reporting the number of participants, and ensuring data accuracy and availability upon request.

The experts consider criterion 5 to be fulfilled.

D Additional Documents

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

None

E Comment of the Higher Education Institution (07.02.2025)

The institution provided the following additional information:

No.	Comments from ASIIN experts	Programme	Explanations from the University to clarify the ASIIN comments
	CRITERIA 1		
1.	However, they also suggest that the program websites could be made more user-friendly, as some essential information is difficult to find, particularly for non-local users. For example, the English version of the program websites is not easily accessible from the faculty home page. (Page10)	All	Currently, the website can be accessed easily to get important information about the Study Program including the English version. Here are the websites of the three Study Programs: Agrotechnology(https://fp.usu.ac.id/id/s1-agroteknologi), Animal Science(https://fp.usu.ac.id/id/s1-peternakan) and, Food Technology(https://fp.usu.ac.id/id/s1-teknologi-pangan).
2.	However, feedback from industry partners and alumni highlights the need for improvement in the development of general soft skills among graduates. Key areas identified include communication (oral and written), leadership, critical thinking, problem-solving and organizational abilities. The	All	Improving soft skills to help students improving their professional careers has been carried out by the study program and faculty through several activities such as: ● Soft skills training for final year students before entering the job market (world of work) carried out by the faculty every year. (https://bit.ly/4aK94C4)

	experts recommend that the university intensify its efforts to address these gaps, ensuring that students are better equipped with these essential skills for their professional careers. (Page12)		• Most of the courses in the three Study Programs have implemented Project Based Learning and Case Method collaborative learning methods. In this methods, students are given the responsibility of practicing creative thinking skills in planning, compiling and presenting projects that have been carried out, communication (presentation and compiling reports on project results), leadership, critical thinking, problem-solving and organizational abilities. • Public lectures on improving soft skills needed for professional careers organized by each Study Program by inviting related industry practitioners. (https://bit.ly/42GiVXK) • In all three Study Programs, students are required to take Field Work Practice courses which provide student learning experience in the field/ industrial environment. (https://bit.ly/3CEaH7M) • In all three Study Programs, students are facilitated to take part in "Freedom of Learning and Freedom of Campus (in Bahasa Indonesia MBKM) programs such as Certified Independent Study Internships, Independent Student Exchanges, Teaching Campus, Collaborative Research, Thematic Real Work Lectures and collaborate with lecturers in Research activities, and Community Service. All these MBKM programs are to improve students' soft skills, so the assessment given to students is a soft skills assessment (https://bit.ly/4aSDJ07) The value recognition process is delivered(https://bit.ly/4b59KCt).

			• Students' soft skills are also applied to participate several competitions (such as: Student Creativity Program, national and international competitions) and student organization activities at the University level such as the Student Executive Board and Student Activity Unit. Organized whether in Faculty level or Study Program level such as Department Student Association and Faculty Student Activity Unit (https://bit.ly/411UtyT)
3.	After analyzing the correspondence between the names of the Agrotechnology and Food Technology study programs and their intended aims and learning outcomes, the experts recommend that faculty members rethink the naming of these programs. In their opinion, the current names do not accurately reflect the specific expected learning outcomes of each program. An element to consider, for example, is that Agrotechnology has special characteristics in the field of plantations. (Page 13)	AET dan TP	The nomenclature of study programs in Indonesia is regulated by the Regulation of the Minister of Education, Culture, Research and Technology which refers to the provisions in the Government Regulation. This regulation arrange the types, levels, and naming of study programs that apply in higher education. **1. Naming of Agrotechnology Study Program** This naming is based on the Decree of the Director General of Higher Education No. 163/DIKTI/Kep/2007 dated November 29, 2007 concerning the Arrangement and Codification of Study Programs in Higher Education(https://bit.ly/3EA9A9F). This decision requires the Faculty of Agriculture in various universities to restructure the Study Program. The Agrotechnology Study Program was formed as a result of the restructuring of existing agricultural study programs. The goal is to meet the needs of people who want graduates with competency frame work in the field of agricultural science. The following are

			some of the backgrounds for the formation of the Agrotechnology Study Program: ● Based on the results of the evaluation and study program review carried out with the Higher Education "Study Program Evaluation Based on Self Evaluation System" (in Bahasa Indonesia EPSBED Dikti) instrument, there is a study program naming that is not in accordance with the nature and purpose of developing the field of science in higher education, and through the mechanism of higher education proposals, and has been reviewed by experts team which formed by the Directorate General of Higher Education-Indonesia. ● Agrotechnology is part of Agricultural Science which has a range of overlapping sciences such as Agronomy, Soil Science, Plant Breeding and Plant Protection by merging into Agrotechnology/Agroecotechnology, the curriculum becomes more integrated and flexible, allowing students to gain a broader understanding with a holistic approach in agricultural science. ● The percentage of courses related to technology is 30% and those related to basic science is 70%. ● The substance of technology is implemented in courses (Precision Agriculture, Biotechnology, Tissue Culture, Genetic Engineering, GIS, Agrotechnology, Biometrics in Plant Protection, Introduction to Agricultural Information Technology, Information Technology in Plant Breeding) and

			other courses that have the subject matter of technological elements such as in the Plantation Crops I course (Oil Palm and Rubber) in the subject matter there is material about land mapping, Remote Sensing to analyze plant health and tree inventory. (https://bit.ly/4134ADz) ● Community needs for competent and competitive graduates in the field of agricultural science. **2. Naming the Food Technology Study Program** The naming of the Food Technology Study Program is adjusted to the nomenclature in the Ministry of Research and Technology Regulation No. 57 of 2019 (https://bit.ly/3Q3yL76) which issues the nomenclature of the Study Program and separates the naming of the Food Technology Study Program from Food Science. ● Based on the results of the coordination meeting of the Food Technology Study Program Communication Forum, Food Science and Technology. Food Technology and Agricultural Products, Indonesian Agricultural Products Technology which is a sub-section of FKPT-TPI which was attended by 29 universities from all over Indonesia and also the Indonesian Association of Food Technologists (IAFT / PATPI) agreed, several Study Programs with initial nomenclatures such as Agricultural Products Technology, Food Technology, Food Science and Technology and also Food Technology and Agricultural Products, were asked to choose the appropriate nomenclature following the rules of

			the Ministry of Research and Technology Regulation No. 57 of 2019. ● In the learning process of the Study Program, the learning materials are more focused on Food Technology materials. The percentage of courses related to technology is 55.4% and those related to science is 44.6% (https://bit.ly/40GCyMF). ● The content of learning materials in the Study Program has also delivered material on the latest technologies and introduction to laboratory equipment such as Non-Thermal Processing in Food Processing Technology, Non-Destruction Food Analysis, Chromatography techniques. ● In accepting alumni in the world of work, almost all of them refer to the Food Technology study program. ● There is no undergraduate study program in Indonesia that uses the nomenclature of Food Science.
4	As seen in the Appendix, each program presents a curricular overview that outlines the structure and organisation of the modules over time, including the sequence and progression by semester. However, these overviews lack consistency in their presentation. The experts believe that the faculty must standardise the template and structure used. This would provide a clear and uniform presentation of the curriculum,	All	• The curriculum structure of the Agrotechnology Study Program is different from that of the Animal Husbandry and Food Technology Study Programs. Based on the regulation of the Director General of Higher Education No. 163/DIKTI/Kep/2007, the Agrotechnology Study Program has 4 (four) specializations, namely Agronomy, Plant Breeding, Soil Science, and Plant Protection. Students can choose one of the four specializations in semester 5. • The university provides flexibility to implement MBKM in semester 5 or 6 or 7 as stated in the Rector's Regulation Number 2329/UN5.1.R/SK/SPB/2024 (link). Although the

	enhancing understanding for students and stakeholders and ensuring a more coherent and professional communication of the program's structure. (Page 15)		curriculum structure in the three Study Programs is different, the MBKM program is still carried out in the same semester. • The curriculum overview for all Study Programs is uniform and in accordance with the standards set by the USU Curriculum and Learning Innovation Institute (https://bit.ly/3Q4QBH6).
5.	However, after examining the content of all three programs, they found that there are insufficient topics covering socio-environmental issues. These important aspects of the discipline are not adequately addressed or included in the curricula. During the visit, the experts engaged in discussions with the program coordinators about the importance of incorporating up-to-date content to better prepare students for the labour market and the contemporary challenges in the agriculture industry. A key recommendation is for the university to consider the possibility of strengthening and increasing the visibility of aspects of sustainability, environmental protection and climate change in the curricula.	All	The Three Study Programs already have courses related to socio-environmental issues, aspects of sustainability, environmental protection and climate change: 1. **Agrotechnology** ● Agroclimatology: This course discusses the physical properties and phenomena of the atmosphere, the meaning, differences and functions of climate and weather as well as the factors that affect the state of climate and weather in a region and the role of agroclimatology for agriculture. ● Plant Ecology: This course discusses the definition and understanding of the scope, relationship of plant ecology with other sciences, objectives and benefits of plant ecology, succession and vegetation communities, adaptation and distribution of plants in various environments, ecotypes and plant environments, plant interactions with biotic and abiotic factors, the role of plants as environmental indicators, agroecosystems, environmental stress, as well as vegetable germplasm and conservation efforts.

	The experts also focused on the change in the name of the FT program from Food Science Technology to Food Technology. The program coordinators explained that this change was driven by a decline in demand and was mandated by Indonesian government regulations. The experts acknowledged this explanation but inquired whether the adjustment had been reflected in the program's learning outcomes. They noted some compulsory modules centred on non-food agricultural products. They also observed that the technology component of the curriculum appears to be limited, while the food-related content is more substantial. Considering these points, the experts recommend making the engineering aspect of the curriculum mandatory. Additionally, they pointed out that some modules from the old curriculum remain in the program, suggesting that the content of the curriculum should be revised to better		• Physiology and Adaptation of Tropical Plants: discusses tolerance zones, factors affecting plant growth and identifies adaptation mechanisms of tropical plants to drought stress in rainfed land, salinity stress, climate change and high temperature stress, acid soil stress, land with low phosphorus availability, and tidal and acid sulphate land and physiological perspectives in the development of adaptive plants on sub-optimal land. • Sustainable Agriculture System: This course discusses the scope of sustainable agriculture; Integrated Crop Management including integrated soil management, integrated pest and disease management, environmental management (ecosystems and agroecosystems); Principles of Sustainable agriculture; Bio-energy development and its principles; Market development in sustainable agricultural systems. • Agroforestry: This course discusses the limitations and scope of agroforestry, types (classification) and forms, advantages and disadvantages, suitability of land and plants for agroforestry systems; effects of agroforestry on soil properties, surface runoff and erosion, biodiversity, microclimate, hydrology, environmental pollution control, greenhouse gas (GHG) emission control, total biomass, and carbon sinks of vegetation and soil; Requirements and optimal technology for the application of alley cropping, silvopastural and agrosilvopastural, agroaquaforestry and silvofishery, multispecies tree gardens and apicultural types,

	align with the current program's profile. (Page. 16)		Agroforestry based on yard land supports diversity and food security as well as family income, Application of agroforestry systems in efforts to rehabilitate critical land and reclaim former mining land, Empowerment of forest areas based on agroforestry systems within the scope of the Forest Management Unit (FMU). ● Agrotechnology: This course studies the fundamentals of crop cultivation including the provision of food and energy starting from planting materials, plant breeding, tillage, irrigation and fertilization, cropping systems, integrated pest control, harvesting and handling of crops. ● Precision Agriculture: This course explains the basic concepts of precision farming, procedures in precision farming, tools used in precision farming. Concepts and theories related to variability assessment, variability management, precision farming evaluation and the relationship between precision farming and environmental impacts will be discussed in this course. ● Organic Agriculture: This course discusses the definition, principles, and opportunities and constraints of implementing organic farming systems; the development of agricultural systems and government regulations on Organic Farming Systems, sustainable soil management in Organic Farming Systems; and Integrated Farming Systems. ● Watershed Management: This course discusses aspects related to watershed management including rainfall, interception, infiltration, evapotranspiration, surface flow,

			erosion, flooding, hydrographs, unit hydrographs. The use of soil management principles in analyzing watersheds. ● Soil and Water Conservation: This course discusses the limits and scope of soil and water conservation, land capability classification, Soil Degradation and Land Degradation, Erosion (types, forms, causal factors and measurement), sediment and sedimentation, river flow, soil conservation techniques (vegetative, mechanical and chemical) applied to reduce the magnitude of erosion values on a particular land as well as water conservation methods and water quality restoration. ● Fertilizers and fertilization: This course discusses the definition of fertilizer, classification of fertilizers, properties and characteristics, manufacturing process of artificial (inorganic) fertilizers, organic fertilizers and biological fertilizers. Able to understand and explain the basic considerations in fertilization and the fate of fertilizers in the soil, types of biological fertilizers, their interaction with soil and plants, their application for food crops, plantations and the manufacturing industry and the effect of fertilizer application on environmental pollution. Able to understand, explain and calculate the dose of single, compound and mixed fertilizers, fertilizer efficiency and the basics of making recommendations as well as determining the dose and how to fertilize for food crops and plantations. ● Biofertilizer: This course discusses the control of plant pest organisms (pest) by natural enemies or biological control

			agents. However, it can also be called controlling plant diseases and pests biologically, namely by utilizing natural enemies. ● Integrated Pest Management: This course discusses the definition and principles of pest control and management. Types and types of pests, types and types of pest targets, symptoms and causes of pest explosions. Ecological aspects in pest control, aspects in the economic threshold and factors that affect the economic threshold. Various methods of pest control (chemical, biological and ecological) within the scope of settlement and urban pest and integrated pest control (IPM). ● Plant Breeding in Stressed Environments: This course deals with the assembly of high-yielding varieties that are resistant or tolerant to biotic and abiotic stresses. Biotic stresses include pests and plant diseases; while abiotic stresses include drought, salinity, low soil pH, aluminum poisoning, etc. Variety assembly is done using both conventional and biotechnological approaches. ● Plant Adaptation and Selection: This course discusses the process of plant adaptation and selection to obtain plant varieties resistant to biotic and abiotic environmental stresses. ● Land Management: This course discusses the Limits and Scope of Land Management, Problems and basic principles of dry land management, Management of upland dry land (volcanic and non-volcanic), lowland dry land (Ultisol,

			Inceptisol), problems and basic principles of wetland management, Management of upland and lowland rice fields, management of upland and lowland swamp land, Management of tidal land and pitted land, Management of peatland Reclamation and management of ex-mining land, Reclamation and management of land polluted by hazardous waste, Management of karst land (Vertisol) and sandy land (Entisol) and spodic land (Spodosol), Reclamation and management of marginal land (fragile land, land) and heavily eroded critical land and Sustainable plantation land management. ● Agricultural EIA and Waste Management: This course explains the definition of EIA, EIA study methodology and laws; government regulations and ministerial decrees related to environmental management (air, water and soil). Understand waste management techniques generated by the agriculture/plantation industry (palm oil, rubber and sugarcane), and alternative utilization of these wastes in an effort to achieve sustainable, environmentally friendly, and zero waste agriculture. By applying the concepts of RSPO and ISPO. Knowing the sources of pollutants in agricultural land and their management efforts. ● Soil Ecology: This course discusses the relationships between living things, and between living things and their environment in the soil system. ● Soil Quality and Health: This course discusses the history of soil quality and health, definition of soil quality and health,

			soil quality factors, soil health factors, relationship of soil quality and health to sustainable agriculture, soil health and climate change, indicators of soil quality and health under climate change, soil management and soil health, rehabilitation of degraded soils and soil health. ● Pesticides and Application Techniques: This course discusses the proper and correct management of pesticides and is able to analyze real problems and recommend appropriate solutions, especially those related to pesticide management applications, has the ability to work in the field both in teams / alone, discuss with farmers, and have high activity and be able to develop pesticide use practices in the concept of sustainable agriculture. ● Biological Control: This course discusses the control of plant pest organisms by natural enemies or biological control agents. However, it can also be called controlling plant diseases and pests biologically, by utilizing natural enemies. ● Ecology of Plant Disturbing Organisms: This course discusses the concept of ecology with a focus on plant pest organisms (pest); the relationship between pest and biotic environment and physical environment; population and community of pest and its effect on ecosystem processes, interaction between pest and natural enemies; life system and life table analysis. ● Soil Fertility: This course discusses the definition of soil fertility, soil productivity, essential nutrients and the historical development of soil fertility research. Able to

			understand and explain the meaning of plant growth, factors that affect it and mathematical models of plant growth rates due to nutrient management, soil-plant nutrient relationships, inorganic and organic colloids, available forms of nutrients, Cation Exchange Capacity (CEC) and Base Saturation (KB), movement of nutrients to the roots and their uptake by plant roots. Able to explain the sources, reaction forms, functions, critical limits and symptoms of macro-nutrient deficiencies N, P, K, Ca, Mg, S and micro-nutrients, Fe, Mn, Cu, Zn, Mo, B and Cl in soil and plants. Able to understand and explain about acid soil fertility, calculating the need for lime and how to apply it, fertility of paddy fields and evaluation of soil fertility. with the pot experiment method and visually observing nutrient deficiency symptoms and understanding the working principles of essential nutrient analysis in the laboratory. ● Livestock and Plantation Integration: Understand and know the role and benefits of integration systems, the role and benefits of integration systems, understand integration models/designs, models/designs of integration of livestock fisheries and plantations, comparative learning, understand how to evaluate land suitability, evaluate land suitability, understand integrated crop management and integrated crop management/management. **2. Animal Science**

			● Climatology and Livestock Environment: a course that studies bioclimate, temperature zone, thermoregulation, environmental effects, adaptation and environmental manipulation on livestock productivity. ● Livestock Waste Management Technology: a course that studies the processing of livestock waste so that it does not pollute the environment and can also process livestock waste into a resource that can directly or indirectly increase the efficiency of livestock production. ● Environmental Impact Analysis (AMDAL): a course that studies various livestock business regulations related to AMDAL in the development of various industrial-scale livestock commodities, Environmental Management Plans Environmental Monitoring, also studies the calculation of the value of environmental damage (Calculation of the Impact of Environmental Damage, the amount of fines for environmental companies according to the law, examples of case studies of environmental damage calculations). ● Livestock By-product Technology: a course that skilfully applies the processing techniques of livestock by-products into various sustainable livestock by-product commodities so as to reduce environmental damage due to waste or livestock by-products. ● Livestock and Plantation Integration: Understand and know the role and benefits of integration systems, the role and benefits of integration systems, understand integration models/designs, models/designs of integration of livestock

			fisheries and plantations, comparative learning, understand how to evaluate land suitability, evaluate land suitability, understand integrated crop management and integrated crop management/management. **3. Food Technology** ● Food Industry Waste Treatment Technology course whose learning materials consist of natural balance, water cycle, environmental regulations and legislation in Indonesia. Pollution. Environment, types of waste and how to handle them physically, chemically and biologically. Factory sanitation, how to store clean water for the purposes of processing agricultural products and food production. ● Packaging and Storage course discusses learning materials about edible and biodegradable packaging as an alternative to food packaging that is more environmentally friendly. The expected learning outcomes are that students are able to apply edible and biodegradable packaging to minimize damage to the environment. ● Agro-industry Course. The Agroindustry course provides basic and applied knowledge about management, production processes, and challenges in agriculture-based industries. In this lecture, students will learn the process of converting raw materials from the agricultural sector into semi-finished products or finished products with added value. Students are expected to understand the agro-industry supply chain,

			technological innovation, and sustainability aspects in natural resource management and their applications in facing global economic challenges. ● Course Content New Product Development. Background of new food product development, product idea development including environmental factors (raw material availability, promoting local food systems and agro waste into value added food products), product idea screening, product design (including technology and engineering in product development), social factors in consumer behavior study and its role in food product development, market evaluation, marketing planning, product production and launch, legal protection of new products and new food product development trends. ● Fermentation Technology Course. In one of the courses there is material that discusses Fermentation Media. Where there is a discussion about the use of waste as a fermentation medium. All of the courses based on Curriculum Book Regarding non-food products (rubber), the Food Technology study program added the material as an introduction considering that rubber is a superior commodity in North Sumatra so that graduates need to know the commodity. Stake holders need graduates who have knowledge of rubber processing. Currently the Study Program has made minor revisions to the Semester Learning Plan and modules related to the processing

			technology of plantation crops into food products (https://bit.ly/4aMyhvM). If needed, students can take topics on rubber in other study programs or faculties.
6.	When the experts inquired whether the internship is mandatory under the MBKM scheme, the program coordinators clarified that it is optional. During the audit, industry representatives confirmed that their companies have hosted students as interns. The industry representatives emphasized the significance of these internships, noting that other universities in Indonesia place considerable importance on this aspect, which contributes to a competitive advantage for their graduates. They expressed the sentiment that graduates require more hands-on experience in the field to better prepare for real-world job scenarios. Based on this feedback, the recommendation that emerges for the three programs is that internships should be made mandatory to enhance	All	● The MBKM program and Field Work Practice are two different programs. ● MBKM is a government program that has 8 types of programs that **are not mandatory for** students to follow. Among the 8 types of programs are the Internship Program and Certified Independent Study. Both of these MBKM programs can be followed by students in semester 5 or 6 or 7 in all Study Programs. ● While Field Work Practice is a course that **is mandatory for** all students in the three Study Programs to find out the atmosphere and conditions of the real world of work by implementing the theory obtained during lectures to add insight, knowledge, experience and skills of prospective alumni in the world of work in accordance with stakeholder needs. ● Although the MBKM program and Field Work Practice are different, the implementation of activities can be carried out at the same partner.

	the employability of the graduates. (Page. 17)		
7.	While the experts appreciate the university's efforts to support students, they noted that the data suggest low participation in these activities. To gain further insight, the experts asked the students if they would be interested in going abroad, and all students responded positively. However, they indicated that the main barrier to participating is the competition for funding and available spaces, which they perceive as a high obstacle to accessing these opportunities. Students and program coordinators confirmed that funding opportunities to support students' mobility abroad include the international student exchange program for undergraduate students, known as IISMA. Established in 2022 by the Ministry of Education, Culture, Research, and Technology, the program aims to encourage more students to participate in international mobility. Students, however, find	All	Universities, Faculties and Study Programs have tried to establish cooperation and funding with various parties including universities, government and industry abroad so that students have the opportunity to carry out outbound programs at the International Level. As in the IISMA program, funding is obtained from the Directorate of Internationalization and Global Partnerships which can be followed by all interested students and the information is open and can be accessed through the website or related pages (Directorate of Internationalization and Global Partnerships | Universitas Sumatera Utara), Outbound programs (https://bit.ly/4hnggGG) that have been implemented include: ● Summer Job Japan was funded by industry partner ● The Scholarship Program to NPUST and UPM was funded by the Taiwan government and equity. ● Summer Course funded by Universitas Sumatera Utara (equity program) ● Northern Territory Indonesian 360 Program funded by Northern Territory Cattlemen's Association In the curriculum overview it has also been stated that students can carry out outbound programs in semester 5 or 6 or 7 for all Study Programs based on the Rector's Regulation Number. 2329/UN.5.1.R/SK/SPB/2022 (https://bit.ly/4hmQx1k)

	accessing this program to be very challenging. Based on the strategic aspirations of all three study programs, the experts see that the programs should further enhance internationalisation efforts by expanding staff and student mobility. Additionally, the experts noted that the curricular overview does not clearly indicate when students have the opportunity to participate in mobility opportunities. To improve this, the programs should explicitly define a designated mobility window within the curriculum, allowing students to be informed and plan accordingly. (Page. 18)		The Study Program has also facilitated student participation by offering internationalization courses, such as Basic Speaking, TOEFL Preparation, IELTS Preparation, English for Business and Professional Communication, and others for 2-4 credits in semesters 4 to 6 as preparation for international mobility. Furthermore, students can participate in international student mobility activities in semester 5 or 6 or 7.
8.	In examining the admission pathways for prospective international students, the assessment team expressed specific concerns regarding the International Independent Selection criteria. They noted that the General Provisions and Requirements outlined on the institution's website stipulate a	All	Based on the Regulation of the Rector of the Universitas Sumatera Utara Number 13 of 2022 concerning Academic Regulations for Undergraduate Programs, Masters Programs, and Doctoral Programs at the Universitas Sumatera Utara in article 14 point c states that "the acceptance of prospective foreign students is at most 20 (twenty) years old for prospective students applying for the Undergraduate Program" (https://bit.ly/4hq4Tht).

	maximum age of 23 years for applicants. The experts argue that this age limit may be unduly restrictive. They, therefore, suggest that the current maximum age requirement of 23 years should be reconsidered. (Page. 20)		However, the Faculty and Study Program will still propose to the University to accommodate the change in the age limit of international students in the selection of international students.
9.	However, the experts observed that in all three programs, the 8th semester allocates a total of 6 credits in compulsory study program courses, distributed as follows: 1 Indonesian credit for the Thesis Seminar Proposal (1.6 ECTS), 1 Indonesian credit for the Thesis Results Seminar (1.6 ECTS), and 3 Indonesian credits for the final Thesis (4.8 ECTS). The experts believe that the credits assigned to the thesis seem to underrepresent the actual workload required by the students. They, therefore, ask that the university ensure that credits equivalent to the actual workload of students during the thesis project are given in the curricula and that students are not overloaded. (Page. 22)	All	The thesis or final project of students at the undergraduate level in Indonesia is generally worth 6 credits for several main reasons related to student workload, academic standards, and higher education curriculum. Here are some of the reasons why the thesis is given a load of 6 credits: ● The workload of the proposal seminar and results seminar is 1 credit each with the implementation of 1 face-to-face hour (seminar presentation, 2380 minutes of structured assignment work. ● Thesis workload is based on experience for the completion of student research allocated in one semester 14,280 minutes per semester or equivalent to 893 minutes per week and equivalent to 3 hours per day which includes research, data processing, writing, and guidance with the supervisor. ● Based on this description, the seminar and thesis work does not exceed a reasonable burden for students.

10.	Upon analyzing the curricular overviews, the experts observed that the semester workload is composed of multiple modules, each with a credit load ranging from 1 to 3 credits. This structure contributes to a high exam load. To create a more balanced and manageable workload, the experts recommend reducing the number of exams. (Page. 22)	All	We have adopted various types of assessments to achieve the learning outcomes in each course. These assessments include Midterm Exams, End of Semester Exams, quizzes, assignments, Project Based Learning, and Case Method, most of which have been applied in courses in all three Study Programs. Lecturers are given the flexibility to choose the appropriate method, so that in a 3-credit course, the use of Project Based Learning or Case Method can be done without the need for an exam. While for 2 credit courses, assessment can be done through exams without integrating Project Based Learning, or Case Method. With this varied learning approach, it is expected that the semester workload will be more balanced and manageable, and learning achievement can be more easily achieved. We will also continue to evaluate the number of exams used in each course. The achievement indicator is the fulfilment of learning outcomes, with the form of the exam adjusted to the time set in the Semester Learning Plan. (https://bit.ly/3Q4QBH6)
11.	The data shows a low dropout rate, suggesting that nearly all students complete the study programs. While this seems to indicate successful program completion, a closer examination reveals a discrepancy. During discussions with program coordinators, the experts referred to the self-assessment report (p. 6), which	All	Based on the Regulation of the Minister of Education and Culture of the Republic of Indonesia Number. 3 of 2020 concerning National Higher Education Standards in Article 17-point **d,** namely "a maximum period of 7 (seven) academic years for undergraduate programs, four diploma / applied degree programs, with a student learning load of at least 144 (one hundred and forty-four) Semester Credit Units".

	highlights a difference between the 'average starting cohort size' and the 'average number of graduates per cohort'. For example, 298 vs 237 students in Agrotechnology, which results in a difference of 61 students. This difference suggests higher dropout numbers than those indicated. The same applies to the other two programs. The experts request that the university clarify the discrepancy in the reported figures and provide their definition of "dropout". In connection with the above, t he experts remark on the importance of the university ensuring that program data, including information on the number of students and the dropout rate, is accurate and readily available upon request. (Page. 22)		The difference in the number of students in the Average starting cohort size table with the Average number in the three Study Programs is due to: 1. **Agrotechnology** The number of students in the Average starting cohort size table is 298 and the Average number is 237 with an average length of study of 4 years and 5 months so there is a difference of 61 students whose status has not graduated. This difference is because of the 61 students there are 49 students with an average graduation of more than 4 years and 5 months and 12 students who drop out based on the USU Chancellor's Decree (https://bit.ly/4aVfuhR). 2. **Animal Science** The number of students in the Average starting cohort size table is 132 and the Average number is 60 with an average length of study of 4 years and 5 months so there is a difference of 72 students whose status has not graduated. This difference is because of the 72 students there are 71 students with an average graduation of more than 4 years and 5 months and as many as 1 student who dropped out based on the USU Chancellor's Decree (https://bit.ly/4aVfuhR). 3. **Food Technology** The number of students in the Average starting cohort size table is 95 and the Average number is 56 with an average

			length of study of 4 years 11 months so there is a difference of 39 students whose status has not graduated. This difference is because of the 39 students there are 31 students with an average graduation of more than 4 years 11 months, 8 students who dropout based on the USU Chancellor's Decree (https://bit.ly/4aVfuhR).
12.	Furthermore, according to the self-assessment report, the average time required to complete studies exceeds the standard duration: Bachelor Agrotechnology: 4 years, 5 months Bachelor Animal Science: 4 years, 5 months Bachelor Food Technology: 4 years, 11 months During the discussion with the students and the teaching staff, the experts learned that the longer time for Food Technology is primarily due to limited availability of equipment for thesis work and the overall workload involved in completing the thesis. The program coordinators noted that efforts to	TP	The difference in the study period of the **Food Technology Study Program** with the other two Study Programs is related to the fact that during the Covid-19 pandemic there were restrictions on student visits using the laboratory following government regulations for Work from Home (WfH), so that student research activities that were fully related to laboratory use were inhibited. At that time, one student was still supervised by two lecturers. Meanwhile, currently, efforts have been made to shorten the study period, namely: a. One student is supervised by one lecturer and the use of the laboratory is accessible to students. b. The implementation time of student research has also been directed to be completed in a short period of time (approximately 3 months).

	promote innovation while preventing plagiarism during the development of the final project/thesis may contribute to challenges in maintaining the program's standard duration. The experts strongly believe that the faculty must actively monitor the reasons behind students exceeding the foreseen time for graduation. They also believe that the faculty needs to implement measures to support timely completion within the program's prescribed duration. (Page. 23)		
	CRITERIA 2		
13.	While appreciating the transparency in the examination system, the expert panel, in line with the assessment in Criterion 1.5, find that the number of exams is generally high and exceeds the necessary number of exams to prove the students´ skills obtained per course. Therefore, they suggest that, in order to reduce the workload of both students and lecturers, it might be an option to	All	We have adopted various types of assessments to achieve the learning outcomes in each course. These assessments include Midterm Exams, End of Semester Exams, quizzes, assignments, Project Based Learning, and Case Method, most of which have been applied in courses in all three Study Programs. Lecturers are given the flexibility to choose the appropriate method, so that in a 3 credit course, the use of Project Based Learning or Case Method can be done without the need for an exam. While for 2 credit courses, assessment can be done through exams without integrating Project Based Learning, or Case Method. With this varied learning approach, it is expected that the semester workload will be more balanced and manageable, and learning achievement can be more

	reduce the number of exams per course. (Page. 26)		easily achieved. We will also continue to evaluate the number of exams used in each course. The indicator of achievement is the fulfilment of learning outcomes, with the form of the exam adjusted to the time set in the Semester Learning Plan. (https://bit.ly/3Q4QBH6)
14.	However, as highlighted in criterion 1.5 of their assessment, the group express concerns regarding the allocation of credits for the bachelor's thesis. They emphasize the importance of ensuring that the credit system accurately reflects the actual workload required to complete these theses. (Page. 28)	All	The thesis or final project of students at the undergraduate level in Indonesia is generally worth 6 credits for several main reasons related to student workload, academic standards, and higher education curriculum. Here are some reasons why the thesis is given a weight of 6 credits: ● The workload of the proposal seminar and result seminar is 1 credit each with the implementation of 1 face-to-face hour (seminar presentation, 2380 minutes of structured assignment work). ● The thesis workload is based on experience for the completion of student research allocated in one semester 14,280 minutes per semester or equivalent to 893 minutes per week and equivalent to 3 hours per day which includes research, data processing, writing, and guidance with the supervisor. ● Based on this description, the seminar and thesis work does not exceed a reasonable burden for students.
	CRITERIA 3		
15.	However, as noted earlier, the three programs under review aim to achieve international recognition to attract	All	Achievement of international recognition has been carried out through several activities, namely:

	international talent and foster collaboration in education and research. In light of this ambition, the experts believe there is potential for further improvement by expanding the network of international partners and enhancing opportunities for staff mobility. (Page. 31)		1. Equity Program (https://wcu.usu.ac.id/en/equity). Aims of equity program is to enhance quality of education, world class networking, TALENTA based lecturers' reputation, research quality and quantity, and global branding and recognition. Activities of Equity program followed by the AT study program, namely International Mobility Staff (https://tinyurl.com/IMSAgrotechnology), Guest Lecture https://tinyurl.com/GuestLectureAT ; Summer Course https://drive.google.com/drive/folders/1Puk1Hr10sebxVm3rcfa9DDsLWoFE2VtK?usp=sharing. Tropical science and medicine, Agroindustry, Local wisdom, Energy (sustainable), Natural resource (biodiversity, forest, marine, mine, tourism), Technology (appropriate) and Arts (ethnic) in the terminology TALENTA is the academic competitive advantage (academic excellence) of Universitas Sumatera Utara. 2. Carrying out seminars abroad as a speaker and reviewer for a reputable international journal (indexed by Scopus/WoS) (https://tinyurl.com/lectureractivity) 3. Research collaboration with foreign universities (https://tinyurl.com/EduResearchCollab) 4. Organizing international seminars every year such as AEFS, which encourages lecturers to publish their research results internationally (https://ocs.usu.ac.id/AEFS/)

			5. Organizing international seminars such as International Conference on Food Technology, Nutrition and Sustainable Agriculture (ICFTNSA), encourages lecturers to publish their research results internationally (https://ocs.usu.ac.id/ICFTNSA/ICFTNSA2021) 6. Lecturers undertake further studies at foreign universities, to improve educational and research collaboration networks (https://tinyurl.com/S3abroad)
16.	While the experts acknowledge the support provided by lecturers who engage students in research grants, they also learned that students are charged for using lab equipment when working on their Bachelor theses. For example, Food Technology final-year students must pay a maintenance fee of IDR 500,000 for doing research in the laboratories. This amount of fee is deemed a bit too high, especially considering that students still have to provide their own materials and chemicals.	All	Based on the Rector's regulation number 2241/UN5.1.R/SK/PSS/2024 concerning Building Rental Rates, Laboratory Use and Sample Analysis in the Faculty of Agriculture, Universitas Sumatera Utara, we can see that Food Technology students make payments for research activities in the laboratory amounting to IDR 500,000. Single Student Tuition Fee (IDR 500,000 - 6,000,000), cannot cover student research costs, therefore, when using the laboratory, Food Technology students are charged IDR 500,000, not covered by the cost of materials for chemical analysis. Apart from that, Food Technology students are also involved in research with lecturers so that these students do not need to spend funds on research activities. Also, some food technology students

<table>
<tr><td></td><td>The expert team noted that, since students have already paid tuition fees for their study programs, these fees should ideally cover the costs of necessary lab work, including the use of equipment for thesis-related research. (Page. 33)</td><td></td><td>receive research funds from institutions such as Indofood Research Nugraha (IRN) so they also do not spend funds on research activities.

However, we will re-evaluate the funds for using the laboratory equipment, because the regulation can be changed</td></tr>
<tr><td>17.</td><td>However, it is recommended that the university reconsider the library's opening hours to better accommodate the needs of all users, particularly those who may require physical access outside the current hours. (Page 35).</td><td>All</td><td>We understand that more flexible library access is important for all users, especially those with limited time during the day. We recognize that some users need a place to study and access outside operating hours. However, we must also consider the availability of human resources, operational costs, and institutional policies. However, we have other alternatives, such as expanding digital services and providing independent study spaces that can be accessed for longer. We will continue to strive to find the best solution to meet the needs of all users. We have proposed to return the operating hours to 8 AM - 9 PM, and are currently awaiting the release of university regulations</td></tr>
<tr><td>18.</td><td>After visiting the greenhouse facilities for the students, the experts noted that the number of greenhouses and space appeared low in comparison to the number of students each year. It is, therefore, recommended to reconsider</td><td>AET</td><td>Actually, Agrotechnology Study Program has adequate laboratories, greenhouses, screen houses, experimental fields for students to carry out their thesis project research, as presented in Table 1.

Tabel 1. Facilities and infrastructures of Agrotechnology Study Program

<table><tr><th>No</th><th>Facilities and infrastructures</th><th>Area</th><th>Total Unit</th></tr></table></td></tr>
</table>

	possibilities for improvement both in size and in quality. (Page. 35).		1	Screen house tunnel	7 m x 29 m	2	
			2	Screen house square	8 m x 16 m	1	
			3	Big green house	10 m x 29 m	1	
			4	Small green house	8 m x 21 m	2	
			5	Field experiment	100 m x 80 m	1	
			6	Field experiment at Tambunan A (Langkat Regency) https://www.usu.ac.id/id/unit-kerja/kebun-percobaan-tambunan-a	555 Hectare	1	
			7	Field experiment at Kwala Bekala (Deli Serdang Regency)	300 Hectare	1	
			8	Plant Biotechnology Laboratory	667 m^2	1	
			9	Seed Technology Laboratory	11,3 m x 14,6 m	1	
			10	Plant pest Laboratory	10 m x 15 m	1	
			11	Plant disease Laboratory	10 m x 15 m	1	
			12	Soil Physics and Classification Laboratory	10 m x 15 m	1	
			13	Soil chemistry and fertility Laboratory	10 m x 15 m	1	
			14	Plant physiology Laboratory	10 m x 15 m	1	
			15	Computing, Geographical Information Systems and audio visual laboratory	10 m x 15 m	2	

16	Research and Technology Laboratory	10 m x 15 m	1	
17	Genetics and Plant Breeding Laboratory	10 m x 15 m	1	
18	Plant cultivation laboratory	10 m x 15 m	1	
19	Soil biology laboratory	10 m x 15 m	1	
20	Agroclimatology laboratory	10 m x 15 m	1	

The laboratories at the Faculty of Agriculture, Universitas Sumatera Utara can be seen at this link https://fp.usu.ac.id/id/laboratorium

Every year, only final semester students of Agrotechnology Study Program carry out thesis research, around 200 students per year, therefore the number of facilities is sufficient to carry out thesis research of the students.

Apart from that, there are students (10%) who carry out research collaborations with Indonesian Oil Palm Research Institute (IOPRI); Meteorology, Climatology and Geophysics Agency, PT Indonesia Alumunium, Asian Agri Plantation, PT Syngenta, Wilmar Plantation and research at community service sites, such as Saddam's Mushroom House. Some students (15%) can also carry out research related to plant exploration and identification using survey methods, so they do not need the facilities mentioned above. The title of the researches which did not use Agrotechnology Study Program facilities can be seen in the link https://tinyurl.com/Penelitiandiluarkampus

<table>
<tr>
<td>19.</td>
<td>However, the experts highlight the need for ongoing improvements in the sense of quantity to the department's teaching and research laboratories to provide students with practical experience. (Page. 35).</td>
<td>PTN</td>
<td>We have two teaching and research laboratories as well as field laboratories in the shape of closed house, poultry research pens and small ruminant research pens. Every year, only final semester students of Animal Science Study Program carry out thesis research, around 130 students per year. Some students take up research in the socio-economic field of animal husbandry, where the research method is survey. The number of equipment and materials in each animal science laboratory is being submitted to the university for additional laboratory equipment. https://tinyurl.com/EquipmentAS

Tabel 2. Facilities and infrastructures of Animal Science Study Program

<table>
<tr><th>No</th><th>Facilities and infrastructure</th><th>Area</th><th>Total Unit</th></tr>
<tr><td>1</td><td>Closed House</td><td>12 m x 124 m</td><td>1</td></tr>
<tr><td>2</td><td>Poultry Research Pens</td><td>8 m x 5 m</td><td>2</td></tr>
<tr><td>3</td><td>Small Ruminant Research Pens</td><td>6,5 m x 18 m</td><td>1</td></tr>
<tr><td>4</td><td>Animal Production laboratory</td><td>10 m x 15 m</td><td>1</td></tr>
<tr><td>5</td><td>feed science and technology laboratory</td><td>10 m x 15 m</td><td>1</td></tr>
</table>

The laboratories at the Faculty of Agriculture, Universitas Sumatera Utara can be seen at this link https://fp.usu.ac.id/id/laboratorium

In addition, the Animal Science study program collaborated with many government and private agencies in teaching and research and</td>
</tr>
</table>

			utilizes partner facilities such as with BRIN https://tinyurl.com/ColabResearchAS , PT Charoen Pokphand Indonesia. Tbk, Veterinary Center, Provincial and District Livestock Services, National Standardization Agency for Small Ruminants.
20.	Areas of improvement are in: a. the quantity of the equipment/tools in the teaching labs, b. the lack of safety equipment (eye wash station) in one of the chemistry laboratories, and c. equipment/tools for quantitative physical analysis to fulfill the intended graduate profile/PLOs. (Page. 35).	TP	• The food technology study program has 3 laboratories : Food Technology And Engineering Laboratory, Food Microbiology Laboratory, Food Chemical And Biochemical Analysis Laboratory. The amount of equipment and materials in each food technology laboratory has been updated and submitted to the university. Laboratory equipment for teaching lab activities has been added. Below are links to equipment in each laboratory. https://tinyurl.com/Teachinglabequipment • Equipment regarding occupational safety and health has been added to the laboratory program of each food technology study including an eyewash station. These are the link https://tinyurl.com/SafetyEquipmentFT and https://tinyurl.com/EyeWashStationFT • The food technology study program has added equipment and materials to each laboratory so as to support increasing graduation rates and fulfilling graduate profiles. Below are links about the quantitative physical analysis https://tinyurl.com/quantitativephysicalanalysis
	CRITERIA 4		
21.	However, the expert group identified inconsistencies in the information	All	The consistency of the module has been improved, including the assessment form and conformity with the curriculum. The module

	presented, including, but not limited to, the following: not all modules are described with the same level of detail, indicating a need for consistency in presentation. While the module handbook is written in English, the teaching language is specified in Indonesian. Additionally, a clearer specification of the relation to the curriculum is necessary. Therefore, the group requires the faculty to revise and correct the module handbook to address these issues. (Page. 37).		format of the AET study program has specializations because the AET study program is a merger of 4 study programs so that in semester 5 students are divided into interests in Agronomy, Plant Breeding, Soil Science and Plant Pests and Diseases, while the Animal Husbandry and Food Technology study programs do not have specializations. a. In regular classes using Indonesian or English, while there are international students absolutely use English. b. Assignments in Indonesian and/or English.
22.	While the experts appreciate the provision of information accessible to students, they observed that some course details are missing from the program websites. To improve transparency and ensure broader access for all stakeholders, the experts request that the faculty make the most recent version of the module handbooks publicly available. Additionally, the revised version of the curricular overview should be displayed on the	All	All Semester Learning Plan, Module Handbook and Curriculum have been uploaded to the website and can be accessed in a User-Friendly manner. Link handbook: https://tinyurl.com/ModulHandbook

	faculty´s website and included in the academic handbook. In connection with this, and as outlined in Criterion 1.1, the experts believe that the faculty's homepage should undergo a revision to improve its usability and accessibility, ensuring it is more user-friendly. (Page. 37)		
	CRITERIA 5		
23.	The experts had access to evaluation results for the three programs under review. However, these reports are yet to provide satisfactory details regarding the process and data collection, including key information such as the report date. In this context, the experts ask the university to improve its reporting practices, providing a clear explanation of the process and data obtained. As emphasized in Criterion 1.5, the experts also reiterate the importance of ensuring the accuracy and availability of the data. (Page. 39)	All	Evaluation for improvement in learning programs in the Animal Science, Agrotechnology and Food Technology study program uses two indicators, namely: 1) Curriculum Evaluation 2) Teaching and Learning Evaluation, with a survey approach. These two indicators are taken into account by the stakeholders to evaluate the study program and improve the quality of teaching in study programs. The survey used in the curriculum evaluation and the quality of the learning process include (1) the percentage of students who obtain a Grade Point Average (GPA) ≥ 3, (2) the percentage of students who graduate on time, and (3) the percentage of alumni activities after graduation.

			The process of survey to get data of GPA and study period of graduates is students register for graduation at the study program by offline, then the study program operator fills in data on students' study periods and GPA scores at SIA USU every graduation period. There are 4 graduation periods at Universitas Sumatera Utara (USU), namely period I in November, period II in January, period III in April, and period IV in July. The link of data can be seen in the tables below. The process of survey to get data of alumni activities after graduation data are carried out by graduates accessing the USU tracer study website, namely by filling data in the link of https://tracerstudy.usu.ac.id/ when they take their bachelor's certificates. In addition, the Directorate of Education Development send email to each graduate to get data of the alumni activities. The data provided in the ASIIN report were data on graduates of the 2020/2021, 2021/2022, and 2022/2023 academic years. Curriculum evaluation can also be seen from the results of the teaching and learning process evaluation (TLPE) and lecturer evaluation by students (LEBS). After the lecture is finished, students fill out a survey by accessing the Google Form media platform link provided by the study program, the instrument is a questionnaire. Data were obtained from students of the 2020, 2021, 2022, and 2023 academic years. After 2023, USU will conduct a centralized survey of teaching and learning process evaluation (TLPE) and lecturer evaluation by

			students (LEBS) via the website the SATU | Universitas Sumatera Utara system and the website can be accessed by students until now. (Example of a screen shot of the survey implementation and survey results are attached:https://docs.google.com/document/d/1kybP6gUmu5SyMzbuplTrF63r_g_x-Eh1/edit?usp=drive_link&ouid=114801087291130914783&rtpof=true&sd=true https://docs.google.com/document/d/1rd-sIjNPvC2wCGcSUegEEpYIuYqa6ICF/edit?usp=drive_link&ouid=108804553960915734667&rtpof=true&sd=true https://docs.google.com/document/d/1vlnF2m6BbGy656ltFOE7HTE88ZfWyFiyOCAMNg_OQSE/edit?tab=t.0

The institution provided the following additional documents:

Animal Science (AS) Study Program

1 Data collection of Animal Science students carried out using the G drive link and with Academic System Information of USU.
2 Student Satisfaction Assessment Link
3 Student Learning Evaluation Questionnaire Link

Agrotechnology (AET) Study Program

1. Percentage of AET graduates with GPA >3
2. AET study program graduate data 2020-2022
3. User response survey of graduates towards alumni of the AET study program FP USU
4. Graduate response survey of AET undergraduate study program alumni

5. Student satisfaction assessment
6. Student Learning Evaluation Questionnaire AET study program FP USU

Food Technology (FT) Study Program

1. The study period and GPA of students
2. Percentage of TP graduates with GPA ≥3
3. On-time graduation
4. Alumni activities after graduating
5. Student Satisfaction Assessment Link
6. Student Learning Evaluation Questionnaire

F Summary: Expert recommendations (11.02.2025)

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

Degree Programme	ASIIN Seal	Maximum duration of accreditation
Bachelor Agrotechnology	With requirements for one year	30.09.2030
Bachelor Animal Science	With requirements for one year	30.09.2030
Bachelor Food Technology	With requirements for one year	30.09.2030

Requirements

For all degree programmes

A 1. (ASIIN 1.5, 2) Review and adapt the credit allocation for the Bachelor's thesis to ensure it accurately reflects the actual workload.

A 2. (ASIIN 1.5) Develop a concept to address the issue of the average study duration, which currently exceeds the expected length.

A 3. (ASIIN 3.2) Ensure that students are not charged for the use of laboratory equipment during their thesis work.

A 4. (ASIIN 4.1) Revise and correct the module descriptions, addressing inconsistencies in presentation, teaching language specification and relation to the curriculum.

A 5. (ASIIN 4.1): Ensure that the updated module descriptions are accessible, in full, to all interested parties.

Recommendations

For all degree programmes

E 1. (ASIIN 1.1) It is recommended to foster students' soft skills, particularly in communication (both oral and written), leadership, critical thinking, problem-solving and organizational skills.

E 2. (ASIIN 1.1) It is recommended that the documentation of the curriculum be harmonized to improve transparency across the programmes.

E 3. (ASIIN 1.3) It is recommended to enhance and increase the visibility of aspects of environmental protection and climate change in the curricula.

E 4. (ASIIN 1.3) It is recommended to further enhance internationalization efforts by expanding staff and student mobility, and the network of international partners.

E 5. (ASIIN 1.3) It is recommended that the programmes clearly state a mobility window for students.

E 6. (ASIIN 1.4) It is recommended that the requirement of a maximum age of 23 years for international students be reconsidered.

E 7. (ASIIN 1.5, 2) It is recommended that the number of exams be reduced to create a more balanced and manageable workload.

E 8. (ASIIN 3.2) it is recommended that the university reconsider the library's opening hours to better accommodate the needs of all users, particularly those who may require physical access outside the current hours.

E 9. (ASIIN 1.1, 4.1) It is recommended that the programme homepage be revised to become more user-friendly.

E 10. (ASIIN 5) It is recommended that the university improve reporting practices, ensuring that programme data is accurate and always available on request.

For the Bachelor's degree programme Agrotechnology

E 11. (ASIIN 3.2) It is recommended to consider possibilities for improvement in the facilities for practical work, both in size and in quality.

For the Bachelor's degree programmes Agrotechnology and Food Technology

E 12. (ASIIN 1.2) It is recommended to reconsider the naming of the programmes to ensure they accurately reflects the intended specific learning outcomes.

For the Bachelor's degree programmes Animal Science and Food Technology

E 13. (ASIIN 3.2) It is recommended to increase the quantity of equipment in the teaching and research laboratories

For the Bachelor's degree programme Food Technology

E 14. (ASIIN 1.3) It is recommended that the engineering aspect of the curriculum be made mandatory.

E 15. (ASIIN 1.3) It is recommended that the content of the curriculum be revised and aligned with the current profile of the programme.

G Comment of the Technical Committee 08 – Agriculture, Forestry and Food Sciences (17.03.2025):

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 by the Technical Committee without making any changes.

The Technical Committee recommends the award of the seals as follows:

Degree Programme	ASIIN Seal	Maximum duration of accreditation
Bachelor Agrotechnology	With requirements for one year	30.09.2030
Bachelor Animal Science	With requirements for one year	30.09.2030
Bachelor Food Technology	With requirements for one year	30.09.2030

Requirements

For all degree programmes

A 1. (ASIIN 1.5, 2) Review and adapt the credit allocation for the Bachelor's thesis to ensure it accurately reflects the actual workload.

A 2. (ASIIN 1.5) Develop a concept to address the issue of the average study duration, which currently exceeds the expected length.

A 3. (ASIIN 3.2) Ensure that students are not charged for the use of laboratory equipment during their thesis work.

A 4. (ASIIN 4.1) Revise and correct the module descriptions, addressing inconsistencies in presentation, teaching language specification and relation to the curriculum.

A 5. (ASIIN 4.1): Ensure that the updated module descriptions are accessible, in full, to all interested parties.

Recommendations

For all degree programmes

E 1. (ASIIN 1.1) It is recommended to foster students' soft skills, particularly in communication (both oral and written), leadership, critical thinking, problem-solving and organizational skills.

E 2. (ASIIN 1.1) It is recommended that the documentation of the curriculum be harmonized to improve transparency across the programmes.

E 3. (ASIIN 1.3) It is recommended to enhance and increase the visibility of aspects of environmental protection and climate change in the curricula.

E 4. (ASIIN 1.3) It is recommended to further enhance internationalization efforts by expanding staff and student mobility, and the network of international partners.

E 5. (ASIIN 1.3) It is recommended that the programmes clearly state a mobility window for students.

E 6. (ASIIN 1.4) It is recommended that the requirement of a maximum age of 23 years for international students be reconsidered.

E 7. (ASIIN 1.5, 2) It is recommended that the number of exams be reduced to create a more balanced and manageable workload.

E 8. (ASIIN 3.2) it is recommended that the university reconsider the library's opening hours to better accommodate the needs of all users, particularly those who may require physical access outside the current hours.

E 9. (ASIIN 1.1, 4.1) It is recommended that the programme homepage be revised to become more user-friendly.

E 10. (ASIIN 5) It is recommended that the university improve reporting practices, ensuring that programme data is accurate and always available on request.

For the Bachelor's degree programme Agrotechnology

E 11. (ASIIN 3.2) It is recommended to consider possibilities for improvement in the facilities for practical work, both in size and in quality.

For the Bachelor's degree programmes Agrotechnology and Food Technology

E 12. (ASIIN 1.2) It is recommended to reconsider the naming of the programmes to ensure they accurately reflects the intended specific learning outcomes.

For the Bachelor's degree programmes Animal Science and Food Technology

E 13. (ASIIN 3.2) It is recommended to increase the quantity of equipment in the teaching and research laboratories

For the Bachelor's degree programme Food Technology

E 14. (ASIIN 1.3) It is recommended that the engineering aspect of the curriculum be made mandatory.

E 15. (ASIIN 1.3) It is recommended that the content of the curriculum be revised and aligned with the current profile of the programme.

H Decision of the Accreditation Commission (25.03.2025)

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

The Accreditation Commission discusses the procedure and decides that requirement A 3, which mandates that students should not be charged for the use of laboratory equipment during their thesis work, should be reclassified as a recommendation rather than a condition. As a result, the Accreditation Commission replaces A 3 with recommendation E 10, slightly rewording it to suggest that USU reconsider the lump-sum fee charged to students for using laboratory equipment during their thesis work.

In all other aspects, the Accreditation Commission adopts the assessment from the experts and Technical Committee without any further changes.

The Accreditation Commission decides to award the following seals:

Degree Programme	ASIIN Seal	Maximum duration of accreditation
Bachelor Agrotechnology		30.09.2030
Bachelor Animal Science		30.09.2030
Bachelor Food Technology		30.09.2030

Requirements

For all degree programmes

A 1. (ASIIN 1.5, 2) Review and adapt the credit allocation for the Bachelor's thesis to ensure it accurately reflects the actual workload.

A 2. (ASIIN 1.5) Develop a concept to address the issue of the average study duration, which currently exceeds the expected length.

A 3. (ASIIN 4.1) Revise and correct the module descriptions, addressing inconsistencies in presentation, teaching language specification and relation to the curriculum.

A 4. (ASIIN 4.1) Ensure that the updated module descriptions are accessible, in full, to all interested parties.

Recommendations

For all degree programmes

E 1. (ASIIN 1.1) It is recommended to foster students' soft skills, particularly in communication (both oral and written), leadership, critical thinking, problem-solving and organizational skills.

E 2. (ASIIN 1.1) It is recommended that the documentation of the curriculum be harmonized to improve transparency across the programmes.

E 3. (ASIIN 1.3) It is recommended to enhance and increase the visibility of aspects of environmental protection and climate change in the curricula.

E 4. (ASIIN 1.3) It is recommended to further enhance internationalization efforts by expanding staff and student mobility, and the network of international partners.

E 5. (ASIIN 1.3) It is recommended that the programmes clearly state a mobility window for students.

E 6. (ASIIN 1.4) It is recommended that the requirement of a maximum age of 23 years for international students be reconsidered.

E 7. (ASIIN 1.5, 2) It is recommended that the number of exams be reduced to create a more balanced and manageable workload.

E 8. (ASIIN 3.2) it is recommended that the university reconsider the library's opening hours to better accommodate the needs of all users, particularly those who may require physical access outside the current hours.

E 9. (ASIIN 1.1, 4.1) It is recommended that the programme homepage be revised to become more user-friendly.

E 10. (ASIIN 3.3) It is recommended to reconsider the lump-sum charge for students for the use of laboratory equipment for their thesis work.

E 11. (ASIIN 5) It is recommended that the university improve reporting practices, ensuring that programme data is accurate and always available on request.

For the Bachelor's degree programme Agrotechnology

E 12. (ASIIN 3.2) It is recommended to consider possibilities for improvement in the facilities for practical work, both in size and in quality.

For the Bachelor's degree programmes Agrotechnology and Food Technology

E 13. (ASIIN 1.2) It is recommended to reconsider the naming of the programmes to ensure they accurately reflects the intended specific learning outcomes.

For the Bachelor's degree programmes Animal Science and Food Technology

E 14. (ASIIN 3.2) It is recommended to increase the quantity of equipment in the teaching and research laboratories

For the Bachelor's degree programme Food Technology

E 15. (ASIIN 1.3) It is recommended that the engineering aspect of the curriculum be made mandatory.

E 16. (ASIIN 1.3) It is recommended that the content of the curriculum be revised and aligned with the current profile of the programme.

I Fulfilment of Requirements (27.03.2026)

Analysis of the experts and the Technical Committee 08 – Agriculture, Forestry, and Food Sciences (03.03.2026)

Requirements

A 1. (ASIIN 1.5, 2) Review and adapt the credit allocation for the Bachelor's thesis to ensure it accurately reflects the actual workload.

Initial Treatment	
experts	Fulfilled Vote: unanimous Justification: The workload has been evaluated and the number of credits for the thesis was accordingly increased from 6 to 7 SKS, which satisfies the experts.
TC 08	Fulfilled Vote: unanimous Justification: The TC confirms the vote of the experts.

A 2. (ASIIN 1.5) Develop a concept to address the issue of the average study duration, which currently exceeds the expected length.

Initial Treatment	
experts	Fulfilled Vote: unanimous Justification: Multiple measures have been implemented to counter the excision of the designated study period: assigning academic advisors when students have completed 100 Indonesian credits, conducting the thesis seminar earlier on 6th semester, and involving related stakeholders and partners to support the implementation of student thesis research. The changes give more flexibility to the students for conducting their final research project which used to be one of the main factors causing delays.

TC 08	Fulfilled Vote: unanimous Justification: The TC confirms the vote of the experts.

A 3. (ASIIN 4.1) Revise and correct the module descriptions, addressing inconsistencies in presentation, teaching language specification and relation to the curriculum.

Initial Treatment	
experts	Fulfilled Vote: unanimous Justification: The module descriptions have been revised to the satisfaction of the experts.
TC 08	Fulfilled Vote: unanimous Justification: The TC confirms the vote of the experts.

A 4. (ASIIN 4.1) Ensure that the updated module descriptions are accessible, in full, to all interested parties.

Initial Treatment	
experts	Fulfilled Vote: unanimous Justification: The module descriptions have been made available and accessible to everyone via the programmes´ websites
TC 08	Fulfilled Vote: unanimous Justification: The TC confirms the vote of the experts.

Decision of the Accreditation Commission (27.03.2026)

Degree Programme	ASIIN Seal	Maximum duration of accreditation
Ba Animal Science	All requirements fulfilled	30.09.2030
Ba Agrotechnology	All requirements fulfilled	30.09.2030
Ba Food Technology	All requirements fulfilled	30.09.2030

Appendix: Program Intended Learning Outcomes and Curricula

According to the provided “Curriculum Documents”, the following intended learning outcomes shall be achieved:

Bachelor Agrotechnology

ILO01	Able to internalize the value system of Beriman, Inovatif, Tangguh dan Arif (BINTANG) in developing self ability as a lifelong learner in the field of agrotechnology.
ILO02	Able to apply agrotechnology theory to create a sustainable agricultural system.
ILO03	Able to solve problems in the field of agrotechnology by taking into account economic, public health and safety, socio-cultural and environmental factors.
ILO04	Able to apply agrotechnology theory in plantation commodity management, especially oil palm, rubber and coffee in the management of natural resources and human resources (HR).
ILO05	Able to apply research methods to identify problems in the field of agrotechnology.
ILO06	Able to apply communication theory in the application of information technology and publications in the field of agrotechnology both orally and in writing, in academic and non-academic situations.
ILO07	Able to create businesses in the fields of plantation, food and horticulture on a small and large scale independently.
ILO08	Able to create innovations and contribute in the field of agrotechnology by utilizing science and technology.

Bachelor Animal Science

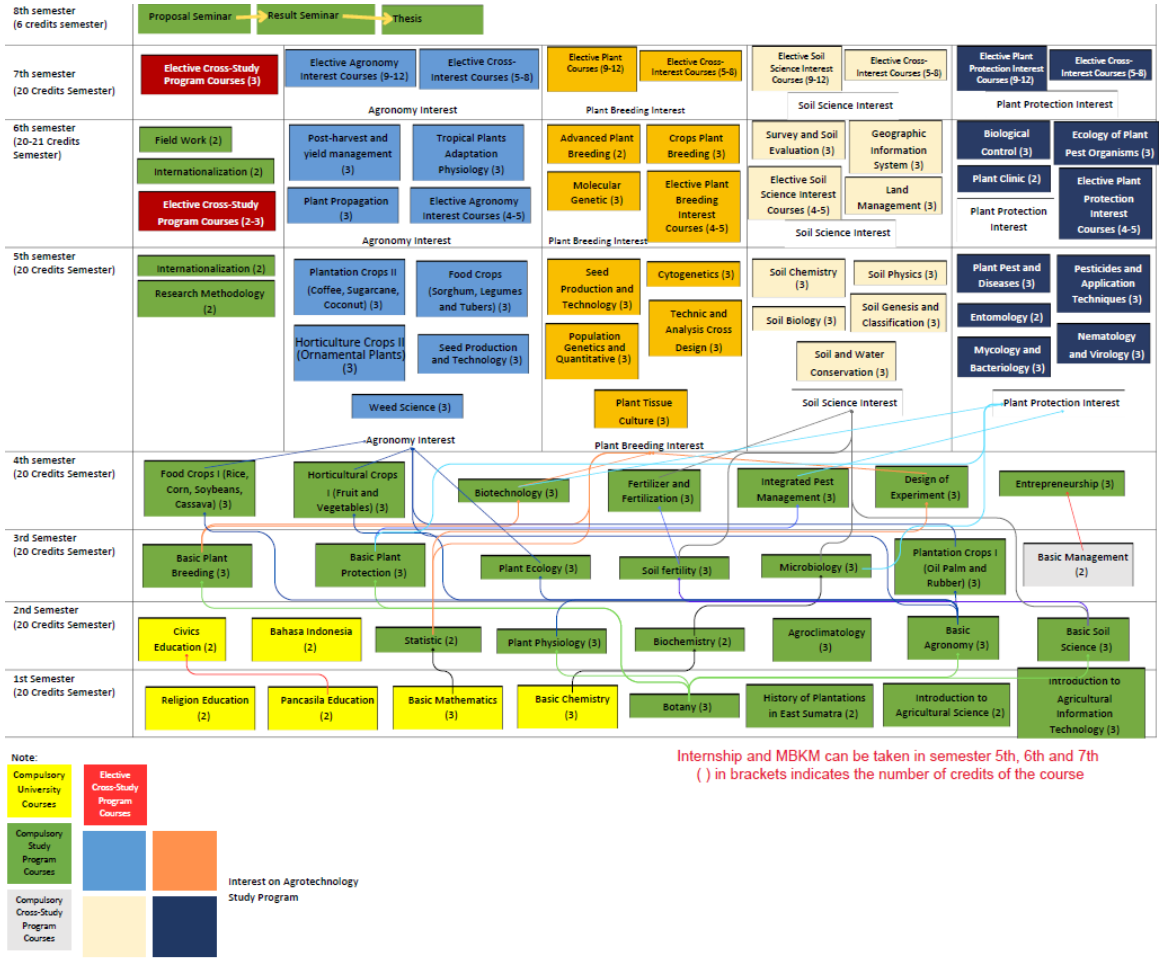
ILO 01	Able to apply logical, critical, systematic and innovative thinking through the approach and implementation of animal science and technology by applying the character of BINTANG
ILO 02	Able to apply the concepts of leadership and teamwork, communication, self-motivation and innovation in completing work in the field of animal sciences
ILO 03	Able to identify, formulate, and find solutions to problems related to the field of animal sciences
ILO04	Able to make data interpretation, apply various methods and experiments and draw conclusions in the field of animal sciences
ILO05	Able to search and compare literature based on the latest data and information as a basis for judgement in the field of animal sciences
ILO06	Supervise and evaluate the completion of assigned work and be able to manage learning independently throughout life
ILO 07	Able to disseminate knowledge and application of the latest technology based on TALENTA in the field of animal sciences
ILO 08	Able to manage integrated and sustainable livestock cultivation based on integration with other agroecosystems and the latest applications in processing livestock products and waste
ILO 09	Able to manage and implement aspects of efficient feed supply and technology
ILO 10	Able to plan, evaluate and manage livestock businesses with agribusiness principles
ILO 11	Able to develop and understand and apply a variety of best techniques and methods that combine theory and practice relevant to animal husbandry expertise
ILO 12	Have coherent and up-to-date knowledge in the field of animal science and in accordance with applicable legal regulations and can apply aspects of animal welfare
ILO 13	Know the concept of identification, safety with a cross-multidisciplinary approach in the field of animal science
ILO 14	Able to communicate effectively both orally and in writing to the community by appreciating the diversity of cultures, views and opinions nationally and globally

Bachelor Food Technology

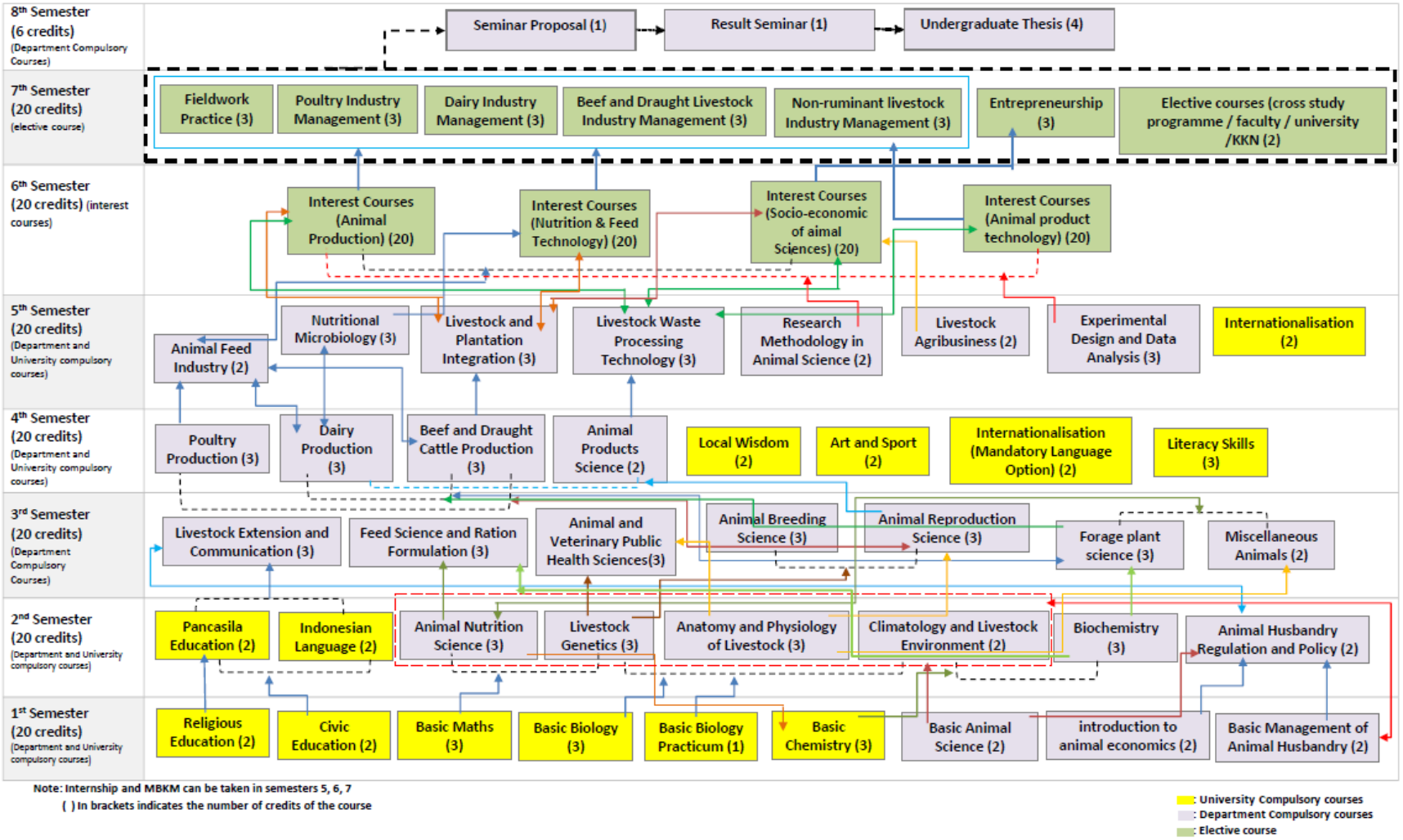
ILO 01	Able to master the basic knowledge required in food technology
ILO 02	Able to apply the principles of food technology effectively and responsively to produce food products with quality in accordance with applicable quality standards and optimal shelf life.
ILO 03	Able to utilize the concepts of food science and food process engineering and design agricultural food products creatively and innovatively and utilize local Indonesian food ingredients that are good for public health.
ILO 04	Able to show independent, quality, and measurable performance in implementing food quality control methods and evaluating food quality characteristics during the production and post-harvest processes so as to produce food products in accordance with applicable regulations and safe for consumption.
ILO 05	Able to control microbes that cause damage and pathogens in food during the production and storage process thoroughly and responsibly based on phenotype characteristics, genotype, growth factors and microbiological analysis with due regard to the safety of the food products produced.
ILO 06	Able to apply lifelong learning of food technology principles intelligently, tenaciously and critically in evaluating food quality and safety programs in the food industry.
ILO 07	Able to apply the principles of food analysis and laboratory instrumentation and compile a scientific description of the results of the analysis into a scientific work in accordance with academic norms and ethics that can be utilized by the community in their daily lives.
ILO 08	Able to think logically and critically in identifying and presenting alternative solutions related to food problems that occur in society by upholding the value of BINTANG (Fearing God Almighty in accordance with the frame of diversity, Innovative with integrity, and Tough and Arif)
ILO 09	Able to implement the principles of developing new food products by maximizing soft skills, entrepreneurial spirit and cooperation in terms of tenacity, creativity and innovation in formulating Indonesian local food ingredients according to the principles of TALENTA (Tropical Science and Medicine, Agroindustry, Local Wisdom, Energy (sustainable), Natural Resources (biodiversity, firest, marine, mine, tourism), Technology (appropriate) and Arts (ethnic)).
ILO 10	Able to master knowledge about managerial self-development, professionalism, nationalism and ethics in the food industry and the wider community.

Furthermore, the following curricular overviews are presented:

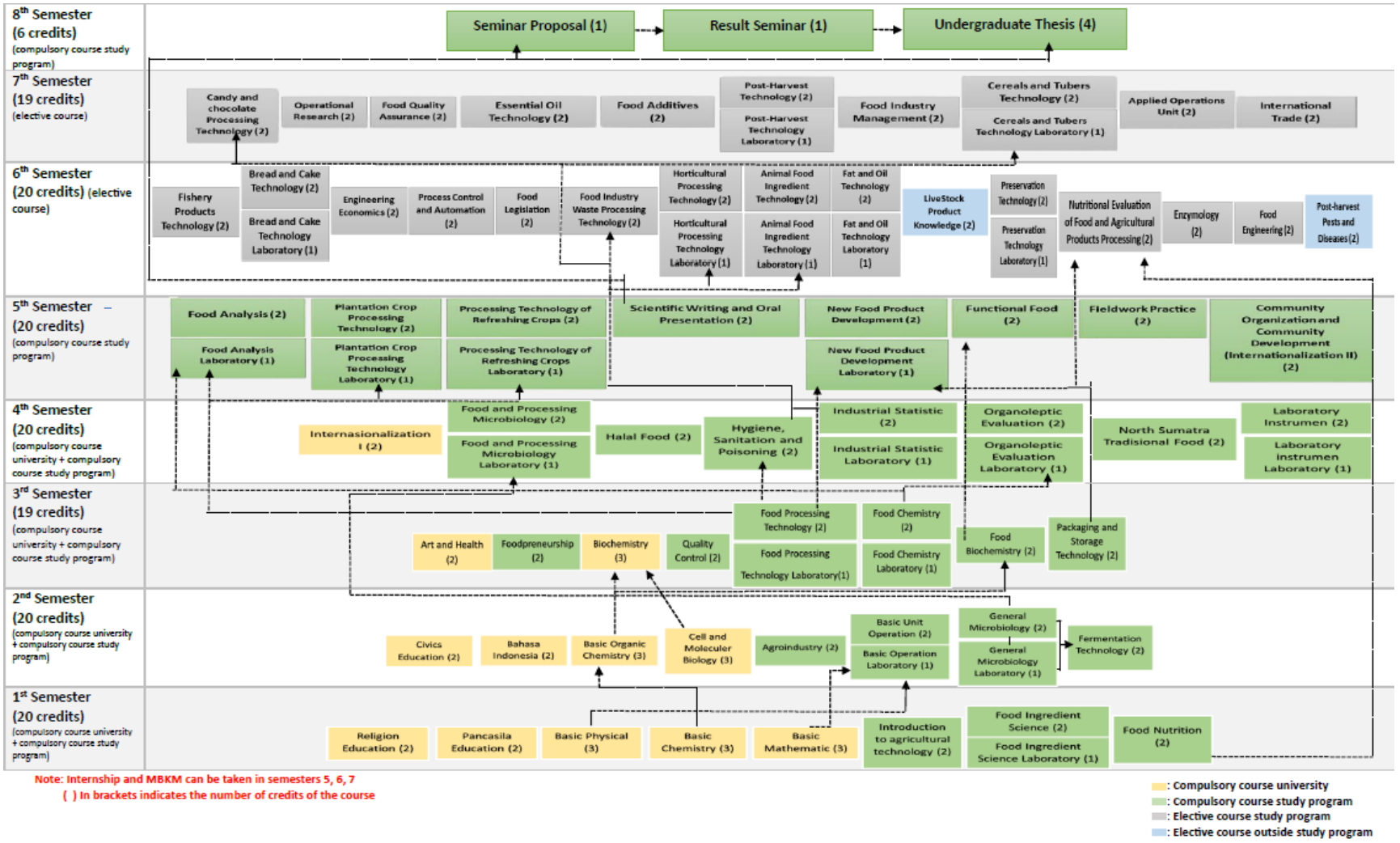
Bachelor Agrotechnology:



Bachelor Animal Science



Bachelor Food Technology


8th Semester (6 credits) (compulsory course study program)
Seminar Proposal (1)
Result Seminar (1)
Undergraduate Thesis (4)
7th Semester (19 credits) (elective course)
Candy and chocolate Processing Technology (2)
Operational Research (2)
Food Quality Assurance (2)
Essential Oil Technology (2)
Food Additives (2)
Post-Harvest Technology (2)
Post-Harvest Technology Laboratory (1)
Food Industry Management (2)
Cereals and Tubers Technology (2)
Cereals and Tubers Technology Laboratory (1)
Applied Operations Unit (2)
International Trade (2)
6th Semester (20 credits) (elective course)
Fishery Products Technology (2)
Bread and Cake Technology (2)
Bread and Cake Technology Laboratory (1)
Engineering Economics (2)
Process Control and Automation (2)
Food Legislation (2)
Food Industry Waste Processing Technology (2)
Horticultural Processing Technology (2)
Horticultural Processing Technology Laboratory (1)
Animal Food Ingredient Technology (2)
Animal Food Ingredient Technology Laboratory (1)
Fat and Oil Technology (2)
Fat and Oil Technology Laboratory (1)
LiveStock Product Knowledge (2)
Preservation Technology (2)
Preservation Technology Laboratory (1)
Nutritional Evaluation of Food and Agricultural Products Processing (2)
Enzymology (2)
Food Engineering (2)
Post-harvest Pests and Diseases (2)
5th Semester – (20 credits) (compulsory course study program)
Food Analysis (2)
Food Analysis Laboratory (1)
Plantation Crop Processing Technology (2)
Plantation Crop Processing Technology Laboratory (1)
Processing Technology of Refreshing Crops (2)
Processing Technology of Refreshing Crops Laboratory (1)
Scientific Writing and Oral Presentation (2)
New Food Product Development (2)
New Food Product Development Laboratory (1)
Functional Food (2)
Fieldwork Practice (2)
Community Organization and Community Development (Internationalization II) (2)
4th Semester (20 credits) (compulsory course university + compulsory course study program)
Internasionalization I (2)
Food and Processing Microbiology (2)
Food and Processing Microbiology Laboratory (1)
Halal Food (2)
Hygiene, Sanitation and Poisoning (2)
Industrial Statistic (2)
Industrial Statistic Laboratory (1)
Organoleptic Evaluation (2)
Organoleptic Evaluation Laboratory (1)
North Sumatra Tradisional Food (2)
Laboratory Instrumen (2)
Laboratory instrumen Laboratory (1)
3rd Semester (19 credits) (compulsory course university + compulsory course study program)
Art and Health (2)
Foodpreneurship (2)
Biochemistry (3)
Quality Control (2)
Food Processing Technology (2)
Food Processing Technology Laboratory(1)
Food Chemistry (2)
Food Chemistry Laboratory (1)
Food Biochemistry (2)
Packaging and Storage Technology (2)
2nd Semester (20 credits) (compulsory course university + compulsory course study program)
Civics Education (2)
Bahasa Indonesia (2)
Basic Organic Chemistry (3)
Cell and Molecular Biology (3)
Agroindustry (2)
Basic Unit Operation (2)
Basic Operation Laboratory (1)
General Microbiology (2)
General Microbiology Laboratory (1)
Fermentation Technology (2)
1st Semester (20 credits) (compulsory course university + compulsory course study program)
Religion Education (2)
Pancasila Education (2)
Basic Physical (3)
Basic Chemistry (3)
Basic Mathematic (3)
Introduction to agricultural technology (2)
Food Ingredient Science (2)
Food Ingredient Science Laboratory (1)
Food Nutrition (2)
Note: Internship and MBKM can be taken in semesters 5, 6, 7
( ) In brackets indicates the number of credits of the course
: Compulsory course university
: Compulsory course study program
: Elective course study program
: Elective course outside study program