ASIIN Seal
Accreditation Report

Bachelor's Degree Programme
Agrotechnology
Food Technology

Provided by
Universitas Pembangunan Nasional Veteran Jawa Timur (UPN)

Version: 07 April 2025

Table of Content

A About the Accreditation Process

Name of the degree programme (in original language)	(Official) English translation of the name	Labels applied for [1]	Previous accreditation (issuing agency, validity)	Involved Technical Committees (TC)[2]
Agroteknologi	Agrotechnology	ASIIN		08
Teknologi Pangan	Food Technology	ASIIN		08
Date of the contract: 18.07.2023 **Submission of the final version of the self-assessment report:** 19.06.2024 **Date of the onsite visit:** 10.-11.10.2024 **at:** Campus Universitas Pembangunan Nasional Veteran Jawa Timur				
Expert panel: Prof. Dr. Siegfried Bolenz, Hochschule Neubrandenburg University of Applied Science Prof. Dr. Sutrisno Hadi Purnomo, Universitas Sebelas Maret Arum Tiyas Suminar, Kamada Soy Sauce Inc. JAPAN M. Hafizh Amwanaya, student of Universitas Sriwijaya				
Representative of the ASIIN headquarter: Sascha Warnke				
Responsible decision-making committee: Accreditation Commission for Degree Programmes				
Criteria used: European Standards and Guidelines as of May 15, 2015 ASIIN General Criteria, as of December 10, 2015				

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

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

B Characteristics of the Degree Programmes

a) Name	Final degree (original/English translation)	b) Areas of Specialization	c) Corresponding level of the EQF[3]	d) Mode of Study	e) Double/Joint Degree	f) Duration	g) Credit points/unit	h) Intake rhythm & First time of offer
Agrotechnology	B.Sc./Eng./ B.A.(Bachelor of Arts, für die Architekten)	S.P. (Sarjana Pertanian / Bachelor of Agriculture)	06	Full time	-	8 semesters	144 SKS	Odd semester / annually, since 1968
Food Technology	M.Sc./Eng./M.A.	S.TP (Sarjana Teknologi Pangan / Bachelor of Food Technology)	06	Full time	-	8 semesters	144 SKS	Odd semester / annually, since 1993

For the Bachelor's degree programme Agrotechnology the institution has presented the following profile in the self-assessment report:

The programme educational objectives (PEOs) aim to produce graduates with a strong foundation in agricultural science, equipping them to meet societal and industry needs. Specifically, the objectives focus on developing graduates who are proficient in agricultural science (PEO-1), capable of innovating within the field of Agrotechnology and applying these innovations to benefit society (PEO-2). Furthermore, graduates are expected to contribute to enhancing food security in Indonesia (PEO-3) and to possess a broad understanding, openness, and responsiveness to developments in the agricultural sector (PEO-4). Lastly, the programme encourages graduates to cultivate an entrepreneurial spirit in the agricultural field (PEO-5).

For the Bachelor's degree programme Food Technology the institution has presented the following profile in the self-assessment report:

The programme educational objectives (PEOs) focus on developing graduates who are skilled in technology and the food industry, possess an entrepreneurial spirit, and uphold values related to national defense (PEO-1). Graduates are also expected to conduct research on food technology innovations that meet health and safety standards, using local

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

resources while adhering to both national and international quality standards (PEO-2). Additionally, the programme aims to produce graduates who actively engage with the community by disseminating research findings and promoting the optimal use of local resources in food technology (PEO-3). Finally, graduates should be able to effectively communicate and collaborate with various sectors, including society, government, and the national and international food industry, fostering partnerships in the field of food technology (PEO-4).

C Expert Report for the ASIIN Seal

1. The Degree Programme: Concept, Content & Implementation

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

Evidence:

- Diploma Supplement
- Website of the university
- Correlation of learning outcomes and SSC
- Self-assessment report
- Discussion during the audit

Preliminary assessment and analysis of the experts:
Universitas Pembangunan Nasional "Veteran" Jawa Timur (UPNVJT) is a university in Surabaya on the Indonesian island of Java and was established in 1968. It received status as a state university in 2014. There are several universities with the name "Universitas Pembangunan Nasional Veteran", however they are independent from each other and act under their own jurisdiction.

The two study programmes under review in this report are a Ba Agrotechnology at the Faculty of Agriculture, and a Ba Food Technology offered at the Faculty of Engineering. Both study programmes present learning outcomes that can be found in the appendix if this report. Both feature general expectations for the graduates (e.g. critical-thinking skills and team work) as well as programme-specific requirements. These also reflect the general specialisations of the respective programmes and demonstrate the unique features of the study programme. The Ba Agrotechnology as such focuses on lowland agricultural systems and mention this aspect in the learning outcomes. Both programmes mention the need of "defending the country" in their learning outcomes which has to do with the history of the university, which was founded by veterans of freedom fighters and used to be under the guidance of the Ministry of Defence and Security. Hence, the "state defence" character of

the university is also embedded in the vision and missions on a university level and translated accordingly into the faculties and study programmes. This learning outcome also includes mention of ethical and moral behaviour.

They are visible to third parties on the website of the respective degree programme and they are featured in the diploma supplement. The students and other stakeholders confirm that they know about the learning outcomes and where to find them.

During the audit, the assessors discuss the learning outcomes with different stakeholders of the university. They learn that the learning outcome are reviewed annually during a revision process of the whole study programmes. While only small changes are made in general, there are great overhauls of the programmes mandatory every four years. The industrial partners confirm that their feedback is actively asked by the university and embedded in the changes made to the learning outcomes. They stress, furthermore, that the current set of learning outcomes for both programmes is satisfactory in a way that warrants no changes.

The assessors, taking into account the criteria of ASIIN and the SSC of the respective Technical Committee, find that the objectives and learning outcomes reflect the targeted academic qualification level, are feasible and equivalent to the relevant exemplary learning outcomes specified. They are certain that a professional activity corresponding to the level of qualification of EQF 6 can be performed by graduates of both programmes.

Criterion 1.2 Name of the Degree Programme

Evidence:

- Decrees 163/DIKTI/Kep/2007 and No. 6/2022
- Diploma supplements
- Self-assessment report
- Discussion during the audit

Preliminary assessment and analysis of the experts:
The names of the two study programmes under review here is regulated by the Indonesian government, as are all names and general contents of higher educational institutions in Indonesia. As such, the individual choice for each university regarding the names and contents for a study programme are restricted. The assessors are confident that the contents, and learning outcomes for both study programmes fit together well. The Indonesian names for both study programmes are used consistently in the documentation and reflect the

general language of instruction being Bahasa Indonesia. To check this, the assessors take time during the audit to read through relevant documents for both study programmes.

During the preparatory work of the audit, the Ba Agrotechnology was discussed particularly keenly in regard to its name and content: The assessors note that the study programme does not include any courses on animal husbandry or other agricultural work regarding animals; Furthermore, the contents do comprise only partially the workings of technology that is used for farming, from simple tools such as hoes, over tractors, to new developments like drones used in precision farming. During the audit the programme coordinators state that the name "Agrotechnology" was once decided by a consortium of agricultural faculties to consolidate the study programmes of agronomy, plant protection, and soil science under a single study programme. This study programme excludes, by definition, the issue of livestock. "Technology" is to be read in the sense of an "application of scientific principles and techniques in an agrarian context", not the actual apparatus used in the field. During the discussion with the students, the representatives for the Ba Agrotechnology declare that the contents of the programme represent their expectations when they enrolled. They summarize the courses of the study programme as helping them to improve how agriculture is performed. This is why the assessors come to accept the naming of this study programme, however only with an adaptation of the contents, for that see the following chapter.

Criterion 1.3 Curriculum

Evidence:

- Curricula
- Objective-learning matrices
- Module handbooks
- Academic guidelines
- Statistical data on mobility (inbound and outbound students)
- Standards of procedure for internships
- Tracer studies and statistics about graduates
- Self-assessment report
- Discussion during the audit

Preliminary assessment and analysis of the experts:

Content and structure of the programmes

Structurally, both study programmes under review here are programmes of four years with a final undergraduate thesis to be written in the final semester. Graduates acquire 144 Indonesian credits (SKS) throughout their studies in modules that reach from introductory to specific knowledge. According to the self-assessment report, the curricula of both study programmes are devised based on the respective learning outcomes. The university presents matrices in which all courses are paired with the respective learning outcome(s) they help to fulfil.

The assessors study the module handbooks and semester study plans for both courses and they can confirm that each module represents a well-matched unit of teaching and learning in which it becomes clear which knowledge, skills and competences the students acquire in each module. A module amounts to 2-3 SKS with the thesis being 6 SKS. The general order of the modules ensures that the learning outcomes can be achieved and that the programme can be completed within the standard period of study. The programmes are organised in a way that allows for students to elect individual focal points and courses of study. The latter is especially true for the Ba Agrotechnology, in which students can choose electives amounting to 32 SKS beginning in the fifth semester, granting the students the freedom to take specialised courses. In the Ba Food Technology, on the other hand, the amount of electives is scarce in comparison. The programme offers a total of 16 SKS of elective courses from what appears to be quite varied catalogue of potential courses. During the audit, the students of the Ba Food Technology state that the amount of electives throughout the programme are satisfactory. The assessors still want to suggest to the programme coordinators to grant the students the opportunity to take up more electives.

The content of the Ba Agrotechnology is structured as follows: In the first year, students learn about introductory courses in, e.g. plant protection and cultivation, soil science, agribusiness and agricultural biology. These courses are supplemented by state-mandated content, such as religion, Pancasila, Indonesian and English language courses and civic education. In the following year, students learn about the contents of the study programme in greater detail. They take courses in, e.g., agroinformatics, horticultural production technology, farm enterprises and soil fertility. Furthermore, the university calls for courses in state defence education, leadership, and entrepreneurship, which is also taught in the second year. In the fifth to seventh semester students have the opportunity to take mostly electives courses. The sixth semester also contains the Community Service (KKN), which is mandatory at every Indonesian university, and an internship. In the seventh semester, students also write a proposal for their thesis. The eighth semester is solely for the writing of the thesis.

Taking into account the explanation of the name of the study programme as given in chapter 1.2 of this report the assessors consider the contents of the study programme satisfactory for the intentions of the programme. The biggest shortcoming the assessors see is the general lack of instruction about technological advances in agriculture. The focus of the study programme, however the name might be understood, is clearly put on technology. During the audit, the programme coordinators stress the importance of technology for use in agriculture from cultivation to soil and plant protection and even for current issues like climate change. As such, the courses should deal far more clearly with technological methods such as tractors, harvesters, and drones. Students state in the interview that they receive a fair share of engineering knowledge and learn to drive a tractor; This, however, is not deemed to be sufficient for a programme of that name. Furthermore, the industrial partners suggest during the audit that students learn more about technological aspects of agriculture. This is why the assessors clearly argue for more courses (or content within courses) about technology in agriculture.

A less severe issue regarding the curriculum is the inclusion of (bio-)chemistry courses within the curriculum. A quick glance at the curriculum outline reveals that there is no course dedicated to general education about chemistry. In comparison, there are several courses on biology (i.e., agricultural biology, agricultural biotechnology, and agricultural microbiology). During the audit, the programme coordinators and state that the students learn about chemistry in different courses throughout the curriculum, e.g. in soil science courses. The students confirm this, adding that not every agronomical process involves chemistry. While the objection of the students has some truth to it, the assessors consider a fundamental course in biochemistry an added benefit to understand future structures such as soil health, fertilisation, and to create a basic comprehension of biochemical processes that students learn to apply independent of certain courses. Since the lecturers and students both state that biochemistry is (at least implicitly) sufficiently covered, the assessors want to suggest to re-assess the curricular structure regarding the fundamental courses.

The Ba Food Technology is, overall, structured in a similar way to the other study programme. In the first year students learn fundamental courses in natural sciences as well as calculus. The second semester features first introductory courses to food technology. As with the other study programme, the first year is supplemented by government courses as well as those mandated by the university (i.e., English and Indonesian language courses, Pancasila, State Defence and Religion). Semester three to five contain courses that build on top of each other and teach about, e.g. food chemistry and processing, quality control, fermentation as well as food legislation. The sixth and seventh semester contain the internship as well as the Community Service next to mostly optional courses and the MBKM. The

latter is a government-mandated programme in which students may acquire courses through several means, such as an internship, time abroad or at another university on national level. The last semester features only the thesis.

According to the experts the Ba Food Technology focuses heavily on food chemistry but is, all in all, within the norms of international expectations. A positive aspect of the programme is the amount of courses in which students learn about economy-driven environments. Courses such as engineering economics, marketing and food industrial management, and food safety and quality control feature economics from different perspectives and help students to get an orientation in the private sector, where most of the graduates find a job according to tracer studies.

Both study programmes contain in internship to be taken up at a company or institution. During the internship, students receive one supervisor from the university and one supervisor from the company. All stakeholders involved confirm during the audit that the internship is well structured and functions within partnerships between the university and external companies.

Student mobility

UPNVJT has, for most of its existence, been a local player within the region of East Java but has, in recent years, begun a process of internationalisation. This goes together with the introduction of the MBKM in the Indonesian higher education systems, which enables students to commit to independent students that may, among others, be abroad. This means, of course, that the study programmes under review are bound to include a mobility window for the MBKM, which the assessors can confirm in the curricula.

Despite the strife for a more international university the overall amount of incoming and outgoing students remains low. This however can be explained mostly by the recent development within the university. In the initial meeting the rectors says that in 2024, the university granted 32 students the opportunity to study abroad or take part in summer courses, e.g. in Malaysia, Australia or Taiwan. This is a significant increase from 2023 when it was 22 students. For 2025 the university plans to send 50 students abroad.

From the study programmes under review here, students have taken part in semesters abroad, among others in Hungary or Taiwan, and they can take part in joint research. The assessors learn from one student, who went to study abroad for a semester, that the preparation for the time abroad – both the choice of courses to take and the organisation of accommodation and travel – was well organised. The credit transfer, too, worked effortlessly which enabled the student to study abroad without losing time. The possibility of credit transfers are regulated in the academic guidelines.

Inbound mobility, too, remains particularly low with only one student from Yemen studying in the Ba Agrotechnology and none taking part in the Ba Food Technology. The programme coordinators for both study programmes state, however, that slides are generally prepared in English with the oral instructions in class being in Bahasa. This means that an international class could be easily prepared in a short amount of time should the necessity arise. Both lecturers and students state during the audit that the prospective internationalisation is a prospect they look forward to.

The expert team sees that the internationalisation at UPNVJT is in the beginning but big steps are being undertaken every semester to facilitate inbound and outbound mobility for the students. The assessors welcome this quick pacing and the enthusiasm of the students and lecturers involved in the process.

Periodic Review of the Curriculum

As was stated before, the curricula for both study programmes are reviewed annually and comprise the involvement of several stakeholders, i.e. the alumni, industrial partners, students as well as internal stakeholders. The review contains the assessment of the curricula in regard to the demand of the industry, the learning outcomes as well as statistical data from the different stakeholders, such as student satisfaction surveys. The faculties also use tracer studies as well as other data about graduates to adapt the structure and contents of the study programmes whenever necessary. Changes are documented in so-called "improvement documents" of which the assessors can examine a sample during the audit.

Apart from that, every four years the university commits to greater overhauls of the curricula in which the whole system is audited. The assessors note during the audit that the internal quality management system is quite meticulous and robust to enable the curriculum review.

Criterion 1.4 Admission Requirements

Evidence:

- Regulation of the Ministry of Education, Culture and Research number 48/2022
- Rector regulation on students with disabilities
- Website of the faculties
- Self-assessment report
- Discussion during the audit

Preliminary assessment and analysis of the experts:
Student admission for Bachelor's degree programmes throughout Indonesia are, in part, regulated by the Ministry of Education, Culture and Research (regulation number 48/2002). These are the two pathways called SNBP (National Selection Based on Achievement) and SNBT (National Selection Based on Test). Another route for admission is an independent route which is regulated by each university.

The independent route is a selection process in which students apply directly with the university and are measured against criteria set by the institution. This selection process consists of a regular pathway that is based on a computer-based testing score and supporting subject scores that are chosen and set by the respective study programme. It also contains an achievement pathway which takes into account extracurricular achievements of high school graduates, as well as a cooperation and partnership pathway in which students with affiliation to UPNVJT compete against each other.

Information about the admission for all pathways can be found on the respective websites of the faculties. It contains, among others, the admission quota for each pathway, the respective requirements, and the amount of the tuition fees.

There is a rector's regulation in place that concedes equal opportunities for students with disabilities. Since there have not been any precedents in recent years the stakeholders cannot report on its validity. Despite this regulation the university clearly discriminates against colour blind students, barring them from admission for science programmes.

Criterion 1.5 Workload and Credits

Evidence:

- Module handbooks
- ECTS and SKS conversion table
- Self-assessment report
- Discussion during the audit

Preliminary assessment and analysis of the experts:
According to Ministerial decree, both Bachelor's degree programmes under review here require 144 Indonesian credits (SKS) that should be acquired within four years. Within 1 credit point, there are components such as face-to-face lectures (60 minutes), structured

activities (60 minutes), self-study (60 minutes), and field practices (60-120 minutes) totalling 170 minutes. Taking into account that the conversion between ECTS and SKS differs in every course because of the different scopes the credit systems comprise, the Ba Food Technology presents a conversion table for each module. The study programme amounts to 230.4 ECTS. The Ba Agrotechnology determines solely that 1 ECTS corresponds to 25 hours, thereby converting, holistically, 1 ECTS to 1.6 SKS. Obviously the conversion cannot be done on that level but must, just as for the other study programme, be performed on a course-level.

The workload for the two study programmes varies between 21-24 SKS per semester, with an exception being the final semester in which only the thesis is written. The conversation with the students results in a consensus that the general workload for each semester, while rather large, is appropriate. The students do not feel like any semester is particularly hard. They also appreciate that the structure of the curricula allows them to focus on the thesis during the final semester.

The university determines the amount of credit points on the factors mentioned above and the faculties use them as such. The module handbooks and semester study plans indicate the amount of credits and contain a breakdown of the weighing of the various aspects. During the audit, the assessors ensure that the workload is calculated appropriately and is published in a transparent manner.

Criterion 1.6 Didactic and Teaching Methodology

Evidence:

- Module handbooks
- Course portfolio
- Self-assessment report
- Discussion during the audit

Preliminary assessment and analysis of the experts:

The didactic concept of the university consists of work in the classroom, the laboratory, and the field. In classrooms, instructors usually provide teaching materials which they explain for students to discuss among themselves. This is particularly important for case-based or project-based learning, where students are supposed to create projects in teams

and plan activity related to the subject. For the Ba Agrotechnology this means, e.g. analysing feasibility of agricultural land; in the Ba Food Technology students may develop flavour enhancers to be used in food production in the laboratories.

The students present during the audit state that there is a great focus on project-based learning in both study programmes, which they enjoy. They describe focus-group discussions and study cases to be common, as well as field practices. One students from the Ba Food Technology summarises a course about making a blueprint of a factory and for products which includes presentations, as well as a flow of the food supply chain. All in all the assessors get a good impression of the various teaching methods that are employed in both study programmes with the clear aim of captivating the students.

The teaching methods to be used in each module are chosen during the annual curriculum review. The coordination of all modules facilitates a varied body of teaching methodologies throughout the semesters. However, according to the industry, the ability of UPN graduates in the scientific field is still lacking compared to other universities, especially in problem analysis and writing skills. Therefore, it is necessary to add activities to improve students' soft skills and writing skills.

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

Regarding the name of the Bachelor's degree programme "Agrotechnology" the university gives the following statement: "The naming of the study program with the articulation "Technology" is also adopted from a consensus during a meeting with the Communication Forum of the Faculty of Agriculture (FKPTPI) and Indonesian Agrotechnology Association (PAGI) throughout Indonesia and the scientific association and general principles known to the National Accreditation Agriculture in the field of agriculture, so the term "Technology is intended for applied knowledge as a contextual learning approach on how to manage land and air, cultivation, and control plant pests and diseases formulated to support production effectiveness, yield quality, and sustainable agriculture. A complete description of the profile of the courses taught has been presented in the handbook module.

However, suggestions regarding the focus of agricultural "technology" to ensure the name "Agrotechnology" are very open to us, and in the following discussion the changes that have been attempted are explained."

The experts, as was already written in the text above, understand that the "technology" in the name is a less than ideal denominator that has not been explicitly chosen by the university. Still, in order to prevent students from choosing the field of study with different content in mind it is best to adapt, according to the experts, the content to include Agrotechnology.

The university argues that, starting in the curriculum for 2025/2026 the study programme is supposed to include a course on agriculture mechanization. Also, addressing another concern by the experts, the university also wants to include a specific course on biochemistry. With these changes the programme coordinators hope to tackle the concerns by the experts. The experts look forward to these changes.

Regarding the admission requirements the experts found out that colour blindness is a discerning factor in admission according to the regulations. The university counters that "color blindness is not a selection criterion or assessment criterion in accepting new students. After passing, there is a color blindness examination to ensure the condition of the student as a form of awareness and commitment to university service. So if it is known that the student is experiencing total color blindness or partial color blindness, the study program can provide assistance or the like that is intended to ensure the smooth running of the study." The experts understand that the reality of admission is different from the written regulations which is commendable. Still, they argue that the admission requirements should be changed if colour blindness plays no role in the admission whatsoever as to not deter potential students who suffer from the condition.

Taking into account the points made by the university the experts consider criterion 1 to be partially fulfilled.

2. Exams: System, Concept and Organisation

Criterion 2 Exams: System, Concept and Organisation

Evidence:

- Module handbook and semester study plans
- Academic guidelines

- Thesis guidance
- Rector regulation on students with disabilities
- Standard operational procedures
- Exam-making guidelines
- Statistics on exam performance
- Self-assessment report
- Discussion during the audit

Preliminary assessment and analysis of the experts:
Examinations in the two study programmes under review here are performed on a course level. This means that all modules throughout the study programme terminate in an examination. The form of the assessment is decided upon before the start of each semester and is supposed to accurately depict the achievement of the course learning outcomes which are, in turn, a reflection of the programme learning outcomes.

A course, generally, consist of a mid-term exam after the seventh week of the semester and a final exam after the 14th week. The examination dates are published in a table online. The module handbooks and the semester study plan contain information about the form of assessment which contain written and oral exams, quizzes as well as projects, focus group discussions, and presentations. In the interviews the students state that they know when what examination will take place and what form it will take. They also know where the information about the examination dates are published and are aware of the guidelines about the exams and the thesis.

The exam format is regulated in the exam making guidelines which guarantee that the examinations are aligned to each other which makes the process easier for the students. The lecturers confirm that they use this guidelines when devising examinations.

To ensure fairness and transparency in the grading process, students have the opportunity to raise objections or concerns regarding their assigned grades at the earliest one week after the announcement of the grades. During this period, students are entitled to submit their objections to the lecturer responsible for the course or the team of educators involved in teaching that particular subject. This mechanism affords students a platform to seek clarification, address discrepancies, or resolve any issues related to their academic assessment.

Re-taking an examination is possible for students that cannot be present for the initial date of examination due to legitimate reason. The date for the make-up exam as well as the scheduling for grading are organised in a way that results in no time-loss for the student. Students with disabilities are accommodated according to their needs.

Both study programmes conclude with a final thesis which weighs 6 SKS. Students are supposed to work independently on their thesis, which is based on laboratory experiments, surveys, or an internship. The final thesis can be written in Bahasa Indonesia or in English. Some students are eager to write a thesis in English, which is also supported by the lecturers. Interestingly, the language of the thesis, according to the regulations and thesis guidelines, is restricted to Bahasa Indonesia. The assessors would much welcome a change of the regulations to make to possibility of writing a thesis in English much more clear to the students.

The examination results and timings are regularly evaluated. In order to do so, the respective departments analyse data on exam performance and interpret if it is necessary to adjust the exam format, update the content, or revise the learning objectives.

During the audit, the assessors peruse a sample of examinations and thesis for both study programmes. They come to the conclusion the expectations and grading schemes correspond to programmes of EQF level 6. They can also confirm that the examination system is robust adapted in the quality management system if necessary.

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

Further commentary from the university is not necessary since the experts consider this criterion to be fulfilled.

3. Resources

Criterion 3.1 Staff and Staff Development

Evidence:

- Staff handbooks
- Standard operating procedures for governance of the faculties
- Self-assessment report
- Discussion during the audit

Preliminary assessment and analysis of the experts:
The organisational structure for the Bachelor's degree programmes under review here is regulated by the respective faculties. For the Ba Agrotechnology, the Faculty of Agriculture provides the regulations for the department. This includes planning, staffing, as well as processes regarding leading and monitoring. Currently, there is a student-to-lecturer ratio of 29:1, with thesis supervision being at 8:1. These numbers are quite low but manageable as is confirmed by the lecturers. The assessors acknowledge, however, that the academic degree of the lecturers mostly corresponds to a Master's degree. The faculty states that about a fourth of the lecturers are pursuing a PhD, which is supported by the university. The assessors consider this a valuable approach to furthering the academic degree of the staff and suggest to increase the numbers of PhD candidates throughout the department.

The Ba Food Technology program, part of the Faculty of Engineering, follows a distinct set of regulations for planning and staffing. Currently, the student-to-lecturer ratio is 38:1, with lecturers supervising 12 theses per semester. The assessors consider this ratio too low, and lecturers present during the audit confirm that the limited staffing makes it difficult to ensure a smooth teaching experience for the department. They express concerns about the lack of human resources and emphasize the need for additional support staff to better accommodate the student population, particularly considering the Tridharma which states that next to teaching, lecturers must also commit to researching and conducting community service. In response to these concerns, the university has begun hiring seven new lecturers. However, with some current faculty members nearing retirement, assessors stress the importance of maintaining adequate staffing levels to reduce the workload on existing lecturers and ensure continued academic quality.

The same situation was found regarding academic and non-academic staff supporting the practical work in laboratory and pilot plant, where just 3 persons are available for a vast number of students, which is far too little for insuring appropriate practical training.

The students, when asked, do not perceive the high workload of the staff which is undoubtedly owed to the dedication and time management of the lecturers.

In both study programmes the lecturers have access to a wide array of educational programmes that is, in part, offered by the university. Young lecturers receive a didactic training before they begin teaching classrooms and are encouraged to get teaching certifications. Laboratory technicians receive instructions on occupational health and safety trainings. The university provides various learning opportunities, including workshops, training programs, and conferences, covering both academic and non-academic areas. Lecturers interviewed during the audit confirm this, stating that the institution actively supports their

academic development. They specifically highlight a recent seminar on scientific writing and the procedures for international publication as a valuable initiative.

The assessors conclude that while both the Ba Agrotechnology and Ba Food Technology programmes have well-defined structures, staffing for academic and supporting roles remains a concern, particularly in the latter. The university's efforts to hire more lecturers are a positive step, but ongoing monitoring is needed, especially with upcoming retirements.

The university provides strong academic development opportunities, and the encouragement of PhD qualifications is commendable. Expanding this initiative would further enhance teaching and research quality. Despite lecturers' high workloads, students do not perceive any impact on their education. However, sustained investment in staffing and professional development is essential to maintain academic standards and support faculty well-being.

Criterion 3.2 Funds and equipment

Evidence:

- Tour of the laboratories and other infrastructure
- Self-assessment report
- Discussion during the audit

Preliminary assessment and analysis of the experts:

The budgeting for both study programmes must be planned one year ahead of time in a work plan and budget of the State Ministry. The university receives funding from multiple sources, each serving distinct purposes in maintaining academic and operational functions. A significant portion of funding comes from Rupiah Murni (RM), or Pure Rupiah Revenue, which is allocated directly by the Central Government. This revenue is primarily used to cover staff salaries and incentives, ensuring stable financial support for government-employed lecturers and administrative personnel. In addition to government funding, the university generates Non-Tax State Revenue (Pendapatan Negara Bukan Pajak, PNBP) through internal income sources such as tuition fees, research collaborations, and other faculty-driven initiatives. This revenue is essential for financing operational costs and supporting non-government employees, including contractual and temporary staff. Another key source of funding is the State University Operational Assistance (Bantuan Operasional Perguruan Tinggi Negeri, BOPTN), which is designated for student-related activities. This

government-provided grant supports academic programs, research opportunities, and extracurricular initiatives, ensuring students have access to essential learning resources.

During the audit, the assessors receive a tour around the university that includes classrooms, lecture halls, as well as laboratories. For the Ba Food Technology the university provides several specialised laboratories to support academic and research activities in food science and technology. In addition, there is an exhibition-like hall, where some industrial-scale equipment is visible, but not functional, with the only exception of a running reverse-osmosis plant for water purification. Apart from that, there was no functional pilot plant. Each of the laboratories mentioned above is designated for specific courses, intending students to gain practical experience in their respective fields of study. The Laboratory of Food Analysis is used for courses such as Basic Chemistry, Food Material Science, Food Biochemistry, and Food Analysis. This facility enables students to conduct basic chemical and biochemical analyses essential for understanding food composition and quality. The Laboratory of Food Processing Technology should support practical learning in Unit Operations and Food Processing Technology. It is equipped with some essential tools and equipment for studying various food processing techniques and industrial applications. The Laboratory of Biology and Food Microbiology is designated for Biology and Food Microbiology courses. It provides students with hands-on experience in microbiological analysis, emphasising food safety, microbial interactions, and biological processes. Lastly, the Laboratory of Sensory Evaluation is dedicated to the Sensory Evaluation course, where students assess the sensory attributes of food products. This facility is meant to support research in taste, texture, aroma, and overall consumer perception.

For the Ba Agrotechnology the programme coordinators state that the faculty has sufficient infrastructure, such as specialised laboratories, and both experimental gardens and greenhouses, which are essential for practical training in the field of agrotechnology. The faculty also operates several specialised facilities to further enrich students' learning experiences. A Mini Plant Industry produces a variety of biological agent products, offering students insight into the industrial aspects of agrotechnology. Additionally, a “House of Mushrooms” supports mushroom cultivation activities, while a “House of Manure” focuses on producing manure from the university’s organic waste, demonstrating a commitment to sustainability. Moreover, the faculty has partnered with the Environmental Engineering study programme to develop a Waste-Water Treatment Plant (IPAL), which supports research and practical study in waste management and environmental sustainability.

During the tour, the assessors note that the faculty laboratories for both study programmes are outdated and, in some cases, require maintenance. Some “do-it-yourself solutions” are impressive and showed the staff’s talent to construct didactically valuable demonstration

setups in spite of the obvious lack of funding. Lecturers in the Ba Agrotechnology programme indicate that while the laboratories are sufficient for core activities, they do not meet ideal standards. A key limitation is the lack of specialised equipment, such as DNA sequencing tools, which results in the need to send samples to external facilities for analysis.

While the current laboratory conditions are less than ideal, the assessors are given a tour of a newly constructed integrated research laboratory, which is nearing completion at the time of the audit. During the tour, the assessors observe several pieces of equipment that the lecturers consider essential but are currently missing in the existing facilities. The assessors are impressed by the advanced equipment available in the new laboratories, which are intended to support both teaching and research activities once fully operational. They are confident that many of the issues related to equipment shortages and the capacity of the current faculty laboratories can be resolved by incorporating this new laboratory into the curriculum. Therefore, the assessors want to stress the need for the new laboratories to be integrated into the teaching framework to enhance the overall educational experience.

Despite the addition of the new laboratories, the Ba Agrotechnology programme would still benefit from a broader range of field equipment that aligns with the curricular focus on technology, as proposed by the assessors (cf. chapter 1.3). Once the new laboratory is completed, the assessors recommend that discussions take place regarding the specific devices needed by the lecturers. They suggest procuring the necessary equipment to enable lecturers to conduct crucial analyses in-house, thus improving the efficiency and effectiveness of teaching and research activities.

The cooperation with external partners is found to be fully sufficient, as confirmed by industrial partners during the audit. The university has established internship agreements with both private sector companies and government agencies, providing students with opportunities to collect data for research within these organisations. However, given that the internationalisation efforts of UPNVJT are relatively recent, the university currently lacks partnerships with higher education institutions and private companies abroad. The assessors suggest strengthening these international collaborations to enhance the global reach and opportunities for students and faculties alike.

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

Regarding the staff shortage the university explains that both degree programmes currently are hiring or convincing the respective authorities that more human resources are

necessary. The experts are looking forward to the staff, both academic and non-academic, that will likely support the study programmes in the near future.

Equally so, the university acknowledges the experts' opinion on the equipment of the department-level laboratories. The university lists several way to improve the equipment which the experts appreciate. They look forward to seeing the changes that the university can achieve within the coming year.

Taking into account the statement from the university the experts consider criterion 3 to be not fulfilled.

4. Transparency and Documentation

Criterion 4.1 Module Descriptions

Evidence:

- Module handbooks and semester study plans

Preliminary assessment and analysis of the experts:
The two study programmes provide module handbooks that contain comprehensive information designed to guide both students and lecturers. Each handbook includes the title of the module, along with the names of the individuals responsible for delivering it. The teaching methods employed for each module are outlined, as well as the credits awarded and the corresponding workload required. Furthermore, the handbooks detail the intended learning outcomes, giving students a clear understanding of what they are expected to achieve. The module content is thoroughly explained, alongside the admission and examination requirements that must be met. Additionally, the handbooks specify the forms of assessment and provide detailed explanations on how the module mark is calculated. To support learning, recommended literature is listed, and the date of the last amendment is included to ensure the information is current and relevant. Since the whole curriculum is amended annually, the date given on the cover holds for all courses.

Currently, the module handbooks for the Ba Agrotechnology are not published on the website of the department which makes it hard for prospective students or other third parties to access the contents of the study programme. The assessors suggest to upload the module handbooks to warrant access for all interested parties.

Criterion 4.2 Diploma and Diploma Supplement

Evidence:

- Exemplary diploma
- Exemplary diploma supplement

Preliminary assessment and analysis of the experts:
Upon graduation, students for both study programmes receive a degree certificate and a diploma supplement. The latter is provided in English and provides information on the student's qualifications profile and individual performance as well as the classification of the degree programme with regard to the respective education system.

An attached transcript contains all marks for the individual modules as well as the final mark. The assessors peruse several diploma supplements during the audit and come to the conclusion that all necessary information is contained therein.

Criterion 4.3 Relevant Rules

Evidence:

- Academic regulations

Preliminary assessment and analysis of the experts:
The university has a set of academic guidelines, institutional policies and procedures that outline their rights and obligations. Student receive a handbook containing all information upon enrolment. The students confirm that they know about the regulations, and describe them as transparent and comprehensive.

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

The university handed in a link to a new module handbook for the Ba Agrotechnology, however in the documentation, the link did not work and could not be reinstated within the timeframe. The website does contain a header for both the curriculum and the module handbook, but the landing pages remain blank. The experts consider criterion 4 to be not fulfilled.

5. Quality management: quality assessment and development

Criterion 5 Quality management: quality assessment and development

Evidence:

- Academic guidelines
- University standards
- Student satisfaction questionnaires and evaluation of staff and facilities
- Self-assessment report
- Discussion during the audit

Preliminary assessment and analysis of the experts:
UPNVJT implements quality assurance for both academic and non-academic aspects. Academic quality assurance is managed by LP3M (Institute for Development and Quality Assurance), while non-academic aspects like finance, facilities, and infrastructure fall under the responsibility of SPI (Internal Supervisory Unit).

LP3M oversees the coordination, monitoring, and evaluation of the learning process and quality assurance. Internal quality assurance is conducted annually by appointed assessors through the AMAI (Internal Academic Quality Audit) process at the study program level. UPNVJT also has quality assurance clusters across various levels, including study programs, departments, faculties, and the university, to ensure continuous educational quality.

The internal audit is based on 36 standards set by UPNVJT in alignment with national and Ministry guidelines, as well as additional university-specific standards. UPNVJT also conducts an annual ISO 21001-based audit, which is first assessed internally and then externally audited. The results of both audits are discussed in the Management Review Meeting (RTM) attended by the Rector and university leadership. This meeting evaluates audit findings and drives continuous improvements.

Each study program also conducts tracer studies and consults with stakeholders, alumni, and students to gather feedback on the curriculum. UPNVJT has developed an online system for managing complaints from students, faculty, and staff. To improve teaching quality, LP3M regularly organises training, including in syllabus design, distance learning, and teaching certifications. All lecturers must obtain a foundational teaching certification as per national regulations.

In conclusion, the assessors are satisfied with the robust quality management system in place at UPNVJT; however, they observe a gap in communication between the university and students, as students were unaware of the ongoing construction of the new laboratory complex. The assessors find it surprising that a project of this magnitude has not been communicated more effectively, as informing students about the new facility could significantly enhance their engagement and anticipation of being part of the upcoming developments. Extrapolating from this instance the assessors want to suggest to strengthen the communication of changes at the university.

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

The university does not comment on criterion 5. The experts consider this criterion to be fulfilled.

D Additional Documents

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

No additional documents needed.

E Comment of the Higher Education Institution (06.03.2025)

The following quotes the comment of the institution:

Content and structure of the programmes

We, as the program coordinator, warmly welcome input from experts on the reflection of biochemistry and agricultural mechanization courses, and while this is a consideration for curriculum restructuring, we are committed to evaluating these changes by the meaning of technology in the study program's name.

We added agriculture biochemistry courses in semester 2 and agriculture mechanization in semester 7 as compulsory courses. These courses are being implemented or are valid in the 2025/2026 academic year.

SMT	COURSES									SKS
VIII	Undergraduate Thesis									4
	4									
VII	**Agriculture Mechaniza-tion**	Undergraduate Thesis Proposal	Elective Course	Elective Course	Elective Course					10
	2	2	2	2	2					
VI	Leadership	Entrepreneur-ship	Community Service Pro-gram	Regular In-ternship Pro-gram	Elective Course	Elective Course	Elective Course	Elective Course		20
	2	3	2	2	3	3	3	2		
V	Agriculture Economics	Agrotechnology Research Meth-odology	Sustainable Agriculture	Integrated Plant Pest & Disease Man-agement	Agroforestry	Elective Course	Elective Course	Elective Course		22
	2	3	3	3	2	3	3	3		
IV	Perennial & Annual Crop Prod. Tech	Seed Production Technology	Agricultural Biotechnol-ogy	Geographic Information System	Soil & Water Management	Elective Course	Elective Course	Elective Course		24
	3	3	3	3	3	3	3	3		
III	State Defense	Agro-informatcs	Agriculture Statistics	Horticulture Production Technology	Plant Breed-ing	Agricultural Microbiology	Primary Plant Pest & Dis-ease	Soil Fertility		24
	3	3	3	3	3	3	3	3		
II	Civics	Religion	Fundamental Plant Cultiva-tion	Fundamental Plant Protec-tion	Fundamental Soil Science	**Agriculture Biochemis-try**	Plant Genet-ics	Plant Phisiol-ogy		20
	2	2	3	3	3	**3**	2	2		
I	Pancasila	English	Indonesian Language	Agroecology	Introduction to Agribusi-ness	Modern Agr. Science	Agricultural Biology	Agro-climatol-ogy		20
	2	3	2	2	2	3	3	3		
TOTAL (SKS)										144

Evidence

No	Evidence	Access Link
1	Academic Guidelines Agrotechnology Pro-gramme Degree 2024/2025	Link
2	Agriculture Biochemistry Module Handbook	Link
3	Agriculture Mechanization Module Handbook	Link

Student Mobility

Student mobility in Agrotechnology study programs refers to the opportunities for students to study, train, or conduct research at different universities or institutions, especially for internationally. Several type's for student mobility such as:

1. Exchange Programs. Student and lecturer exchange programs have been implemented with foreign universities in Asia and Southeast Asia. The collaborations are carried out with:
   a. Western Australian & East Java Universities Consortium (WAEJUC) On July 3, 2024
   b. Universiti Teknologi Mara, Malaysia on March 25 to April 10, 2024
   c. Universiti Putra Malaysia on June 18 to July 20, 2023
   d. Ehime University on September 18, 2023
   e. National Chiayi University, Taiwan, 2025 (on going)

2. Research Collaborations. Students participate in joint research projects with universities or agricultural research institutions. Topics often include biotechnology, smart farming, climate-resilient agriculture, and post-harvest technology.
3. Community Services. Has sent students for International KKN in Timor Leste, so that their expertise can be used in the fields of crop production, soil management, precision agriculture, and sustainable farming practices. These internships help students develop technical skills in crop production, soil management, precision agriculture, and sustainable farming practices.
4. Double Degree Programs. It has been initiated by the university to be opened in 2025 to open a double degree program
5. Scholarship for International Program. UPN Veteran Jawa Timur has been opening a scholarship for the International Program for undergraduate students.
6. Adjunct Professor. Agrotechnology has organized several additional professor programs with several foreign universities.

Evidence

No	Evidence	Access Link
1	Western Australian & East Java Universities Consortium (WAEJUC) On July 3, 2024	Link
2	Universiti Teknologi Mara, Malaysia on March 25 to April 10, 2024	Link
3	Universiti Putra Malaysia on June 18 to July 20, 2023	Link
4	Ehime University on September 18, 2023	Link
5	National Chiayi University, Taiwan, 2025 (on going)	Link
6	Scholarship for International Program	Link
7	Adjunct Professor Program	Link
8	International Community Service Program	Link
9	Joint Research Program	Link

BA Food Technology

Content and structure of the programmes

Originally, the FTSP curriculum stated that the Bachelor of Food Technology graduate must acquire a minimum of 144 Indonesian credits (SKS), including compulsory and elective courses. This is already by the Indonesian Government Regulation of Ministry of Research, Technology, and Higher Education (Regulation of the Minister of Research, Technology and Higher Education Number 53 Year 2023 about quality assurance of higher education), specifically in Verse 18 (1) and Rector's Regulation Number 25 Year 2023 about Academic Regulation for Bachelor and Applied Bachelor in UPN "Veteran" Jawa Timur.

However, in addition to this minimum requirement, FTSP offers students the opportunity to take up to 160 SKS, primarily through the Merdeka Belajar Kampus Merdeka (MBKM) program. This extended credit capacity enables students to take more than 16 SKS of elective or enrichment courses, allowing greater flexibility in tailoring their academic experience. Elective courses in the Food Science and Technology Program have followed the standards set in the Higher Education Standards for Undergraduate Programs in Food Science and Technology issued by the Indonesian Association of Food Technologists (PATPI - Perhimpunan Ahli Teknologi Pangan Indonesia), and have also been reviewed by several experts in the field of Food Technology such as Prof. Dr. Feri Kusnandar (IPB University), Prof. Dr. Teti Estiasih (Brawijaya University) and Prof. Dr. Ir. Yudi Pranoto (University of Gadjah Mada).

To support this point, we have enclosed academic transcripts demonstrating a significant number of elective courses acquired by students. This evidence reflects that students are not limited to 16 SKS of electives but can take additional courses beyond this threshold, depending on their academic interests and career goals. We continuously evaluate and improve the curriculum to ensure it remains relevant and aligned with academic standards and industry demands

Evidence

No	Evidence	Access Link
1	Regulation of the Minister of Research, Technology and Higher Education Number 53 Year 2023 about quality assurance of higher education	Link
2	Rector's Regulation Number 25 Year 2023 about Academic Regulation for Bachelor and Applied Bachelor in UPN "Veteran" Jawa Timur	Link
3	Higher Education Standards for Undergraduate Programs in Food Science and Technology issued by the Indonesian Association of Food Technologists	Link
3	Elective and Enrichment courses list	Link

	(Page 23 – 24 in Curriculum Book)	
4	Academic Transcripts (We highlight enrichment and elective courses)	Link
5	Documentation of several curriculum review sessions	Link

Student mobility

In 2025, we will implement various student mobility programs between the Food Technology Department of UPNVJT and Songkla Rajabhat University (Thailand). This program includes student exchanges, summer short courses, and joint research opportunities for students and lecturers. Initial discussions regarding this mobility program have been held, and its implementation is supported by a Memorandum of Understanding (MoU) and a Letter of Acceptance (LoA) from the partner institution. In addition to the collaboration with Songkla Rajabhat University, in 2024, FTSP UPNVJT has established a collaboration with Universiti Teknologi Malaysia, where one of our students and lecturers has been involved in research activities. In addition, two FTSP UPNVJT students have also participated in the MBKM humanitarian project program at INTI International University, Malaysia.

As part of the University's commitment to internationalization and to increase academic cooperation and student mobility, we also provide scholarships for foreign students, both in the form of full scholarships and partial scholarships that include tuition fees, living allowance & accommodation, Indonesian language course preparatory program and one round-trip ticket aid. The provision of these scholarships has been integrated into the budget plan for the internationalization program.

In addition to the international student mobility program, UPNVJT also participates in the Pertukaran Mahasiswa Merdeka (PMM) or Independent Student Exchange program organized by the Ministry of Higher Education, Science & Technology, which in 2024 will see more than 300 students from campuses outside UPN undertake academic mobility to UPN or UPN students undertake academic mobility to other universities in the country.

Evidence

No	Evidence	Access Link
1	Acceptance Student Exchange	Link
2	MoU with Songkhla Rajabhat University	Link
3	MoU with Universiti Teknologi Malaysia	Link
4	Research Output with Universiti Teknologi Malaysia	Link
5	MoU and other documents with INTI International University, Malaysia	Link
6	Scholarship for International Program	Link
7	Pertukaran Mahasiswa Merdeka (PMM) Program	Link

• Criterion 1.4 Admission Requirements

Both of Study Program

The University, a forward-thinking educational establishment, works to establish an academic atmosphere that is inclusive and gives all people, without exception, equal access to higher education.. Color blindness is not a selection criterion or assessment criterion in accepting new students. After passing, there is a color blindness examination to ensure the condition of the student as a form of awareness and commitment to university service. So if it is known that the student is experiencing total color blindness or partial color blindness, the study program can provide assistance or the like that is intended to ensure the smooth running of the study. Furthermore, students with this condition who still feel they are having difficulty in following the teaching and learning process can notify and will be facilitated by the university to move to another study program. In this context, the university pays attention to avoiding discriminatory actions for anyone who will study at UPN. This commitment is also stated in the Academic Service Guidelines for Students with Disabilities policy.

Evidence

No	Evidence	Access Link
1	Rector's regulations regarding services for disabled students	Link
2	Facilities for the disabled	Link

• Criterion 1.5 Workload and Credits

BA Agrotechnology

We are committed to ensuring that credit points accurately reflect student workload and are determined based on the relevant factors outlined in our module handbooks and semester study plans.

Evidence

No	Evidence	Access Link
1	Agrotechnology Module Handbook	Link
2	Credit point ECTS conversion	Link

BA Food Technology

There's no statement.

• Criterion 1.6 Didactic and Teaching Methodology

BA Agrotechnology

We appreciate feedback from industry partners regarding the need to further enhance the problem analysis and writing skills of our graduates. Several efforts have been made to enhance the problem analysis and writing skills of our graduates, including:

1. Writing training facilitated by the UPN Veteran East Java Library called "Library Class"
2. The existence of a student activity unit in the field of reasoning, namely the PKM Centre
3. The existence of a special division in the field of writing and reasoning in the Student Executive Board of the Faculty of Agriculture
4. The existence of writing and reasoning training held routinely every year by the Agrotechnology study program

The university has directed all Vice Deans of Academic Affairs to present their theses in English at the academic assembly. Furthermore, the dean's office issued a circular letter allowing students to create their scientific works in English. In addition, this policy is established in the most recent academic guidelines.

Evidence

No	Evidence	Access Link
1	Writing training facilitated by the UPN Veteran East Java Library called "Library Class"	Link
2	The existence of a student activity unit in the field of reasoning, namely the PKM Centre	Link
3	The existence of a special division in the field of writing and reasoning in the Student Executive Board of the Faculty of Agriculture	Link
4	Student Project Based Learning	Link
5	Student and Lecturer Research Collaboration	Link

BA Food Technology

The University is committed to improving students' writing and soft skills through various systematically designed activities. In the FTSP, we provide a Research Methodology course that covers material related to writing and the ethics of writing. In addition, to further strengthen writing skills, the University through the Library Unit regularly organizes writing training on multiple topics, including avoiding plagiarism and publication strategies in scientific journals. In addition, the University also organizes Library Classes, a series of training classes designed to assist students in the thesis preparation process. Library Class covers important topics such as journal search, reference software (Mendeley Class), repository management, and an understanding of plagiarism and journal publication processes. This program is mandatory for all final semester students to ensure that they have adequate skills to write quality scientific papers.

The Food Technology Student Association also routinely holds training on writing the Student Creativity Program (Program Kreativitas Mahasiswa - PKM) to increase student competitiveness in scientific writing and innovation. This training aims to guide students in preparing quality proposals for scientific competitions and government funding. With this program, students are encouraged to develop the ability to think critically, write scientifically, and solve problems in the food sector innovatively. With these programs, the University continues to improve the competence of graduates, especially in problem analysis and writing skills, so that they can meet the expectations of industrial partners and compete with graduates from other universities.

Evidence

No	Evidence	Access Link
1	Library class facilitated by University Library	Link
2	Library class event documentation	Link
3	Writing Training by the Food Technology Student Association	Link
4	Module Handbook of Research Methodology	Link

• 2. Exams: System, Concept and Organisation

• Criterion 2 Exams: System, Concept and Organisation

BA Agrotechnology

Several changes have been made to the thesis rules, which are outlined and enforced in the academic guidelines for the 2024/2025 academic year, including:

1. Obligation to attend Library class and have a certificate as a library class participant.
2. Obligation to publish scientific articles (accepted/Published) in national journals accredited by Sinta (1-3) or reputable international journals indexed with Scimago Journal Rank (SJR) ≤ 0.1 and/or Journal Impact Factor (JIF) ≤0.05 as the first author
3. Final project/thesis reports must include a plagiarism check officially issued by the Faculty of Agriculture and plagiarism requirements of less than 20%
4. Students are allowed to write their Thesis in English

Evidence

No	Evidence	Access Link
1	Academic Guidelines Agrotechnology Programme Degree 2024/2025	Link
2	Official announcement about being allowed to write theses using English	Link

BA Food Technology

To provide quality education with global competitiveness through the implementation of the University's curriculum and internationalization program, writing a thesis in English by students is highly recommended as part of efforts to improve the competitiveness of graduates at the global level. The FTSP and Faculty of Engineering and Science have initiated this policy. It will soon be implemented in academic guidelines and thesis writing guidebooks.

In support of this, the University, through the Vice Chancellor for Academic Affairs of UP-NVJT, has issued a circular regarding quality and globally competitive theses and dissertations (17/UN63/UM/2025). With this policy in place, students are encouraged to improve their academic ability to communicate scientifically in English, strengthening the University's international reputation.

Evidence

No	Evidence	Access Link
1	Food Technology Undergraduate Thesis Guidance - revised	Link
2	Academic Guidelines - revised	Link
3	Notification letters to students signed by the Dean	Link
4	Notification letters to the creation of a quality and global competitive thesis and dissertation	Link

3. Resources

Criterion 3.1 Staff and Staff Development

BA Agrotechnology

Regarding the ratio of lecturers to students, the Agrotechnology Study Program has:

1. Additional lecturers were submitted through the civil servant recruitment scheme (CPNS). As a result, in 2023 it has succeeded in adding 10 new lecturers and in 2024 it is scheduled to add 10 new lecturers.
2. Encouraged young lecturers to continue their education to a higher level through national and international scholarship programs
3. Provided research grants internally and encouraged them to actively seek external research grants through the UPN Veteran East Java Research Institute
4. Provided rewards to outstanding lecturers

Evidence

No	Evidence	Access Link
1	Recruitment and hiring of lecturers through civil servant candidate selection scheme in 2023	Link
2	Recruitment and hiring of lecturers through civil servant candidate selection scheme in 2024	Link
3	LoA and acceptance of young lecturer scholarship for Agrotechnology 2024	Link
4	Career planning and further education for Agrotechnology lecturers	Link
5	Internal and external grants / fundings	Link
6	Rewards for lecturers who successfully publish Scopus articles Q1-Q3	Link

Meanwhile, to overcome the shortage of non-academic staff, the Agrotechnology Study Program has:

1. Recruited 1 additional laboratory assistant for the experimental garden and started working in 2025
2. Improved laboratory assistant skills with training and certification
3. Recruited student lab assistants to assist laboratory assistants and lecturers

Evidence

No	Evidence	Access Link
1	Recruitment and hiring of laboratory assistant for the experimental garden	Link
2	Training and certification of laboratory assistant	Link
3	Recruitment student lab assistant	Link

BA Food Technology

Regarding the faculty-to-student ratio, the FTSP of UPNVJT has actively addressed the issue by applying for additional faculty recruitment through the civil servants (CPNS) recruitment scheme. As a result, six new faculty members were added in 2023, and five more are scheduled to join in 2024. Supporting evidence for this recruitment can be provided through an announcement letter and list of names and summary of selection scores, which can also be accessed through the official website (https://casn.kemdikbud.go.id/).

Meanwhile, to mitigate the shortage of non-academic staff, the Food Technology Department of UPNVJT has submitted a formal request for four additional staff members in 2025 to the Vice Dean for Human Resources. The supporting evidence for this request is documented in the Dean's assignment letter, which assigns 3 (three) employees to become laboratory staff in the research center (Food Microbiology Laboratory, Food Chemistry Laboratory and Halal Laboratory) building laboratory and 1 (one) employee to become administrative staff. These efforts demonstrate the University's commitment to ensuring an optimal faculty-to-student ratio and sufficient laboratory staff to maintain high-quality education and research activities within the department.

Furthermore, in response to lecturers' high workloads, which students do not perceive as impacting their education, the FTSP has already encouraged students to participate in various academic and research activities. The academic activity has had a significant impact on knowledge and skillset in the field of food technology. Regarding the research activities, FTSP has significantly conducted and developed many research fields with various topics in correlation with the University research roadmap. Besides, FTSP has student involvement in research activities funded by internal and external sources. This involvement in research activities has also accommodated the students' interest in specific topics. Several students in FTSP also participated in community services led by the lecturers, which improved their skills in disseminating knowledge in the food technology field and their soft skills, including communication skills.

Evidence

No	Evidence	Access Link
1	Recruitment and hiring of lecturers through civil servant candidate selection scheme in 2023	Link

2	Recruitment and hiring of lecturers through civil servant candidate selection scheme in 2024	Link
3	Letter of Assignment for Addition of Laboratory Assistants to the Research Center Laboratory	Link
4	Sample of the research and community service grant recipient contract letter, which shows student involvement in activities	Link

• Criterion 3.2 Funds and equipment

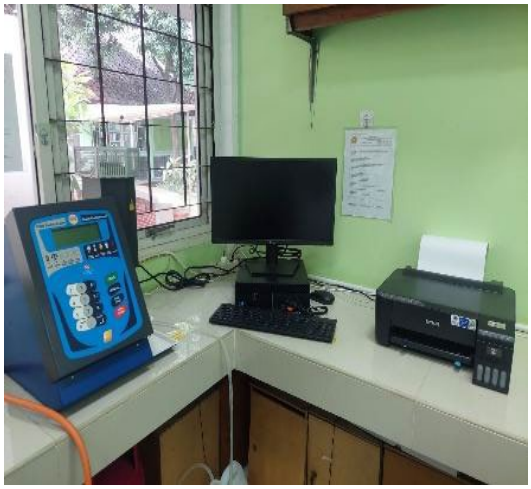
BA Agrotechnology

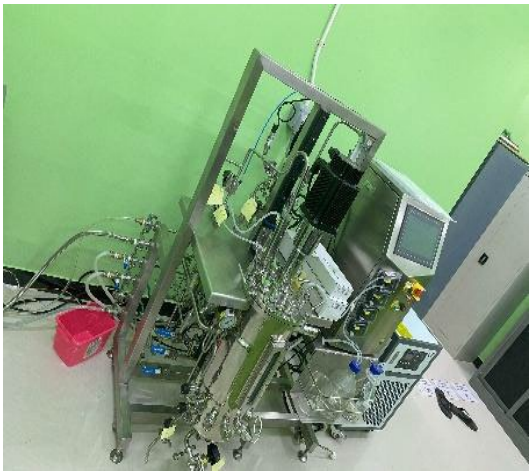
The Faculty, with careful budget allocation, encourages its study programs not to rely entirely on budgets sourced from the university, but to participate in laboratory development grants sourced from the ministry or other sources. Some equipment came after the visitation. Among them are equipment placed in the Laboratory. As proof of the type of equipment and placement information (attached), the availability of DNA Sequencing is being pursued in the 2025/2026 budget submission (Link).

Evidence

No.	Laboratory tools	Evidence
1	Gas Chromatography/Mass Spectrometry (GC/MS) Gas Chromatography-Mass Spectrometry (GC-MS) is a powerful analytical technique used to identify and quantify volatile and semi-volatile organic compounds in complex mixtures. Function: - GC separates the components of a mixture, and MS provides detailed identification by analyzing their molecular structure. - Measures the concentration of target compounds	

No.	Laboratory tools	Evidence
	with high accuracy. Determines the chemical composition of unknown substances. - Detects pollutants, pesticides, and volatile organic compounds in air, water, and soil.	
2	Atomic Absorption Spectrophometer (Flamephotometer and Graphite Furnace) The Atomic Absorption Spectrophotometer (AAS) is an analytical instrument used to determine the concentration of specific metal elements in a sample. Function: General Functions of AAS: - Quantitative analysis of metal ions in liquid samples. - Environmental monitoring, such as detecting heavy metals in water, soil, and air. - Industrial applications, such as quality control in metallurgy, mining, and chemical manufacturing.	
3	Scanning Electron Microscope (SEM) High-Resolution Surface Imaging, Reveals surface structures, textures, and topography of biological, material, and industrial samples. Function:	

No.	Laboratory tools	Evidence
	- SEM can determine the elemental composition of a sample. - Analyzes the surface structure of cells, tissues, bacteria, and viruses. - Analyzes soil particles, fossils, minerals, and pollutants in ecological research.	
4	Flamephotometer + Computer Set A Flame Photometer is an analytical instrument used to determine the concentration of certain metal ions, primarily alkali and alkaline earth metals (such as Sodium (Na), Potassium (K), Lithium (Li), Calcium (Ca), and Barium (Ba)). Function: - Metal Ion Detection and Quantification - Environmental and Water Quality Testing - Agriculture and Soil Testing, Measures potassium and sodium levels in soil and fertilizers for optimal crop management.	
5	Microscope+Tab- LX400 A modern laboratory setup that integrates a microscope with a tablet (Tab) or computer system for enhanced imaging, analysis, and data management Function: - High-Resolution Microscopic Imaging, Captures detailed images of cells,	

No.	Laboratory tools	Evidence
	tissues, microorganisms, and materials at high magnification. - Digital Display and Real-Time Observation - Image and Video Recording, captures, stores, and processes images and videos of microscopic specimens.	
6	Bioreactor for Microbes Fermentation A bioreactor is a specialized vessel used for growing microorganisms (such as bacteria, yeast, and fungi) under controlled conditions for fermentation. Function: - Cultivation of Microorganisms and Large-Scale Fermentation for Biotechnology - Production of Industrially Important Products - Waste Treatment and Bioremediation.	
7	Electrophoresis Electrophoresis is a laboratory technique used to separate, identify, and analyze biomolecules (such as DNA, RNA, and proteins) based on their size, charge, and shape using an electric field. Function: - Separation of Biomolecules - DNA and RNA Analysis - Protein Characterization and Purification	

No.	Laboratory tools	Evidence
8	Fourier Transform Infrared Spectroscopy An analytical technique used to identify and analyze chemical compounds by measuring how a sample absorbs infrared (IR) light at different wavelengths. Function: - Chemical Identification and Molecular Structure Analysis - Material Characterization - Quality Control and Contaminant Detection	
9	X-Ray Fluorescence It works by bombarding a sample with X-rays, causing elements in the material to emit characteristic secondary (fluorescent) X-rays, which are then analyzed to identify and quantify the elements present. Function: - Elemental Analysis & Chemical Composition - Non-Destructive Material Testing - Environmental Analysis - Mining & Geology Applications	

No.	Laboratory tools	Evidence
10	X-Ray Diffraction X-Ray Diffraction (XRD) is a non-destructive analytical technique used to determine the crystalline structure, phase composition, and atomic arrangement of materials. Function: - Identification of Crystalline Phases - Determination of Lattice Parameters and Unit Cell Dimensions - Crystallinity and Amorphous Content Measurement - Strain and Stress Analysis in Materials - Geological and Mineralogical Studies	

Cooperation has been carried out with foreign private parties, namely cooperation with Mondelez International, Inc. and PT. Agrivere Transforma International. Collaboration with foreign universities has also been carried out and its implementation is still ongoing until now.

Evidence

No	Evidence	Access Link
1	Cooperation with Mondelez International, Inc.	Link
2	Cooperation with PT. Agrivere Transforma International	Link
3	MoU and MoA with foreign universities	Link
4	Latest and on-going collaboration with foreign universities	Link

BA Food Technology

The University is committed to integrating the Research Center Building into the academic framework to enhance students' educational experience. As of the 2025/2026 academic year, the laboratory facilities in the Research Center Building have been optimized for educational purposes. Food Technology students will conduct practical sessions in these laboratories, including Food Analysis, Food Processing Technology, and Food Microbiology practicals. Supporting evidence for this initiative includes the practical session schedule, and

related documentation. By utilizing the Research Center building for research and teaching activities, the University aims to provide students with hands-on experience in a well-equipped environment, strengthening their practical skills and research competencies.

Evidence

No	Evidence	Access Link
1	The practical session schedule	Link
2	Practical's documentation	Link
3	Letter of application for the procurement of a bakery center pilot plant	Link

Currently, the Food Technology Study Program does not have a pilot plant facility. However, we realize the importance of this facility in supporting academic and research processes. Therefore, we have proposed the creation of a pilot plant, starting with a bakery center pilot plant. In the initial stage of construction of this bakery center Pilot Plant, we propose some equipment that is needed in order to meet the requirements of the pilot plant. Regarding the exhibition room, this room is not intended as a pilot plant, but as an exhibition room for appropriate technology that displays the results of research and innovation from the academic community of the UPNVJT, including from the FTSP. This exhibition aims to demonstrate various works developed within the University, including technological prototypes, downstream products, and innovations with potential applications in the food industry and other sectors.

Although some of the equipment on display in the exhibition space is industrial in scale, the main function of this room is not as a place for pilot-scale operations or production, but as a means of education, inspiration, and appreciation of the innovations that have been produced. We hope that with this exhibition space, students and researchers will be more encouraged to develop food technology that is applicable and useful for society and industry. We are committed to continuously improving facilities and supporting learning and research in study programs, including efforts to procure a pilot plant in the future to support the development of better food science and technology.

The University is fully committed to internationalization and has taken concrete steps to enhance partnerships with foreign higher education institutions and private sector organizations. One of the key initiatives is the appointment of an adjunct professor, Prof. Ajit Sarmah, PhD, from The University of Auckland, who serves as an Adjunct Professor at the Faculty of Engineering and Science of UPNVJT. Furthermore, FTSP faculty members have engaged in international research collaborations, particularly in 2024, with institutions such as Assumption University, Thailand, Universitas Islam International Malaysia, Malaysia, and Hiroshima University, Japan. These collaborations facilitate academic exchange, joint research projects, and knowledge-sharing, contributing to the university's global engagement efforts. Through these initiatives, the University continues expanding its international network, fostering long-term collaborations that benefit faculty members and students in academic and professional development.

Evidence

No	Evidence	Access Link
1	Letter of appointment of adjunct professor	Link
2	Agreement Letter For Research Collaboration	Link

• 4. Transparency and Documentation

• Criterion 4.1 Module Descriptions

BA Agrotechnology

The module handbook for the Agrotechnology study program has been published on the department's website, making it easier for prospective students or other third parties to access the contents of the study program.

Evidence

No	Evidence	Access Link
1	Module Handbook Agrotechnology	Link

BA Food Technology

There's no statement.

• Criterion 4.2 Diploma and Diploma Supplement

BA Agrotechnology

We are pleased to hear that the assessors found the documents comprehensive and that they include all necessary information, such as the student’s qualifications profile, individual performance, and the classification of the degree within the national education system.

BA Food Technology

There's no statement.

• Criterion 4.3 Relevant Rules

BA Agrotechnology

We are pleased to hear that students perceive the regulations as transparent and comprehensive, and that the distribution of the handbook upon enrolment effectively supports their understanding of their rights and obligations.

BA Food Technology

There's no statement.

F Summary: Expert recommendations (08.03.2025)

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

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Agrotechnology	With requirements for one year	30.09.2030	–	–
Ba Food Technology	With requirements for one year	30.09.2030	–	–

Requirements

For all programmes

A 1. (ASIIN 1.4) Students must not be discriminated against based on colour blindness.

A 2. (ASIIN 2) Adapt the regulation about the thesis to include, formally, the possibility to write a thesis in English.

For Ba Food Technology

A 3. (ASIIN 3.1) Provide a concept of how the degree programme can be managed without any structural overload and how the core curriculum can be covered by full time teachers.

A 4. (ASIIN 3.1) Provide a proof of concept that there is enough laboratory staff for teaching students and maintaining the equipment.

A 5. (ASIIN 3.2) Focus on opening the Research Center and integrate the laboratories into the programme.

For Ba Agrotechnology

A 6. (ASIIN 1.3) Increase the amount of courses about technology throughout the study programme.

A 7. (ASIIN 4.1) The module handbooks and information of the study programme have to be available to all interested parties.

A 8. (ASIIN 1.5) The conversion of SKS to ECTS must be done correctly.

Recommendations

For all programmes

E 1. (ASIIN 3.2) It is recommended to increase the amount of international agreements with companies and universities.

E 2. (ASIIN 3.3) It is recommended to introduce an alumni center for students.

E 3. (ASIIN 5) Communication to students changes within the university.

For Ba Food Technology

E 4. (ASIIN 1.3) It is recommended to increase the amount of elective courses while reducing the amount of compulsory courses.

For Ba Agrotechnology

E 5. (ASIIN 1.3) It is recommended to add courses dedicated to (bio-) chemistry.

E 6. (ASIIN 3.1) It is recommended to increase the staff's academic degree.

E 7. (ASIIN 3.2) It is recommended to increase the amount of field equipment as well as the devices in the labs.

G Comment of the Technical Committee 08 – Agriculture, Nutritional Sciences, and Landscape Architecture (17.03.2025)

Assessment and analysis for the award of the ASIIN seal:

This accreditation procedure is a peculiar case because "Agrotechnology", which might evoke impressions of technological advances in agriculture, is, in fact, a consolidation of study programmes of agronomy, agribusiness, and soil science. This procedure as well as the name were enacted by a consortium in Indonesia a few years ago and carry potential problems due to the perceived mismatch between nomenclature and curricular content. The experts were keen on the inclusion of technological courses in the curriculum during the audit, which the Technical Committee understands and agrees with. The university has confirmed in their statement that they will include a course on these courses. The Technical Committee discusses the procedure and come to the conclusion that they can follow the experts' opinion without changes.

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

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Agrotechnology	With requirements for one year	30.09.2030	–	–
Ba Food Technology	With requirements for one year	30.09.2030	–	–

Requirements

For all programmes

A 1. (ASIIN 1.4) Students must not be discriminated against based on colour blindness.

A 2. (ASIIN 2) Adapt the regulation about the thesis to include, formally, the possibility to write a thesis in English.

For Ba Food Technology

A 3. (ASIIN 3.1) Provide a concept of how the degree programme can be managed without any structural overload and how the core curriculum can be covered by full time teachers.

A 4. (ASIIN 3.1) Provide a proof of concept that there is enough laboratory staff for teaching students and maintaining the equipment.

A 5. (ASIIN 3.2) Focus on opening the Research Center and integrate the laboratories into the programme.

For Ba Agrotechnology

A 6. (ASIIN 1.3) Increase the amount of courses about technology throughout the study programme.

A 7. (ASIIN 4.1) The module handbooks and information of the study programme have to be available to all interested parties.

A 8. (ASIIN 1.5) The conversion of SKS to ECTS must be done correctly.

Recommendations

For all programmes

E 1. (ASIIN 3.2) It is recommended to increase the amount of international agreements with companies and universities.

E 2. (ASIIN 3.3) It is recommended to introduce an alumni center for students.

E 3. (ASIIN 5) Communication to students changes within the university.

For Ba Food Technology

E 4. (ASIIN 1.3) It is recommended to increase the amount of elective courses while reducing the amount of compulsory courses.

For Ba Agrotechnology

E 5. (ASIIN 1.3) It is recommended to add courses dedicated to (bio-) chemistry.

E 6. (ASIIN 3.1) It is recommended to increase the staff's academic degree.

E 7. (ASIIN 3.2) It is recommended to increase the amount of field equipment as well as the devices in the labs.

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 has a rather lengthy discussion about the equipment in the different on campus laboratories. The Commission comes to the conclusion that, within the scope of this accreditation, it is irrelevant which laboratory the students use. The important turn of phrase in the requirement should therefor focus on the opportunity for students to be taught practical courses in an appropriate environment. This is why the Accreditation Commission changes the wording in A 5. They agree on the remaining requirements and recommendations.

The Accreditation Commission decides to award the following seals:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Agrotechnology	With requirements for one year	30.09.2030	–	–
Ba Food Technology	With requirements for one year	30.09.2030	–	–

Requirements

For all programmes

A 1. (ASIIN 1.4) Students must not be discriminated against based on colour blindness.

A 2. (ASIIN 2) Adapt the regulation about the thesis to include, formally, the possibility to write a thesis in English.

For Ba Food Technology

A 3. (ASIIN 3.1) Provide a concept of how the degree programme can be managed without any structural overload and how the core curriculum can be covered by full time teachers.

A 4. (ASIIN 3.1) Provide a proof of concept that there is enough laboratory staff for teaching students and maintaining the equipment.

A 5. (ASIIN 3.2) Focus on opening the Research Center and integrate the laboratories into the programme.

For Ba Agrotechnology

A 6. (ASIIN 1.3) Increase the amount of courses about technology throughout the study programme.

A 7. (ASIIN 4.1) The module handbooks and information of the study programme have to be available to all interested parties.

A 8. (ASIIN 1.5) The conversion of SKS to ECTS must be done correctly.

Recommendations

For all programmes

E 1. (ASIIN 3.2) It is recommended to increase the amount of international agreements with companies and universities.

E 2. (ASIIN 3.3) It is recommended to introduce an alumni center for students.

E 3. (ASIIN 5) Communication to students changes within the university.

For Ba Food Technology

E 4. (ASIIN 1.3) It is recommended to increase the amount of elective courses while reducing the amount of compulsory courses.

For Ba Agrotechnology

E 5. (ASIIN 1.3) It is recommended to add courses dedicated to (bio-) chemistry.

E 6. (ASIIN 3.1) It is recommended to increase the staff's academic degree.

E 7. (ASIIN 3.2) It is recommended to increase the amount of field equipment as well as the devices in the labs.

Appendix: Programme Learning Outcomes and Curricula

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

NO	CODE	LEARNING OUTCOMES
1	PLO-1	Commit to the ethical, moral, and character values of defending the country as a professional in agriculture
2	PLO-2	Able to think critically and analytically, solve problems, be responsible for work independently, and make appropriate decisions based on information that can be accounted
3	PLO-3	Able to maintain and develop collaborative networks with mentors, colleagues, both inside and outside their respective workplace
4	PLO-4	Able to apply the knowledge of plant Science, the basic concepts of plant production, land resources and soil science, and integrated concept of plant protection against of pests and diseases
5	PLO-5	Able to apply the principles of agricultural technology to solve agricultural problems
6	PLO-6	Able to analyze, plan and implement lowland agricultural systems referring to the principles of sustainable agriculture, both modern and local wisdom, effectively and productively
7	PLO-7	Able to study the implementation of sustainable agricultural systems that pay attention to and apply scientific principles, procedures and ethics in order to produce solutions, ideas and designs based on the results of information and data analysis
8	PLO-8	Able to apply the knowledge of plant propagation technology, and crop management in accordance with the agro-climate zone
9	PLO-9	Able to apply knowledge of identifying, formulating, analyzing, planning and applying land resource management
10	PLO-10	Able to apply knowledge to identify, diagnose, analyze, plan and apply integrated pest and plant disease control

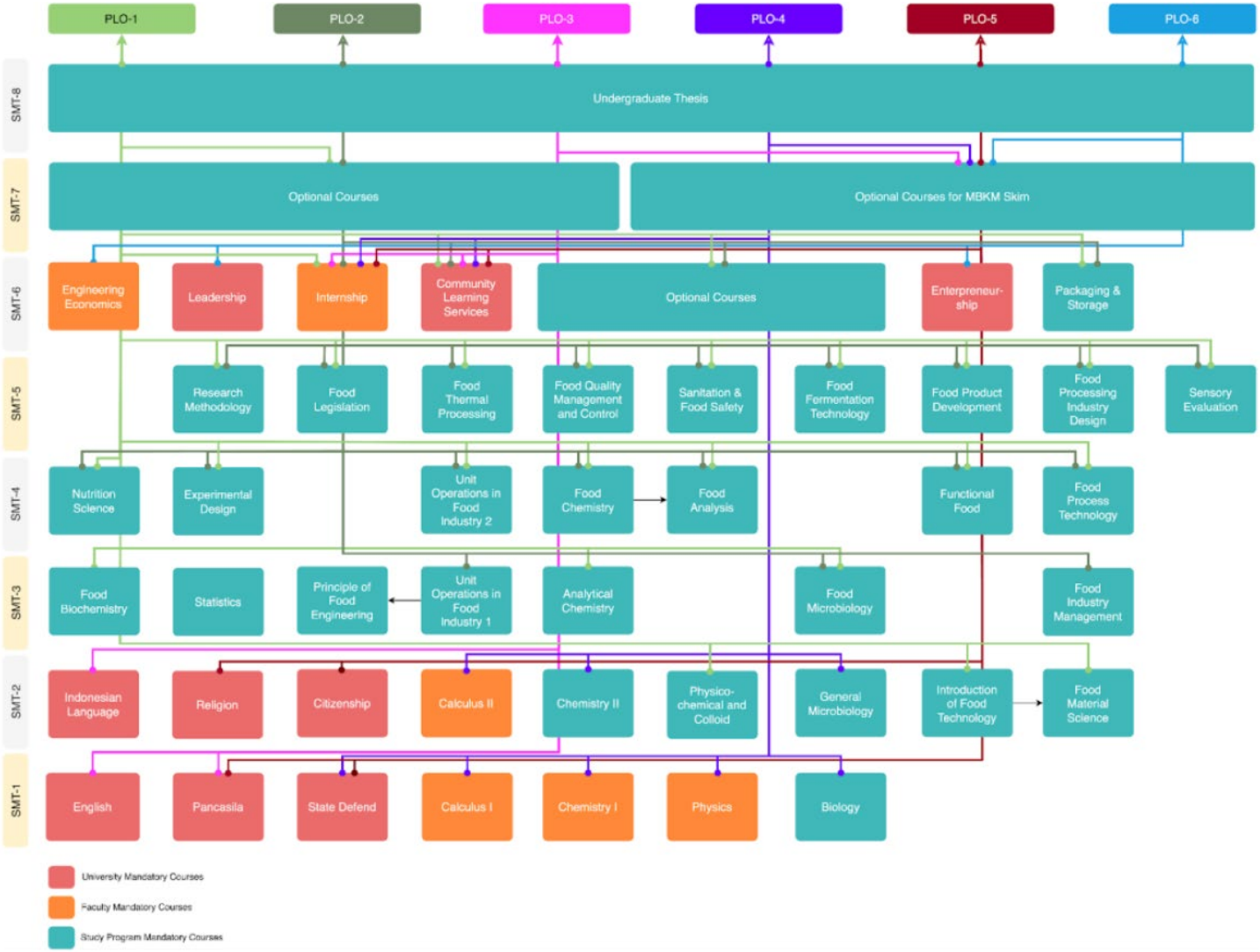
The following **curriculum** is presented:

SMT	COURSES									CREDIT
VIII	Undergraduate Thesis									4
	4									
VII	Proposal Undergraduate Thesis	Elective Courses	Elective Courses	Elective Courses	Elective Courses	Elective Courses				12
	2	2	2	2	2	2				
VI	KKP (Internship)	KKN (Community Service Program)	Elective Courses	Elective Courses	Elective Courses	Elective Courses	Elective Courses			19
	3	3	3	3	3	2	2			
V	Elective Courses	Elective Courses	Elective Courses	Agroforestry	Sustainable	Water and Soil	Agro-technology			20
					Agriculture System	Manage-ment	Research Method			
	3	3	3	3	2	3	3			
IV	Leadership	Entre-preneurship	Staple and Industrial Crops Production	Geographic Information System	Seed Technology	Soil Fertility	Integrated Plant Pests and Disease Management	Agricultural Bio-technology		24
	3	3	3	3	3	3	3	3		
III	Education of State Defense	Agricultural Microbiology	Agro-informatics	Plant Breeding	Horti-cultural Production Technology	Plant Pests and Diseases of Importance	Agricultural Statistics	Farm Enterprises		23
	3	3	3	3	3	3	3	2		
II	Civics	Introduction of Plants Cultivation	Introduction of Soil Science	Introduction of Plant Protection	AgriculturalEcology	Urban Farming	Agricultural Genetic	Plant Physiology		21
	2	3	3	3	2	3	2	2		
I	Religion	Pancasila	Indonesian Language	English Language	Intro-duction to Agri-business	Agro-climatology	Agricultural Biology	Agricultural Economics	Modern Agricultural Science	21
	2	2	2	3	2	3	3	2	2	
	CREDIT AMOUNT									144

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

No	Code	Learning Outcomes
1	PLO-1	Able to master the principles of food science (food chemistry and analysis, food microbiology, food safety, food engineering and processing, food biochemistry, nutrition and health, and applied food science
2	PLO-2	Able to apply the principles of food science in an integrated manner in food production processes on an industrial scale to produce innovative, safe, and quality food.
3	PLO-3	Able to communicate orally and in writing, work in a team, interact with other people from different backgrounds, skilled in organizing and leading in various situations
4	PLO-4	Able to think critically and analytically, solve problems, be responsible for work independently, and make appropriate decisions based on information that can be accounted
5	PLO-5	Commit to the ethical, moral, and character values of defending the country as a professional in food.
6	PLO-6	Able to capture and take advantage of business/business opportunities and implement process engineering for the food processing industry, utilize sources of information, as well as be professional and committed to ethical values

The following **curriculum** is presented:


PLO-1
PLO-2
PLO-3
PLO-4
PLO-5
PLO-6
SMT-8
SMT-7
SMT-6
SMT-5
SMT-4
SMT-3
SMT-2
SMT-1
Undergraduate Thesis
Optional Courses
Optional Courses for MBKM Skim
Engineering Economics
Leadership
Internship
Community Learning Services
Optional Courses
Enterpreneur-ship
Packaging & Storage
Research Methodology
Food Legislation
Food Thermal Processing
Food Quality Management and Control
Sanitation & Food Safety
Food Fermentation Technology
Food Product Development
Food Processing Industry Design
Sensory Evaluation
Nutrition Science
Experimental Design
Unit Operations in Food Industry 2
Food Chemistry
Food Analysis
Functional Food
Food Process Technology
Food Biochemistry
Statistics
Principle of Food Engineering
Unit Operations in Food Industry 1
Analytical Chemistry
Food Microbiology
Food Industry Management
Indonesian Language
Religion
Citizenship
Calculus II
Chemistry II
Physico-chemical and Colloid
General Microbiology
Introduction of Food Technology
Food Material Science
English
Pancasila
State Defend
Calculus I
Chemistry I
Physics
Biology
University Mandatory Courses
Faculty Mandatory Courses
Study Program Mandatory Courses