



ASIIN Seal

Accreditation Report

Bachelor's Degree Programmes

Agrotechnology

Animal Husbandry

Aquaculture

Master's Degree Programme

Environmental Science

Provided by

Universitas Nusa Cendana (UNDANA)

Version: 27.06.2025

Table of Content

A About the Accreditation Process.....	3
B Characteristics of the Degree Programmes	5
C Expert Report for the ASIIN Seal	12
1. The Degree Programme: Concept, Content & Implementation	12
2. Exams: System, Concept and Organisation.....	36
3. Resources	40
4. Transparency and Documentation.....	51
5. Quality management: quality assessment and development	55
D Additional Documents	58
E Comment of the Higher Education Institution (15.02.2024)	59
F Summary: Expert recommendations (21.02.2024)	74
G Comment of the Technical Committee 08 – Agriculture, Forestry and Food Sciences (27.02.2024)	76
H Decision of the Accreditation Commission (22.03.2024)	77
I Fulfilment of Requirements (27.06.2025).....	79
Analysis of the Experts and the Technical Committee 08 - Agriculture, Nutritional Sciences and Landscape Architecture (03.06.2025).....	79
Decision of the Accreditation Commission (27.06.2025)	81
Appendix: Programme Learning Outcomes and Curricula	82
Ba Agrotechnology	82
Ba Animal Husbandry	90
Ba Aquaculture.....	92
Ma Environmental Science.....	95

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	BAN-PT, until March 2027 (No.2083/SK/BAN-PT/Ak-PPJ/S/III/2022)	08
Peternakan	Animal Husbandry	ASIIN	BAN-PT, until March 2027 (1703/SK/BAN-PT/Akred/PPJ/S/III/2022)	08
Budidaya Perairan	Aquaculture	ASIIN	BAN-PT, until October 2025 (6582/SK/BAN-PT/Akred/S/X/2020)	08
Ilmu Lingkungan	Environmental Science	ASIIN	BAN-PT, until July 2025 (No. 4147/SK/BAN-PT/Akred/M/VII/2020)	08
Date of the contract: 21.04.2023 Submission of the final version of the self-assessment report: 30.07.2023 Date of the onsite visit: 13.-14.12.2023 at: Universitas Nusa Cendana, Faculty of Agriculture, Faculty of Animal Husbandry, Marine Sciences and Fisheries, & Faculty of Postgraduate Studies. Location: Kupang, Indonesia.				
Expert panel: Prof. Dr. Matthias Kleinke, University of Applied Sciences Rhein-Waal Prof. Dr. Werner Kloas, Humboldt University of Berlin, Leibniz Institute of Freshwater Ecology and Inland Fisheries Prof. Dr. Hermann Jungkunst, University of Kaiserslautern-Landau				

¹ ASIIN Seal for degree programmes

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

Prof. Dr. Sutrisno Hadi Purnomo, Sebelas Maret University Dr. Bayu Priyambodo, Lombok Marine Aquaculture Development Center Ms. Ilya Azka Maulida, student at Gadjah Mada University	
Representative of the ASIIN headquarter: Christian Daniels	
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 March 28, 2023 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
Ba Agrotechnology	Sarjana Pertanian (S.P.) / Bachelor of Agriculture.	—	Level 6	Full-time	—	4 years / 8 semesters	148 SKS equivalent to 244.2 ECTS.	Annually, since July 2011
Ba Animal Husbandry	Sarjana Peternakan (S.Pt.) / Bachelor of Animal Husbandry	—	Level 6	Full-time	—	4 years / 8 semesters	146 SKS equivalent to 239.9 ECTS.	Annually, since July 2011
Ba Aquaculture	Sarjana Perikanan (S.Pi.) / Bachelor of Fisheries	—	Level 6	Full-time	—	4 years / 8 semesters	147 SKS equivalent to 239.4 ECTS.	Annually, since July 1999
Ma Environmental Science	Magister Lingkungan (M.Ling) / Master of Environment	—	Level 7	Full-time	—	2 years / 4 semesters	47 SKS equivalent to 79.4 ECTS.	Annually, since July 2004

The Universitas Nusa Cendana (UNDANA) is a public university located in Kupang, East Nusa Tenggara (Timor Island), Indonesia. Founded in 1962, UNDANA incorporates nine faculties providing 49 undergraduate programs, one vocational study programs, thirteen Master's programs, three professional study programmes, and three doctoral study programs in total. More than 31.000 students were enrolled at UNDANA as of early 2023.

UNDANA aspires to be a globally oriented institution renowned for its expertise in dryland agricultural systems in archipelagic regions, which is a unique feature of the East Nusa Tenggara province. Nusa Cendana University sees international accreditation as an important stepping stone in this ambition.

³ EQF = The European Qualifications Framework for lifelong learning

For the Bachelor's degree programme in **Agrotechnology (AGT)**, UNDANA's Faculty of Agriculture has presented the following profile in the self-assessment report and in the programme's student handbook:

Student Handbook

"The **vision** of the Agrotechnology Study Programme is "by 2025, the Agrotechnology Study Programme at Faperta Undana becomes an institution that implements the Tri Dharma of Higher Education in the field of Sustainable Agrotechnology for the archipelagic semi-arid region, with an entrepreneurial and globally competitive mindset.

The **mission** of the Agrotechnology Study Program of Faculty of Agriculture, Universitas Nusa Cendana, is to carry out the Tri-dharma (Three Fundamental Tasks: Education/Teaching, Research and Community Service) of Higher Education Institutions as follows:

1. Conducting educational activities to:
 - a. Form and produce graduates who are independent, have high integrity, and uphold the values of national culture and universal human values.
 1. b. Form and produce graduates with academic competence and skills in agrotechnology to address the problems and needs of agricultural development in the archipelagic semi-arid region.
2. Implementing the development of innovative and responsive IPTEKS (Science, Technology, and Art) in the field of agrotechnology to address the challenges faced in sustainable agricultural development in the archipelagic semi-arid region.
3. Engaging in community activities through the reciprocal dissemination, transfer, and adoption of IPTEKS in the field of agricultural land in the archipelagic semi-arid region.

Self-Assessment Report

1.1.1 The Qualification profile (QP)

1.1.1.1 The QP of Bachelor's Degree in Agrotechnology Study Programme

No.	Occupational Profile	Profile competence
1	Crop production practitioner	Able to work professionally in the field of agrotechnology based on dryland agriculture in archipelagos, both as a bureaucrat (technocrat) and as a consultant.
2	Entrepreneurial crop producer	Able to seize opportunities and engage in business in the field of agrotechnology based on dryland agriculture in archipelagos with a focus on generating income in both the local and global markets.
3	Manager	Have managerial and leadership skills to achieve the goals of the organization managed, based on the latest scientific knowledge and technological advancements in the field of agrotechnology based on dryland agriculture in archipelagos.

4	Research assistant	Able to conduct research to generate various innovations and technologies in the field of agrotechnology based on dryland agriculture in archipelagos, as well as the capability to publish them.
---	--------------------	---

1.1.2.1 The PEO of Bachelor's Degree in Agrotechnology Study Programme

The study program formulates PEO within the framework of generating a graduate profile with the following capabilities:

1. To produce high-quality graduates who become well-rounded individuals competent in the field of Agrotechnology, capable of:
2. Being independent, having high integrity, and upholding the values of national culture and universal human values
3. Following, developing, and applying research and technology in the field of agrotechnology to support the development of archipelagic semi-arid region
4. To generate research and technology in the field of agrotechnology to address the issues and needs in the in the archipelagic semi-arid region
5. Conducting community engagement activities through the process of reciprocal dissemination, transfer, and adoption of research and technology in the field of archipelagic semi-arid region."

For the Bachelor's degree programme in **Animal Husbandry (ANH)**, UNDANA's Faculty of Animal Husbandry, Marine Sciences and Fisheries has presented the following profile in the self-assessment report and in the programme's student handbook:

Student Handbook

"Vision

To become a quality provider of Tridharma in producing globally competitive human resources in the field of dryland animal husbandry by 2025.

1. Providing quality and relevant education and teaching in the field of animal husbandry and the needs of the community, especially in dryland areas, in line with the development of science and technology
2. Conducting high-quality research in the field of dryland animal husbandry to develop and disseminate science and technology in the effort to produce adaptable and innovative human resources in response to the demands of science and technology development and the needs of the community, and to publish them in nationally and internationally accredited journals.
3. Organizing quality and relevant community service in the field of dryland animal husbandry, in accordance with the development of science and technology and the needs of the community.

Self-Assessment Report**1.1.1 The Qualification profile (QP)****1.1.1.2 The OP of Bachelor's Degree in Animal Husbandry Study Programme**

No.	Occupational Profile	Description
1	Managers	Able to manage an organization
2	Community empowers	Capable of organizing, building, and empowering communities to increase their economy
3	Technopreneurs	Developing enterprises in farming based on research and innovation
4	Scientists	Able to develop research and innovation in solving problems related to animal husbandry as well as scientific advancement

1.1.2.2 The PEO of Bachelor's Degree in Animal Husbandry Study Programme

The PEO of Animal Husbandry Study Programme is designed to:

1. Producing graduates who are of high quality and relevant to the development of science and technology and the needs of society, so they possess high competitiveness both academically and morally, and become agents of change for the development of the nation and the country.
2. Enhancing the competence of human resources to support the implementation of high-quality higher education.
3. Preparing high-quality learning media for students.
4. Increasing the quantity and quality of research capable of addressing development issues in animal husbandry, particularly in dryland animal husbandry.
5. Increasing the quantity and quality of community service that can be adopted by society to improve their well-being."

For the Bachelor's degree programme in **Aquaculture (AQU)**, UNDANA's Faculty of Animal Husbandry, Marine Sciences and Fisheries has presented the following profile in the self-assessment report and in the programme's student handbook:

Student Handbook

"Vision

To become a Center for the Development of Mariculture Science and Technology in Archipelagic dryland region by 2025"

Mission

1. Organizing aquaculture education based on science and technology to produce competent graduates in the field of mariculture
2. Conduct mariculture-based research on local species
3. Organizing community service in the field of Mariculture
4. Establish cooperation and partnership with all stakeholders at the local, national, and international levels

Self-Assessment Report

1.1.1 The Qualification profile (QP)

1.1.1.3 The QP of Bachelor's degree in Aquaculture study programme

No.	Occupational Profile	Description
1	Researcher	Able to develop, analyse, and produce aquaculture science and technology as well as able to communicate research findings in the form of written and oral scientific works.
2	Entrepreneur/Manager	Able to communicate, collaborate, master technical and theoretical concepts, apply science and technology to enhance productivity in aquatic cultivation.
3	Educator/Facilitator	Able to convey and professionally transfer knowledge of aquatic cultivation science and technology.
4	Financial Analyst	Able to exhibit kindness, communication skills, and teamwork, as well as possess knowledge of science and technology, and analyse the feasibility of aquaculture business.
5	Aquaculture Technician	Able to collaborate, design, master, and apply scientific and technological principles in aquaculture.
6	Technocrat	Capable of making strategic decisions, innovative, motivating, understanding the policy and legality in the field of aquaculture.

1.1.2.3 The PEO of Bachelor's degree in Aquaculture study programme

The Program Educational Objectives are a general statement that describes what is expected to be achieved by graduates within a few years after graduation. Based on curriculum evaluation results, the PEOs are formulated along with the description of the graduate profile, which serves as the objective of the study program's implementation. Based on the graduate competencies, the PEOs of AQU are designed to produce graduates with the following abilities:

1. Able to master mariculture science and technology and have the ability to work independently.
2. Able to generate innovative mariculture science and technology that benefit society.
3. Able to apply research findings through community engagement activities in mariculture.
4. Able to enhance local, national, and international partnership programs to advance mariculture and community welfare."

For the Master's degree programme in **Environmental Science (ENV)**, UNDANA's Faculty of Postgraduate Studies has presented the following profile in the self-assessment report and in the programme's student handbook:

Student Handbook

"Vision

Becoming the Organizer of the Tri Dharma of Higher Education with a Global Insight and Competitiveness in the Field of Natural Resources and Environment Management Based on the Semi-Arid Archipelagic Region in 2025"

Mission

1. Organizing high-competency and global-minded education in the field of natural resource and environmental management in the Semi-Arid Archipelagic Region;
2. Conducting high-quality research in the field of management of natural resources and the environment in the Semi-Arid Archipelagic Region; And
3. Carry out community service activities related to the management of natural resources and the environment in the Semi-Arid Archipelagic Region.

Self-Assessment Report

1.1.1 The Qualification profile (QP)

1.1.1.4 The QP of a Master's degree in Environmental Science Study Programme

No.	Occupational Profile	Description
1	Environmental Educator or Instructor	Able to conduct education, management and protection in environmental activities
2	Researcher	Able to conduct research on the Environment and draw conclusions holistically to compile environmental mitigation efforts
3	Environmental Expert	Able to provide recommendations and analyse related to environmental management and protection

4	Entrepreneur	Able to apply science and technology in the use of the environment to open jobs independently
5	Environmental Consultant	Able to review and compile Environmental documents
6	Environmental Technocrat	Able to supervise, restore, make environmental instruments

1.1.2.4 The PEO of a Master's degree in Environmental Science Study Programme

Based on the graduates' competencies, the PEO of the Environmental Science Study Programme are designed to:

1. Produce graduates who are able to design, carry out education, evaluate and make decisions in the field of natural resource management and the dryland environment of the archipelago, which is reflected through the following qualifications are:
 - a. Able to integrate science in collecting, processing and interpreting data as a basis for decision making related to strategic efforts to manage natural resources and the environment.
 - b. Able to master the basics of environmental science.
 - c. Able to master the basics of environmental planning and management.
 - d. Able to act as a planner in natural resources and environmental management.
 - e. Able to play a role as a manager of natural resources and the environment.
 - f. Able to act as an innovator, motivator, and mediator in natural resources and environmental management and solving environmental problems.
 - g. Able to design, create and apply models of planning and management of natural resources and the environment
2. Designing and carrying out research on natural resource management and the dryland environment of the archipelago and communicating it in the scientific forums.
3. Conducting community service in applying environmentally sound science and technology to support sustainable development in the dry land of the archipelago.”

C Expert Report for the ASIIN Seal

1. The Degree Programme: Concept, Content & Implementation

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

Evidence:

- Self-Assessment Report
- University Website ([here](#), [here](#), [here](#), [here](#))
- Curricula, all programmes under review
- Module Descriptions/Handbooks, all programmes under review
- Student Handbooks, all programmes under review
- Interaction Matrices of PEOs, PLOs, Graduate Profiles, the Indonesian National Qualification Framework (KNNI), as well as Subject-Specific Criteria (SSC)
- Discussions with programme coordinators, lecturers, students, and industry representatives during the audit.

Preliminary assessment and analysis of the experts:

Learning Outcomes

At the programme level, the educational objectives of all study courses under review are established at multiple levels as elaborated in the self-assessment report and the individual student handbooks of each programme:

- **Programme Learning Outcomes** (see [Appendix](#)), which, in accordance with the Indonesian National Qualification Framework (*Kerangka Kualifikasi Nasional Indonesia*, KNNI), are distinguished as aspects of Attitude (*sikap*), Knowledge (*pengetahuan*), General Skills (*kemampuan umum*), and Special Skills (*kemampuan khusus*);
which serve to implement the
- **Programme Educational Objectives (PEOs)**, i.e. the competencies graduates are envisaged to have obtained as a result of their studies (as outlined under [section B](#));
which, in turn, lay the foundation for the

- **Qualification Profiles** (see also [Section B](#)), which describe the occupational profiles the programmes seek to qualify their graduates for.

Within the provided documentation, the University establishes comprehensive tabular mappings of linkages between the aspects outlined above as well as ASIIN's subject-specific criteria for all programmes under scrutiny.

In connection to this, the auditors also verified and confirm that the programme learning objectives for all four degree courses under review are published on their respective websites through dedicated pages and/or uploaded study handbooks.

On the module level, the experts note various discrepancies in the relevant module descriptions provided for the respective study programmes: For the

- **Ba Agrotechnology and Ba Animal Husbandry**, course learning objectives (CLOs) are defined in the respective module handbooks provided.
- **Ba Aquaculture**, no course learning objectives appear to be defined in the English module handbooks provided. Instead, the provided module handbook refers to selected *programme* learning outcomes under "modules objectives/intended learning outcomes". Upon further investigation, yet, the experts note that course learning outcomes appear to be provided in the semester learning plans (cf. [criterion 1.3](#)) available in Bahasa Indonesia on the programme's website.
- **Ma Environmental Sciences**, likewise, no course learning objectives seem to be documented in the rudimentary module descriptions provided. Also here, however, CLOs seem to be defined in the semester learning plans, as can be discerned from an example provided on the programme's website.

In view of these observations, the experts come to the following conclusions regarding the objectives and learning outcomes of the degree programmes under review:

For the **Ba Agrotechnology** and **Ba Animal Husbandry**, course learning outcomes, programme learning outcomes, programme educational objectives, as well as graduate profiles are documented transparently and are found to be adequate. Based on this, the experts confirm that the learning outcomes of the two abovementioned programmes correspond to level 6 (Bachelor) of the European Qualification Framework (EQF). Moreover, the experts assess that the outlined objectives suffice the Subject-Specific Criteria of ASIIN's Technical Committee 08 for subjects in the field of Agriculture, Forestry and Food Sciences.

As for the programmes **Ba Aquaculture** and **Ma Environmental Science**, the experts come to the conclusion that the abovementioned, seemingly missing course learning objectives (CLOs) appear to be due to gaps in the English documentation provided, but not factually

non-existent. Given that all remaining aspects – PEOs, PLOs, graduate profiles, their interrelations and accordance with ASIIN's subject-specific criteria – are found to be adequate and documented comprehensively; and since the auditors' overall assessment of the two degree courses within this report gives no reason to believe otherwise, the experts conclude that the two abovementioned programmes equally correspond to level 6 (Bachelor) and 7 (Master) of the European Qualification Framework (EQF), respectively. This being said, the auditors ask the University to provide comprehensive revised module descriptions including specific course learning outcomes in English in due time.

In regard to the recurring emphasised focus of the outlined graduate profiles and educational objectives on dryland environments, the experts note that the University may want to consider further topics which could be central to the programmes under review. Amongst these topics, the experts see the unique Karst (island) environment of Kupang and the region, environmental pollution and waste management, as well as biodiversity in view of the nearby Wallace line. The experts hence encourage the University and the programmes under review to diversify their foci and capitalise on its location advantages more, focussing on regional strengths from a global perspective, in order to attract further international attention, particularly students.

Graduate Qualification Profiles

During their exchanges with students and alumni in the course of the audit, numerous confirmed their satisfaction with the programmes under review, and that they perceived to be well-qualified for the job market following their graduation.

During the experts' exchanges with the industry, likewise, the attending representatives consistently confirmed their satisfaction with the programmes under review, that they regularly host students of the abovementioned programmes as interns, and that they employ a number of their graduates. Various of the attending practitioners – some alumni of the programmes under review themselves – moreover stated to have been invited by the University to give guest lectures in the past.

In the course of the discussion, yet, various industry representatives however expressed that improved English language proficiency would be important to see in future graduates. In view of similar remarks by academic staff of the programmes under scrutiny during the audit (cf. [criterion 1.6](#)), and in view of UNDANA's vision to become a globally oriented actor in Indonesian higher education, the experts concur with these statements by the industry representatives, and encourage the University to intensify its efforts to foster students' English language competency.

Review of Learning Outcomes

As elaborated further in [chapter 1.3](#), thorough review of all curricula as well as their envisaged graduate profiles and associated learning outcomes takes place every four to five years involving faculty staff, students, alumni, as well as external stakeholders with the aim of ensuring the programmes' relevance and responsiveness to academic and market needs, as well as their alignment with changed national curricula.

In summary and in view of the provided student and industry feedback, the experts gain the impression that the imparted qualification profiles are appropriate for the intended level of studies, satisfy expectations on all sides, and allow the students to take up employment corresponding to their qualification.

Criterion 1.2 Name of the Degree Programme

Evidence:

- Self-Assessment Report
- University Website ([here](#), [here](#), [here](#), [here](#))
- Curricula, all programmes under review
- Student Handbooks, all programmes under review
- Sample Diploma for each degree programme
- Sample Diploma Supplement for each degree programme
- Discussions with programme coordinators, lecturers, students, and industry representatives during the audit.

Preliminary assessment and analysis of the experts:

As outlined by the University in the self-assessment report, the titles of the four programmes under review align with the nomenclature stipulated in the relevant decree no. 163 from 2022 issued by the Ministry of Education, Culture, Research, and Technology.

Graduates of the **Ba Agrotechnology** are conferred with the title S.P. (*Sarjana Pertanian*, Bachelor of Agriculture), graduates of the **Ba Animal Husbandry** are awarded the title S.Pt. (*Sarjana Peternakan*, Bachelor of Animal Husbandry), whereas graduates of the **Ba Aquaculture** are granted the title S.Pi. (*Sarjana Perikanan*, Bachelor of Fisheries). Graduates of the **Ma Environmental Science** are conferred the title M.Ling. (*Magister Lingkungan*, Master of Environment).

Following their assessment of the **Ba Agrotechnology** curriculum and their exchanges with its programme coordinators and students during the audit, however, the expert group comes to the conclusion that the title "Agrotechnology" appears inadequate in view of the programme's factual course contents and observed facilities; as will be elaborated further

under [criterion 1.3](#) and [criterion 3.3](#). In consequence, the experts assess that the programme's title and its curriculum need to be brought into alignment. In this vein, the experts perceive that a suitable renaming of the programme would not only prevent misunderstanding, but would enable it to showcase its existing qualities. In view of the programme's apparent genesis from multiple previous programmes (cf. [criterion 1.3](#)), the expert panel perceives that a labelling of the study course as an Agronomy programme would, for example, be more fitting.

Aside from the above, the experts confirm that the English translation and the original Indonesian names of the remaining study programmes under review are appropriate and correspond to the programmes' intended aims and learning outcomes.

Criterion 1.3 Curriculum

Evidence:

- Self-Assessment Report
- University Website ([here](#), [here](#), [here](#), [here](#))
- Curricula, all programmes under review
- Module Descriptions/Handbooks, all programmes under review
- Student Handbooks, all programmes under review
- Regulation: Statutes of Nusa Cendana University, Minister of Education, Culture, Research, and Technology of the Republic of Indonesia, Number 52 of 2022
- Guidelines for Education Implementation, Decree of the Rector of Nusa Cendana University, Number: Number 5 of 2022, UNDANA
- Implementation Guide for the Merdeka Belajar – Kampus Merdeka Program, Universitas Nusa Cendana, 2022
- Guidelines for the Implementation of Student Community Service Course, Universitas Nusa Cendana, 2022
- Discussions with programme coordinators, lecturers, students, and industry representatives during the audit.

Preliminary assessment and analysis of the experts:

The study programmes' curricula, their structure and composition are presented in the University's provided self-assessment report and the individual study handbooks for each programme.

Structure of the Programmes

The curricula of the Bachelor's programmes in **Agrotechnology, Animal Husbandry, and Aquaculture** under review consist of 146-148 Indonesian credits (*Satuan Kredit Semester, SKS*). The expected study duration is eight semesters (four years). The curriculum of the Master's programme in **Environmental Science** consists of 47 SKS. The expected study duration is four semesters (two years).

The odd semester starts in July and ends in December, the even semester lasts from January to June. Lecture periods are held between mid-August and early December (for the odd semester) and between mid-January to early May (for the even semester), respectively. In addition, the University offers so-called "intersemesters" twice annually in between those lecture periods, spanning four weeks, with the purpose of enabling students to retake failed courses or to enhance their grades. Short semester courses are offered if a minimum of five students are participating. Students can gain up to nine credits during this semester.

At the undergraduate level, each semester is equivalent to 14 weeks of learning activities. Besides these learning activities, there is one week for midterm exams (in the eighth course week) and one week for final exams (in the sixteenth course week). On the graduate level, each semester is equivalent to 16 weeks of learning activities, followed by a final examination.

Modules in the two programmes are based on a semester learning plan (*Rencana Pembelajaran Semester, RPS*). The RPS outlines the respective module's description and intended course learning outcomes, requirement, teaching method, teaching and assessment methods as well as relevant references. RPS' are revised for suitability ahead of each semester.

The curricula are composed of the following sections:

General Competencies (Common Courses), which consist of nationally determined mandatory modules such as Indonesian language, Religion, Pancasila, and Civic Education. They are part of the Bachelor's curricula only. Moreover, as defined in UNDANA's "Guidelines for Education Implementation", students of all undergraduate programmes under review are required to take modules on *Archipelagic Drylands Culture and Tourism* as well as *Anti-Corruption Education*.

Fundamental Courses (Basic Courses), which provide the foundational knowledge required for engaging attending the more advanced contents in the later semesters.

Academic Core Courses, which impart the main body of knowledge of the respective study programmes, and hence account for the largest share of the curricula.

Elective/Enrichment Courses, which enable students to individualise their studies. Students decide on the elective modules they select to attend in coordination with their academic advisor (cf. [criterion 3.2](#)).

Within the **Bachelor's programmes** under review, these elective components are envisaged for the sixth and seventh semester. The elective offering includes both the option for students to attend modules from a pool of courses offered in other programmes within the university; as well as to participate in the Indonesian government's "Independent Learning – Independent Campus" (*Merdeka Belajar – Kampus Merdeka*, MBKM) scheme, which enables students to pursue various activities outside their core curriculum through internships, mobilities, teaching assistance, entrepreneurship, humanitarian or project work outside the University. Within the **Ba Environmental Science**, elective courses serve as a means for students to choose a specialisation for their study course. The MBKM scheme is not implemented at the Master's level.

Lastly, all of the study programmes under scrutiny include the writing of a **final thesis**, along with an accompanying seminar. Further details in this regard will be illustrated under [criterion 2](#).

The composition of the programmes under review is presented by the University as follows:

Ba Agrotechnology

No	Courses group	Total (SKS)	Percentage (%)	ECTS
1	General Competencies (Common Courses) / University and Faculty Courses	11	7	17.6
2	Fundamental Courses (Basic Courses) / Field of Study Knowledge	29	20	46.4
3	Academic Core Courses (Programme Core Courses)	62	42	99.2
4	Elective/Enrichment Courses (Enrichment Course) / Off-Campus Credit Transfer (MBKM)	40	27	67.2
5	Final Project (Bachelor Thesis)	6	4	13.8
Total		148	100	244.2

Composition of Ba Agrotechnology curriculum. Source: Study Handbook, Ba Agrotechnology, UNDANA.

Ba Animal Husbandry

No	Courses group	Total (SKS)	Percentage (%)	ECTS
1	General Competencies (Common Courses) / University and Faculty Courses	13	8.90	20.8
2	Fundamental Courses (Basic Courses) / Field of Study Knowledge	13	8.90	20.8
3	Academic Core Courses (Programme Core Courses)	104	71.23	169.2
4	Elective/Enrichment Courses (Enrichment Course) / Off-Campus Credit Transfer (MBKM)	10	6.85	16
5	Final Project (Bachelor Thesis)	6	4.11	13.1
Total		146	100	239.9

Composition of Ba Animal Husbandry curriculum. Source: Study Handbook, Ba Animal Husbandry, UNDANA.

Ba Aquaculture

No	Courses group	Total (SKS)	Percentage (%)	ECTS
1	General Competencies (Common Courses) / University and Faculty Courses	11	7.5	17.6
2	Fundamental Courses (Basic Courses) / Field of Study Knowledge	20	13.6	32
3	Academic Core Courses (Programme Core Courses)	69	46.9	110.4
4	Elective/Enrichment Courses (Enrichment Course) / Off-Campus Credit Transfer (MBKM)	40	27.2	64
5	Final Project (Bachelor Thesis)	7	4.8	15.4
Total		147	100	239.4

Composition of Ba Aquaculture curriculum. Source: Study Handbook, Ba Aquaculture, UNDANA.

Ma Environmental Sciences

Courses	Total (SKS)	Percentage (%)	ECTS
Fundamental Course	6	12.8	9.6
Compulsory Course	22	46.8	35.2
Elective Course	12	25.5	19.2
Final Project	7	14.9	15.4
Total	47	100	79.4

Content

The **Ba Agrotechnology (AGT)** integrates four subject areas: Agronomy, Land Resources Management, Plant Protection, and Agricultural Product Technology. Its curriculum is hence comprised of modules such as

Introduction to Agricultural Economics, Introduction to Agricultural Science, Biology, Chemistry, Basic Agronomy, Fundamental of Plant Protection, Fundamental of Soil Science, Archipelagic Drylands Culture and Tourism, Agricultural Extension and Communication, Microbiology, Soil Fertility and Fertilization, Plant Physiology, Statistics, Agroecology, Introduction to Food Technology, Plant Pests and Diseases, Geographic Information System, General Botany, Food Security and Sovereignty, Soil and Water Conservation, Integrated Pest Management, Annual and Perennial Plant Cultivation Technology, Agricultural Product Processing Technology, Genetics and Plant Breeding, Agricultural Biotechnology, Sustainable Management of Dryland Agriculture, Packaging and Storage Technology, Entrepreneurship, Soil Survey and Land Evaluation, Agribusiness Management, Weed Science, and more.

Elective courses – offered in the programme's sixth and seventh semester – include

Cultivation of Horticultural Crops and Landscaping, Plant Diseases Epidemiology, Soil Quality, Postharvest Physiology and Technology, Plant Growth and Development, Postharvest Pests and Diseases, Food Microbiology, Soil Morphology and Classification, Enzymes and Fermentation Technology, Ecology and Pest, Forecasting Systems, Food Analysis, Seed Technology, Vegetative Propagation, Sensory Analysis, Plant Bacteriology and Virology, Entomology, Mycology and Mycotoxins, Farm Equipment, Plant Ecology, Pesticides and Application Techniques, Major Crop Pests and Diseases, Watershed Management, Local Food, Archipelagic Dryland, Biodiversity, Application of Dry Land Farming Technology, Integrated Agriculture, Utilization of Local Resources, Management of Land Resources, Public Communication, as well as Pesticides and Application Techniques.

The **Ba Animal Husbandry (ANH)** curriculum teaches modules such as

Introduction to Animal Husbandry, Animal Physiology, Anatomy and Physiology of farm Animals, General Economics, Animal Nutrition, Genetics, Livestock Environment & Climate Change Mitigation, Forage Science, Poultry Production, Dairy Production, Meat Animal Production, Animal Microbiology, Animal Judging Science, Reproduction of Farm Animal, Indonesia Civic education, Livestock Breeding, Livestock Production Economics, Knowledge of Animal Products, Feedstuff and Ration Formulation, Pasture Management, Biotechnology, Research Design and Data Literacy, Livestock Extension, Dry land Animal Industry, Livestock Trading, Ruminant Industry, Poultry and Non- Ruminant Nutrition, Animal Science Politics, and Industry and Technology of Feed Processing.

With regard to the **Ba Aquaculture (AQU)**, the programme coordinators explain to the expert panel during the audit that its specific focus areas lie within the fields of mariculture and aquaponics. Accordingly, its curriculum covers modules such as

Water chemistry and physics, Principles of processing fishery products, Principles of aquatic microbiology, Principles of aquaculture, Principles of fishery, Oceanography, Fishery socio-economic, Principles of fish genetics, Archipelagic dry land cultivation, Parasites and fish diseases, Biochemistry, Fish health management, Ichthyology, Aquatic ecology, Physiology of aquatic organisms, Aquaculture data and information, Processing, Water quality management, Aquaculture engineering, Fish nutrition, Natural feed culture, Fish reproductive physiology, Fresh, brackish, and marine aquaculture; Feeding technology and management, Aquaculture industry development, Invertebrate animal cultivation technology, Principles of aquaculture biotechnology, Management of hatchery production, Fundamentals of management, Macroalgae Cultivation Technology, Limnology, Fisheries and Marine Entrepreneurship, Sociology of Coastal and Islands Communities, Invertebrates, Fisheries Extension, Experimental design, Conservation of water resources, Pathology and toxicity, Water sports, and Management of Aquatic Environment.

The **Ma Environmental Science (ENV)** curriculum is comprised of

Fundamental Courses, which consist of two modules aiming to ensure a common foundational knowledge of all students in regard to statistical analysis and environmental science before engaging attending the more advanced contents in the later semesters.

Compulsory Courses (i.e. Core Courses), consisting of

Management of Natural Resources and Environment, Management of Coastal Areas, Sea and Small Islands, Research methodology, Environmental Population and Development, Human Ecology, Environmental Planning and administration, Environmental Impact Analysis, Principles of Environmental Degradation and Pollution

Elective Courses, which serve as a means for students to choose a specialisation for their study course. The four specialisations and their allocated courses are:

- **Conservation of Natural Resources and Environment**

Principles and Techniques of Inventorying Natural Resources and the Environment, Biodiversity, Conservation Management

- **Natural Resources and Environmental Planning**

Regional and Spatial planning Environment, Environmental Law, Environmental Economics;

- **Watershed**

Land use planning and management, Remote Sensing, Natural Resources Management and Irrigation;

- **Climate Change and Adaptation**

Climate Change, Adaptation and Mitigation, Environmental Markets and Finance, Climate change policy;

as well as the course *Community Empowerment in Environmental Management*, which is part of all specialisations.

Concerning the **Ba Agrotechnology** and as already mentioned under [criterion 1.2](#), the experts raise substantial concerns regarding the suitability of the programme's title in view of its curriculum: Despite its title, the experts find little to no courses in the curriculum that would usually qualify such a study programme, such as courses on agricultural engineering, seeding technology, harvesting technology, precision farming, mechanical engineering, etc. When addressing this matter with the programme coordinators during the audit, the experts understood that – as hinted above – the current form of the Agrotechnology programme is the result of a merger of multiple previous Bachelor's programmes at UNDANA in the field of agronomy, land resources management, plant protection, and agricultural product technology. Its title, as was clarified, is the result of a government decision, given that study programmes in Indonesia must follow a permitted nomenclature laid down by the Ministry of Education. Adding to the above, content-wise concerns, the experts also judged that little to no agrotechnological equipment could be observed during their visitation of the programme's course facilities in the course of the audit (cf. [criterion 3.3](#)). Also, during the expert groups' exchanges with students, including a substantial number of current Agrotechnology students, nearly the entirety of these students expressed that they concurred with the experts' panels observations, and that they had expected more technology-oriented contents at the time of their application and enrolment for the programme than they actually found it to contain. In view of the above, the expert group finds that there is comprehensive grounds for their concern, and hence concludes that the programme's title and its contents are in need of alignment.

With regard to the **Ba Aquaculture**, the experts observed apparent redundancies of contents within the curriculum, such as concerning ichthyology, and raised this observation with the programme coordinators during the audit. In response, the coordinators confirmed their awareness of some redundancies within the curriculum, and emphasised that these will be looked into in the course of the next curriculum revisions. While the expert group appreciates this stated effort, they nevertheless issue a recommendation in this regard to highlight this matter, given that the programme coordinators' statement at this stage refers to an intended future action only, and since attending Aquaculture students likewise confirmed this observation during the audit in their discussion round with the expert panel.

Upon asking how about contemporary topics such as digital data use and application, sustainability, and climate change are integrated in the study programmes under review, the experts were informed that, in the **Ba Agrotechnology**, digital data application is for example incorporated into its *Agricultural Biotechnology* and *Geographical Information System (GIS)* courses. Additionally, sustainability and climate change matters are described to be addressed in courses like *Sustainable Management of Dryland Agriculture*.

As for the **Ba Aquaculture**, digital data application is, as an example, described to be embedded in the Macroalgae Cultivation Technology course, which, amongst other aspects, discusses the effects of climate change and methods of sustainable seaweed cultivation using drones and 3D mapping for site selection. In regard to the **Ba Animal Husbandry**, the University highlights how software such as Minitab is utilised for statistical data analysis in the *Livestock Breeding* course to calculate genetic values in livestock.

For the **Ma Environmental Science**, sustainability and climate change-related matters are explained to be integrated especially through the elective specialisations, with digital tools such as drone use and GIS addressed in various courses.

All in all, following the above reflections, and based on the documentation provided by the University as well as the discussions during the audit, the expert group generally attests that modules within the programmes under review embody sensible teaching and learning units, respectively imparting distinct clusters of knowledge and competencies. Moreover, students are able to pursue individual study pathways through both the foci of offered programmes as well as their specialisations and elective components.

On a further note, yet, the experts noted the recurring express emphasis of UNDANA and the study programmes under review on dryland environments, in particular archipelagic drylands, within the presented university mission, curricula, and intended graduate profiles. In connection to this, the study programme coordinators explained during the audit that – while the visit took place during the local rainy season – the dry season in fact prevails for about eight months of the year, resulting in drought for the majority of the year. As already hinted at under [criterion 1.1](#), however, it is the opinion of the experts that UNDANA should aim to diversify the foci of the programmes under review, e.g. with regard to Karst environments, environmental pollution and waste management, and biodiversity to exploit its unique location advantages more and strengthen its aim of establishing itself as a globally-recognised centre of excellence.

Internships

The three Bachelor's programmes under review integrate various learning experiences outside the classroom in their curricula:

- **Community Service**

At UNDANA, all Bachelor's students are required to complete a module in Community Service (*Kuliah Kerja Nyata*, KKN), as it is commonplace in Indonesian undergraduate programmes. During their community service, students engage in topics such as community empowerment, mental health programmes, women empowerment, support for disabled and vulnerable groups, natural resource and tourism development, and more. The duration of the community service is 45 days.

Upon their further inquiry, the experts moreover learned that a policy to support students with physical disabilities, health conditions, pregnancy, and recent mothers during their community service is in place. These students are assigned to convenient locations for undertaking their community service, such as on campus or at facilities close to their residence.

- **Internships**

As also confirmed by student representatives during the audit, all students in the Bachelor's programmes under review are moreover required to conduct a mandatory internship relevant to their field of study. Students are placed individually or in groups at each host/partner institution. Supervision and assessment of the students during their internship is facilitated in tandem between an academic coordinator from the study programme as well as supervising staff member of the partner institution.

This *regular* internship lasts three to four weeks, with a credit load of 3-4 SKS, depending on the specific programme in requestion. The regular internship is managed at the study programme level, with specific applicable regulations defined for the Agrotechnology, Animal Husbandry, and Aquaculture programmes, respectively.

Additionally, students may choose to conduct a further, optional, semester-long internship through the *MBKM* programme, which accounts for 20 credit units. Its implementation follows the 2020 Guideline of MBKM Implementation issued by the Indonesian Ministry of Education and Culture.

The Master's programme does not include an internship.

Student Mobility

As per the University's self-assessment report, UNDANA promotes student mobility, both domestically and internationally.

Domestically, student mobility is facilitated through the Indonesian MBKM scheme. In terms of international mobility programmes, the University highlights a programme that has been established between the Animal Husbandry Study Program, the Northern Territory Cattle Man (Australia), and the Indonesian Livestock Scholars Association (ISPI).

In the course of the experts' exchanges during the audit, two students moreover stated to have participated in the "Global Project-based Learning" programme facilitated in Thailand, while another student stated to have completed an internship in Australia.

As confirmed by staff of the University's International Office and students spoken to during the audit, UNDANA participates in the *Indonesian International Student Mobility Awards (IISMA)* scholarship scheme by the Ministry of Education, Culture, Research, and Technology for well-performing students to finance a semester at a recognised partner university abroad.

All in all, however, in view of the infrequent examples described above and in absence of more substantial mobility statistics – both at the national as well as the international level – for the programmes under review, the experts recommend UNDANA to intensify their efforts in promoting student mobility, especially in view of its ambition to become a globally oriented university.

Periodic Review of the Curriculum

As stated by the University in their self-assessment report, the study programmes under review are subject to periodic curriculum reviews, through which UNDANA reacts to national curriculum changes, input from professional associations, as well as feedback obtained through stakeholder workshops, student feedback surveys and tracer studies. As examples of changes following these recurring reviews, the programmes under review highlighted the implementation of outcome-based curricula and the integration of the MBKM scheme in its study programmes in the self-assessment report and during the audit.

Upon their further inquiry concerning the frequency of these review processes, the expert panel learns that, additionally, minor revisions are conducted every semester as part of recurring internal quality assurance audits. These revisions primarily focus on enhancing Programme Learning Outcomes (PLOs) through adjustments in teaching methods, course content, and assessment methods.

All in all, the experts are content with the information provided on the programmes' curricular review procedures, with further details to be discussed in [chapter 5](#).

Criterion 1.4 Admission Requirements

Evidence:

- Self-Assessment Report
- University Website ([here](#), [here](#), [here](#))
- Student Handbooks, all programmes under review
- Regulation: New student admissions diploma programs and undergraduate programs at state universities, Minister of Education, Culture, Research, and Technology of the Republic of Indonesia, Number 48 of 2022
- Guidelines for Education Implementation, Decree of the Rector of Nusa Cendana University, Number: Number 5 of 2022, UNDANA
- Discussions with programme coordinators, lecturers, students, and industry representatives during the audit.

Preliminary assessment and analysis of the experts:

Ba Agrotechnology, Animal Husbandry, Aquaculture

Every year, the Universitas Nusa Cendana admits new students through different selection pathways in accordance with the national regulations set by the Indonesian Ministry of Education, Culture, Research, and Technology. The admission pathways cover both nationally and locally administered processes.

On the one hand, applicants may seek entry to UNDANA through two nation-wide entry pathways:

- 1) The “National Selection Based on Achievement” (*Seleksi Nasional Berdasarkan Prestasi, SNBP*), a national admission system which is based on overall and subject-specific performance during high school. UNDANA reserves a maximum of 20 per cent of its undergraduate programme capacity for students entering through this scheme.
- 2) The “National Selection Based on Test” (*Seleksi Nasional Berdasarkan Tes, SNBT*), a national computer-based entrance examination (*Ujian Tertulis Berbasis Komputer, UTBK*) organised by the Indonesian government every year for university candidates. UNDANA accepts 50 per cent of its undergraduate programme capacity through the SNBT scheme.
- 3) Alternatively, applicants may seek entry to UNDANA through its local “Independent Entrance Selection” (*Seleksi Mandiri Masuk Undana; SMMU*) pathway, which is based on a

written examination selection followed by an English proficiency test. UNDANA accepts 30 per cent of its undergraduate programme capacity through this scheme.

All prospective students of the programmes under review must have graduated within two years of their applied-for admission from a senior high school, a vocational high school, or Islamic senior high school that provides a verified grade 12 school leaving certificate.

Ma Environmental Science

To be granted admission to the Ma Environmental Science at UNDANA, applicants are required to take a selection test conducted by the School of Postgraduate Studies.

The recruitment policy for the programme involves a two-stage selection process: an administrative selection and an entrance exam. The administrative selection requires candidates to have a minimum cumulative GPA of 2.75 from their Bachelor's degree, and to submit a proposal for their Master's research covering various aspects like title, background, objectives, literature review, methods, and references. The entrance exam includes an Academic Potential Test (TPA) and an English Test.

Apart from the above, UNDANA has established comprehensive regulations in its Guidelines for Education Implementation addressing the process and requirements for international applicants and students transferring from other universities.

In summary, the auditors find the terms of admission to be binding and transparent.

As stated in the University's self-assessment report, UNDANA has presented the following application and student numbers (as of the academic year 2022/2023):

	Ba AGT			Ba ANH			Ba AQU			Ma ENV		
	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022
Applicants	281	408	417	538	642	720	97	172	183	12	21	25
Accepted	177	247	250	533	591	622	39	72	91	9	18	17
Enrolled	130	192	200	400	400	400	36	52	87	9	18	17
Enrolled Students (as of Academic Year 2022/2023)												
Total	1192			1557			447			40		

*Student and admission numbers in the programmes under review.
Source: Self-Assessment Report, UNDANA. Own visualisation.*

As can be discerned from the above, application numbers for all programmes under scrutiny are found to be increasing over time, with a notable dip in the COVID-19-stricken year 2020. In terms of enrolment, the programmes **Ba Agrotechnology, Ba Animal**

Husbandry and Ma Environmental Sciences appear to be heading for a momentary equilibrium, while numbers in the Ba Aquaculture appear to be on the rise.

Upon specific inquiry in this regard, the auditors were moreover informed that admission restrictions for students with colour blindness – as often found at Indonesian universities – do not exist for the programmes under review.

Upon further inquiry, the experts learned that there are very few international students in the programmes under review so far, coming from the neighbouring Democratic Republic of Timor-Leste only. In light of this, the experts encourage the University – in alignment with its vision – to intensify efforts to attract foreign students and to foster exposure of its students to an international audience ('internationalisation at home').

Criterion 1.5 Workload and Credits

Evidence:

- Self-Assessment Report
- Student Handbooks, all programmes under review
- Curricula, all programmes under review
- Module Descriptions/Handbooks, all programmes under review
- Guidelines for Education Implementation, Decree of the Rector of Nusa Cendana University, Number: Number 5 of 2022, UNDANA
- Decree of the Minister of Education and Culture, Number 3 of 2020, on National Higher Education Standards ([here](#))
- Discussions with programme coordinators, lecturers, students, and industry representatives during the audit.

Preliminary assessment and analysis of the experts:

In accordance with the pertinent ministerial Decree No.3 of the Ministry of Research, Technology, and Higher Education from 2020 regarding National Standards for Higher Education (*Standar Nasional Pendidikan Tinggi, SNPT*), the Bachelor's programmes under review are comprised of 146-148 Indonesian credit points (*Satuan Kredit Semester, SKS*), the Master's programme consists of 47 SKS.

The maximum study duration is seven years (14 semesters) for Bachelor's students and four years (eight semesters) for Master's students.

At the Bachelor's level, the University presents the following workload per credit point (SKS) across the sixteen-week semester duration, in dependence on the course type:

Form of learning				Total
a	Lecture	Structured assignment	Individual Learning	
	= 50 m/w/s = 0.83 h x 16 w = 13.33 h	= 60 m/w/s = 1 h x 16 w = 16 h	= 60 m/w/s = 1 h x 16 w = 16 h	45.33 h = 1.6 ECTS
b	Responses/tutorials/seminars or other similar forms of learning			
	Responses / tutorials / seminars	Individual learning		
	= 100 m/w/s = 1.67 h x 16 w = 26.72 h	= 70 m/w/s = 1.16 h x 16 w = 18.56 h		45.28 h =1.6 ECTS
c	Practicum in the form of learning activities in laboratories, studios, workshops, fields, research, community service, and/or other similar learning processes			
	= 170 m/w/s = 2.83 h x 16 w = 45.28 h			45.28 h =1.6 ECTS
d	Field Practice/Practice Work/Internship in the form of practical activities in the field			
	= 60 h			60 h = 2 ECTS
e	thesis/assignment/final work/work of art or other equivalent form, such as research / model making/manufacturing and/or performing arts/planning/designing activities			
	= 240 m/w/s = 4 h x 16 w = 64 h			64 h = 2.3 ECTS
Note: m: minutes, w: week, s: semester, and, h: hours				

Workload equivalency per credit point (SKS) at Bachelor's level. Source: Self-Assessment Report, UNDANA.

At the Master's level, the University presents the following workload per credit point (SKS) across the sixteen-week semester duration, in dependence on the course type:

Form of learning				Total
a	Lecture	Structured task	Individual Learning	
	= 50 m/w/s = 0.83 h x 16 w = 13.33 h	= 60 m/w/s = h x 16 w = 16 hours	= 60 m/w/s = h x 16 w = 16 hours	45.33 hours = 1.6 ECTS
b	Responses/tutorials/seminars or other similar forms of learning			
	Responses / tutorials/	Individual learning		

	seminars		
	= 100 m/w/s = 1.67 h x 16 w = 26.72 h	= 70 m/w/s = 1.16- h x 16 w = 18.56 h	45.28 h = 1.6 ECTS
c	Thesis/assignment/final work/work of art or other equivalent form, such as research / model making/manufacturing and/or performing arts/planning/designing activities		
		= 240 m/w/s = 4 h x 16 w = 64 h	64 h = 2.3 ECTS
<i>Note: m: minutes, w: week, s: semester, and, h: hours</i>			

Workload equivalency per credit point (SKS) at Master's level. Source: Self-Assessment Report, UNDANA.

For the University's conversion of Indonesian credits to the European Credit Transfer and Accumulation System (ECTS), UNDANA equates 28 hours of workload to 1 ECTS, within the discretion permitted by the ECTS Users' Guide.

Lecturers in charge of each module organise the student workload in a semester learning plan (*Rencana Pembelajaran Semester, RPS*), which is shared and discussed with the students during the initial course session. The lecturers are responsible to monitor student workload and to ensure the envisaged workload is met by adjusting the amount of learning material given to students for self-study. Students are required to attend their classes in line with established regulations. They must be present for at least 80% of course sessions. If a student's attendance falls below 80%, they are not allowed to attend the final examination.

University regulations limit students' ability to enrol into larger number of modules depending on their cumulative grade point average (GPA). While student with excellent grades are able to take up to 24 credits – and may hence theoretically finish their students quicker than the envisaged study time – students with GPAs at the lower end of the scale may only take up to 12-25 credits, inevitably causing their studies to prolong. Upon internal discussion with the Indonesian auditors amongst the expert panel, such limitations were understood to be commonplace in Indonesia.

Based on the above, the experts generally assess that a credit system is in place, which they find to be based on student workload and to encompass both contact hours and self-study time of all obligatory elements of the study programmes under review. Also, upon verification of the University's suggested total ECTS equivalency for the programmes under review, the experts confirmed the values to be calculated accurately and to be accounting for the different course types (regular courses / field work / thesis work) as well as for the

varying compositions of the final thesis (seminar / written performance) in the individual programmes.

As part of their assessments during the audit, however, the experts moreover sought to identify whether a structured, recurring mechanism for the measurement of factual student workload per course is in place. In response to their inquiries to the programme coordinators in this regard, the experts were explained in normative terms that lecturers should take the defined credits points and semester learning plan as references to steer student workload for their module, and that students' ability to follow class should be taken as an indicator that they have invested the time expected. During their exchanges with students on this matter, the experts were informed that either no structured surveys or course evaluation questions appear to exist in this regard, or only on a more general level, e.g. asking whether students found the workload of a given course manageable.

In view of this, the experts highlight that a structured, recurring mechanism to measure students' workload needs to be put in place – e.g. through dedicated workload surveys or suitable questions to this end within the course evaluation surveys – in order to verify that the credits awarded for a given course match the actual student workload.

Criterion 1.6 Didactic and Teaching Methodology
--

Evidence:

- Self-Assessment Report
- Module Descriptions/Handbooks, all programmes under review
- Student Handbooks, all programmes under review
- Staff Handbooks, all programmes under review
- Guidelines for Education Implementation, Decree of the Rector of Nusa Cendana University, Number: Number 5 of 2022, UNDANA
- Discussions with programme coordinators, lecturers, students, and industry representatives during the audit.

Preliminary assessment and analysis of the experts:

Teaching staff in the four programmes under review utilise a variety of both teacher- and student-centred learning methods in alignment with an “Active Learning in Higher Education (ALiHE) learning approach”. As described in their self-assessment report, the University's “Guidelines for Education Implementation” and the provided student handbooks, learning methods at UNDANA include:

- Small Group Discussions, allowing students to exchange ideas on specific topics;

- Role-Play and Simulation, simulating real-life scenarios to deepen students' understanding of a given topic;
- Case Studies, within which students develop problem-solving and critical thinking skills by analysing real or hypothetical cases;
- Discovery and Self-Directed Learning, which encourages independent exploration of knowledge concerning a given topic;
- Cooperative and collaborative learning, involving group collaboration and teamwork to achieve defined learning goals;
- Contextual Instruction, within which students foster learning in real-world situations;
- Project-Based Learning, challenging where students to apply obtained knowledge to real-world challenges; as well as
- Problem-Based Learning, in which students engage in solving authentic, open-ended problems with the aim of enhancing critical thinking and decision-making skills.

As stated in the University's self-assessment report, teaching staff are required to conduct their lectures face-to-face and/or online according to the course contract and class schedule. Upon the experts' further inquiry in this regard during the audit to what degree remote teaching is still exercised following the COVID-19 pandemic, teaching staff responded that, as per the current regulations, at most 30% of the sessions per course may be held online. The attending staff generally emphasise that in-person teaching is by far preferable, but acknowledge that maintaining the option to deliver up to 30% of the teaching online can be beneficial, especially when having to accommodate for work-related travel or training purposes. On a connected note, teaching staff at UNDANA can also make use of the University's Moodle-based learning management system.

Asked how they inform their teaching with their current research, teaching staff from the Agriculture and Aquaculture programme gave various examples to the experts during the audit, and highlighted that researchers at universities funded by the Indonesian government are required to establish how their research will be linked to their teaching.

Furthermore, as outlined in the University's self-assessment report, academic staff who receive research funding through university funds are required to offer students the opportunity to conduct their final theses/projects in connection to the planned research. Upon further inquiry in this regard, the experts were explained that, in order to find suitable students for these openings, announcements are made that include an outline of

the intended research. Students can then apply to conduct their theses docked to the presented research project.

In a related context, the expert panel inquired during the audit how students are enabled to pursue scientific research. In response, the programme coordinators clarified that there are scientific methods courses – which seek to prepare students for their final thesis – offered in the undergraduate programmes’ fourth or fifth semester, depending on the programme. At the end of these courses, students are required to prepare a research proposal, which ideally forms the basis of their research at the end of their studies. Additionally, the coordinators highlighted that the University conducts workshops in statistical software such as SPSS and R, as well as in reference management software like Zotero, to further support students in acquiring the necessary skills for their thesis work.

In summary, the expert group assesses that the study programmes under scrutiny employ a variety of teaching and learning forms as well as practical parts that serve the achievement of the intended learning outcomes. Also, they attest that the imparting of academic research skills is sufficiently ensured.

During their exchanges with teaching staff, the auditors however also inquired about how students’ English language proficiency is fostered aside the mandatory English course. In response, various staff highlighted invitations of guest lecturers from the USA or Australia, as well as of alumni who studied abroad post-graduation. Furthermore, teaching staff from the Ma Environmental Science programme hinted that students are encouraged to give presentations in English. All in all, however – and as also acknowledged by teaching staff spoken to during the audit – the experts gained the impression that additional efforts to enhance English language skills among students should be made, such as through advanced English language courses, increased funded student mobility opportunities, or English-taught subject matter modules; especially also in view of UNDANA’s vision of becoming a globally-oriented university.

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

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

Alignment of programme title and curriculum in Ba Agrotechnology

With regard to the experts’ observed misalignment of the programme title, curriculum, and facilities in the Ba Agrotechnology, the experts thank the University for their clarifications and the additional evidence. As outlined in UNDANA’s statement – and as already

understood by the experts during the audit (cf. [criterion 1.3](#)) – the current form of the Ba Agrotechnology is the result of a merger of four previous undergraduate programmes (namely Agronomy, Soil Science, Plant Protection and Post-Harvest and Food Technology), with its title being subject to Ministerial nomenclature.

Furthermore, with respect to the interpretation of the term 'technology' in the programme title, the experts acknowledge the University's statement that "is not projecting its outcome as designers and producer of agriculture machinery, instead as users of these technologies instruments".

The experts however perceive this argumentation to be problematic, pointing out that a wide range of sub-disciplines in the field of agriculture in some form relate to the use of technology.

The experts argue that – in order to justify the centrality of the term "technology" in the programme title within the logic described by the University – the knowledge and skills the Ba Agrotechnology seeks to impart in its students in the field of agricultural technology *usage* would need to exceed *substantially* (i.e. in both breadth and depth) that which students would potentially also gain in study programmes of neighbouring disciplines, such as agronomy or crop production.

Both based on their analysis of the curriculum, the facilities they observed on site, as well as their exchanges with a significant group of AGT students during the audit discussion round – in with the latter almost unanimously confirmed that they had expected more technology-/machinery-related contents in their studies – the experts do not perceive this substantial difference to be fulfilled within the programme's current form.

In addition to the above, the experts also note that, as referred to by the University, the recent Indonesian Ministry's decision no. 163/E/KPT/2022 does (re-)enable more differentiated programme titles such as Agronomy as well as a range of subcategories in the field of agricultural technology.

With the above being said, the experts commend the University's described aims – as outlined in their statement – to include more technology-related courses in the programme's curriculum as well as to invest in pertinent facilities and partnerships.

In summary, based on the submitted documentation, the on-site visit, and the above discussion of the University's statement, the experts assess that UNDANA needs to review the **alignment** of the programme's components – i.e. its title, curriculum, learning outcomes, facilities, collaboration, etc. – in order to ensure greater congruency of the programme's label and its contents. The experts emphasise that, from their perspective,

this does not necessarily entail a renaming of the programme, but instead a reflection and development process already indicated in the University's statement.

Following the above and in accordance with the relevant accreditation criteria, the experts issue a requirement in this matter.

Course learning objectives for Ba Aquaculture and Ma Environmental Science

Upon verification of the revised module handbooks submitted by the University, the experts acknowledge that adequate course learning outcomes (CLOs) for the Ba Aquaculture and Ma Environmental Science are now provided in both English and Bahasa Indonesia in the respective documents.

Implementation of a recurring workload measurement mechanism

In regard to the needed implementation of a recurring mechanism to survey students' actual course workload, the experts welcome the University's announcement to develop a suitable survey form. Since the University's statement refers to an intended *future* development and in view of the applicable accreditation criteria, however, the expert group nevertheless issues a requirement in this regard.

Diversification of programme foci

In regard to the experts' recommended diversification of foci within the study programmes under review, the expert group welcomes the University's comments on the intended stronger consideration of the topics Karst and volcanic environments in the curricula, and re-emphasises that the University may also want to give sustainability-oriented topics such as environmental pollution, waste management, and biodiversity greater attention.

Strengthening of students' English language proficiency

Concerning the experts' recommended strengthening of students' English language proficiency, the expert group warmly welcomes the University's outlined intended measures (e.g. to increase the number of courses and final theses conducted in English, as well as to promote student mobility abroad) in this regard. Since the University's statement refers to an intended *future* development, however, the expert group retains its recommendation in this regard for the time being.

Redundancies in the Ba Aquaculture curriculum

In regard to the experts' observed content-wise redundancies within the Ba Aquaculture programme, the expert group welcomes the University's elaborations and announced revisions.

Aside the above, the experts confirm their preliminary assessments and see this criterion as fulfilled; subject to the outlined requirements and recommendations.

2. Exams: System, Concept and Organisation

Criterion 2 Exams: System, Concept and Organisation
--

Evidence:

- Self-Assessment Report
- Module Descriptions/Handbooks, all programmes under review
- Student Handbooks, all programmes under review
- Samples of Graded Assignments and Exams
- Samples of Turnitin Similarity Checks
- Exam Regulations, Internship Guidelines, Thesis Guidelines
- Assessment Rubrics of Exams and Assignments, Lists of Academic Supervisors
- Guidelines for Education Implementation, Decree of the Rector of Nusa Cendana University, Number: Number 5 of 2022, UNDANA
- Discussions with programme coordinators, lecturers, students, and industry representatives during the audit.

Preliminary assessment and analysis of the experts:

Course Assignments and Exams

According to the self-assessment report, the students' academic performance is evaluated through formative and summative assessments. Formative assessments are conducted in the form of assignments, quizzes, and presentations with the objective of monitoring the learning process. Summative assessments are conducted in the form of mid-term and final examinations, with the aim of evaluating students' achievement of the intended course learning outcomes. Examinations comprise written, oral exams, and practical exams. Each course employs a mix of assessment methods, which are shared with students at the start of each course in the semester learning plan.

In the course of their enquiries during the audit, the expert panel learns that the alignment of exam and course contents is ensured through coordination between course instructors and the responsible Quality Control Group (Gugus Kendali Mutu, GKM) at the study programme level; and that assessment formats are adjusted to the module format (i.e. on-campus modules, thesis projects, community service, and field internships, respectively).

Asked by the experts how it is ensured that the amount and distribution of exams is not excessive, the programme coordinators explained that – if taking the maximum permissible workload per semester (cf. [criterion 1.5](#)) – students are typically required to take between six to eight courses per semester, each concluding with a final exam. This results in students having approximately seven exams scheduled over two exam weeks at the end of each semester. Students spoken to during the audit in this regard confirmed that the exam schedule is designed so that students have a maximum of two exams in a single day, although the standard is one exam per day only. All in all, while admittedly intense, the students expressed that the examination workload is manageable.

Asked by the auditors how assessment criteria for examinations are made transparent, the students moreover confirmed that the assessment criteria for course examinations are made clear through the semester learning plan at the beginning of the semester.

Grading Scale

Modules as well as the final project are graded on a scale from 0 to 100 with an equivalent letter grade scale as displayed below. A (100) is the maximum passing grade for courses and final projects, the minimum passing grade is C (60). Scores of D+, D, and E are considered failing grades.

No	Raw Value	Final Numeric Value	Letter	Graduation description
1.	≥ 80.0-100	4.00	A	Pass
2.	77.5- < 80.0	3.75	A-	Pass
3.	75.0- < 77.5	3.50	AB	Pass
4.	72.5- < 75.0	3.25	B+	Pass
5.	70.0- < 72.5	3.00	B	Pass
6.	67.5- < 70.0	2.75	B-	Pass
7.	65.0- < 67.5	2.50	BC	Pass
8.	62.5- < 70.0	2.25	C+	Pass
9.	60.0- < 62.5	2.00	C	Pass
10.	57.5- < 60.0	1.75	C-	Fail
11.	55.0- < 57.5	1.50	CD	Fail
12.	52.5- < 55.0	1.25	D+	Fail
13.	50.0- < 52.5	1.00	D	Fail
14.	< 50.0	0.00	E	Fail

Grading Scale. Source: Self-Assessment Report, UNDANA

As clarified with both teaching staff and students during the audit, students may ask to review their exams assessments following the announcement of exam grades, and possess

the right to challenge their examination results. Upon further inquiry in this regard, the assessors were explained by teaching staff that regulations allow students to appeal their exam result within a one-week period after their announcement. Students may inquire to take a remedial exam to improve their results, which however necessitates them to re-take the class in question.

Re-sit examinations are possible before the end of the semester for students who either fail the final exam or are unable to attend the scheduled exams due to circumstances such as illness or unforeseen circumstances. All in all, students may attempt a course for a maximum of three times.

Final Thesis

The conduct of a final thesis is mandatory for all students in the Bachelor's and Master's programmes under review at the end of their study programme, which they must finish within a maximum of 12 months. The thesis comprises both a preceding seminar (at the Bachelor's level: a preparatory thesis proposal seminar; at the Master's level: a colloquium) as well as the furnishing of the actual thesis.

Assessments within the thesis proposal seminar is based on the content of the proposal (30%), the methodology proposed (20%), its writing style and language (20%), and its defence (30%). All theses must likewise be defended in an oral exam.

To ensure originality, all thesis works moreover need to undergo a plagiarism check using Turnitin before submission. During the experts' exchanges with industry representatives, some of them furthermore stated to have had students conduct their thesis in collaboration with the company in the past.

Graduation Requirements

Undergraduate students are considered to have successfully completed their programme if they have completed all courses required of them in the curriculum, including the national requirements and thesis, with a minimum passing grade of 2.00. Students in the Master's in Environmental Science under review have to have completed the required 47 credit units with a minimum GPA of 3.00.

Moreover, students must submit their theses for publication in a scientific journal as a prerequisite for attending the graduation ceremony and receiving their degree certificates. This was also confirmed by the programme coordinators upon further inquiry by the expert panel. Moreover, the auditors learned that – depending on its quality – publication of the thesis may either take place in UNDANA's university journal or, in cases of exemplary research results, is encouraged in more high-standard journals.

In addition, students at both levels need to prove a certain English language proficiency – shown through a TOEFL test or equivalent – as a requirement for being permitted to graduate. Undergraduate students need to achieve a TOEFL score of 400, Master's students a score of 425. In line with the observation made under [criterion 1.6](#) already, the experts reiterate their encouragement at this opportunity that the Faculties should make further efforts in fostering students' English language proficiency, noting that the indicated TOEFL score equals an early B1 (i.e. early intermediate) level as per the Common European Framework of Reference (CEFR) for language proficiency only.

During their perusal of various assessments, papers, and final theses, the experts deemed these to be of appropriate difficulty, extent, and structure for the respective programme levels. This being said, the experts noted that the clarity and conciseness of exam and thesis research questions could at times be improved.

Besides this concern, yet, the experts all in all find that examinations are defined for every module in a transparent manner, that the employed examination types serve to impart the intended learning objectives on Bachelor's, and that clear regulations for resit exams exist. Furthermore, the auditors confirm that all curricula include a final thesis at an adequate level.

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

The experts thank the University for the provided statements concerning criterion 2. In summary, the auditors see this criterion as fulfilled.

3. Resources

Criterion 3.1 Staff and Development

Evidence:

- Self-Assessment Report
- Module Descriptions/Handbooks, all programmes under review
- Staff Handbooks, all programmes under review
- Student Handbooks, all programmes under review
- Samples of Lecturer Certification (*Sertifikasi Dosen* or *Serdos*)
- Lists of Publications, Research, and Areas of Expertise
- Discussions with programme coordinators, lecturers, students, and industry representatives during the audit.

Preliminary assessment and analysis of the experts:

The academic staff in the study programmes under scrutiny consists of teaching staff and supporting staff. In line with the *Tridharma* principle, academic staff are expected to conduct research and to engage in community service besides their teaching responsibilities.

The University provides the following staff numbers in their self-assessment report:

Study Programmes	Ba AGT	Ba ANH	Ba AQU	Ma ENV
Number of Teaching Staff (as of Academic Year 2022/2023)				
Teaching staff	41	69	17	17
Students	1192	1557	447	40
Teacher : Student Ratio	1:29	1:22	1:26	1:2
Qualification of Teaching Staff				
Teaching Staff with PhDs	17	25	11	17
Teaching Staff with Master's	24	44	6	—
Academic Rank				
Full Professors	5	3	1	5
Associate Professors	19	32	4	12
Assistant Professors	11	26	7	—

Lecturers	6	8	5	—
Supporting Staff				
Administrative Staff	1	3	2	15
Laboratory Staff	2	2	—	—

Staff composition in the programmes under review. Source: Self-Assessment Report, UNDANA. Own visualisation.

As can be discerned from the above, all teaching staff in the undergraduate programmes under review hold at least a Master's degree. In the Environmental Science Master's programme, all teaching staff have PhD degrees. The outlined teacher-to-student ratios are well within the limits issued in the decree of the National Accreditation Board for Higher Education No. 1041/BAN-PT/LL/2020. Upon their inquiry in this regard, the expert panel moreover learns that all teaching staff indicated are employed on permanent contracts.

As explained by UNDANA, administrative tasks at the study programme level is also supported by administrative staff at the faculty and university level, hence explaining the apparently small numbers for the Bachelor's programmes under review. As for the supporting staff number indicated for the Ma Environmental Science, the University explains that the comparatively high number of supporting staff indicated also supports numerous other graduate and doctoral programmes offered at UNDANA's Faculty of Postgraduate Studies, where the programme is hosted.

This being said, academic staff within the Ba Agrotechnology expressed during the audit that, apart from additional laboratory capacities (cf. [criterion 3.3](#)), additional laboratory technicians would be desirable. This confirmed the impression gained by the experts following their assessment of the supporting staff numbers presented as well as their visitation of the programmes' facilities. The expert group hence encourages the University to look into the number of supporting staff not only of the Agrotechnology programme, but also the other programmes in question.

Staff Qualification and Development

All lecturers are required to pass the Lecturer Certification (*Sertifikasi Dosen* or *Serdos*) mandated by the Indonesian government, which includes multiple trainings such as the *Basic Instructional Techniques Skills Improvement Program* (PEKERTI) and *Applied Approach* (AA) training to attest their pedagogical skills and be permitted to teach in the mentioned programmes. In 2021, UNDANA was authorised to facilitate these trainings for its staff though the decree number 1955/E4/KK.01.01/2021 of the Ministry of Education, Culture, Research, and Technology.

Upon their further inquiry in this regard, the expert panel learned that the PEKERTI programme covers a range of topics, including the theory of learning and teaching, learning methods, strategies for evaluating the learning process, and the creation of learning sequences.

As also confirmed by staff spoken to during the audit, teaching staff are encouraged to attend trainings, workshops, conferences, seminars, and to engage in research and publications within their areas of expertise. Also, academic staff hinted during their exchange with the expert panel that there is also an option to take a sabbatical. Furthermore, the expert panel learns that UNDANA provides support for its academic staff to pursue PhD studies both within Indonesia as well as abroad. Additionally, the University encourages its staff to apply for international scholarships schemes for PhD studies overseas (e.g. through the Indonesian Finance Ministry, USAID, the Fulbright Program (USA), Chevening (UK), or MEXT (Japan)).

In regard to English language proficiency of its teaching staff, the auditors learn that the University aims to foster has in place to enhance the English language skills of its staff through English language courses for new lecturers at the UNDANA's language centre, focusing on improving their language skills. Nevertheless, English language proficiency of its personnel was recognised by the University as an existing challenge during the audit. In view of these remarks and again pointing to the University's declared vision, the experts encourage the University to foster its staff's English language skills through further incentivisation and training.

Staff Evaluation

Asked by the expert panel about the evaluation mechanism and criteria for teaching staff, the lecturers point out that the performance is measured using the "BKD" (*beban kerja dosen*, "lecturer workload") system. This system quantitatively assesses the teaching staff's engagement in research, community service, and teaching workload, requiring the fulfilment of a certain number of credits each semester. The submission and verification of proof for these credits are managed through an integrated government system called „SISTER". Academic staff aspiring to further their career by advancing to higher levels of professorship are required to provide evidence of suitable accomplishments and to, correspondingly, accumulate higher amounts of credits.

Aside the national BKD system, the experts moreover learn during the audit that an additional, University staff evaluation system called "siremun" (*sistem informasi remunerasi UNDANA*) is in place, through which the University administers incentives for beyond-expectation performance.

In summary, the expert group comes to the conclusion that the composition and qualifications of the teaching staff are appropriate to successfully implement the degree programmes under review; and that opportunities for continued professional and didactic growth are available. Lastly, they recognise that a regular performance assessment system is in place.

Criterion 3.2 Student Support and Student Services

Evidence:

- Self-Assessment Report
- Student Handbooks, all study programmes under review
- Guide: Introduction to Campus Life for New Students, UNDANA, 2022
- Guidelines for Education Implementation, Decree of the Rector of Nusa Cendana University, Number: Number 5 of 2022, UNDANA
- Appointment of the Legislative Board of Students of Nusa Cendana University, Decree of the Rector of Nusa Cendana University, Number: 255/KM/2022, UNDANA
- Determination of the Provision of Course „KIP” Assistance Program for New Students of Nusa Cendana University, SNMPTN Path, Class Of 2022; Decree of the Rector of Nusa Cendana University, Number: 872/KM/2022, UNDANA
- Appointment of the Governing Body of the Student Organization, Faculty of Animal Husbandry, Marine And Fisheries, Dean of the Faculty of Animal Husbandry, Marine and Fisheries, Number: 54/KM/2023, UNDANA
- Appointment of Student Executive Board Management and Student Association Structure, Faculty of Agriculture, Dean of the Faculty of Agriculture, Number: 72/SK/FAPERTA/2023, UNDANA
- Discussions with programme coordinators, lecturers, students, and industry representatives during the audit.

Preliminary assessment and analysis of the experts:

As outlined in the provided self-assessment report, UNDANA offers student support in various ways, which were also confirmed by students spoken to by the experts during the audit.

Introductory Programme

Undana has implemented an introductory programme known as Introduction to Campus Life for New Students (*Pengenalan Kehidupan Kampus Bagi Mahasiswa Baru*, PKKBMB), specifically designed for Bachelor's students. The primary objective of this programme is to

facilitate a smooth transition of previous high school students into the new academic environment.

Scholarships

UNDANA offers scholarships and tuition fee waivers for underprivileged students throughout their studies, and offers rewards for students graduating with outstanding results.

Upon the experts' further inquiry concerning scholarships for underprivileged students, they learn that UNDANA offers support through the Indonesia Smart Card (KIP) scholarship scheme, provided by the Indonesian Ministry of Education, Culture, Research and Technology. The criteria for these scholarships target students who are economically incapable of supporting their university studies and include orphans as well. The scholarship covers tuition fees and may, depending on the support applied for, also include financial support with living expenses. As detailed by the University, the total number of KIP scholarship recipients within the last years across the three study programs under review is 163 students.

Academic Advisors

Moreover, each student at UNDANA is assigned an academic advisor. Each academic advisor is a member of the academic staff and acts as a go-to person for advice on academic as well as personal matters. Centrally, academic advisers are tasked with providing guidance to their assigned students regarding course selection, course load, and the arrangement of their semester plan. Upon their further inquiry on this topic, the expert panel learns that the number of students each academic advisor oversees varies. In Bachelor programs, an advisor typically manages between 20 and 30 students. In the Master of Environmental Science study program, the head of the program assumes the role of student advisor for all enrolled students.

With regard to the **Ma Environmental Science**, the programme coordinators highlight during the audit that, due to the usually small number of about 16 students per intake, close counselling of the individual study journey is possible. Moreover, they highlighted that most of the programme participants tend to be government employees, with classes hence often taking place in the afternoon.

Health Services

UNDANA also offers various services in regard to the well-being of its students. In terms of student health, healthcare services are available on campus to provide first aid to students

in the event of accidents or illnesses. Additionally, counselling services as accessible to students dealing with mental health issues.

Student-led Activities and Representation

Student representation at UNDANA is institutionalised through a number of student organisations at both the university and faculty level, including the so-called Student Legislative Body (BLM), Student Executive Body (BEM), and Student Activity Units (UKM); which moreover organise a number of student-led activities.

In closing, the experts conclude that sufficient resources are available to provide individual assistance, advice and support for the students in the programmes under review. They judge that the support systems help students to achieve the intended learning outcomes and to complete their studies successfully.

Criterion 3.3 Funds and equipment

Evidence:

- Self-Assessment Report
- Lists of Cooperations with National and International Partners
- Visitation of participating institutes and laboratories during the audit
- Video documentation of the Aquaculture wet labs
- Discussions with programme coordinators, lecturers, students, and industry representatives during the audit.

Preliminary assessment and analysis of the experts:

Funds

As per UNDANA's self-assessment report, UNDANA's financial resources largely come from governmental funds and are distributed amongst its faculties and study programmes based on annually submitted budget calculations.

According to the University, the Agrotechnology study programme received an average annual funding of IDR 814,314,168 (approx. 48.000€) over the period 2021-2023, including additional funds allocated for facility repairs. The Aquaculture and Animal Husbandry study programmes received average annual funding of IDR 581,727,667 (approx. 34.000€) and IDR 730,145,166 (approx. 43.000€), respectively, from the university during the same period. The Environmental Science study programme was allocated an average annual funding of IDR 342,205,000 (approx. 20.000€) by the University over these three years.

Buildings and Equipment

In the report, the University outlines that the sufficiency of existing facilities and infrastructure in each study programme is surveyed regularly through semester-wise student satisfaction surveys conducted by the respective study programme level quality control groups (GKM, cf. [criterion 5](#)). In this context, the University moreover variously pointed to the conclusion of MoUs with other research and higher education institutions in Indonesia, such as institutes in Kupang, the Institute Pertanian Bogor and the Universitas Gadjah Mada, in order to make use of advanced laboratory capacities.

During the experts' discussions, yet, a number of students across the study programmes under review expressed that the capacities of various laboratories are limited, often necessitating the division of classes (comprising 30-35 students) into smaller groups (of 5-7 students) for practical reasons. While students upon further inquiry of the experts confirmed that these arrangements did not result in a delay to their studies, the students' statement confirmed an impression the experts had gained during their visitation of the programmes' facilities. In agreement with this, moreover, multiple staff expressed during the audit that improved laboratory capacities would be desirable to increase both teaching efficiency and research capabilities.

In view of the above, the experts' note their recommendation for the involved faculties to increase their laboratory capacities to allow for more efficient conduct of lab courses and to increase research capabilities within the faculties under review.



Analytical laboratory (left), chemical feed laboratory, UNDANA. Source: ASIIN.

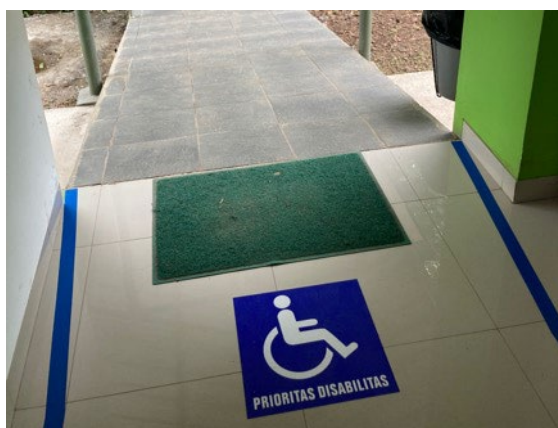
In the course of their assessment, the expert panel also investigated how UNDANA is equipped with facilities designed to accommodate individuals with disabilities. In response, the University highlighted that facilities such as ramps, wheelchairs, and accessible toilets exist. This was also observed during the audit.

During the audit, the expert group visited a multitude of facilities and laboratories of the programmes under review; amongst them the University's computer centre, academic and

student affairs helpdesk, specialised laboratories such as the microbiology, biochemistry & molecular biotechnology lab, atomic absorption spectrometry (AAS) laboratory, chemical feed laboratory, agricultural product processing laboratory, aquaponics laboratory, fisheries field lab, aquaculture dry lab, as well as the animal husbandry field lab.

Following their tour of the study programmes' facilities, the auditors commended the range of facilities, and find that they are generally adequate to achieve the respective programmes' objectives. This being said, the auditors note the following:

- For the **Ba Agrotechnology**, the experts strikingly note that – despite the programme's title – no agrotechnological equipment such as agricultural machinery, equipment for process engineering, biogas facilities, renewable energy or precision farming equipment could be observed; adding to the concern already expressed under [criterion 1.2](#) and [criterion 1.3](#). Within the experts' opinion, the facilities observed were found to be rather resembling those expected in a study programme focusing on crop production. At a more general level, the experts note that the Faculty should look into improving laboratory capacities and equipment.
- In the **Ba Aquaculture** programme, facilities appear to be well-managed and sufficient for teaching at the Bachelor's level exist, there appeared to be no Closed Recirculation Aquaculture Systems (RAS) for aquaponics enabling to deal with so-called on demand decoupled aquaponics (consisting of a RAS connected to hydroponic via a one-way valve providing on demand the flow of nutrient rich fish process water to the hydroponics unit), which would be particularly beneficial given the University's dryland context. Due to the conditions of the rainy season as well as for time reason, the Aquaculture field wet labs in the remote Hansisi village could not be visited in person during the audit, however, were assessed through video documentation provided by the University.
- With regard to the **Ba Animal Husbandry**, similarly to the above, the experts deem the in-house laboratories to be sufficient for teaching activities in the programme, with room for improvement in regard to the labs' capacities and the equipment used. With respect to the visited field laboratories, the experts found the facilities for ruminant animals (i.e. cattle, sheep, and goats) to be fully adequate, yet likewise noted room for modernized facilities in regard to poultry and swine.



Wheelchair ramp (left), microbiology lab (right), UNDANA. Source: ASIIN.

Library

The university library of UNDANA comprises 25.511 book titles, a repository of theses and dissertations published by students, as well as an e-library. The library also features a computer room equipped with approximately 25 internet-connected computers, as well as a discussion room for students and lecturers to conduct small-scale meetings.

As the assessors learned in the course of their inquiries, UNDANA facilitates access to various online repositories such as Perpustakaan (The National Library), Science Direct, or Scopus. In this respect, however, the experts also learn during their exchanges with students and teaching staff that students are required to be on campus to have access to restricted databases such as Springer Link, Science Direct, or Scopus through the University's network. They do not have access to these resources from home. In view of this, the expert recommends the University to establish remote access to these portals, e.g. through a virtual private network (VPN), to enable students (and staff) to have 24/7 access to these resources.



Aquaponics lab (left), Animal Husbandry field lab (right), UNDANA. Source: ASIIN.

Cooperations

With regard to collaboration between the study programmes at hand and other institutions, UNDANA presented the following within their self-assessment report and the expert panel discussions during the audit:

- For the **Ba Agrotechnology** (Faculty of Agriculture), cooperation partners include UN Timor-Leste, Charles Darwin University (Australia), Miyazaki University (Japan), as well as the University of Kentucky (USA); encompassing student and lecturer exchanges, and joint research.
- For the **Ba Animal Husbandry** (Faculty of Animal Husbandry, Marine Sciences and Fisheries), international projects associated with the study programme include five multi-year research projects funded by the Australian government and four livestock development projects financed by the Timor-Leste Government. The study programme is also involved in multiple development projects initiated by various international actors such as the Asian Development Bank, the Delegation of the European Union to Timor-Leste, and the International Labour Organization. Also, students were hosted by the Australian Northern Territory Cattlemen's Association (NTCA) for a six-month internship in collaboration with the Indonesian Animal Scientist Association.
- With regard to the **Ba Aquaculture** (Faculty of Animal Husbandry, Marine Sciences and Fisheries), the University outlines a number of collaborations with regional companies in regard to students' mandatory internships, their theses, as well as joint research. At the international level, the programme pointed to research collaborations with the University of Queensland and Griffith University in Australia.
- As for the **Ma Environmental Science** (School of Postgraduate Studies), the University outlines a range of notable partners, amongst them the United Nations Development Programme (UNDP), World Vision Indonesia, Care International, the regional government, the Wildlife Conservation Society Indonesia, as well as partner institutions in Timor Leste.

All in all, following the above, the experts judge the resources available for the conduct of the programmes under review to be – at present – generally sufficient. Nevertheless, the experts re-emphasise that the University should invest in its laboratory capacities in the programmes under review (both in terms of space and personnel), especially also to prepare for potentially increasing student numbers in the future.

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

The experts thank the University for the provided statements concerning criterion 3.

Laboratory capacities

In regard to the experts' suggested improvement of laboratory capacities – both in terms of facilities and supporting staff – the expert panel welcomes the indicated investments and hiring of further staff by UNDANA in 2024. Since the University's statement refers to an intended *future* development, however, the expert group retains its recommendation in this regard for the time being.

Closed Aquaculture Recirculation Systems (RAS) in the Ba Aquaculture

In connection to the above, the experts also welcome the University's indication that the Ba Aquaculture will benefit from the indicated investments in laboratory capacities through the inclusion of Closed Aquaculture Recirculation Systems (RAS). Since this announcement equally refers to an intended *future* development; yet, the expert group retains its recommendation in this regard for the time being.

English language proficiency of Faculty staff

Concerning the experts' recommended strengthening of the English language proficiency of Faculty staff in the programmes under review, the expert group welcomes the University's intended measures (e.g. through fostering staff mobilities abroad and increasing classes taught in English) in this regard. As an encouragement for the University to follow through with its outlined ambitions as well as to endorse revision of this aspect in a possible future reaccreditation, the expert group retains its recommendation in this regard.

Remote access to licenced literature databases for students and staff

With respect to students' and staff's ability to access licenced literature databases remotely, the experts thank the University for the clarification provided through their statement and the submitted additional documentation. Given that the submitted evidence explaining students' remote access to various databases seems to date back to August 2023 only, and the fact that students did not seem to be aware of this possibility at the time of the audit in December 2023, the experts however recommend the University to intensify efforts to ensure this access is known to all students.

Aside the above, the experts confirm their preliminary assessments and see this criterion as fulfilled; subject to the outlined recommendations.

4. Transparency and Documentation

Criterion 4.1 Module Descriptions

Evidence:

- Self-Assessment Report
- University Website ([here](#), [here](#), [here](#), [here](#))
- Module Descriptions/Handbooks, all programmes under review
- Discussions with programme coordinators, lecturers, students, and industry representatives during the audit.

Preliminary assessment and analysis of the experts:

The module descriptions provided for the **Bachelor's programmes** under review are found to contain most of the required information, and to be presented in a visually clear format. This being said, the experts observe a number of necessary revisions in the provided documentation:

1. In the **Ba Animal Husbandry** module handbook, only module descriptions for the General Competencies (Common Courses) modules appeared to be translated into English.
2. For the **Ba Aquaculture** programme, as already noted under [criterion 1.1](#), no course learning objectives appear to be defined in the English module handbooks provided. Instead, the provided module handbook refers to selected *programme* learning outcomes under “modules objectives/intended learning outcomes”.

The experts hence note that accordingly revised and completed module descriptions for the two abovementioned study programmes need to be provided.

In regard to the **Ma Environmental Science**, the experts noted that the English module descriptions provided to them constituted a course list with very little detail only, but not full module descriptions with all details as required. The experts hence note that the programme needs to compile comprehensive and complete module descriptions in English, ideally compiled in a module handbook similar to those provided by the undergraduate programmes under review.

Apart from the above, the experts noted that, within the module handbooks provided for the Bachelor's programmes, the stated literature recommendations variously contained literature as old as from the 1950s/1960s, with in total about 10-20% of literature from the 1980s or older across the three programmes. In view of this, the experts encourage the

study programmes – including the Ma Environmental Science – to check whether the provided literature recommendations are still up-to-date, and if older literature could be replaced by relevant newer works.

Also, upon verification of the respective programmes' websites, the experts note that – while all pages make accessible some form of module descriptions (in English: the module handbooks/list as provided to the experts, in Bahasa Indonesia: the semester learning plans) – all of the files linked seem either incomplete or inaccessible to some degree. As per the applicable standards, yet, the module descriptions including all required information need to be made available publicly in full detail (e.g. in PDF format).

The experts hence ask the programme coordinators to make the (revised) complete module descriptions (in English: as module handbooks, in Bahasa Indonesia: as semester learning plans or module handbooks) publicly available to be accessible to all interested stakeholders and potential future students.

Criterion 4.2 Diploma and Diploma Supplement

Evidence:

- Self-Assessment Report
- Sample Diploma for each degree programme
- Sample Diploma Supplement for each degree programme
- Guidelines for Education Implementation, Decree of the Rector of Nusa Cendana University, Number: Number 5 of 2022, UNDANA

Preliminary assessment and analysis of the experts:

The experts confirm that the students of all degree programmes under review are awarded a Diploma and a Diploma Supplement after graduation, the latter called the *Surat Keterangan Pendamping Ijazah* (SKPI). The Diploma consists of a Diploma Certificate and a Transcript of Records. The Diploma Supplement contains almost all necessary information about the degree programme as per the applicable template for Diploma Supplement issued by the Ministerial Conference of the European Higher Education Area (EHEA) in May 2018 and the ECTS Users' Guide from 2015.

In the course of their review of the sample diploma supplements provided, the experts however note the following:

- No information on the **mode of study** (e.g. full-time, part-time, distance, etc.) is included, and

- no information on **access to further study** (e.g. access to Master's or PhD studies) is stated.
- Moreover, no actual sample of a diploma supplement appears to have been provided for the **Ma Environmental Sciences**.

For further orientation in this regard, the experts refer to the Diploma Supplement explanatory notes [here](#).

The experts hence ask the University to add the above information in the diploma supplement to be in full compliance with the applicable standards, and to provide examples of such issued diploma supplements for all four programmes under review in due time.

Criterion 4.3 Relevant Rules

Evidence:

- Self-Assessment Report
- University Website ([here](#), [here](#), [here](#), [here](#))
- Student Handbooks, all programmes under review
- Regulation: Indonesian National Qualification Framework, President of the Republic of Indonesia, Number 8 of 2012
- Regulation: National Standards for Higher Education, Minister of Education, Culture, Research, and Technology of the Republic of Indonesia, Number 3 of 2020
- Regulation: Statutes of Nusa Cendana University, Minister of Education, Culture, Research, and Technology of the Republic of Indonesia, Number 52 of 2022
- Guidelines for Education Implementation, Decree of the Rector of Nusa Cendana University, Number: Number 5 of 2022, UNDANA
- Implementation of Student Activities, Decree of the Rector of Nusa Cendana University, Number: Number 6 of 2020, UNDANA

Preliminary assessment and analysis of the experts:

The auditors confirm that the rights and duties of both UNDANA and the students are defined clearly and bindingly. All pertinent rules and regulations, especially the University's *Guidelines for Education Implementation* and the programmes' *Student Handbooks* are published on the University's website and the respective programme's websites, and thus available to all relevant stakeholders. The assessors moreover commend the existence of further comprehensive resources such as the *Academic, Thesis, and Internship Guides* available through the programme's websites.

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

The experts thank the University for the provided statements concerning criterion 4.

Completeness and availability of module descriptions

Upon perusal of the provided revised module descriptions and verification of their availability on the respective programmes' websites, the experts attest that the module handbooks (in English) as well as semester learning plans (RPS, in Bahasa Indonesia) for the three Bachelor's programmes under review are now complete and accessible on the respective websites. As for the Ma Environmental Sciences, yet, the experts observe that neither the revised full English module handbook (as provided as part of the University's statement) nor the full semester learning plans (in Bahasa Indonesia) seem to be available on the programme's website. The experts reiterate that these must be made accessible in full to all interested stakeholders, and issue a requirement in this regard accordingly.

Apart from the above, the experts retain their recommendation for all programmes under review to check whether the literature recommendations stated for the respective modules are still up-to-date, and if older literature could be replaced by relevant newer works.

Information on Diploma Supplements

With regard to the information provided on the University's Diploma Supplement, the experts appreciate the University's further comments and additional sample. This being said, the expert panel highlights that the detected missing information on the respective mode of study and access to further studies needs to be included in the Diploma Supplement to be in compliance with ASIIN's criteria and the underlying European standards. While the experts understand that UNDANA does not – at this point – offer distance learning degrees, they stress that the purpose of Diploma Supplements is to provide clear and comparable information on students' obtained degrees, particularly for interested third parties such as universities (e.g. in case of applications for further studies) as well as possible employers. The experts hence issue a requirement in this regard.

Aside the above, the experts confirm their preliminary assessments and see this criterion as fulfilled; subject to the outlined requirements and recommendations.

5. Quality management: quality assessment and development

Criterion 5 Quality management: quality assessment and development

Evidence:

- Self-Assessment Report
- Accreditation Certificates, National Accreditation Agency for Higher Education (BAN-PT)
- Results of Student Satisfaction Surveys, 2022-2023
- Internal Quality Audit Reports, 2022
- Guidelines for Education Implementation, Decree of the Rector of Nusa Cendana University, Number: Number 5 of 2022, UNDANA
- Minutes: Benchmarking with Universitas Sebelas Maret on International Accreditation, UNDANA, 20 March 2023
- Quality Standards of Nusa Cendana University, UNDANA, 2020
- Discussions with programme coordinators, lecturers, students, and industry representatives during the audit.

Preliminary assessment and analysis of the experts:

The Universitas Nusa Cendana employs an ISO 9001:2015 certified internal quality assurance system. Accordingly, UNDANA has established dedicated units responsible for internal quality assurance at the university, faculty and study programme level.

At the university level, the Institute for Development, Learning and Quality Assurance (LP3M) oversees the assurance of academic quality by conducting recurring Internal Quality Audits (*Audit Mutu Internal*, AMI) within UNDANA's faculties. For quality assurance of non-academic processes, UNDANA has established its Internal Supervisory Unit (SPI).

At the faculty level, the Quality Assurance Group (Gugus Benjamin Mutu, GPM) is tasked with overseeing the academic quality within the associated degree programmes, communication with the programme-level quality task forces (GKM), and reporting to the university-level quality assurance unit (LP3M).

At the study programme level, the Quality Control Group (Gugus Kendali Mutu, GKM) is responsible for conducting internal evaluations of the learning process in each study programme. To this end, the GKM assesses the adequacy of facilities and infrastructure to support learning and research, and conducts satisfaction survey with students, lecturers,

and supporting staff every semester. Furthermore, in collaboration with the respective course instructors, the GKM inspects written exams and assignments, and conducts course evaluation surveys. The questionnaires assess various aspects, including lecturer attendance, availability of syllabus and lesson plans, distributed lecture materials, usage of media, as well as the assessment methods and learning strategies employed by the lecturer. The results of these evaluations are communicated to the study programme coordinators, the faculty-level quality assurance unit (GPM), and the Dean.

In addition to internal evaluation, each study programme at UNDANA undergoes external quality assurance through a national accreditation process every five years. Accordingly, all four study programmes under scrutiny have received reaccreditation from the National Accreditation Body for Higher Education (Badan Akreditasi Nasional-Perguruan Tinggi, BAN-PT), and were awarded good to excellent ratings.

As outlined in [chapter 1.1](#) and [chapter 1.3](#), reviews of the curricula and learning outcomes within the programmes under review are undertaken every five years. This review process involves both internal and external contributors. During the experts' exchanges with industry representatives, a majority confirmed to have been invited to meetings to discuss the curricula and its review by the University. Less frequently, industry representatives moreover confirmed to have received feedback surveys concerning the programmes in question via email.

With respect to course evaluation surveys, the expert panel learns from the students and teaching staff spoken to during the discussion rounds that students give feedback on every course through a survey at the end of each semester. Asked whether they perceive their feedback to be impactful, the students confirmed that action is taken if called for, citing various examples of changes in lecturers or their teaching following student complaints.

This being said, the students described upon the experts' further inquiry that there is no structured communication back to the students from the Faculties' sides concerning the course feedback they have received, and any action taken in response. Statements made by teaching staff that students' course feedback is discussed with the students in the last course session or in the course of recurring discussion meetings could not be corroborated during the experts' discussion with the students. In view of this, the assessors stress to the Faculties' under review that the outcomes of the course evaluation surveys and, if applicable, any actions for improvement taken must be commented on and communicated back to the students in order to close the feedback cycle, e.g. through discussions in class or student assemblies, through student councils in the respective departments, or published in writing e. g. on student bulletin boards.

In addition to the above, the experts learned during their audit discussions that each Faculty determines their own set of course evaluation questions, which are moreover handed to the students in different formats (i.e. using paper-, Google Forms-, as well as website-based surveys). Furthermore, the expert panel came to understand that multiple course evaluation surveys are often handed to the students at the end of a given course – one facilitated by the lecturer at the end of the course sessions, and one after completion of the final exams through the programme-level quality assurance unit (GKM). In light of the above, the experts recommend UNDANA to streamline the course evaluation surveys conducted by using a standard set of (main) questions to enable unified university-wide data gathering, comparison, and analysis. Moreover, the experts suggest to restrict course feedback surveys to *one* only, and to unify their medium so to avoid third-party applications such as Google Forms.

Aside the abovementioned remarks, however, the expert group assesses that the study programmes undergo regular and comprehensive internal and external quality assurance processes involving all relevant stakeholders and drawing from a wide range of surveys.

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

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

Closing of student feedback cycle

In regard to the needed closing of the student feedback cycle – i. e. that the outcomes of the course evaluation surveys and, if applicable, any actions for improvement taken must be commented on and communicated back to the students through suitable means – the experts welcome the Faculties' announcement to be committed to the implementation of such means from the even (i.e. spring/summer) semester 2024 onward. Since the University's statement refers to an intended *future* development and in view of the applicable accreditation criteria, however, the expert group issues a requirement in this regard.

Platform used for course evaluation surveys

With respect to the technical means employed by UNDANA to conduct course evaluation surveys, the experts thank the University for the clarification provided through their statement and the submitted additional documentation.

Aside the above, the experts confirm their preliminary assessments and see this criterion as fulfilled; subject to the outlined requirement.

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 (15.02.2024)

The institution provided the following additional documents

- Decision Number 163/E/KPT/2022 on the Name of Study Programs in Academic and Professional Education, Ministry Of Education, Culture, Research And Technology, Republic Of Indonesia.
- Revised Module Descriptions, Ba Animal Husbandry, Ba Aquaculture, Ma Environmental Science.
- Diploma Supplement, Ma Environmental Science.
- Example of Feedback Questionnaire, Ba Aquaculture.
- Example Student Feedback on Siadiknona Online Platform.
- Letter No. 5298/UN15.4/PP/2023 on the Socialization of the Use of Science Direct and Scopus E-Books & E-Journals, UNDANA, 23 August 2023.

as well as the following detailed statement:

Experts Assessment/Comment, Recommendation	Feedback from UNDANA
Criterion 1. The Degree Programme: Concept, Content, & Implementation	
Characteristics of the Degree Programme: <i>All well described</i>	All comments are accepted, and highly appreciated
<i>Criterion 1.1. Objectives and Learning Outcomes of a Degree Programme</i>	
• AGT: On the module level, the experts note various discrepancies in the relevant module descriptions provided for the respective study programmes: For the Ba Agrotechnology course learning objectives (CLOs) are defined in the respective module handbooks provided. • ANH:	The comments are accepted, and highly appreciated

Ba Animal Husbandry, course learning objectives (CLOs) are defined in the respective module handbooks provided.	
• AQU: ✓ no course learning objectives appear to be defined in the English module handbooks provided. (page 13) ✓ seemingly missing course learning objectives (CLOs) appear to be due to gaps in the English documentation provided, but not factually non-existence	Recommendation from the experts has been followed up and all the documents have been updated and translated to English (see link : https://bdp.undana.ac.id/wp-content/uploads/2024/02/Modul-Hanbook-En-rev-3.pdf) (go to https://bdp.undana.ac.id/en and please click on Academics >> Semester Learning Plan >> RPS 2024) <u>The documents are also attached in the email sent to the experts</u>
• ENV: ✓ no course learning objectives seem to be documented in the rudimentary module descriptions provided. ✓ seemingly missing course learning objectives (CLOs) appear to be due to gaps in the English documentation provided, but not factually non-existence	Recommendation from the experts has been followed up and all the documents have been updated and translated to English, uploaded in the website and also attached in the email.
Recommendation to the UNDANA on Intended Qualification Profile: ✓ the University needs to provide comprehensive revised module descriptions including specific course learning outcomes in English in due time (page 14) ✓ the experts note that the University may want to consider further topics which could be central to the programmes under review. ✓ the experts see the unique Karst (island) environment of Kupang and the region, environmental pollution and waste management, as well as biodiversity in view of the nearby Wallace line. ✓ The experts hence encourage the University and the programmes under review to diversify their foci and capitalise on its location advantages	✓ Thanks for the recommendation, and all the documents have been revised and provided in both the website and also send to the experts through emails ✓ Thanks for the recommendation. About the unique Karts environment, it is true for the main Islands of Timor and Sumba as part of NTT Province, but the province also covers other islands such as Flores, Lembata and Alor that are volcanic in nature. The unique Karts and Volcanic environments of NTT Province will be seriously taken into consideration by UNDANA as unique topics in curriculum. ✓ Thanks for the recommendation, and will be seriously taken into consideration by UNDANA to attract more international students in the future. UNDANA also believes that the Accreditation process by ASIIN will help promote the study programmes under review to the international level, thus will foster the

more, focussing on regional strengths from a global perspective, in order to attract further international attention, particularly students.	incoming international students into UNDANA.
<u>Graduate Qualification Profiles:</u> Comment and Recommendation to AGT, ANH, AQU, ENV • During their exchanges with students and alumni in the course of the audit, numerous confirmed their satisfaction with the programmes under review, and that they perceived to be well-qualified for the job market following their graduation	• Thanks for the comment, highly appreciated
• the experts concur with these statements by the industry representatives, and encourage the University to intensify its efforts to foster students' English language competency	• There is a regulation in place, i.e., the Rector's Decree No.5, 2022. which requires the students to have a TOEFL scores of 400 (Bachelor) and 425 (Master/PhD) upon their graduation. Following this regulation, UNDANA require all new students to attend a TOEFL test conducted by Language Center of UNDANA. Those who had not passed the minimal requirement need to improve their English proficiency individually, out site of Undana or at Undana Language Center, and the students must attend the TOEFL test at Undana Language Center to verify that they have met the minimum score required. By implementing this optimally at the Study Programme and the University level, UNDANA expects that the all graduates will possess sufficient English proficiency upon their graduation. • In addition to the above regulation, as the consequence of International Accreditation by ASIIN, starting from Even Semester 2023/2024, the study programmes under review will implement the following programmes: ✓ Open Certain classes/courses that are conducted in English (≥ 50% of the lectures and class activities will be conducted in English), in every semester ✓ Facilitate and supports students participate in international exchange/internship programs. ✓ Targeting 5-10% of students/department to write their final project in English.

	✓ Involving and increasing student participation in international seminars (>5%)/year ✓ Engage and increase student participation in academic and non-academic activities that use English (>5%)/year
<u>Learning Outcomes:</u> Comment and Recommendation to AGT, ANH, AQU, ENV • the experts gain the impression that the imparted qualification profiles are appropriate for the intended level of studies, satisfy expectations on all sides, and allow the students to take up employment corresponding to their qualification (page 15)	• Thanks for the comment, highly appreciated
<i>Criterion 1.2 Name of the Degree Programme</i>	
• AGT ✓ the expert group comes to the conclusion that the title “Agrotechnology” appears inadequate in view of the programme’s factual course contents and observed facilities; (page 15) ✓ In consequence, the experts assess that the programme’s title and its curriculum need to be brought into alignment ✓ the experts perceive that a suitable renaming of the programme would not only prevent misunderstanding, but would enable it to showcase its existing qualities. In view of the programme’s apparent genesis from multiple previous programmes (cf. criterion 1.3), the expert panel perceives that a labelling of the study course as an Agronomy programme would, for example, be more fitting	✓ That the name Agrotechnology (AGT) follows the nomenclature of the Indonesian Ministry of Education and Culture in 2009, when the name of Agrotechnology was adopted to cover the compulsory merger of the four study programmes, i.e., Agronomy, Plant Pest and Diseases, Soil Science, and Post-Harvest Technology. On that time, only a few universities categorized as Legal Entity State University (PTNBH) Universities such Institute Pertanian Bogor, University of Gadjah Mada, University of Padjajaran, University of Sumatera Utara, and University Hasanudin were allowed to keep the ‘conventional’ study programmes in the Agriculture fields such as Agronomy, Soil Science, Plant Pests and Disease, etc., while other state and private universities are obligated to use only the names: ‘Agrotechnology’ or “Agroecotechnology”, and UNDANA opted to use the name ‘Agrotechnology’. However, following the latest development in this field, most specifically related to the marked demand for graduates in the field of Agriculture, the Indonesian Ministry of Education revised the regulation to allow the state and private universities reopen the study programmes such as Agronomy, etc.

	and this is regulated in the Decree of the Director General of Higher Education of Indonesian Ministry of Education Culture, Research and Technology, No.163/E/KPT/2022, concerning the Name of Study Programs in Academic Education and Professional Education. In this regulation, the name Agrotechnology is listed in the Group of Agricultural Science or Science with the code 211 (see attached link : https://lldikti3.kemdikbud.go.id/v6/wp-content/uploads/2022/10/Salinan-Kepdirjen-Nama-Prodi-No.-163-Th-2022.pdf) The recent curriculum Outcome Based Education (OBE) applied to Agrotechnology since 2022 was actually an integration of several curriculums of previous study programs that has been merged, following the Indonesian Education Ministry regulation; i.e., Agronomy, Soil Science, Plant Protection and Post-Harvest and Food Technology study programmes. ✓ This OBE curriculum provided has actually been modified and arranged to not overlapping with other hard engineering studies in Agricultural Field of Studies such as Agriculture Technology, Agriculture Industrial Technology or Mechanical Engineering that are also listed in the General of Higher Education of Indonesian Ministry of Education Culture, Research and Technology, No.163/E/KPT/2022. Furthermore, AGT perspectives on the term: 'technology' is not projecting its outcome as designers and producer of agriculture machinery, instead as users of these technologies instruments. To accommodate that, AGT has placed in its curriculum one of the subject namely Farming Equipment (code: PNAGT 16346, 3 credits/ 3.2 ECTS (50:50 theory and practicum). ✓ As is explained in the above responds about alignment, we consider not possible to make changes on the title of the study program, since this will not be aligned with Dikti's
--	--

	nomenclature, and that the changes will require new admission system to the program. However, Agrotechnology is open and accepting to further suggestion and recommendation on its curriculum content.
• ANH, AQU, ENV the experts confirm that the English translation and the original Indonesian names of the remaining study programmes under review are appropriate and correspond to the programmes' intended aims and learning outcomes.	• The comments are accepted, and highly appreciated
<i>Criterion 1.3 Curriculum</i>	• The comments are highly appreciated
• AGT ✓ the experts find little to no courses in the curriculum that would usually qualify such a study Programme, such as courses on agricultural engineering, seeding technology, harvesting technology, precision farming, mechanical engineering, etc. (page 22) ✓ experts also judged that little to no agrotechnological equipment could be observed during their visitation of the programme's course facilities in the course of the audit ✓ In view of the above, the expert group finds that there are comprehensive grounds for their concern, and hence concludes that the programme's title and its contents are in need of alignment.	✓ From our perspective, the term 'technology' in the title 'Agrotechnology' is related to any technology within the scope of crop production and crop cultivation, and these aspects, as we understand, have been accommodated in the curriculum of Agrotechnology Study Programme. Subjects that may seems to be more relevant to the term 'technology' in the title 'agrotechnology' such as: agriculture machinery and equipment, seed technology, etc. have also been included in the curriculum such as: Farm Equipment, Seed Technology, Agriculture Biotechnology, Dryland Farming Technology, Post-Harvest Technology. In response to the expert's recommendation, we will include more courses that are more related to 'technology' in our curriculum, i.e., Integrated Pest Management Technology, Waste Management Technology, Vegetative Propagation Technology, Soil and Water Management Technology, Organic Farming and Certification, Annual Crop Production Technology, etc.

	✓ Although the availability of facilities that are more 'technologically' sound and related to machinery is lacking in our laboratory, and this will become the next priority of UNDANA Management, we also collaborate with partners/industry that involve in the student internship programmes.
• AQU ✓ the experts observed apparent redundancies of contents within the curriculum, such as concerning ichthyology, and raised this observation with the Programme coordinators during the audit. (page 22) ✓ The expert nevertheless issue a recommendation in this regard to highlight this matter, given that the programme coordinators' statement at this stage refers to an intended future action only, and since attending Aquaculture students likewise confirmed this observation during the audit in their discussion round with the expert panel	• Here are several topics of courses that overlap in the previous Semester Learning Plan for the modules of Aquatic Organism Physiology and Ichthyology, such as: ✓ The sensory and nervous systems are related to the Nervous systems and sensory systems. ✓ The Endocrine System encompasses the aspects of the Hormonal System. ✓ Osmoregulation and the Circulatory System, especially elements of the circulatory system, are covered within the Circulatory System. ✓ The metabolic system already includes the urinary system. • As both are courses in Semester 3, it has been clarified that all topics in the Aquatic Organism Physiology course are related to physiological systems, and Ichthyology focuses on the anatomical structure of fish, as seen in the updated Module Handbook on our website (https://bdp.undana.ac.id/wp-content/uploads/2024/02/Modul-Hanbook-En-rev-3.pdf). • Revision of the Semester Learning Plans for both courses will be implemented in the upcoming odd semester of this year (July 2024). • The Revised documents are also attached in the email sent to the experts
<u>Recommendation:</u> • UNDANA should aim to diversify the foci of the programmes under review, e.g. with regard to Karst environments, environmental pollution and waste management, and biodiversity to exploit its unique location advantages more and strengthen its aim of establishing itself as a	• Thanks for the recommendation, it is highly appreciated. • Response on this issue has been provided in Criterion 1.1. that not only unique Karts environment but also Volcanic environment of NTT Province will be covered as topics to be put focus by UNDANA

globally-recognized centre of excellence (page 23)	
<i>Criterion 1.4 Admission Requirements</i>	
• AGT, ANH, AQU, ENV Upon further inquiry, the experts learned that there are very few international students in the programmes under review so far, coming from the neighboring Democratic Republic of Timor-Leste only. In light of this, the experts encourage the University – in alignment with its vision – to intensify efforts to attract foreign students and to foster exposure of its students to an international audience ('internationalization at home')	• The comment is well accepted and highly appreciated. • UNDANA committed to increase the efforts to promote the Study Programmes under review to attract more international students from various neighboring countries. The following programmes are design to help promoting the study programmes under review: ✓ Offer Classes in English: Providing several classes in English to attract foreign students who may not be proficient in the Bahasa. ✓ Increase Participation in Student Exchange Programs: Enhancing the participation and capabilities of the students in student exchange programs to broaden their international experiences and promote the study programmes ✓ Participation on International Seminars and Conferences: Encouraging the students to participate in international seminars and conferences to promote the Study Programme globally. ✓ International Research Collaborations: Strengthening international research collaborations to provide opportunities for the students to engage in international projects and enhance the visibility of the study programme globally ✓ Teaching Programmes with International Guest Lecturers: Organizing teaching programs with international guest lecturers to improve the quality of instruction and offer diverse learning experiences for the students. • International Accreditation of the Study Programmes Under Review by ASIIN will be of a great advantageous to foster the number of incoming international students
<i>Criterion 1.5 Workload and Credits</i>	
• AGT, ANH, AQU, ENV	• The comment is well accepted and highly appreciated.

✓ the experts generally assess that a credit system is in place, which they find to be based on student workload and to encompass both contact hours and self-study time of all obligatory elements of the study programmes under review ✓ the experts highlight that a structured, recurring mechanism to measure students' workload needs to be put in place – e.g. through dedicated workload surveys or suitable questions to this end within the course evaluation surveys – in order to verify that the credits awarded for a given course match the actual student workload.	✓ The academic study programme is dedicated to ongoing evaluation of student workload as part of quality assurance in the study programme learning process. ✓ The study programmes also committed to develop reliable survey methods to gather authentic feedback on student workload, and promptly follow up on evaluation results to implement improvements efficiently.
<i>Criterion 1.6 Didactic and Teaching Methodology</i>	
• AGT, ANH, AQU, ENV In summary, the expert group assesses that the study programmes under scrutiny employ a variety of teaching and learning forms as well as practical parts that serve the achievement of the intended learning outcomes. Also, they attest that the imparting of academic research skills is sufficiently ensured (page 33)	• The comment is well accepted and highly appreciated.
• Recommendation: the experts gained the impression that additional efforts to enhance English language skills among students should be made, such as through advanced English language courses, increased funded student mobility opportunities, or English taught subject matter modules; especially also in view of UNDANA's vision of becoming a globally-oriented university.	• Thank for the recommendation, it is well accepted and highly appreciated. • Response on this has been provided in Criterion 1.1., especially on recommendation on <u>Graduate Qualification Profiles</u> • Starting from even Semester 2023/2024, The study programmes under review will implement the strategies as suggested by the experts
Criterion 2 Exams: System, Concept and Organization	
<i>Course Assignments and Exams</i>	
• AGT, ANH, AQU, ENV ✓ the expert panel learns that the alignment of exam and course contents is	✓ The comments are well accepted and highly appreciated

ensured through coordination between course instructors and the responsible Quality Control ✓ All in all, while admittedly intense, the students expressed that the examination workload is manageable. ✓ the students moreover confirmed that the assessment criteria for course examinations are made clear through the semester learning plan at the beginning of the semester (page 34)	
<i>Grading Scale</i>	✓ The comments are well accepted and highly appreciated
<i>Graduation Requirements</i>	✓ The comments are well accepted and highly appreciated
• Recommendation: ✓ the auditors learned that – depending on its quality – publication of the thesis may either take place in UNDANA’s university journal or, in cases of exemplary research results, is encouraged in more high-standard journals. ✓ In addition, students at both levels need to prove a certain English language proficiency – shown through a TOEFL test or equivalent – as a requirement for being permitted to graduate. Undergraduate students need to achieve a TOEFL score of 400, Master’s students 425 ✓ the experts reiterate their encouragement at this opportunity that the Faculties should make further efforts in fostering students’ English language proficiency, noting that the indicated TOEFL score equals an early B1 ((i.e. early intermediate) level as per the Common European Framework of Reference (CEFR) for language proficiency only) ✓ During their perusal of various assessments, papers, and final theses, the experts deemed these to be of appropriate difficulty, extent, and structure for the respective programme levels. This being said, the experts noted that the clarity and conciseness of exam and thesis research questions could at times be improved (page 37)	✓ Recommendation is well accepted and highly appreciated. ✓ Starting from January 2023, UNDANA is implementing Rector Decree no. 2, 2024 Regarding the Alternatives of the student’s final projects, that can take form, among others, as publication in high quality, either Globally Indexed International or Nationally Accredited Sinta 1 and 2, journals. ✓ Regarding the English Proficiency of the students, it has been responded in <i>criterion 1.4</i>, UNDANA will enforce the implementation of Rector Decree no 5, 2022 about the obligation for the students to provided certificate of TEOEFL Score as required as prerequisite for their graduation. ✓ Thanks for the expert’s comments, it is well accepted and UNDANA will do as recommended
Criterion 3. Resources	

<i>Criterion 3.1 Staff and Development</i>	
<i>Supporting Staff</i>	
• Recommendation ✓ The experts encourage the University to look into the number of supporting staff/laboratory technician not only of the Agrotechnology programme, but also the other programmes in question ✓ Nevertheless, English language proficiency of its personnel was recognized by the University as an existing challenge during the audit. In view of these remarks and again pointing to the University's declared vision, the experts encourage the University to foster its staff's English language skills through further incentive and training	✓ Recommendation is well accepted and highly appreciated. ✓ As a state University, appointment of new Lecturer or supporting staff is under the authority of The Ministry of Education, Culture, Research and Technology, and that makes it hard for UNDANA get new lecturer or staff whenever needed. However, the Government Regulation give the opportunity to State University like UNDANA to appoint new lecturer of supporting staff through the mechanism of appointment of 'professional staff'. Through this new mechanisms, starting from UNDANA will be recruiting new lecturer/teaching staff and supporting staff, including laboratory technician. In 2024, The Study Programmes of AGT, AQU and ANH, each will be allocated with recruitment of four supporting staff (Laboratory technician) to assist in running the Laboratory under each study programme. ✓ The expert's encouragement to UNDANA to foster English language proficiency is well accepted and highly appreciated. UNDANA committed to improve the teaching staff English proficiency through various strategies, among others, by supporting the teaching staff to pursue further study abroad, through which the university can facilitate the them to meet the English language requirement in forms of TOEFL or IELTS scores. In addition, UNDANA will implement "English Day' Programme, during which all forms of communications, including teaching, in the study programme are conducted in English. The opening of classes conducted in English will also

	foster the English proficiency of the teaching staff.
<i>Criterion 3.2. Student Support and Student Services</i>	
• In closing, the experts conclude that sufficient resources are available to provide individual assistance, advice and support for the students in the programs under review.	• The comments are well accepted and highly appreciated
<i>Criterion 3.3 Funds and equipment</i>	All comments are well accepted and highly appreciated
• Recommendation (AGT, ANH, AQU, ENV) ✓ the experts' note their recommendation for the involved faculties to increase their laboratory capacities to allow for more efficient conduct of lab courses and to increase research capabilities within the faculties under review. ✓ At a more general level, the experts note that the Faculty should look into improving laboratory capacities and equipment. AGT: ✓ experts strikingly note that – despite the programme's title – no agrotechnological equipment such as agricultural machinery, equipment for process engineering, biogas facilities, renewable energy or precision farming equipment could be observed; ✓ Within the experts' opinion, the facilities observed were found to be rather resembling those expected in a study programme focusing on crop production AQU: ✓ there appeared to be no Closed Recirculation Aquaculture Systems (RAS) for aquaponics enabling to deal with so called on demand decoupled aquaponics (consisting of a RAS connected to hydroponic via a one-way valve providing	• Thanks for the recommendation ✓ In 2024, UNDANA committed to improve the laboratory capacity through allocation of budget for the study programmes under review as much as Rp. 5 Billion (~ 297,980 Euro). ✓ The above budget allocation also can be used to response the expert's recommendation on the improvement of equipment at the laboratories of Agrotechnology as recommended by the experts but the equipment will be adjusted to fit within the scope of the term: 'technology' in the title of Agrotechnology, and not to overlap with that of other more hard engineering study programmes such as Agriculture engineering, Agriculture industry, etc. ✓ The above budget allocation will also be used to provide Closed Recirculation Aquaculture Systems (RAS) as suggested by the experts

on demand the flow of nutrient rich fish process water to the hydroponics unit), which would be particularly beneficial given the University's dryland context (page 45) ANH: ✓ the experts found the facilities for ruminant animals (i.e. cattle, sheep, and goats) to be fully adequate, yet likewise noted room for modernized facilities in regard to poultry and swine (page 45)	✓ The above budget allocation will also be used to improve the laboratory facilities for poultry and swine as suggested by the experts
<i>Library</i>	<i>All comments are well accepted and highly appreciated</i>
• Recommendation: ✓ the expert recommends the University to establish remote access to these portals, e.g. through a virtual private network (VPN), to enable students (and staff) to have 24/7 access to these resources ✓ Nevertheless, the experts re-emphasise that the University should invest in its laboratory capacities in the programmes under review (both in terms of space and personnel), especially also to prepare for potentially increasing student numbers in the future.	✓ Since August 2023, UNDANA has given the full permission to students to have access to Library resources, including access to electronic journal (The Letter of Circulation Letter from the Vice Rector of Academic Affairs is Attached). According to this circulation letter (https://s.id/lib-access), there is no limitation for students to have access to library resources of UNDANA but the students are urged to use access responsibly. ✓ UNDANA has allocated budget for improvement of laboratory equipment of the respective study programmes in 2024 (As described in response to comments on Criterion 3.3). Furthermore, the improvement of the room capacity will be the priority of UNDANA's Management in the next year's budget allocation.
Criterion 4. Documents and Transparency	
<i>Criterion 4.1 Module Descriptions</i>	<i>All comments are well accepted and highly appreciated</i>
• Recommendation ✓ the experts encourage the study programmes – including the Ma Environmental Science – to check whether the provided literature recommendations are still up-to-date, and if older literature could be replaced by relevant newer works	Thanks for the recommendations: ✓ Literatures on the modules will be checked and updated

✓ upon verification of the respective programmes' websites, the experts note that – while all pages make accessible some form of module descriptions (in English: the module handbooks/list as provided to the experts, in Bahasa Indonesia: the semester learning plans) – all of the files linked seem either incomplete or inaccessible to some degree. ✓ The experts hence ask the programme coordinators to make the (revised) complete module descriptions (in English: as module handbooks, in Bahasa Indonesia: as semester learning plans or module handbooks) publicly available to be accessible to all interested stakeholders and potential future students	✓ Module descriptions and Semester Learning Plan of the respective study programmes have been updated and translated into English, and the revised documents have been published in the website and also sent as attaché files through email to the experts
<i>Criterion 4.2 Diploma and Diploma Supplement</i>	<i>All the comments and recommendations are well accepted and highly appreciated</i>
• In the course of their review of the sample diploma supplements provided, the experts however note the following ✓ No information on the mode of study (e.g. full-time, part-time, distance, etc.) is included, and ✓ no information on access to further study (e.g. access to Master's or PhD studies) is stated. ✓ Moreover, no actual sample of a diploma supplement appears to have been provided for the Ma Environmental Sciences.	✓ Diploma Supplement will be provided and included the information as suggested ✓ The Diploma Supplement of MA Environmental Science is provided in the email as attached file send to the experts
• Recommendation: (AGT, ANH, AQU, ENV) ✓ The experts hence ask the University to add the above information in the diploma supplement to be in full compliance with the applicable standards, and to provide examples of such issued diploma supplements for all four programmes under review in due time.	• The mode of study at the study programmes under review are all full-time and on site (no distance learning), thus, the study programme does not include the information in diploma supplement. • Nevertheless, the recommendation from the experts is highly valuable and the study Programme will include such information on the Diploma Supplement that will only be issued in the next two years when the students attending the current OBE curriculum will graduate.

<i>Criterion 4.3 Relevant Rules</i>	
• The auditors confirm that the rights and duties of both UNDANA and the students are defined clearly and bindingly • The assessors moreover commend the existence of further comprehensive resources such as the Academic, Thesis, and Internship Guides available through the programme's websites (page 50)	• The comment is well accepted and highly appreciated. • Academic Thesis and Internship Guides have been published on the Study Programs' website
Criterion 5. Quality management: quality assessment and development	<i>All comments are well accepted and highly appreciated</i>
• <i>Recommendation to the Faculty:</i> ✓ The assessors stress to the Faculties' under review that the outcomes of the course evaluation surveys and, if applicable, any actions for improvement taken must be commented on and communicated back to the students in order to close the feedback cycle, e.g. through discussions in class or student assemblies, through student councils in the respective departments, or published in writing e. g. on student bulletin boards	✓ Thank you for the valuable recommendation. A The Faculties has committed to fully implement the feedback cycle starting from even semester 2023/2024.
• <i>Recommendation to the University:</i> ✓ the experts recommend UNDANA to streamline the course evaluation surveys conducted by using a standard set of (main) questions to enable unified university-wide data gathering, comparison, and analysis. Moreover, the experts suggest to restrict course feedback surveys to one only, and to unify their medium so to avoid third-party applications such as Google Forms (page 52)	✓ Thank you for the valuable recommendation. UNDANA has an academic and non-academic system called: Siadiknona, through which, standard and unified university-wide data gathering, including course evaluation survey, is conducted. Example of course evaluation survey gathered through Siadiknona is available at: https://s.id/feedback-loop

F Summary: Expert recommendations (21.02.2024)

Taking into account the additional information and the comments given by UNDANA, 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	30.09.2029	–	–
Ba Animal Husbandry	With requirements for one year	30.09.2029	–	–
Ba Aquaculture	With requirements for one year	30.09.2029	–	–
Ma Environmental Science	With requirements for one year	30.09.2029	–	–

Requirements

For all degree programmes

- A 1. (ASIIN 1.5) Implement a recurring mechanism to survey students' actual course workload.
- A 2. (ASIIN 4.2) Samples of revised diploma supplements including information on the mode of study and access to further study need to be provided.
- A 3. (ASIIN 5) Results of the course feedback and student satisfaction surveys, as well as information on any action taken, need to be made accessible to the students in a suitable form.

For the Ba Agrotechnology

- A 4. (ASIIN 1.2/1.3/3.3) The programme's title, contents, and facilities need to be brought into alignment.

Ma Environmental Science

- A 5. (ASIIN 4.1) Complete module descriptions must be made publicly accessible in both Bahasa Indonesia and English.

Recommendations

For all degree programmes

- E 1. (ASIIN 1.1/1.3) It is recommended for UNDANA to diversify the foci of the programmes under review in view of its vision and unique environment.
- E 2. (ASIIN 1.1/1.6/2) It is recommended to raise the English language proficiency threshold for graduation and to strengthen efforts to foster English language skills amongst students.
- E 3. (ASIIN 1.3) It is recommended for the programmes to intensify efforts to promote student mobility opportunities.
- E 4. (ASIIN 3.2) It is recommended to foster English language skills of staff through further incentivisation and training.
- E 5. (ASIIN 3.2/3.3) It is recommended to increase laboratory capacities, both in terms of lab facilities and assistants.
- E 6. (ASIIN 3.3) It is recommended to intensify efforts to ensure students are aware of the existing remote literature database access options.
- E 7. (ASIIN 4.1) It is recommended to review the literature recommendations stated in the module descriptions, especially in regard to outdated references.

For the Ba Aquaculture

- E 8. (ASIIN 1.3/3.3) It is recommended to include Closed Aquaculture Recirculation Systems (RAS) for aquaponics in the curriculum and the programme's facilities.

G Comment of the Technical Committee 08 – Agriculture, Forestry and Food Sciences (27.02.2024)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee discusses the accreditation procedure and follows the assessment of the experts without any changes

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

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Agrotechnology	With requirements for one year	30.09.2029	–	–
Ba Animal Husbandry	With requirements for one year	30.09.2029	–	–
Ba Aquaculture	With requirements for one year	30.09.2029	–	–
Ma Environmental Science	With requirements for one year	30.09.2029	–	–

H Decision of the Accreditation Commission (22.03.2024)

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

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

The Accreditation Commission decides to award the following seals:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Agrotechnology	With requirements for one year	30.09.2029	–	–
Ba Animal Husbandry	With requirements for one year	30.09.2029	–	–
Ba Aquaculture	With requirements for one year	30.09.2029	–	–
Ma Environmental Science	With requirements for one year	30.09.2029	–	–

Requirements

For all degree programmes

- A 1. (ASIIN 1.5) Implement a recurring mechanism to survey students' actual course workload.
- A 2. (ASIIN 4.2) Samples of revised diploma supplements including information on the mode of study and access to further study need to be provided.
- A 3. (ASIIN 5) Results of the course feedback and student satisfaction surveys, as well as information on any action taken, need to be made accessible to the students in a suitable form.

For the Ba Agrotechnology

- A 4. (ASIIN 1.2/1.3/3.3) The programme's title, contents, and facilities need to be brought into alignment.

Ma Environmental Science

- A 5. (ASIIN 4.1) Complete module descriptions must be made publicly accessible in both Bahasa Indonesia and English.

Recommendations

For all degree programmes

- E 1. (ASIIN 1.1/1.3) It is recommended for UNDANA to diversify the foci of the programmes under review in view of its vision and unique environment.
- E 2. (ASIIN 1.1/1.6/2) It is recommended to raise the English language proficiency threshold for graduation and to strengthen efforts to foster English language skills amongst students.
- E 3. (ASIIN 1.3) It is recommended for the programmes to intensify efforts to promote student mobility opportunities.
- E 4. (ASIIN 3.2) It is recommended to foster English language skills of staff through further incentivisation and training.
- E 5. (ASIIN 3.2/3.3) It is recommended to increase laboratory capacities, both in terms of lab facilities and assistants.
- E 6. (ASIIN 3.3) It is recommended to intensify efforts to ensure students are aware of the existing remote literature database access options.
- E 7. (ASIIN 4.1) It is recommended to review the literature recommendations stated in the module descriptions, especially in regard to outdated references.

For the Ba Aquaculture

- E 8. (ASIIN 1.3/3.3) It is recommended to include Closed Aquaculture Recirculation Systems (RAS) for aquaponics in the curriculum and the programme's facilities.

I Fulfilment of Requirements (27.06.2025)

Analysis of the Experts and the Technical Committee 08 - Agriculture, Forestry and Food Sciences (03.06.2025)

Requirements

For all programmes

- A 1. (ASIIN 1.5) Implement a recurring mechanism to survey students' actual course workload.

Initial Treatment	
experts	Fulfilled Vote: unanimous Justification: All the study programs assessed have demonstrated a strong commitment to systematically monitoring student workload, using evidence-based analysis for continuous curriculum improvement, and ensuring that students' feedback leads to real and measurable enhancements in teaching, learning, and academic support services.
TC 08	Fulfilled Vote: unanimous Justification: The TC follows the recommendation of the experts.

- A 2. (ASIIN 4.2) Samples of revised diploma supplements including information on the mode of study and access to further study need to be provided.

Initial Treatment	
experts	Fulfilled Vote: unanimous Justification: The Diploma Supplements have been updated accordingly.
TC 08	Fulfilled Vote: unanimous Justification: The TC follows the recommendation of the experts.

- A 3. (ASIIN 5) Results of the course feedback and student satisfaction surveys, as well as information on any action taken, need to be made accessible to the students in a suitable form.

Initial Treatment	
experts	Fulfilled Vote: unanimous Justification: UNDANA has implemented mechanisms to publish the results of the feedback surveys together with reports on the follow-up activities.
TC 08	Fulfilled Vote: unanimous Justification: The TC follows the recommendation of the experts.

For the Ba Agrotechnology

A 4. (ASIIN 1.2/1.3/3.3) The programme's title, contents, and facilities need to be brought into alignment.

Initial Treatment	
experts	Fulfilled Vote: unanimous Justification: Although the expected change of the programme title which was expected by the experts could not be realised, apparently due to ministerial regulations, the curriculum was revised and adjusted to a more technological focus. The experts find that the programme now justifies its name and consider the requirement to be fulfilled.
TC 08	Fulfilled Vote: unanimous Justification: The TC follows the recommendation of the experts.

For the Ma Environmental Science

A 5. (ASIIN 4.1) Complete module descriptions must be made publicly accessible in both Bahasa Indonesia and English.

Initial Treatment	
experts	Fulfilled Vote: unanimous Justification: The required module descriptions were provided.
TC 08	Fulfilled Vote: unanimous Justification: The TC follows the recommendation of the experts.

Decision of the Accreditation Commission (27.06.2025)

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Agrotechnology	All requirements fulfilled	30.09.2029	–	–
Ba Animal Husbandry	All requirements fulfilled	30.09.2029	–	–
Ba Aquaculture	All requirements fulfilled	30.09.2029	–	–
Ma Environmental Science	All requirements fulfilled	30.09.2029	–	–

Appendix: Programme Learning Outcomes and Curricula

According to the self-assessment report and the provided Student Handbooks, the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor's and Master's degree programmes under review:

Ba Agrotechnology

Learning Outcomes of the Bachelor of Agrotechnology programme

Area	Code	Program Learning Outcomes
Attitude	PLO 1	Able to demonstrate an attitude of upholding the nation's cultural values and being committed to professionalism and ethical values and applying the principles of lifelong learning
Knowledge competence	PLO 2	Able to understand basic knowledge and theoretical concepts in the field of agrotechnology, especially in archipelagic semi-arid region
General skills competence	PLO 3	Able to scientifically plan the concept of agricultural productivity and increase the added value of agricultural products through the application of science and technology
	PLO 4	Able to manage work teams, interact with people from various backgrounds and lead in various situations
	PLO 5	Able to think critically, solve problems, be responsible for work independently, and make decisions based on data and information
Specific skills competence	PLO 6	Able to utilize information and communication technology to increase effectiveness and efficiency in planning, designing, implementing, and evaluating crop production
	PLO 7	Able to design solutions based on scientific principles to answer problems and needs in the archipelagic semi-arid region
	PLO 8	Able to apply and evaluate new findings in the field of agrotechnology and plant production engineering principles that are oriented towards effectiveness, efficiency, quality, and sustainability

The following **curriculum** is presented:

Semester 1

No.	Course Code	Course Name	CP	ECT S	PLO							
					1	2	3	4	5	6	7	8
1.	MKU1121-54211	Bahasa Indonesia	2	3,2	✓	✓						
2.	PNAGT112 3	Mathematics	2	3,2		✓						
3.	PNAGT112 4	Physics	2	3,2		✓						
4.	PNAGT112 2	English	2	3,2	✓	✓						
5.	MKU1122-54211	Civic Education	2	3,2	✓	✓						
6.	PN1121-54211	Introduction to Agricultural Economics	2	3,2		✓						
7.	PN1122-54211	Introduction to Agricultural Science	2	3,2		✓						
8.	PNAGT112 1	Biology	2	3,2		✓						
9.	PNAGT112 5	Chemistry	2	3,2		✓						
Total CP			18	29.0								

Semester 2

No.	Course Code	Course Name	CP	ECT S	PLO							
					1	2	3	4	5	6	7	8
1.	MKU122 3-54211	Religious Education	2	3,2	✓	✓						
2.	MKU122 4-54211	Pancasila	2	3,2	✓	✓						
3.	PN1233-54211	Basic Agronomy	2	3,2		✓	✓					
4.	PN1233-54211	Basic Agronomy Practicum	1	1,6		✓	✓					
5.	PN1234-54211	Fundamental of Plant Protection	2	3,2		✓	✓					
6.	PN1234-54211	Fundamental of Plant Protection Practicum	1	1,6		✓	✓					
7.	PN1235-54211	Fundamental of Soil Science	2	3,2		✓	✓					
8.	PN1235-54211	Fundamental of Soil Science Practicum	1	1,6		✓	✓					
9.	MPK1121-54211	Archipelagic Drylands Culture and Tourism	2	3,2	✓	✓						
10.	PNAGT1 227	Plant Biochemistry	2	3,2		✓	✓					

11.	PN1236-54211	Agricultural Extension and Communication	2	3,2		✓	✓					
12.	PNAGT1 2211	Microbiology	1	1,6		✓	✓					
12.	PNAGT1 2211	Microbiology Practicum	1	1,6		✓	✓					
Total CP			21	33.6								

Semester 3

No.	Course Code	Course Name	CP	ECTS	PLO							
					1	2	3	4	5	6	7	8
1.	PNAGT1 338	Soil Fertility and Fertilization	2	3,2		✓		✓			✓	
2.	PNAGT1 338	Soil Fertility and Fertilization Practicum	1	1,6		✓		✓			✓	
3.	PNAGT1 339	Plant Physiology	2	3,2		✓	✓			✓		
4.	PNAGT1 339	Plant Physiology Practicum	1	1,6		✓				✓		
5.	PNAGT1 3210	Statistics	2	3,2		✓	✓					
6.	PNAGT1 3312	Agroecology	2	3,2		✓	✓			✓	✓	
7.	PNAGT1 3312	Agroecology Practicum	1	1,6		✓					✓	
8.	PNAGT1 3213	Introduction to Food Technology	2	3,2		✓	✓					
9.	PNAGT1 3314	Plant Pests and Diseases	2	3,2		✓			✓	✓		
10.	PNAGT1 3314	Plant Pests and Diseases Practicum	1	1,6		✓	✓					
11.	PN1315-54211	Geographic Information System	2	3,2		✓	✓		✓	✓		✓
12.	PN1315-54211	Geographic Information System Practicum	1	1,6		✓						✓
13.	PNAGT1 126	General Botany	1	1,6		✓		✓				
14.	PNAGT1 126	General Botany Practicum	1	1,6		✓		✓				
Total CP			21	33.6								

Semester 4

No.	Course Code	Course Name	CP	ECTS	PLO							
					1	2	3	4	5	6	7	8

1.	PNAGT 14215	Food Security and Sovereignty	2	3,2		✓	✓	✓				
2.	PNAGT 14316	Soil and Water Conservation	2	3,2		✓	✓			✓	✓	
3.	PNAGT 14316	Soil and Water Conservation Practicum	1	1,6		✓					✓	
4.	PNAGT 14317	Integrated Pest Management	1	1,6		✓	✓	✓			✓	
5.	PNAGT 14317	Integrated Pest Management Practicum	1	1,6		✓					✓	
5.	PNAGT 14318	Annual and Perennial Plant Cultivation Technology	2	3,2		✓	✓		✓	✓		
7.	PNAGT 14318	Annual and Perennial Plant Cultivation Technology Practicum	1	1,6		✓	✓				✓	✓
8.	PNAGT 14319	Experimental Design	2	3,2		✓		✓		✓	✓	
9.	PNAGT14319	Experimental Design Practicum	1	1,6		✓					✓	
10.	PNAGT 14320	Agricultural Product Processing Technology	2	3,2		✓	✓					✓
11.	PNAGT 14320	Agricultural Product Processing Technology Practicum	1	1,6		✓						✓
12.	PNAGT 14321	Genetics and Plant Breeding	2	3,2		✓	✓			✓	✓	✓
13.	PNAGT 14321	Genetics and Plant Breeding Practicum	1	1,6		✓					✓	✓
14.	MPK16 12-54211	Anti-corruption Education	1	1,6	✓	✓						
Total CP			20	32								

Semester 5

No.	Course Code	Course Name	CP	ECTS	PLO							
					1	2	3	4	5	6	7	8
1.	PNAGT 15322	Agricultural Biotechnology	2	3,2		✓		✓		✓	✓	✓

2.	PNAGT 15322	Agricultural Biotechnology Practicum	1	1,6		✓					✓	
3.	PNAGT 15323	Scientific Method	1	1,6		✓	✓					
4.	PNAGT 15323	Scientific Method Practicum	1	1,6		✓	✓					
5.	PN1639-542111	Sustainable Management of Dryland Agriculture	2	3,2		✓		✓	✓	✓		✓
5.	PN1639-542111	Sustainable Management of Dryland Agriculture Practicum	1	1,6		✓						✓
7.	PNAGT 15224	Packaging and Storage Technology	2	3,2		✓	✓				✓	
8.	PNAGT 15224	Packaging and Storage Technology Practicum	1	1,6		✓					✓	
9.	PN1538-54211	Entrepreneurship	2	3,2		✓	✓	✓	✓		✓	
10.	PN1538-54211	Entrepreneurship Practicum	1	1,6		✓					✓	
11.	PNAGT15327	Soil Survey and Land Evaluation	2	3,2		✓	✓				✓	
12.	PNAGT 15327	Soil Survey and Land Evaluation Practicum	1	1,6		✓					✓	
13.	PNAGT 15328	Agribusiness Management	2	3,2		✓	✓			✓	✓	
14.	PNAGT 15328	Agribusiness Management Practicum	1	1,6		✓					✓	
15.	PNAGT 15328	Weed Science	1	1,6		✓	✓					
16.	PNAGT 15328	Weed Science Practicum	1	1,6		✓	✓					
Total CP			22	35.2								

Semester 6

No.	Course Code	Course Name	CP	ECTS	PLO							
					1	2	3	4	5	6	7	8
1.	MBKM	MBKM (7-8 Courses): Elective Courses 1	20	32.0		v			v	v	v	

	Option: Regular 1 (8-9 Courses)	Compulsory Elective Courses 1 (1-6)										
		Elective Courses 1 (7- 19)										
	Total		20	32.0								

Semester 7

2.	MBKM 2	MBKM + Elective Courses 2	20	35,2								
	Option: Regular 2	Elective Courses 2 (6- Courses)	10	16								
		Community Service Programme	4	8								
		Internship	4	8								
		Elective Courses 2 (1-11)										
	Total CP		18	32								

Semester 7

No.	Course Code	Course Name	CP	ECT S	PLO							
					1	2	3	4	5	6	7	8
1.	PNAGT1 7357	Undergraduate thesis	6	13,8		v			v	v	v	
	Total		6	13,8								
	TOTAL CREDIT		148	244,2								

Elective Courses I

No.	Course Code	Course Name	CP	ECTS	PLO							
					1	2	3	4	5	6	7	8
1.	PNAGT1 6331	Cultivation of Horticultural Crops and Landscaping	3	4,8		✓	✓	✓		✓		✓
2.	PNAGT1 6335	Plant Diseases Epidemiology	3	4,8		✓	✓			✓	✓	
3.	PNAGT 16332	Soil Quality	3	4,5		✓	✓			✓	✓	✓
4.	PNAGT1 6330	Postharvest Physiology and Technology	2	3,2		✓		✓	✓		✓	
5.	PNAGT 16334	Plant Growth and Development	2	3,2		✓	✓			✓		
6.	PNAGT1 6337	Postharvest Pests and Diseases	3	4,8		✓		✓		✓		✓

0 Appendix: Programme Learning Outcomes and Curricula

7.	PNAGT1 6339	Food Microbiology	3	4,8		✓	✓				✓	
8.	PNAGT1 6348	Soil Morphology and Classification	2	3,2		✓	✓	✓			✓	✓
9.	PNAGT1 6349	Enzymes and Fermentation Technology	2	3,2		✓	✓			✓	✓	
10.	PNAGT1 6336	Ecology and Pest Forecasting Systems	2	3,2		✓	✓	✓			✓	✓
11.	PNAGT1 6350	Food Analysis	3	4,8		✓		✓				
12.	PNAGT1 6341	Seed Technology	2	3,2		✓	✓			✓	✓	✓
13.	PNAGT1 6340	Vegetative Propagation	2	3,2		✓	✓	✓				✓
14.	PNAGT1 6338	Sensory Analysis	2	3,2		✓						
15.	PNAGT1 6343	Plant Bacteriology and Virology	3	4,8		✓		✓		✓		
16.	PNAGT1 6344	Entomology	3	4,8		✓	✓	✓			✓	✓
17.	PNAGT1 6345	Mycology and Mycotoxins	3	4,8		✓	✓				✓	
18.	PNAGT1 6346	Farm Equipment	2	3,2		✓	✓			✓		
19.	PNAGT1 6347	Plant Ecology	2	3,2		✓	✓	✓		✓	✓	
20.	PNAGT1 7354	Pesticides and Application Techniques	3	4,8		✓		✓		✓	✓	✓
Total CP												

Elective Courses II

No.	Course Code	Course Name	CP	ECTS	PLO							
					1	2	3	4	5	6	7	8
1.	PNAGT1 7350	Major Crop Pests and Diseases	2	3,2		✓		✓		✓	✓	✓
2.	PNAGT1 7351	Watershed Management	2	3,2		✓	✓			✓	✓	
3.	PNAGT1 7352	Local Food	2	3,2		✓	✓		✓	✓		
4.	PNAGT1 7353	Archipelagic Dryland Biodiversity	2	3,2		✓	✓			✓		
5.	PN1538 -54211	Application of Dry Land Farming Technology	2	3,2		✓		✓		✓	✓	✓
6.	PNAGT- MBKM17 1	Integrated Agriculture	2	3,2		✓	✓			✓		✓
7.	PNAGT- MBKM17 2	Critical, Analytical, and Creative Thinking	2	3,2		✓		✓	✓	✓		
8.	PNAGT- MBKM17 3	Utilization of Local Resources	2	3,2		✓		✓	✓		✓	

9.	PNAGT-MBKM17 4	Management of Land Resources	2	3,2		✓	✓		✓	✓	✓	✓
10.	PNAGT-MBKM17 5	Public Communication	2	3,2		✓		✓	✓			
11.	PNAGT-17354	Pesticides and Application Techniques	3	4,8		✓		✓		✓	✓	✓

MBKM 2 (20 credit).

		<i>Option 1.</i>										
		Thematic Community Service Programme/ KKNT	20	32,0		✓	✓	✓	✓	✓	✓	✓
		Elective Courses 2										
		Option 2										
		Internships / practical work	20	32,0	✓	✓	✓	✓	✓	✓	✓	
		Elective Courses 2										
		<i>Option 3</i>										
		Research	20	32,0		✓	✓	✓	✓	✓	✓	✓
		Elective Courses 2										
		<i>Option 4</i>										
		Entrepreneurial activities	20	32,0	✓	✓	✓	✓	✓	✓	✓	✓
		Elective Courses 2										
		<i>Option 5</i>										
		Independent studies/project	20	32,0		✓	✓	✓	✓	✓	✓	✓
		Elective Courses 2										
		<i>Option 6</i>										
		Student Exchange	20	32,0		✓	✓	✓	✓	✓	✓	✓
		Elective Courses 2										
		<i>Option 7</i>										
		Teaching in Schools	20	32,0								
		Elective Courses 2				✓	✓	✓	✓	✓	✓	✓
		<i>Option 8</i>										
		Humanitarian Project	20	32,0	✓	✓	✓	✓	✓	✓	✓	✓
		Elective Courses 2										

Regular 1

		Compulsory Elective Courses 1 (1-6)	16									
		Elective Courses 1 (7-14) 6 credits	6									

Regular 2

	PNAGT1754	Community Service Programme	4	8		✓	✓	✓	✓	✓	✓	✓
	PNAGT17355	Internship	4	8		✓	✓	✓	✓	✓	✓	✓
		Compulsory Elective Courses 2 (1-5) 10 credits	10									

Ba Animal Husbandry**Learning Outcomes of the Bachelor of Animal Husbandry programme**

Area	Code	Program Learning Outcomes
Attitude	PLO 1	Uphold the cultural values of the nation and commit to professionalism and ethical values
Knowledge	PLO 2	Master the theoretical concepts of science in the field of farming especially in the dry land environment of the islands
	PLO 3	Able to conceptually plan the productivity of farms and increase the added value of farm products through dissemination of knowledge
General Skills	PLO 4	Able to think critically in solving problems based on valid data and information, responsibly, independently.
	PLO 5	Able to lead, work in a team and in a heterogeneous and challenging social environment
Specific Skills	PLO 6	Able to use technology information to improve the effectiveness and efficiency in planning, implementation and evaluation of farming development activities.
	PLO 7	Able to design solutions based on the principles of scientific knowledge to respond to problems and needs in the field of farming of dry land of the islands
	PLO 8	Able to implement and evaluate new findings and engineering of farm production based on the principles of effectiveness, efficiency, quality, and sustainability

The following **curriculum** is presented:

Course Code	Course Name	CP	ECTS	PLO								Time per week (Hours)
				1	2	3	4	5	6	7	8	
Semester 1												

0 Appendix: Programme Learning Outcomes and Curricula

MKU 1121	Bahasa Indonesia	2	3,2	✓	✓							5,66
PT 41201	English	2	3,2		✓							5,66
MKU 1224	Pancasila Education	2	3,2		✓							5,66
PT 41202	Mathematics	2	3,2	✓	✓							5,66
PT 41203	Chemistry	2	3,2	✓	✓							5,66
PT 41204	Biology	2	3,2		✓							5,66
PT 41206	Introduction to Animal Husbandry	2	3,2		✓							5,66
MKU 1223	Religion	2	3,2		✓							5,66
PT 42208	Basic Management	2	3,2		✓							5,66
Total CP		18	29,0									
Semester II												
PT 42306	Biochemistry	3	4,8	✓	✓							8,49
PT 42207	Statistics	2	3,2	✓	✓							5,66
PT 42309	Animal Physiology	3	4,8		✓	✓						8,49
PT 42310	Anatomy and Physiology of farm Animal	3	4,8		✓	✓						8,49
PT 42211	General Economics	2	3,2		✓	✓						5,66
PT 42312	Animal Nutrition	3	4,8		✓	✓						8,49
PT 42214	Genetics	2	3,2		✓	✓						5,66
Total CP		18	28,8									
Semester III												
MKP 1612	Anti Corruption education	1	1,6		✓		✓			✓		2,83
PT 42213	Livestock Environment & Climate Change Mitigation	3	4,8		✓		✓			✓		8,49
PT 44328	Forage Science	3	4,8		✓	✓			✓			8,49
PT 43318	Poultry Production	3	4,8		✓				✓			8,49
PT 43319	Dairy Production	3	4,8		✓	✓						8,49
PT 43320	Meat Animal Production	3	4,8		✓	✓			✓	✓		8,49
PT 43321	Animal Microbiology	3	4,8		✓					✓		8,49
PT 43222	Animal Judging Science	2	3,2		✓	✓						5,66
PT 46217	Reproduction of Farm Animal	3	4,8		✓			✓	✓			8,49
Total CP		24	38,4									
Semester IV												
MKU 1121	Indonesia Civic education	2	3,2		✓	✓	✓					5,66
PT 46271	Livestock Breeding	3	4,8		✓	✓			✓	✓		8,49
PT 46261	Livestock Production Economics	3	4,8		✓					✓		8,49
PT 44326	Knowledge of Animal Products	3	4,8		✓	✓	✓			✓		8,49
PT 44327	Feedstuff and Ration Formulation	3	4,8		✓					✓		8,49
PT 44328	Pasture Management	3	4,8		✓	✓		✓	✓			8,49
PT 44330	Biotechnology	3	4,8		✓	✓				✓	✓	8,49
PT 45231	Research Design and Data Literacy	4	7,63		✓		✓		✓	✓		11,32
Total CP		24	38,4									
Semester V												
PT 45223	Archipelagic dry-land culture and Tourisms	2	3,2		✓		✓		✓		✓	5,66
PT 45552	Livestock Extension	3	4,8		✓						✓	8,49
PT45323	Dry land Animal Industry	3	4,8		✓	✓				✓		8,49
PT 45333	Livestock Trading	3	4,8		✓					✓		8,49

PT45221	Ruminant Industry	3	4,8		✓		✓	✓	✓		✓	8,49
PT 45338	Poultry and Non-Ruminant Nutrition	3	4,8		✓						✓	8,49
PT 46242	Animal Science Politics	2	3,2		✓	✓					✓	5,66
PT 45336	Industry and Technology of Feed Processing	5	8		✓						✓	14,15
Total CP		24	38,4									
Semester VI												
	Option 1. MBKM 1(20 credits)	20	32,0									
Total CP		20	32,0									
	Option 2. Regular 1 (22 credits)	22	35,2									
Total CP		22	35,2									
Semester VII												
Option 1.	MBKM 2(20 credits)	20	35,2									
Total CP		20	35,2									
	Option 2. Regular 2 (18 credits)	18	32,0									
Total CP		18	32,0									
Semester VIII												
Seminar		1	1,6	✓	✓	✓	✓	✓	✓	✓	✓	
Research Projects		5	8	✓	✓	✓	✓	✓	✓	✓	✓	
Total CP		6	13,8									
TOTAL CREDITS		146	233,6									

Ba Aquaculture

Learning Outcomes of the Bachelor of Aquaculture programme

Area	Code	Program Learning Outcomes
Attitude	PLO 1	Graduates are expected to possess moral integrity, ethical conduct, strong nationalistic values, and a deep commitment to being responsible in carrying out tasks independently
Knowledge	PLO 2	Graduates are expected to demonstrate proficiency in mastering theoretical concepts in aquaculture, specifically in the field of mariculture
Generic skills	PLO 3	Graduates must possess the necessary skills to manage data, convey information in the field of aquaculture, and provide alternative solutions when required
	PLO 4	Graduates should have an excellent communication and interpersonal skills that enable them to collaborate effectively with people from diverse backgrounds and disciplines
Specialized skills	PLO 5	Graduates should be able to design aquaculture systems and technologies that are environmentally sustainable
	PLO 6	Graduates should be able to apply science and technology to enhance productivity in aquaculture
	PLO 7	Graduates should be able to evaluate and provide solutions for sustainable and environmentally-friendly aquaculture production.

The following **curriculum** is presented:

No.	Course code	Course name	Credits	ECTS
1	2	3	4	5
A.	Semester I			
1	KI 1121	English	2(2-0)	3.2
2	KI 1134	Mathematics	3(3-0)	4.8
3	MKU 1224	Pancasila education	2(2-0)	3.2
4	KIBDP1132	Water chemistry and physics	3(2-1)	4.8
5	KIBDP1133	Principles of processing fishery products	3(2-1)	4.8
6	KIBDP1334	Principles of aquatic microbiology	3(2-1)	4.8
7	MKU 1224	Indonesian	2(2-0)	3.2
8	KI 1239	Principles of aquaculture	3(2-1)	4.8
Sub-total			21	33.6
B.	Semester II			
1	MKU 1223	Religious education	2(2-0)	3.2
2	MKU 1121	Indonesia civic education	2(2-0)	3.2
3	KI 1238	Principles of fishery	3(2-1)	4.8
4	KIBDP1233	Oceanography	3(2-1)	4.8
5	KIBDP 1234	Fishery socio-economic	3(2-1)	4.8
6	KIBDP 1235	Principles of fish genetics	3(2-1)	4.8
7	MKP 1221	Archipelagic dry land cultivation	2(2-0)	3.2
8	KIBDP 1439	Parasites and fish diseases	3(2-1)	4.8
Sub-total			21	33.6
C.	Semester III			
1	KIBDP 1232	Biochemistry	3(2-1)	4.8
2	KIBDP 15314	Fish health management	3(2-1)	4.8
3	KI 13314	Ichthyology	3(2-1)	4.8
4	KI 13315	Aquatic ecology	3(2-1)	4.8
5	KIBDP1333	Physiology of aquatic organisms	3(2-1)	4.8
6	KIBDP1335	Aquaculture data and information processing	3(2-1)	4.8
7	KIBDP 15312	Water quality management	3(2-1)	4.8
Sub Total			21	33.6
D.	Semester IV			
1	KIBDP 1436	Aquaculture engineering	3(2-1)	4.8
2	KIBDP1437	Fish nutrition	3(2-1)	4.8
3	KIBDP 14310	Natural feed culture	3(2-1)	4.8
4	KIBDP 14312	Fish reproductive physiology	3(2-1)	4.8
5	KI 16317	Scientific method	3(2-1)	4.8
6	MKP 1612	Anti-corruption education	1(1-0)	1.6
7	KIBDP 14313	Ornamental fish and aquascape	3(2-1)	4.8

8	KIBDP 14314	Fresh, brackish, and marine aquaculture management	3(2-1)	4.8
Sub Total			22	35.2
And.	Semester V			
1	KIBDP15326	Feeding technology and management	3(2-1)	4.8
2	KIBDP16324	Aquaculture industry development	3(2-1)	4.8
3	KIBDP15327	Invertebrate animal cultivation technology	3(2-1)	4.8
4	KIBDP15324	Principles of aquaculture biotechnology	3(2-1)	4.8
5	KIBDP15325	Management of hatchery production	3(2-1)	4.8
Sub Total			15	24.0
F.	Semester VI	Electives course (choose 20 credits, both in study programs and across study programs)		
	Elective Courses			
1	KI 1122	Fundamentals of management	2(2-0)	3.2
2	KIBDP 15321	Macroalgae Cultivation Technology	3(2-1)	4.8
3	KI 12310	Limnology	3(2-1)	4.8
4	KI 13316	Fisheries and Marine Entrepreneurship	3(2-1)	4.8
5	KI 13211	Sociology of Coastal and Islands Communities	2(2-0)	3.2
6	KI 13313	Invertebrates	3(2-1)	4.8
7	KIBDP 1435	Fisheries Extension	3(2-1)	4.8
8	KIBDP14311	Experimental design	3(2-1)	4.8
9	KIMSA15318	Conservation of water resources	3(2-1)	4.8
10	KIBDP 16325	Pathology and toxicity	3(2-1)	4.8
11	KIMSA 1232	Water sports	3(1-2)	4.8
12	KIBDP 16326	Management of Aquatic Environment	3(2-1)	4.8
13	KIBDP 1741	Community Service Course	4(0-4)	8
14	KIBDP 1742	Internship	4(0-4)	8
Sub total			20	
G.	Semester VII	Choose one of the activities equivalent to 20 credits		
1	Thematic practical course work/in village project			
2	Internship/work practice			
3	School assistance			
4	Research project			
5	Humanitarian project			
6	Entrepreneurship project			
7	Independent study/project			
8	Student exchange/mobility			
	Sub Total		20	32

H.	Semester VIII			
	KI17120	Seminar	1(0-1)	1.6
	KI 18621	Bachelor thesis	6(0-6)	13.8
	Sub Total		7	15.4
	TOTAL		147	

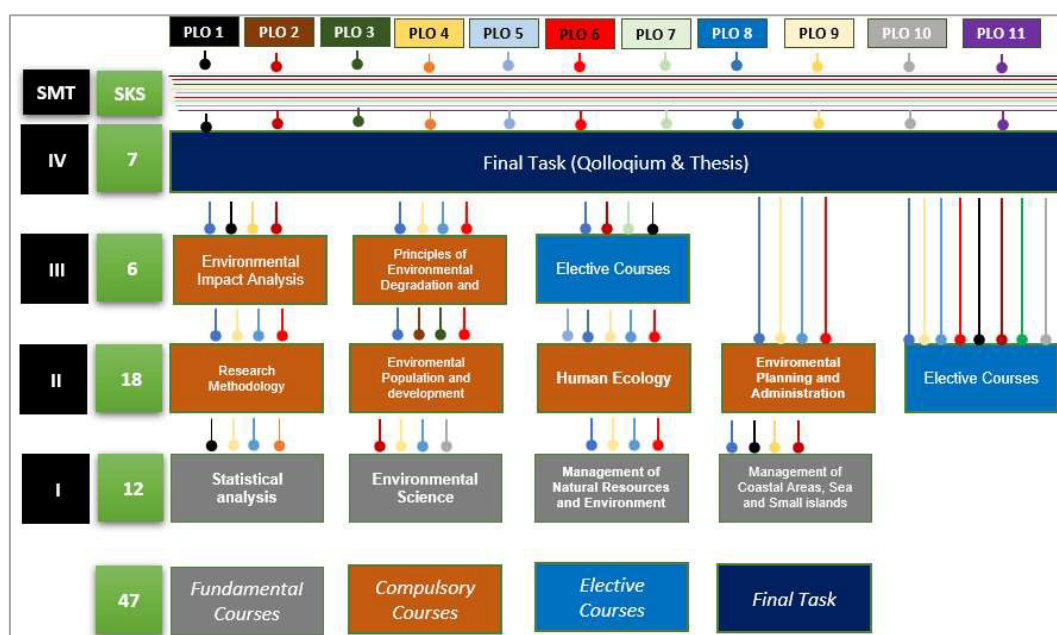
Ma Environmental Science

Learning Outcomes of the Bachelor of Aquaculture programme

Area	Code	Program Learning Outcomes
Attitude	PLO 1	Able to communicate complex environmental issues and research findings to a wide range of audiences, including policy makers, scientists, and the general public.
	PLO 2	Able to comply with ethical and professional standards in their research and practice, and able to identify and address ethical dilemmas that may arise in their work.
Knowledge	PLO 3	Able to understand in depth about the physical, chemical, and biological systems that support the environment. This includes knowledge of ecosystem dynamics, climate change, pollution, and natural resource management.
	PLO 4	Able to understand holistically about environmental laws and regulations at local, national, and international levels, and be able to apply this knowledge in their work
	PLO 5	Able to be aware of the social and cultural factors that influence environmental issues and be able to work effectively with diverse communities and stakeholders.
	PLO 6	Able to learn for life and can keep up with the latest developments in environmental science and policy
General Skills	PLO 7	Able to work independently and as part of a team, collaborating with others to achieve common goals
	PLO 8	Have the necessary skills to manage data, convey

		information in the field of Environmental Science, and provide alternative solutions when needed
Specific skills	PLO 9	Able to design and implement environmental research projects, collect and analyse data, and interpret results to make evidence-based decisions
	PLO 10	Able to develop and implement environmental policies and strategies that address complex environmental challenges and promote sustainable development.
	PLO 11	Able to analyse and evaluate environmental problems and develop creative solutions to overcome such problems.

The following **curriculum** is presented:



Type of Courses	Code	Course	CU	ECTS
SEMESTER I				
Fundamental course	IPSAL 61301	Statistical analysis	3	4.8
	IPSAL 61202	Environmental Science	3	4.8
Compulsory Course	IPSAL 61303	Management of Natural Resources and Environment	3	4.8
	IPSAL 61304	Management of Coastal Areas, Sea and Small Islands	3	4.8
SEMESTER II				
Compulsory Course	IPSAL 62305	Research methodology	3	4.8
	IPSAL 62206	Environmental Population and Development	3	4.8
	IPSAL 62207	Human Ecology	3	4.8
	IPSAL 62208	Environmental Planning and administration	3	4.8
Elective courses				
<i>Conservation of Natural Resources and Environment</i>	IPSAL 62309	Principles and Techniques of Inventorying Natural Resources and the Environment	3	4.8
<i>Natural Resources and Environmental Planning</i>	IPSAL 62310	Regional and Spatial planning Environment	3	4.8
<i>Watershed</i>	IPSAL 62311	Land use planning and management	3	4.8
<i>Climate Change and Adaptation</i>	IPSAL 62312	Climate Change, Adaptation and Mitigation	3	4.8
Total				
SEMESTER III				
Compulsory Course	IPSAL 63313	Environmental Impact Analysis	3	4.8
	IPSAL 63214	Principles of Environmental Degradation and Pollution	3	4.8

Elective courses				
<i>Conservation of Natural Resources and Environment</i>	IPSAL 63315	Biodiversity	3	4.8
	IPSAL 63316	Conservation Management	3	4.8
<i>Natural Resources and Environmental Planning</i>	IPSAL 63317	Environmental Law	3	4.8
	IPSAL 63318	Environmental Economics	3	4.8
<i>Watershed</i>	IPSAL 63319	Remote Sensing	3	4.8
	IPSAL 63220	Natural Resources Management and Irrigation	3	4.8
<i>Climate change and Adaptation</i>	IPSAL 63221	Environmental Markets and Finance	3	4.8
	IPSAL 63222	Climate change policy	3	4.8
	IPSAL 63223	Community Empowerment in Environmental Management	3	4.8
SEMESTER IV				
Final Project	PPs 601	Colloquium	1	1.6
	PPs 699	Thesis	6	13.8