



Self-Assessment Report for International ASIIN Program Accreditation

Cluster E:

Bachelor Programme in Agricultural Engineering (BPAE)

**UNIVERSITAS HASANUDDIN
2023**

Executive Summary

This document provides information regarding the Joint SAR Cluster E for four Study Programmes, namely Bachelor Programme in Forestry (BPF), Bachelor Programme in Agricultural Engineering (BPAE), Master Programme in Plant Pest and Disease (MPPPD), and Master Programme in Environmental Management (MPEM). As a result of all the study programmes having been accredited UNGGUL (Excellent) by the National Accreditation Board (BAN PT), the learning processes have been deemed to meet the higher national standards. The curriculum of the study programmes already matches the Subject-Specific criteria and the European Qualification Frameworks which become one of the key requirements of ASIIN Accreditation. Furthermore, all the study programmes provide users with a guarantee of suitability between learning materials and the job market related to environmental management, both in the government and the private sector as well as in the world of education. This is in accordance with the results of a survey of alumni and users of the study programmes graduates. The University provides a complete set of facilities and student support programs in addition to the professional resources of its academic staff. There are a number of facilities available to students, including the Central Library, the Counseling and Guidance Center, the Career Development Center, the Publication Management Center, sports facilities, and dormitories. Study Programmes and University management work collaboratively to ensure that all study programmes' quality is regularly monitored and evaluated by the Quality Assurance Unit, which is coordinated by the Quality Assurance Center through the Internal Quality Assurance System to ensure educational processes, increase stakeholder satisfaction, and to ensure consistency in the research process and community services.

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A. About the Accreditation Procedure

General Data

Website of the Higher Education Institution	https://www.unhas.ac.id/
Faculty/Department offering the Degree Programme	Faculty of Forestry Faculty of Agriculture Faculty of Postgraduate

Seals applied for

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 (will be completed by ASIIN)
Program Studi Teknik Pertanian	Bachelor Programme in Agricultural Engineering	ASIIN	National Accreditation Board (BAN-PT), Accredited “Unggul” (Excellent) Decree No. 8071/SK/BAN-PT/Ak.Ppj/S/X/2022. Valid until 1	

¹ [delete as necessary] ASIIN Seal for degree programmes; EUR-ACE® Label: European Label for Engineering Programmes; Euro-Inf®: Label European Label for Informatics; Eurobachelor®/Euromaster® Label: European Chemistry Label; AMSE Label: for medical programmes; EQAS Food Label: for programmes related to food studies.

² TC: Technical Committee for the following subject areas: TC 01 - Mechanical Engineering/Process Engineering; TC 02 - Electrical Engineering/Information Technology; TC 03 - Civil Engineering, Geodesy and Architecture; TC 04 - Informatics/Computer Science; TC 05 - Materials Science, Physical Technologies; TC 06 - Engineering and Management, Economics; TC 07 - Business Informatics/Information Systems; TC 08 - Agriculture, Nutritional Sciences and Landscape Architecture; TC 09 – Chemistry, Pharmacy; TC 10 - Life Sciences; TC 11 - Geosciences; TC 12 - Mathematics; TC 13 - Physics.

			November, 2027 International certification by the AUN- QA, certificate number AP410UNHAS APR19. Valid until May 11, 2024	
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B. Characteristics of the Degree Programme(s)

Name	Final degree (original/English translation)	Areas of specialization	Corresponding level of the EQF ³	Mode of Study	Double/Joint Degree	Duration	Credit points/unit	First time of offer
Bachelor Programme in Agricultural Engineering (BAE)	S.TP/Bachelor of Agricultural Technology	Agricultural Engineering	6	Full time	-	8 semesters	249.9 ECTS, equivalent to 147 CP	1980

Name	Intake rhythm	Intake Capacity per cohort	Average starting cohort size	Average number of graduates per cohort	Average time required to complete studies
Bachelor Programme in Agricultural Engineering (BPAE)	Annually	Max. 90 students	85 students	80 students	5.0 years

³ EQF = The European Qualifications Framework for lifelong learning

C. Self-assessment 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)

General Policy

Intended qualifications profile of all study programmes at Universitas Hasanuddin or Hasanuddin University (Unhas) are developed following three general rules, which are Government Regulation Number 8 of 2012 concerning the Indonesian Qualifications Framework, Ministry of Education and Culture, Regulation Number 3 of 2020 concerning the National Higher Education Standards (SN-Dikti), and Hasanuddin University Academic Senate Regulation Number 50850/UN4/PP.42/2016 concerning the Hasanuddin University Education Policy. These rules become the basis and reference for the formation of Graduate Profiles and Intended Learning Outcomes for each Study Programme at UNHAS.

Based on the regulation above, Bachelor Programme in Agricultural Engineering (BPAE) follow **the competence profile for the bachelor level with Indonesian Qualification Framework Level 6 and inline with European Qualification Framework Level 6.**

Bachelor Programme in Agricultural Engineering (BPAE)

The Program Learning Outcome (PLO) and the Intended Learning Outcomes (ILOs) of the program are published on the study program website <http://tep.agritech.unhas.ac.id/> and thus are available to students, lecturers and interested third parties. The learning outcomes are described in the study program website, along with graduate profiles, and the curriculum. The learning outcomes of the Bachelor of Agricultural Engineering are described in **Table 1.1.2** along with the correlation with PLOs. **The intended competence profile of the BPAE developed by including the expectations of the Association Society of Agricultural Engineering (PERTETA), the Indonesian Forum of Higher Education for Agricultural Technology Faculties, external stakeholders (government and private institutions), the results of the tracer study, the results of the external benchmarks at national and international levels, the voice of the internal stakeholders (students and staff), as well as Unhas and the Faculty of Agriculture's visions and missions.** With these considerations, the ILOs of the BPAE are believed to be relevant to the needs of all related stakeholders and in line with national and international developments. Therefore, a professional activity corresponding to the level of qualification (according to the European Qualifications Framework) can be taken up (professional classification).

These profiles are equivalent to EQF level 6, where most of the profiles relevant to SSC-8 including (i) knowledge and understanding of natural science, mathematics and engineering in agricultural discipline, (ii) engineering analysis and practices related to agricultural engineering phenomena, (iii) investigation in the area of land and water, machinery and food engineering area, and (iv) social competences to ensure the capability to work efficiently on their own and as team members and the skill to communicate effectively.

The competencies compiled in the BPAE have been formulated through FGDs with stakeholders including lecturers and students (internal parties) as well as alumni and alumni users (external parties). The achievement of student competences are also evaluated through an academic dialogue that is held every semester, which lecturers and students attend. Furthermore, the correlation of the ILOs and Subject-Specific Criteria 8 (SSC-8) of ASIIN can be seen in **Appendix BPAE 1.1.1**. There are three peculiarities in the BPAE with regard to the profile competences which are farm machinery, soil and water engineering, and food process engineering. These peculiarities influence the acceptance of alumni in the labour market.

Table 1.1.2. Correlation between PLOs and ILOs of BPAE

Learning Outcomes (LOs)			PLOs			
Realm	Code	Intended Learning Outcomes (ILOs)	Planner and Engineer	Manager	Research Assistant	Entrepreneur
Attitude	A1 (1)	Apply the values of maritime spirits in agricultural engineering profession	✓	✓	✓	✓
	A2 (2)	Demonstrate capacity for life-long learning in agricultural engineering profession	✓	✓	✓	✓
Knowledge	K1 (3)	Apply knowledge of mathematics, sciences, and engineering principles in agricultural fields;	✓	✓	✓	✓
	K2 (4)	Use quantitative analysis, information technology and critical thinking in agricultural engineering profession;	✓	✓	✓	✓
Skills	S1 (5)	Use techniques, skills, and modern tools necessary for agricultural engineering practices;	✓	✓	✓	✓
	S2 (6)	Design simple equipment, components, or processes needed in agricultural engineering operations	✓	✓	✓	
Competence	C1 (7)	Manage and utilize agricultural resources effectively, efficiently, and sustainably	✓			
	C2 (8)	Demonstrate capacity in operating agricultural engineering related business either as producer or service provider;				✓
	C3 (9)	Analyze the impact of engineering solutions to the environment and society using a multidisciplinary approach;			✓	
	C4 (10)	Explore and develop effective solutions related to agricultural engineering issues.		✓		

Criterion 1.2 Name of the degree programme

General Policy

The name of study programs in Higher education in Indonesia are regulated in the Decree of the Directorate General of Higher Education No. 163/E/KPT/2022 on the names of study programs. Following the regulation, the name of the four study program are as follows:

Bachelor Programme in Agricultural Engineering (BPAE)

The BPAE was established in 1980 following the Decree of the Ministry of Education and Culture No. 0563/0/1980. Initially, it was called the Agricultural Mechanization Study Program under the Department of Agricultural Technology, Faculty of Agriculture. Since 1991, however, the name has changed to the Agricultural Engineering Study Program. This name was reaffirmed again by the Decree of the Directorate General of Higher Education No. 1789/DT/2009. BPAE was accredited by the National Accreditation Board (BAN PT) with grade C in 1997–2002, grade B during the period of 2002–2012, and **grade A from 2012–2022 and converted to “UNGGUL (EXCELLENT)” in 2022 (Appendix BPAE 1.1.2)**. Up to this time, there have been more than 1200 alumni produced by this study program.

Since the early development of the BPAE, the study program has had a serious commitment to producing a quality graduate with a strong knowledge foundation to perform quantitative analysis, apply engineering principles, have environmental consciousness, carry out life-long learning, and internalize the value of maritime spirit (integrious or be a person of integrity, innovative, catalytic, and wise) (Decree of the Ministry of Education and Culture No. 163/E/KTP/2022).

So far, alumni users have never misunderstood the name of the Agricultural Engineering study program because job acceptances are based on the higher education database (PDDikti) related to the field or scope of study of the study program.

Criterion 1.3 Curriculum

Content

Bachelor Programme in Agricultural Engineering (BPAE)

The curriculum is designed on constructive alignment with intended learning outcomes. The curriculum of Bachelor Programme in Agricultural Engineering (BPAE) at Unhas was developed through a series of activities, which include tracer studies of alumni, benchmarking the Intended Learning Outcomes (ILOs) of similar programs at other institutions, and focus group discussions with external stakeholders. The workshop was conducted to assess the disparity between the competency requirements outlined in the curriculum and the expectations expressed by stakeholders and alumni. It actively engaged stakeholders in Agricultural Engineering, including alumni and employers of graduates, to contribute their insights on the existing curriculum and provide feedback on the curriculum's content, knowledge, skills (including soft skills), and behaviors that should be incorporated into the updated curriculum.

Achievement of student competencies has been compiled under the coordination of the Head of the Study Program through the preparation of a structured, hierarchical and planned curriculum through the involvement of various parties. The curriculum is composed of course modules with the content that has been directed to achieve the BPAE graduate profile.

Structure of the programme

Bachelor Programme in Agricultural Engineering (BPAE)

The ILOs of the BPAE have been broken down into the body of knowledge of the study program and into course works which make up the curriculum. The curriculum of the BPAE was designed to prepare students to meet the intended learning outcomes of the study program. Based on the profiles and the required competencies identified from these activities, the intended learning outcomes (ILO) of the BPAE were formulated as shown in **Figure 1.3.2**.

The courses offered in the BPAE were determined based on recommendations from the Agricultural Engineering Consortium whose members consist of all BPAEs at universities in Indonesia. In fact, core mathematics, engineering, and applied courses at all BPAEs in Indonesia were based on the recommendations of the consortium. This recommendation was the results of surveys conducted by the consortium to various stakeholders and users of graduates and benchmarking with the international curriculum of Agricultural Engineering programs in the USA, such as Mississippi University and Ohio University.

In addition to the recommendation by the consortium, the BPAE at Unhas enriched its curriculum with courses tailored to the strength and expertise of its faculty members. The curriculum requires students to complete 56 required courses (138 course credits) and at least 3 elective courses (6–9 course credits). All the courses are furnished with detailed course learning objectives and syllabi. Course instructors choose teaching and learning methods applied for each course to best facilitate the achievement of the course learning objectives which are derived from the ILOs. The teaching and learning methods used for each subject are clearly stated in the course syllabi. Various methods of assessment are used to accurately measure students' performance with regard to the learning objectives of the course, which reflect the achievement of the expected learning outcomes of the study program. The methods of assessment are also written in the course syllabi.

Semester	Graduate Expected Learning Outcomes																				Credits 147	ECTS 240.0
VII																					14	23.8
VI																					22	37.4
V																					23	39.1
IV																					24	40.8
III																					24	40.8
II																					20	34
I																					20	34

Figure 1.3.2. Curriculum structure of the BPAE

Table 1.3.1. Distribution of subject category and ECTS each semester.

Course Category	Number of ECTS for each semester								ECTS	%
	I	II	III	IV	V	VI	VII	VIII	VIII	
General	13.6	6.8	0	0	0	0	0	0	20.4	8.16
Basic & supporting	20.4	17	13.6	3.4	0	0	0	0	54.4	21.77
Engineering & mathematics	0	10.2	27.2	20.4	5.1	6.8	0	0	69.7	27.89
Applied (specialized)	0	0	0	17	17	23.8	0	0	57.8	23.13
Elective (specialized)	0	0	0	0	17	6.8	0	0	23.8	9.52
Student Service & extra-curricular activities	0	0	0	0	0	0	10.2	0	10.2	4.08
Final Project	0	0	0	0	0	0	1.7	11.9	13.6	5.44
Total Course Credits	34	34	40.8	40.8	39.1	37.4	11.9	11.9	249.9	100.00

Note: Credit Point is transferred to ECTS based on the Unhas policy where 1 credit point equals to 1.7 ECTS (https://akademik.unhas.ac.id/storage/dokumen/dokumen-1620651628-passkey_Credit%20Transfer%20UNHAS.pdf)

Student mobility

Bachelor Programme in Agricultural Engineering (BPAE)

There are several programs which support student mobility, both inbound and outbound. Students inbound to the BPAE mostly obtained from SUIJI program, student exchange program (Program Pertukaran Mahasiswa Merdeka) and international student. Outbound programs are supported by SUIJI program, Thematics and Regular Student Community Service (KKN Tematik and KKNT-MBKM), student exchange program, Internship in Industry and Institution, on-the-job training (PKL), Student Creativity Week (PKM), and Student Entrepreneurship Competition (PKW). In addition, students also participated in an international student competition such as the Southeast Asian Agricultural Engineering Student Chapter Annual Regional Convention (AE-ARC) which was hosted by University Putra Malaysia (UPM) in 2021. Information regarding student mobility of BPAE can be found in <https://s.unhas.ac.id/StudentMobilityBPAE>.

Periodic Review of the Curriculum

Study programs carried out periodic reviews of curriculum every four years. The periodic review of the curriculum helps ensure the curriculum remains relevant to the current needs and requirements of the field of study, equipping students with up-to-date knowledge and skills. This process is in accordance with the National Higher Education Standard, which pertains to the Indonesian Qualifications Framework (IQF), and Ministerial Regulation No. 73 of 2013, which addresses the implementation of IQF in higher education curriculum. This periodic review includes regular reviews every semester and curriculum reviews every four years. For the semester review, the faculty and administrators gather information on student outcomes, course evaluations, and emerging trends in the field. This data forms the basis for identifying areas that require improvement or alignment. The curriculum review entails stakeholder engagement, where input from students, alumni, employers, and industry experts is sought to gain diverse perspectives on the program's curriculum. The scheme of periodic review of the curriculum is shown in Figure 1.3.4.

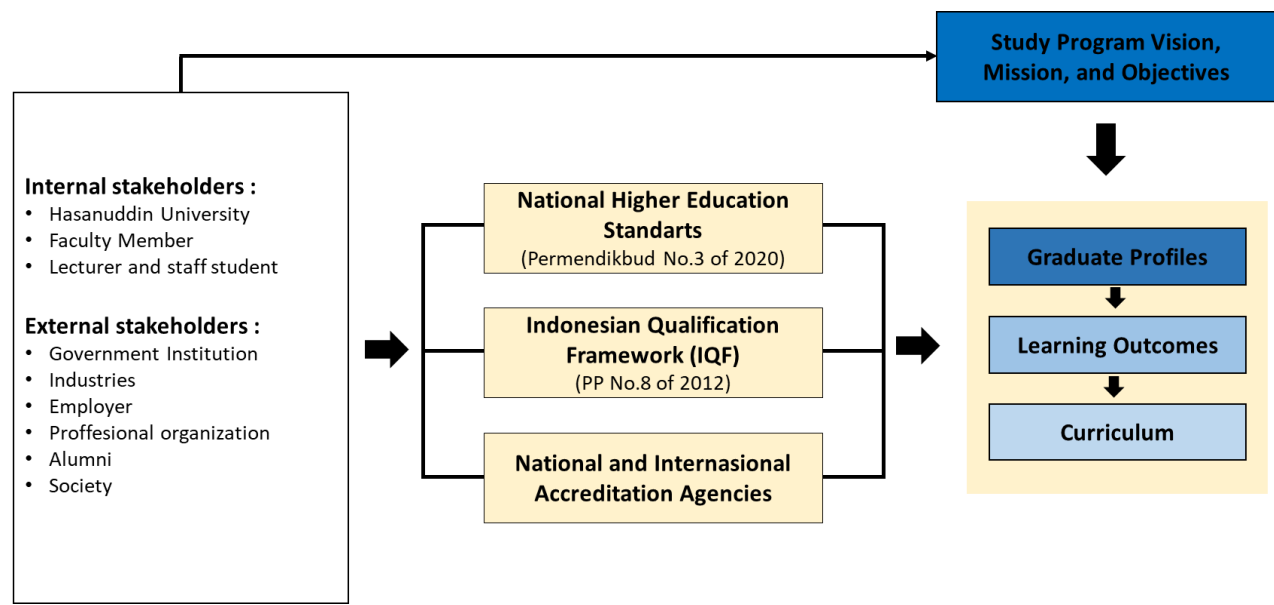


Figure 1.3.4. Curriculum alignment scheme

Bachelor Programme in Agricultural Engineering (BPAE)

The curriculum of the BPAE undergoes a review and update every four years. This process is in accordance with Presidential Regulation No. 8 of 2012, which pertains to the Indonesian Qualifications Framework (IQF), and Ministerial Regulation No. 73 of 2013, which addresses the implementation of IQF in higher education curriculum. Starting in 2014, the curriculum of 2011 was evaluated and revised to align with the principles of IQF. The preparation of curriculum changes, adjusted to the Competency-Based Curriculum (KBK) in accordance with IQF, was carried out through a series of activities conducted in 2014. The initial step was a workshop held on July 19th 2014, aimed at enhancing understanding of IQF. The university allocates funding for activities related to curriculum alignment and enrichment for all study programs.

The BPAE has also carried out the alignment of the curriculum to conduct an initial review of the curriculum prior to the development of a new curriculum (Dean's Decree No. 3232/UN4.10/PP.38/2017). Through the activities of the Curriculum Reconstruction and Development Program in 2018, a series of activities were conducted to reconstruct the curriculum of the Agricultural Engineering Study Program by adopting the provisions of an outcome-based curriculum known as Outcome-Based Education (OBE). Students can complete their studies for four years or even less because the curriculum is structured in 8 semesters (4 years).

Criterion 1.4 Admission requirements

Admission for Bachelor

The new student admission process for bachelor program, including at BPF and BPAE, refers to the provisions required by the **Ministry of Higher Education, Culture, Research, and Technology Number 48 of 2022 concerning the Admission of New Students for Diploma Programs and Bachelor Programs at State Universities** and the **Regulation of the Rector of Hasanuddin University Number 36621/UN4.1/PP.37/2017 concerning admission of new students of Universitas Hasanuddin**.

There are four ways by which new students are admitted to bachelor programs:

1. SNBP (Seleksi Nasional Berbasis Prestasi)/High school Performance-based National Selection.
2. SNBT (Seleksi Nasional Berbasis Tes)/Examination entrance-based National Selection. To take the exam, students are required to hold a high school diploma with a maximum age of 25 (as of July of the implementation year).
3. University policy entrance (Jalur Mandiri). This policy is based on strict and high-standard criteria with a detailed rubrics that cover: (1) Leadership Talent Development Program for Student Council Chairpersons, (2) The Government partnership scheme, and (3) Science, Sports, and Arts Achievement.
4. International student entrance. The student meets the qualifications equivalent to high school standard in Indonesia.

Examination entrance-based National Selection consists of general and specific knowledge test components, including capability in the areas of Mathematics, Sciences, Indonesian and English. This is believed to be able to support the appeal for the competency profile of each intended study program. The Directorate General of Higher Education manages a national admissions system for new potential students so that grades for each study program are prepared in an integrated and comprehensive manner for all study programs participating in the national selection. The admission process is carried out online through the website provided by the Ministry of Education, Culture, Research, and Technology (<https://portal-snpmb.bppp.kemdikbud.go.id>) and UNHAS (<http://regpmb.unhas.ac.id/>). Admission criteria and information are published and updated on these websites. Those four ways of entrance as stipulated in **Ministry of Higher Education, Culture, Research, and Technology Number 48 of 2022 concerning the Admission of New Students for**

Diploma Programs and Bachelor Programs at State Universities and the Regulation of the Rector of Hasanuddin University Number 36621/UN4.1/PP.37/2017 concerning admission of new students of Universitas Hasanuddin.

Criterion 1.5 Workload and credits

The workload in the Bachelor Programme and Master Programme in Universitas Hasanuddin is regulated by referring to the **Regulation of the Minister of Education and Culture of the Republic of Indonesia** Number 3 of 2020 concerning National Standards for Higher Education, the Regulation of Rector of Universitas Hasanuddin **Number 2781/UN4.1/KEP/2018** concerning the Implementation of the Hasanuddin University Bachelor Program, and **the Regulation of Rector of Universitas Hasanuddin Number 2784/UN4.1/KEP/2018** concerning the Implementation of the Hasanuddin University Master Program.

The rector's regulation states that the Bachelor Program curriculum contains a minimum of 144 credit points (244,8 ECTS) and a maximum of 150 credit points (255 ECTS) with a maximum study time limit of 14 (fourteen) semesters. Meanwhile, the Master Program curriculum contains a minimum of 36 credit points (61,2 ECTS) and a maximum of 42 credit points (71,4 ECTS) with a maximum study time limit of 8 (eight) semesters.

The order of the four programmes modules ensures that the learning outcomes can be achieved, structured and that the programme can be completed within the standard period of study. Furthermore, all the programmes are organized in a way that allows for individual focal points and courses of study. They also ensure monitoring and evaluating processes regularly to ensure the achievement of the teaching and learning processes for each module. This allows the lecturers and staff to identify any potential issues or areas for improvement. It also allows them to make adjustments as needed to ensure students are able to achieve the ILOs.

Criterion 1.6 Didactics and Teaching Methodology

The study programs implement varieties of didactic and teaching methodologies such as Interactive lectures, Collaborative learning, Discovery Learning, Discussion, Tutorials, Literature review, Projects, Self-Directed Learning, Learning using computers, Field practice, Laboratory practice, and Experiments. The choice of the methods depends on the Course Learning Outcomes (CLOs) to ensure the learning process may lead to the achievement of CLOs. The teaching-learning methods for respective courses of the study programs are shown in **Table 1.6.2. for BPAE**. The study programs promote active learning and student-centered learning (SCL). The study programs implement Problem Based Learning (PBL) and Project based learning (PjBL) methods. These methods help students to improve their ability to solve some problems related to some specific courses and to develop their skills involving some arguments, critical thinking, and discussions on some course materials. Some courses implement flipped classrooms. The implementation of this flipped classroom is possible because of the use of the Learning Management System (LMS). The LMS of

Unhas is called SIKOLA. With the power of SIKOLA, during a pandemic when the campus was shut down, all lecture and learning activities can be delivered online whether synchronous or asynchronous. After the pandemic, the study programs are currently delivering the lecture and learning activities in blended ways. For the master programs, the core activities for the last two semesters are focused on scientific research. This scientific research has to end up in published papers in reputable journals and the journal became the requirement to have a final exam.

Teaching instruments and methods for each course are written in the module handbook and can be accessed online at:

- <http://tep.agritech.unhas.ac.id/23/module-description/> for BPAE,

Table 1.6.2. Correlation of learning methods and ILOs for BPAE

Learning Methods	Learning Outcomes									
	A1	A2	K1	K2	S1	S2	C1	C2	C3	C4
Cooperative Learning										
Collaborative Learning		✓			✓					
Problem based Learning				✓			✓	✓		
Project based Learning				✓		✓	✓	✓		
Case Study			✓		✓		✓			
Discovery Learning			✓	✓	✓					
Group Discussion	✓									
Simulation			✓	✓	✓					
Independent study			✓			✓			✓	✓
Literature review			✓	✓			✓			

2. Exams: System, Concept & Organisation

System and Concept

Assessment is performed to determine the achievement of ILOs assigned to each course. Each course is assigned one or more than one ILOs that are then mapped into one or several Course Learning Outcomes (CLOs). CLOs are specific to the course and cover aspects of attitude, knowledge, skills, and competences. Each CLO is achieved by one or more than one sub-CLO. Sub-CLOs are the final abilities that are designed at each step of the learning process. Various assessment techniques and assessment instruments measure these final abilities.

The evaluation of learning outcomes is conducted according to the Semester Course Plan. Learning outcome assessment performed by a lecturer or a team of lecturers. Evaluation of LOs is conducted summatively and formatively as follows:

1. Measurement of ILOs achievement assigned to courses, CLOs, and sub-CLOs is performed by the teaching team at the end of each semester.
2. The final ILOs measurement is carried out by the Head of the Study Program (KPS) before the student has graduated.
3. Measurement of graduate profiles (Programme Learning Outcomes) is carried out by the University and Faculty through alumni tracer studies one year after graduation according to the Decree of the Minister of Education and Culture Number 3 of 2021 concerning the Main Performance Indicator of State Universities and Higher Education Service Institutions

The evaluation of the course shall be conducted by the Academic Quality Assurance Unit at the Faculty level and by the assigned unit by the Rector at the university level (Rector Decree No. 2781/UN4.1/KEP/2018) and for the master program (Regulation of Rector of Universitas Hasanuddin Number 2784/UN4.1/KEP/2018). Letter grades denote learning outcomes with their numerical grade as shown in **Table 2.1**.

Table 2.1.1. Grading points in the Bachelor Program

Percentage of Achievements	Conversion Value	Grade
85 – 100	4.00	A
80 – <85	3.75	A–
75 – <80	3.50	B+
70 – <75	3.00	B
65 – <70	2.75	B–
60 – <65	2.50	C+
50 – <60	2.00	C
40 – <50	1.00	D
<40	0.00	E

Grades A–D represent passing grades, while Grade E represents a failing grade. Passing grades cannot be re-programmed in the upcoming semesters, unless the obtained grade is D or the obtained grade is C with on condition that a credit accomplishment is at least 114 credit while the GPA is < 3.00

Assessment Regulation

To ensure the credibility, accountability, objectivity, and transparency of assessment, the University has regulated assessment policy and standards under the **Regulation of Rector of Universitas Hasanuddin Number 2781/UN4.1/KEP/2018** and **Regulation of Rector of Universitas Hasanuddin Number 2784/UN4.1/KEP/2018** (<https://akademik.unhas.ac.id/home/dokumen>).

Information about assessment is written in the **learning contract** that is informed to students in the first session. The assessment is conducted with the following requirements: a) The student attending the course is an active student; b) The lecturer has completed at least 85% of the lecture based on the Semester Course Plan (RPS); and c) The students have attended at least 85% of all learning activities. Students who are unable to attend the examination must inform their situation within one day and provide valid documents as stated in the academic guidelines to obtain

permission for a replacement examination. Only students who: a) are sick (proven by a doctor's certificate), b) are assigned to off-campus curricular and extra-curricular activities, and c) have other reasons approved by the Dean or Rector can obtain permission. However, make-up exams must be arranged the following week. This regulation also explains the sanctions for each violation, for example, cheating in the assessment process will be sanctioned with an E (fail) grade. In case of failure, students must reprogram the entire module in the following semester. Course assessment is fully transparent and carried out in accordance with the academic calendar.

The course coordinator shall submit the learning outcome of all students via an online system to the Management Information System of Unhas (<https://neosia.unhas.ac.id>) within the scheduled time frame according to the Academic Calendar. A lecturer or a team of lecturers who fails to submit the student grades within the scheduled time frame of the Academic Calendar shall be liable to penalties according to the prevailing laws and regulations. Students are allowed to request grade appeal on the assigned grade from the ongoing semester. The mechanism for requesting grade appeal shall refer to the Regulation of Rector.

BPF, BPAE, MPPPD and MPEM students are obliged to carry out **thesis research**. The thesis is a project representing the final product of the study and or research performed independently under the supervision of supervisors or collaborative research with the supervisors. Students should defend their thesis in front of the examination committee. The thesis defense is conducted to assess the student's capacity to understand the studied field and the focus area that has been evaluated and qualified by the primary and secondary supervisors. The examination committee for thesis defense shall be no more than 5 (five) consisting of the primary and secondary supervisors as well as 3 (three) lecturers holding a doctoral degree and relevant expertise or professional certificate with qualification equivalent to level 9 (nine) of IQF. The thesis defense is conducted orally and privately. The examination committee shall enact the verdict of the thesis defense which shall be written in the minutes of the thesis defense. A student who fails the thesis defense must re-defend his or her thesis within 2 (two) months; if within the concerned period, the student who failed to re-defend his or her thesis defense, other than due to the force majeure, will be deemed to be a dropout. Students are declared to have graduated when they have passed all the credits based on the provisions within the curriculum, with a Cumulative Grade Average Point after the completion of the thesis defense of at least 3.00; submit proof of publication as required in the study program curriculum; and have completed all administrative requirements required by the study program, faculty, and Universitas Hasanuddin.

To prevent and control plagiarism in tertiary institutions, it has been regulated in Regulation of the Minister of National Education Number 17 of 2010. In it, there are articles that state sanctions ranging from students to lecturers, researchers, and educational staff who are proven to have committed plagiarism. For example, Article 12 paragraph 1, point (d), explains that sanctions are given to students who are proven to have committed plagiarism by canceling grades in one or several courses that they have obtained. In the next paragraph (Article 12 paragraph 2), it states sanctions for proven lecturers, researchers, and educational staff. Some of the sanction points are in the form of reprimands, written warnings, or delays in granting the rights of lecturers, researchers, or educational staff. In fact, demotions and positions can be carried out up to the revocation of lecturer status. Regulations related to plagiarism sanctions are also mentioned in the

regulations of the Hasanuddin University Academic Senate Number 69124/UN.4/It.03/2016, concerning the Code of Ethics for Hasanuddin University Lecturers (**Appendix 2.2**).

Assessment methods and instrument

The assessment methods and instrument used in each study program was developed based on respective course intended learning outcomes. Hence, the assessment methods and instrument for the BPF, BPAE, MPPPD and MPEM are varied, as shown in **Table 2.4.1**. The breakdown of assessment methods for each ILOs of all study programs is provided in Appendix **BPAE2.1.1**.

Table 2.4.1. Correlation Between Intended Learning Outcomes, Assessment Method, and Assessment Instrument of **BPAE**

Intended Learning Outcomes	Assessment Method	Assessment Instrument
Attitude	Observation, Self-assessment, Assignments, Peer-assessment	Analytic rubric Holistic rubric
Knowledge	Quizzes, Assignments, Presentations, Exams, Reports, Mini projects, Case study,	
Skill	Quizzes, Oral test, Assignments, Presentations, Discussion, Laboratory practice, Reports, Mini projects, Group task	
Competence	Assignments, Exams, Mini projects, Seminars	

Each assessment instrument has its own rubric. The rubric consists of assessment criteria, level of performance, descriptor, and scores. The assessment rubrics used to measure the achievement of ILOs from BPAE are analytic and holistic rubrics. Holistic rubrics are comprehensive or generally applicable while analytic rubrics are specific or only apply to a particular topic.

Assessment Portfolio

Each study program has a portfolio of courses that reflect the achievement of students. Students, lecturers, and study programs use this portfolio as reflection material. The portfolio serves as a tool not only for students feedback but also for monitoring student progress and evaluating course effectiveness. It also helps identify areas for improvement. To evaluate the achievement of course learning outcomes, the teaching team conducted assessment using various methods, instruments, and rubrics. The example of the the assessment instrument and result for BPAE is available at <https://s.unhas.ac.id/AssesmentPotofolioBPAE>.

3. Resources

Criterion 3.1 Staff and Staff Development

University Policy and Regulation

According to Government Regulation Number 82 of 2014, Universitas Hasanuddin (Unhas) is classified as a State University with Legal Entity Status (PTN-BH) or an autonomous university in cluster 1. Cluster 1 is recognized based on research and community service performance as recorded in SINTA database (<https://sinta.kemdikbud.go.id/affiliations?q=universitas+hasanuddin>). Based on this status, Unhas has the right to independently carry out recruitment, management, and human resource development. University also planned and managed in terms of recruitment or regeneration of academic staff to be full-time lecturers. The government allows Universitas Hasanuddin as State Universities with Legal Entities (PTNBH) to recruit academic staff only through self-organized recruitment internally. Recruitment needs to be carried out when the ratio of academic staff to students exceeds government regulation standards. According to The Decree of the Minister of National Education of the Republic of Indonesia Number 234/U/2000 concerning Guidelines for the Establishment of Higher Education, it is explained that the ideal ratio of lecturers and students is 1:20 for natural sciences and 1:30 for social sciences.

The faculty status at Unhas consists of Permanent Civil Servant Lecturers, Permanent Non-Civil Servant Lecturers, Adjunct Lecturers, Extraordinary Lecturers, and Foreign Lecturers. The teaching staff number in the Programme of Bachelor in Forestry and Agricultural Engineering and Master in Plant Pest and Disease and Environmental Management is presented in the following Table.

Table 3.1.1. Teaching staff number in Bachelor Programme of Agricultural Engineering

Programme of Study	Professor	Associate Professor	Assistant Professor	Total
BPAE	4	12	5	21

Systematically, academic staff promotion is operated based on the Ministry of the State Apparatus Empowerment and Bureaucratic Reform Regulation Number 17 of 2012 and the Ministry of Education and Culture Regulation Number 78 of 2012. Based on these regulations, the levels achieved by an academic staff are categorized into four levels: teaching assistant, assistant professor, associate professor, and professor. The regulations have set a requirement for each level to be promoted from one level to another. For a lecturer with an extensive research publication, it is possible to jump from one level to a higher level of career path. The HRD of the University collects data on staff annually and reports to the secretary of University regarding the list of staff recommended for promotion. A written reminder will be sent by the Secretary of University – Unhas. The faculty then follow it up through notification memos sent to the academic staff every two years for issue related to career and promotion. The promotion is mostly based on the teaching,

research, and community service activities, along with educational degree specification and number of publications released. Under the control of HRD at University and Faculty level, the Full-Time Equivalent (FTE) of all academic staff is measured and monitored per semester and is recapitulated on an annual basis. The FTE is measured based on the investment of time in academic activities including teaching, research, community service, and supporting activities. To count the FTE of the academic staff in the study program, workloads and working performance of academic staff (*Beban Kinerja Dosen-BKD*) are used. Before a semester ends, all academic staff are required to record their workloads and working performance of academic staff through an online system at www.apps.unhas.ac.id. All activities occurring in the semester need to be reported in the system. The activities are filled into the system and categorized based on three important aspects (teaching/learning, research and community services) to be later checked by an assessor appointed by the Rector.

The academic staff promotion data are verified at the study program, faculty, and university level by a committee at each level. The committee will check all the paper works including the validity of publications such as plagiarism and other ethics of publication and will be once again verified at the university level. Different from teaching assistant and assistant professor level, the final verification for associate professor and professor is determined by MORTHE not by the University. The termination and retirement of academic staff is also based on the law of the Republic of Indonesia No 14 of 2005 on teachers and lecturers. The law, it is explained in detail the period of job, retirement, including certification of educator and violation of academic ethics.

A certificate of educator issued by the Ministry of Research, Technology, and Higher Education (MORTHE) is a strong indicator to show the competencies and capabilities of academic staff in delivering teaching professionally including in conducting research and disseminating science and technology through community services. To be able to attain the certificate, an academic staff needs to write a self-assessment and description followed by a peer-review appraisal, a student's assessment and passed computer-based tests for academic potency and English. Both peer review and student assessment are aimed at assessing the competencies of academic staff on teaching methods, commitments, publication, public service activities, and career plans of the individual academic staff in the future. All academic staff must be certified.

As mentioned in the implementation of three components in teaching/learning, research and community service (Tri Dharma), the competencies of the academic staff are indicated by their activities in those three areas that is reported each semester through an online system managed by the University (<http://apps.unhas.ac.id/>). The system could record all activities of the academic staff, including lecturing activities (*e.g.* course and material content online, the availability of the course material in the LMS (Learning Management System), the media and instructional methods used), monitoring research (number and type of publications), community service, and supporting activities (*e.g.* attending seminars/workshops, organizing events at university and/or national level, etc.). Through this system, Unhas can assess and evaluate the performance of overall academic

staff activities (since 2015) as well as assess workloads and rewarding systems for the staff (since 2016).

LPMP, or Institution of Quality Assurance and Educational Development at Universitas Hasanuddin, also provides pedagogical training and development programs such as PEKERTI and Applied Approach (AA) for all academic staff.

According to the Regulation of Rector of Unhas Number 04175/UN4.1/KEP/2023, Unhas has a reward system to arrange the determination of rewards for book writing and editing, international book chapters, scientific articles in international journals, management for journal editorial, and support for completion study.

The composition, professional orientation and qualification of teaching staff; contribution of teaching staff research to the learning process as well as the training program of teaching staff of all study programs are discussed below:

Bachelor Programme in Agricultural Engineering (BPAE)

Staff development of the BPAE is carefully planned and carried out to have a better staff quality and maintain a proper staff-to-student ratio. The ratio between academic staff and students is 1:20. Total students in BPAE are 407 students for 21 academic staff (1:20).

The number of the academic staff of the BPAE is 21, which consist of 16 Ph.D. holders (4 professors) and 5 master degree holders. The expertise and research interests of the academic staff can be broadly grouped into 3 fields, namely Postharvest Technology and Food Processing (8 academic staff), Soil and Water Engineering (8 academic staff), and Agricultural Machinery (5 academic staff). Profile of all the staff are available on the website: <http://tep.agritech.unhas.ac.id/23/staf-program-studi-teknik-pertanian/>. Faculty members at the Agriculture Engineering Study Program are actively involved in research activities on Topics related to Agricultural Engineering Fields. Funding for research is available from the Directorate of Research and Public Services of the Ministry of Research, Technology and Higher Education (external fund), from government and private institutions (external funds), and from the Office of Research and Public Services of Unhas (internal fund). Faculty members of BPAE conducted research in the areas of Food Processing, Soil and Water Engineering, Instrumentation and Control and Farm Machinery which involved several students in the research project. Results of the research activities and public services are applied in each course to ensure the achievement of the course learning outcome. Therefore, research and development activities support the development of the degree program.

Four (4) academic staff, master degree holders are expected to study abroad in the field of farm machinery and control, remote sensing/GIS for water resources. In 2022, one staff member was also pursuing a Postdoctoral Program abroad. In 2023, the BPAE obtained funding from the Directorate of Research, Technology and Higher Education (Called PKKM). The PKKM program focused on the developments of academic staff, improvements of the quality and relevance curriculum. Several academic staff are involved in workshops and training to further their

professional and didactic skills. All staff are intended for the training obtained certificate is provided by LSP/BNSP. Most of the instructors of this training are professionals from a well-known management institution. Two young academic staff have joined training as well in industry. The Institute of Quality Assurance and Learning Development (GPM) also provides training to enhance staff capacity in handling teaching and learning processes. The training is designed mostly for young academic staff, but seniors are also welcomed. On the other hand, the Institute of Research Community Services also conducts short trainings periodically on how to write research proposals, to do quality research and to publish scientific papers. Most of the young academic staff of the BPAE have joined these kinds of training or workshops at both institutes.

Criterion 3.2 Student Support and Student Services

A complete set of facilities and student support programs are available to enhance the learning experience of students. The facilities include Central Library, Counseling and Guidance Center, Career Development Center, Publication Management Center, Sport and Arts facilities, and dormitories.

Universitas Hasanuddin central library provides various collections including printed books, scientific works, e-book, and e-journal. Unhas library also offers digital services such as online public access computer (OPAC), digital library application, zero library loan services, Unhas Repository, and Thesis self-upload and verification (www.library.unhas.ac.id). Students and staff can also access the collection of National Library at www.perpusnas.go.id. The facilities in Unhas Library include reading room, scientific work room, reverse collection room, reference, magazine, newspaper room, Carrel, Unhasiana room, Cultural corner, BI Corner, Braille corner, discussion room, and praying room.

Universitas Hasanuddin has established a Counseling and Guidance Center (PBK) to optimize personal, social, academic, and career development for the academic community and the general public, with the responsibility of providing guidance and counseling services from a multicultural perspective for the members of the Hasanuddin University academic community. PBK counselors provided "Personal Guidance," which entails individual counseling sessions which can be conducted either in-person or online, involving one counselor and one client. The services offered include counseling and education related to psychosocial aspects, mental health, and sexual and reproductive health. Another service provided is "Group Counseling," which involves counseling sessions conducted with a limited number of participants. These group sessions are organized to discuss relevant issues or problems. The counselors for these sessions are counselors/psychologists from the PBK at Hasanuddin University, and the participants consist of members of the Hasanuddin University academic community. Detailed information is provided at PBK Hasanuddin University website (<https://pbk.unhas.ac.id/>) and on Instagram @pbkunhas.

Universitas Hasanuddin provides job career information and advice which is organized by Career Development Center (CDC) (<http://cdc.unhas.ac.id>). Hasanuddin Career Program (HCP) is an early training program before entering the world of work for students and alumni. In this activity, participants can learn to make a good curriculum vitae, tips and tricks for psychological testing, and

TOEFL simulation. In addition, CDC also organized several related events such as Career talk, Career and Entrepreneur Expo, Campus hiring program, Apprenticeship program, and Industrial Gathering. Universitas Hasanuddin has a Publication Management Center that manages the institutional publication. The center may assist in managing the publication process for academic journals affiliated with the university. This includes handling submissions, peer review coordination, formatting, and publication of research articles. PMC also offers guidance and support to faculty, researchers, and students regarding manuscript preparation, citation styles, copyright issues, and other aspects of the publication process.

Unhas also offer financial assistance for student such as scholarships. Information regarding available scholarships can be accessed in <https://kemahasiswaan.unhas.ac.id/>. Various public and private scholarships are available for new and old students, including Bidik Misi, Beasiswa Unggulan, Beasiswa Peningkatan Prestasi Akademik, Beasiswa Pendidikan Indonesia, etc.

The facilities and programs are staffed by trained administrative and technical personnels.

Criterion 3.3 Funds and equipment

Funds

The availability of funds at UNHAS greatly supports the teaching-learning process and other academic activities from the university level to the study program level. UNHAS funding to carry out academic activities such as lectures and student practices, student and lecturer research, community service, and others) comes from several sources grouped into State Budget (APBN) and Non-state budget (Non-APBN) revenues. Types of APBN income include Employee Expenditure (Civil Servants), PTNBH (Autonomous State University) Funding Assistance, Research Assistance managed by LPPM, Foreign Loans/Grants, and WCU (World Class University) Development. Meanwhile, Non-APBN income comes from Community Funds, Educational Service Fees, Endowment Fund Management, University Business, Domestic and International Collaboration, and university asset management.

The allocation of funds from the university to faculties varies from 46% to 50%, and the rest is jointly managed with the university. The allocation of funds from the university has enabled study programs to carry out academic activities in achieving study program learning outcomes (CPL). UNHAS, as a Autonomous State University (PTN-BH), has broad autonomy in financial management, so it needs to establish several policies to ensure good UNHAS financial management, from planning, implementation, monitoring, evaluation, and financial reporting. One such policy is Board of Trustee (MWA) Regulation No. 46116/UN4.0.1/OT.10/2016 Regarding the Planning and Budgeting System of PTN-BH Unhas. Another important policy is the Rector Regulation Number 22041/UN4.1/KU.21/2017 Regarding the General Budget Policy of Unhas.

Unhas budget planning is carried out with a bottom-up approach, starting from the work unit creating activities, performance indicators, and achievement targets. The Annual Budget Activity Plan (RKAT) is compiled based on program policies (IKU Program) and budget policies by adjusting each work unit's budget ceiling/allocation determined based on the Rector's Decree. RKAT is input

through the page <https://simkeu.unhas.ac.id/apps>, compiled into Unhas RKAT, and proposed to the Board of Trustees (MWA) for approval. After the MWA approves the RKAT, the work program is implemented from the university level to the study program. The realization of the budget and program activities is monitored and evaluated to ensure everything runs according to the planned target. If program activities have been implemented but there is efficiency or a budget shortfall, a revision can be proposed for adjustment. Revisions to add program activities are possible if there are activities deemed essential and approved by the rector.

The application <https://simkeu.unhas.ac.id/apps> was developed to accommodate budget planning needs, implementation, and disbursement to reporting.

Bachelor Programme in Agricultural Engineering (BPAE)

At the university level, several facilities that can be used by students are Central Library, Sport center, Teaching Industry, Auditoriums, and Laboratories for basic sciences which are managed by the Faculty of Mathematics and Natural Sciences. At the faculty level, there are 20 classrooms, Experimental farm, Green House, Faculty Auditorium, and laboratories for basic agriculture. At the study program level, there are five laboratories namely Food Processing Laboratory, Soil and Water Engineering Laboratory, Farm Machinery Laboratory, Agro-informatics Laboratory, and Instrumentation and Control Laboratory. In addition, BAE has access to a six-hectare land at the Faculty of Agriculture Teaching farm for field Field Lab work and experimentation.

An internal survey conducted by BPAE obtained an overall satisfaction level of 78.2% for laboratories equipment and facilities in the study program with a satisfactory level of 45.5% for the combination of “Very Good” and “Good” criteria and an average of 32.7% satisfaction level is obtained for “Average” criteria (**Appendix BPAE 3.3.1**) Overall an improvement, both quantities and types, is required for the laboratories within the Agricultural Programme in Engineering (BAE). To ensure the sustainability and improvement of the pivotal supporting services and facilities, funding is obtained from 70% of the tuition fee of students for operational purposes of BAE. In 2023, the Agricultural Engineering study program obtained a grant from the Ministry of Education and Culture called Grant for Independent Campus Program (PKKM). This Program is a part of a national program funded by the government to improve the academic capacities, facilities, and equipment at several universities in Indonesia.

4. Transparency and Documentation

Criterion 4.1 Module descriptions

All modules describe course information, including module title, module course identification code, the person responsible for each module, teaching method, and workload, credit points, intended learning outcomes, module content, admission and examination requirements, exam form, grading, evaluation, recommended literature, and date of last amendment. Student and staff can easily access the description of all modules through SIKOLA (<https://sikola.unhas.ac.id>) while potential students can access it from the study program official website:

- <http://tep.agritech.unhas.ac.id/23/module-description/> for BPAE;

The learning process in all study programs, which includes lesson planning, implementation of the learning process, assessment of learning outcomes, and learning evaluation, is carried out on the page Sikola as our Learning Management System (LMS). **An example of the learning process on this page can be accessed via the following link using a username namely ASIIN2023CE and its password #ASIIN2023CE.**

Criterion 4.2 Diploma and Diploma Supplement

Diploma and the academic transcript record, which is provided in Indonesian but it can be requested in the English version, awarded to students after they complete their study. The academic transcript record shall contain details of all subjects studied and results, CGPA, the title of thesis, and may contain academic interest. The diploma and the academic transcript record are signed by the Dean of Faculty/ Graduate School, and Rector. Diploma supplement is regulated in the Regulation of the Minister of Education and Culture No. 81 of 2014 concerning Diplomas, Competency Certificates, and Professional Certificates in Higher Education and the Chancellor's Regulation of Hasanuddin University Number 1832/UN4.1/KEP/2018 concerning Certificates of Diploma Companion. These rules are then followed up with guidelines for preparing a certificate accompanying a diploma (certificate supplement).

Bachelor Programme

Diploma Supplement **for bachelor programme**, called SKPI, describes the fulfillment of Graduate Competency Standards (SKL) as mandated by article 52 paragraph (3) and article 54 (1) letter a of Law Number 12 of 2012 concerning Higher Education (Appendix UH4.2). SKL is the Learning Achievement Minimum (CPM) of graduates. The document provides information on the student's qualifications profile and individual performance as well as the classification of the degree programme with regard to the respective education system. Items listed in SKPI are divided into several categories, such as: Achievement and rewards, Scientific activities, Arts and culture, Sports, Foreign Language Ability, Community services, and Organization and Leadership. The marks of individual modules are presented in separate papers as transcript certificates. All marks of subjects

stated in the Alphabetical system (A, A-, B+, B, B-, C+, C, D and E) and valuing range from 0 to 4 (see Academic Regulation No. 2781/UN4.1/KEP/2018). Each marked value of the subject is multiplied by the ECTS value of the subject. The summation of the multiplication results of all subjects then is divided by the total ECTS to get the GPA of graduates.

However, the realization of SKPI has not been effective because SKPI has not become a part of consideration by HRD of Companies in the selection process for job seekers such as new alumnus. The sample of diploma and diploma supplement for bachelor programme is available in:

- <https://s.unhas.ac.id/DiplomaSupplementBPAE> for BPAE

Criterion 4.3 Relevant rules

Academic activities for the diploma level are regulated in the Rector Regulation of Hasanuddin University Number: 2781/UN4.1/KEP/2018 Concerning the Implementation of the Hasanuddin University Undergraduate Program which can be accessed via the link: <https://akademik.unhas.ac.id/home/dokumen> or see **Appendix UH 4.3.1**. All academic regulations are provided both in Bahasa Indonesia and English to accommodate foreign students in better understanding their rights and duties. Students can access the documents on the university academic website using the following link <https://akademik.unhas.ac.id/home/dokumen>.

The regulations related to student's academic activities at the university level are the responsibility of Vice Rector of Academics and Student Affairs which supported by two directorates, i.e. Directorate of Academic Affairs; and Directorate of Student Affairs and Career Developments. In addition, the Vice Rector of Academics and Student Affairs is also coordinating with Institute for Quality Assurance and Education Development (LPMPP) in constructing academic regulation documents.

Meanwhile, at the faculty level, there is a deputy dean for academic and student affairs. At the study program level, the Head of the study program is responsible for carrying out learning activities in accordance with Hasanuddin University Academic Regulations Number: 25000/UN4.1/OT.10/2016, such as developing and updating curriculum and teaching materials, organizing learning activities and preparing a team in charge of courses with the approval of the dean.

Students have academic freedom to develop themselves through the educational process and social interaction within the Hasanuddin University academic community based on Indonesian Government Regulation number. 53 of 2015 concerning the Statutes of Hasanuddin University which can be accessed via the link: <https://www.unhas.ac.id/wp-content/uploads/2020/12/PP-NOMOR-53-TAHUN-2015-STATUTA-UNHAS.pdf> or see **Appendix UH.4.3.2**. In order to create a conducive campus life, all campus activities must comply with rules such as the rector's decision number. 1595/UN4/05.10/2013 concerning provisions for campus life for Hasanuddin University students which can be accessed via the link: https://kemahasiswaan.unhas.ac.id/file/11-15092016020950_tatib_kehidupan_kampus.pdf or see **Appendix UH.4.3.3**. and Hasanuddin University Academic Senate Regulation Number: 2/UN4.2/2020 Concerning the Code of Ethics for

Hasanuddin University Students which can be accessed via the link: <https://sa.unhas.ac.id/wp-content/uploads/2021/02/02.-Kode-Etik-Mahasiswa.pdf> or see **Appendix UH.4.3.4.**

5. Quality Management: Quality Assessment and Development

University Policy and Regulation

Based on the Regulation of the Republic of Indonesia Number 12 of 2012 (article 53), the higher education Quality Assurance System consists of 1) an internal quality assurance system developed by universities; 2) an external quality assurance system that is conducted through accreditation by the National Accreditation Agency for Higher Education (BAN-PT), independent certification boards such as the Indonesian Accreditation Agency for Higher Education in Health (IAAHEH), BSI (Indonesian Certification Board), and international certification boards such as Asean University Networking-Quality Assurance (AUN-QA).

A Quality Assurance System (QAS) is needed by an institution to ensure the sustainability of quality institutions. At the university level, the Internal Quality Assurance System (SPMI) is coordinated by the Quality Assurance Center (LPMPP), at the Faculty level by the Quality Assurance Unit (GPM), and at the study program level by the Quality Assurance Unit (UJM). The Internal Quality Assurance Center has the function of assessing and developing quality instruments that include quality policy documents, quality manuals, quality standards, and objectives, as well as quality forms that go beyond the National Standards of Higher Education and are in line with the sustainable development direction of Unhas.

The implementation of the quality management system is a strategic decision of the Department and is intended to:

1. Assure the educational processes whose outcomes consistently meet the requirements and comply with laws and regulations both in terms of quality and in Professional matters.
2. Increase stakeholder satisfaction through the implementation of an effective quality management system, including continuous improvement in all processes.
3. Ensure consistency in the research process and community services to achieve the vision and mission that have been set.

Universitas Hasanuddin's internal quality assurance system is based on the principles of accountability, transparency, and professionalism. Quality assurance is managed by the Quality Assurance Unit (UJM) at the study program level and the Quality Assurance Taskforce (GPM) at the faculty level. A self-evaluation report is made annually and includes an analysis and performance evaluation of the study program. The analysis is based on data, problem identification, root causes, corrective and preventive action plans, and performance targets. The next cycle of the quality assurance system is the internal audit which can be accessed through the link <https://spmi.unhas.ac.id/index.php?mod=portal&sub=portal&act=view&typ=html>. Each study program is visited regularly by internal auditors from the Quality Assurance Board to ensure that

the learning and management processes of the study program have taken place in accordance with the guidelines. The internal audit should refer to the instruments that include quality policy documents, quality manuals, quality standards, and objectives. The results of internal audits have been discussed in management review meetings to plan follow-up for problems identified. The implementation of the follow-up would then be verified by auditors. The implementation of internal quality audits at the study program, faculty, and university levels is carried out in stages by applying the Plan, Do, Check, Act (PDCA) model for both academic and non-academic activities that are based on the Regulation of Academic Senate of Universitas Hasanuddin Number 4867/UN4.2/IT.03/2017.

Bachelor Programme in Agricultural Engineering (BPAE)

The assessment results conducted by The Quality Assurance Unit can be accessed in <https://spm.unhas.ac.id/> by logging in using the username and password provided for each study program. The evaluation result of BPAE in 2022 is illustrated in **Figure 5.4**.



Figure 5.4. Quality assessment for BPAE in 2022

In addition, besides the quality assessment conducted by the Quality Assurance Unit, several measures that have been taken by the study programme for the improvement of BPAE are:

- Conducting tracer study and surveying the users regarding the alumni competence.
- Academic dialog between students and academic staff in study program
- Focus Group Discussion with stakeholders, industries, and users discussing the current needs in industries.
- Internal audit

1. Students and Alumni Feedback

The tracer study is conducted annually for alumni graduated one year prior at university level by coordinating with the study program using the following website <https://tracerstudy.unhas.ac.id/>.

The result of tracer study can be seen in **Appendix BPAE 5.1**. The survey for users is conducted internally by BAE for alumni graduated 2 to 4 years prior using google form and distributed to several users by social media. The results can be found in **Appendix BPAE 5.2**.

Direct feedback from students is also sought annually through an Academic dialog in order to gauge students' interest and understanding of lecture contents and their preference on learning methods used by lecturers. The general feedback from students is also gathered at the end of semester through an online survey conducted by the Quality Assurance Unit at the faculty level (**Figure BPAE 5.2**).

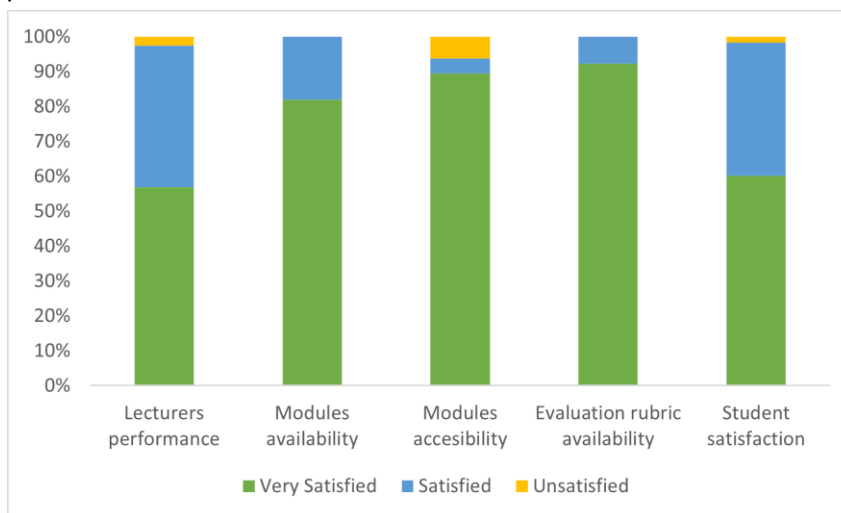


Figure 5.5. The result of online survey by Quality Assurance Unit for BPAE performance

2. External Feedback

The external feedback is collected from stakeholder, industries, and users every four years prior to the curriculum evaluation in a Focus Group Discussion (FGD) between the external parties, academic staff, and students. The latest FGD was done on June 20th 2023 by inviting the Center for Agricultural Training Batangkaluku, PT PERKEBUNAN NUSANTARA XIV (agriculture industries), and National Research and Innovation Agency.

3. Internal Audit

Internal audit at the study programme level is conducted mainly to evaluate whether the ILOs could be achieved by students (**Figure 5.6**). Learning outcomes in the form of GPA and length of study are the main considerations in the conception and use of undergraduate programme quality assurance instruments which are always monitored regularly. The result of previous tracer study is also used to evaluate the PLOs achievement of the study programme as illustrated in **Figure 5.7**.

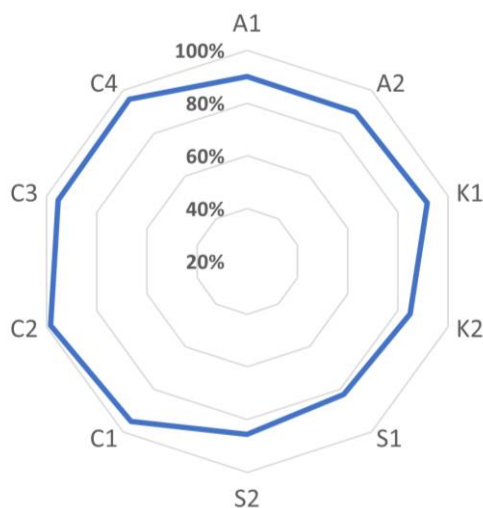


Figure 5.6. The ILOs assessment of BPAE based on the percentage of students passing the courses

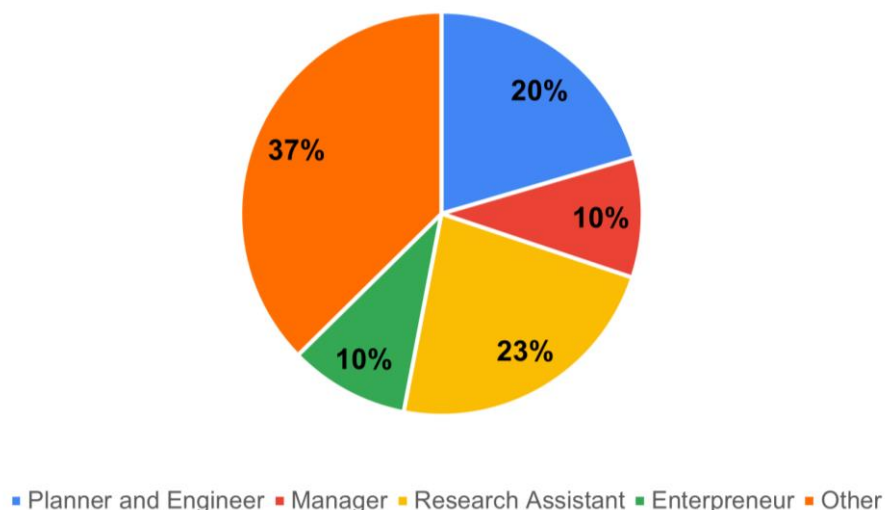


Figure 5.7. The PLOs assessment of BPAE based on alumni graduated in 2017 - 2020

4. Future Improvement of BPAE

Several strategies that need to be undertaken for the future improvements of BPAE are analyzed using the SWOT analysis listed in **Table 5.3.1.** below.

Table 5.3.1. SWOT analysis of BPAE

Strength	Weakness
<ul style="list-style-type: none"> Comprehensive Learning Content (S1) Staff resources (Number dan qualification) (S2) Complete learning documents (S3) Continuous Quality improvement (S4) 	<ul style="list-style-type: none"> Limited laboratory resources due to a fire hazard occur in 2013 (W1) Limited funding to replace the damage (W2) High usage of laboratory load (W3) Longer duration of study (W4)
Opportunity	Threat

<ul style="list-style-type: none"> ● Received Ministry of Education grant for quality improvement of study programme for the fiscal year of 2023 and if succeeded the grant will continue to 2024. (O1) ● Research funding from Directorate of Research, Ministry of Education (O2) ● Grand of Student Creativity Programme (PKM) (O3) 	<ul style="list-style-type: none"> ● Similar existing study programme in Java (T1) ● New similar study programme in South Sulawesi (T2) ● Increasing the number of new accepted students 2023 (T3)
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The results of these overall assessments are used not only to measure the study progress of each student but also to evaluate the effectiveness of teaching and learning methods applied in the study programme. In addition, the results of these assessments are discussed in **regular meetings in the Department of Agricultural Technology and in the Agricultural Engineering Study programme and corrective actions are formulated**. The feedback from students as well as from alumni and users of graduates and the internal audit reports are used as basis for **corrective actions and for continuous improvement of teaching and learning processes**.

Improving the quality of study programmes is inevitable as an effort to respond to external challenges. The types of challenges that exist are summarized through tracer studies of alumni and students. **The information that has been obtained was then answered through updating the module, both the name and or content only**. Forms of renewal are formulated through workshops that present all stakeholders such as alumni, alumni users, and active students and lecturers. The results of the workshop were then discussed further by the team of lecturers for each subject.

The initial step is to evaluate the course or content including infrastructure facilities based on the results of an internal quality audit (AMI) carried out by the Institute for Quality Assurance and Education Development (LMPPP) and the results of a questionnaire conducted at the end of each semester on students regarding the learning process. **Updating and improving the quality of learning both facilities and infrastructure are carried out to ensure the sustainability of the study program**.

Appendices

BPAE 1.1.1. Correlation of the ILOs and Subject-Specific Criteria 8 (SSC-8) of ASIIN

Subject-Specific Criteria 8 (SSC-8) of ASIIN	Intended Learning Outcome									
	ILO1	ILO2	ILO3	ILO4	ILO5	ILO6	ILO7	ILO8	ILO9	ILO10
Knowledge and understanding			√							
Engineering analytics				√						
Investigation										√
Engineering practice					√	√	√	√	√	
Social competence	√	√								

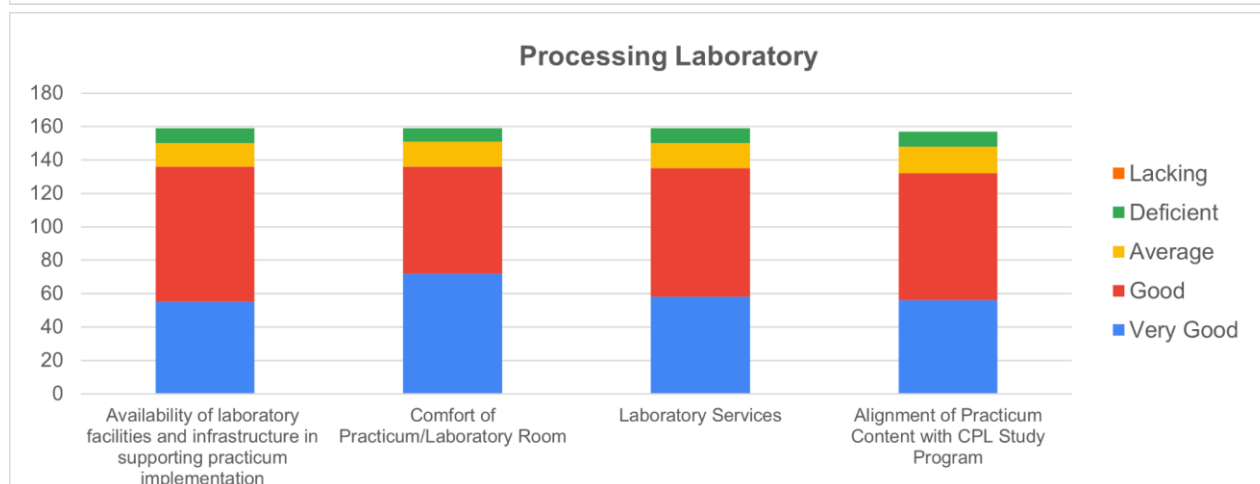
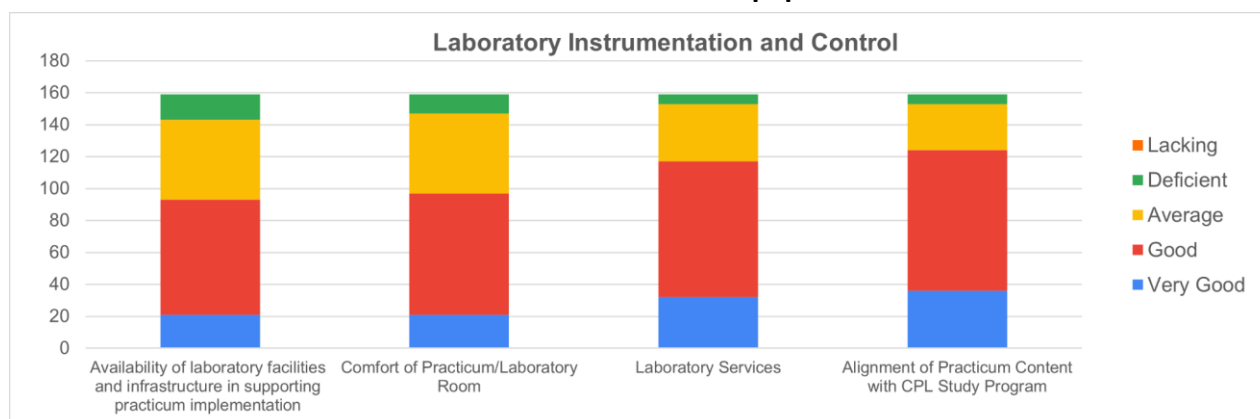
BPAE 1.1.2. Accreditation Certificate of BPAE

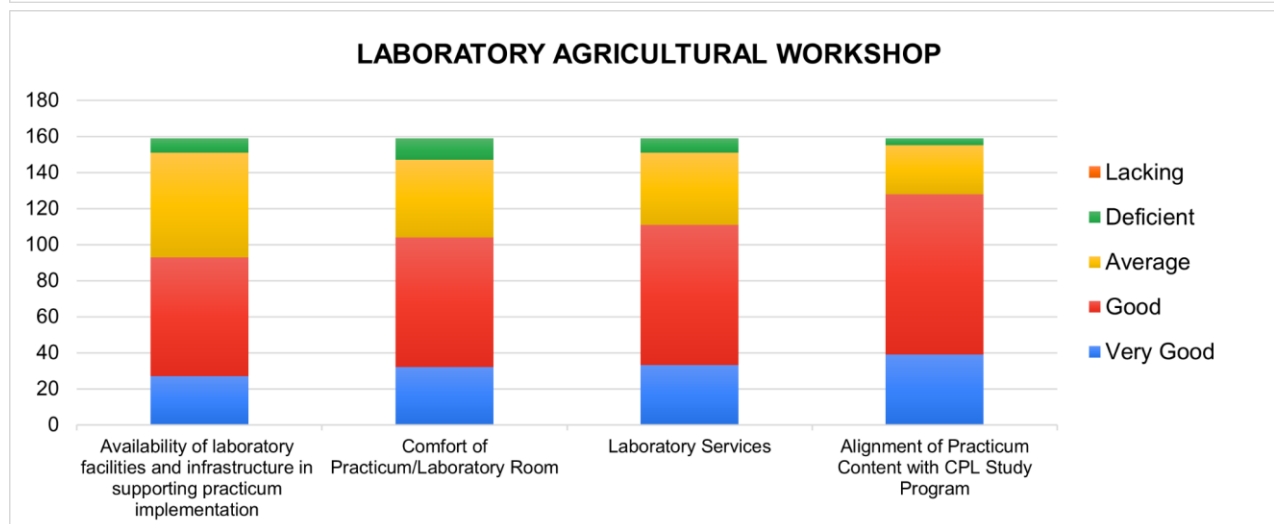
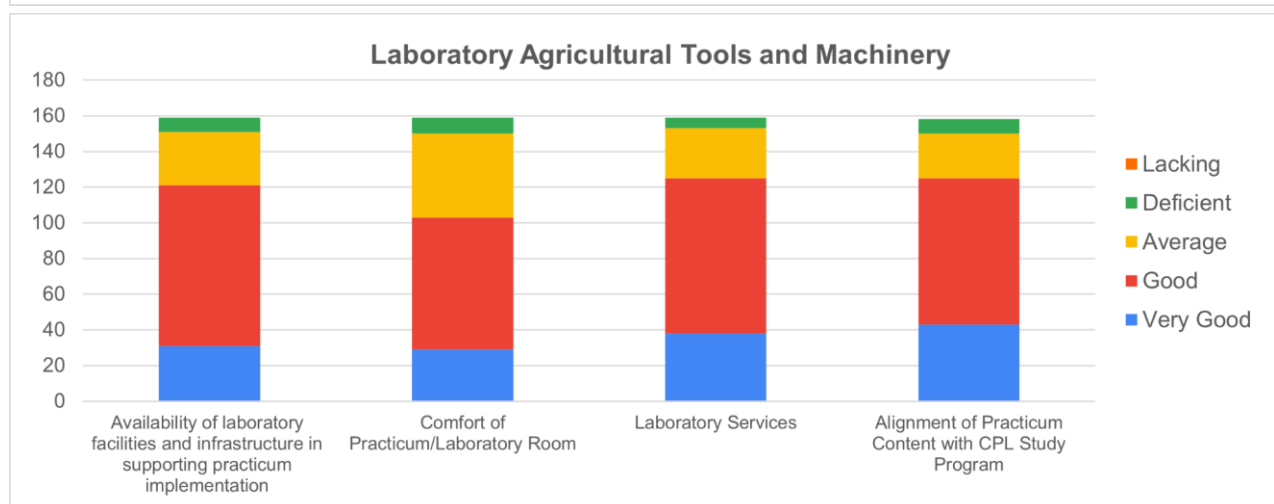
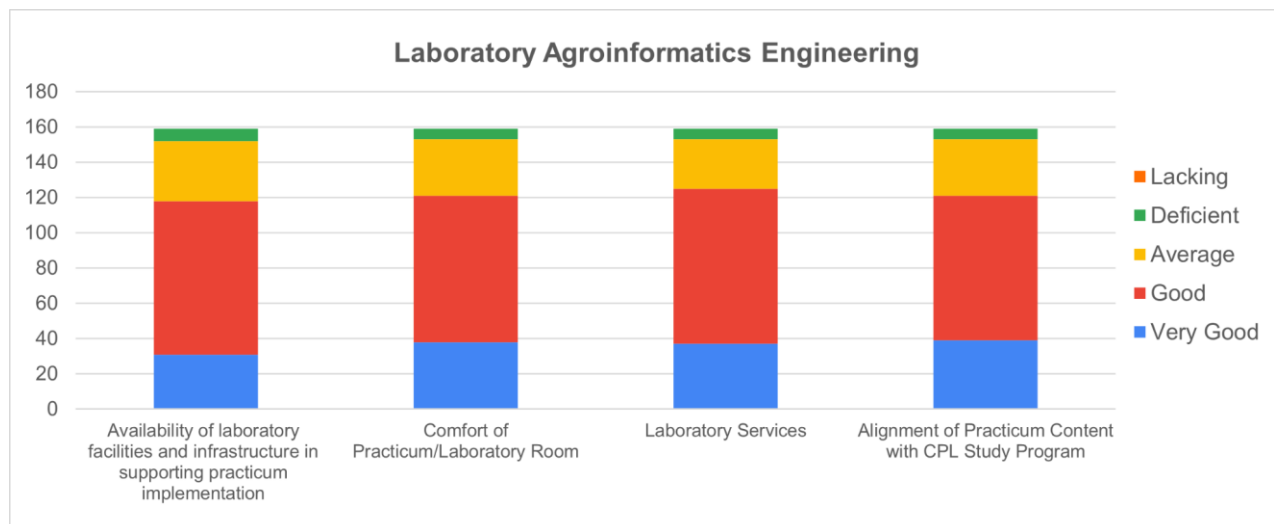


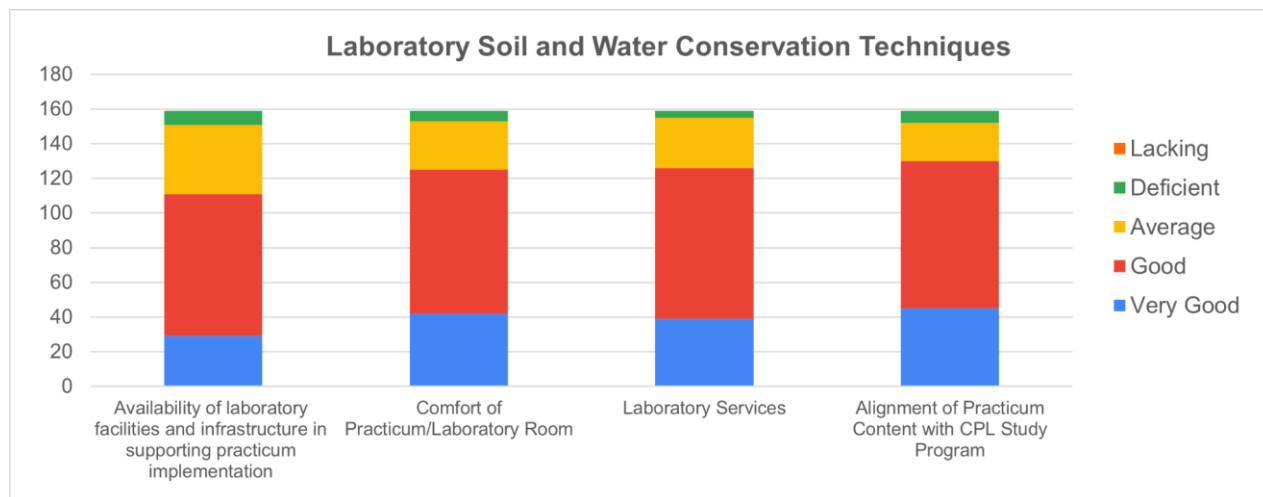
BPAAE 2.1. Mapping of Intended Learning Outcomes with Assessment Methods

Assessment Methods	Intended Learning Outcome									
	A1	A2	K1	K2	S1	S2	C1	C2	C3	C4
Quizzes	√	√	√	√	√	√	√	√	√	
Assignments	√	√	√	√	√	√	√	√	√	
Presentations	√	√	√	√	√		√	√	√	√
Exams	√	√	√	√	√	√	√			
Reports		√	√	√	√	√	√		√	√
Design and Project		√					√	√		
Mini projects			√	√	√				√	√
Seminars			√	√						√
Group tasks						√	√			
Comprehensive examination			√	√						
Plagiarism check		√								

BPAAE 3.3.1. Students satisfaction level of laboratories equipments and facilities in BPAAE

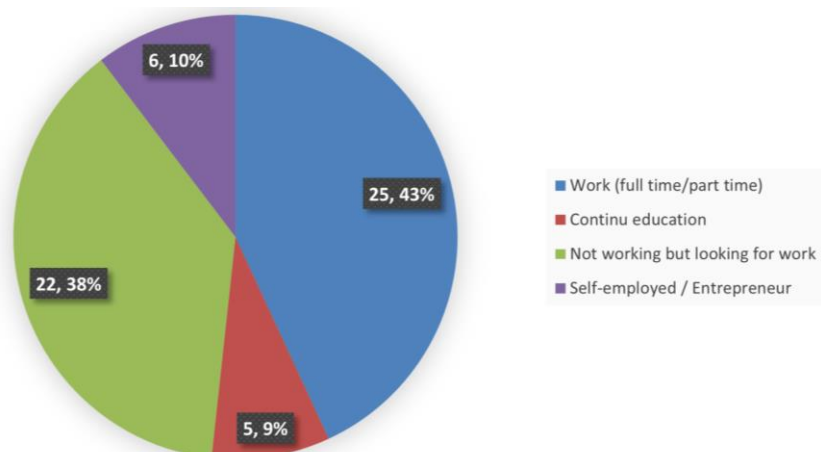




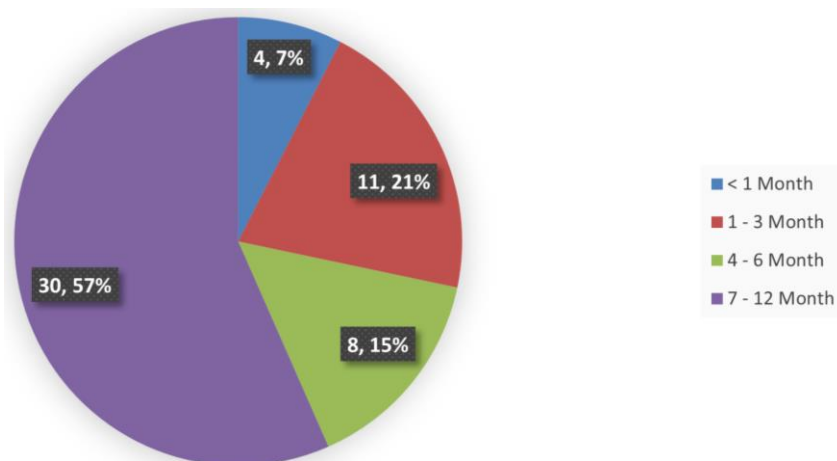


BPAE 5.1. The results of tracer study in 2021-2022

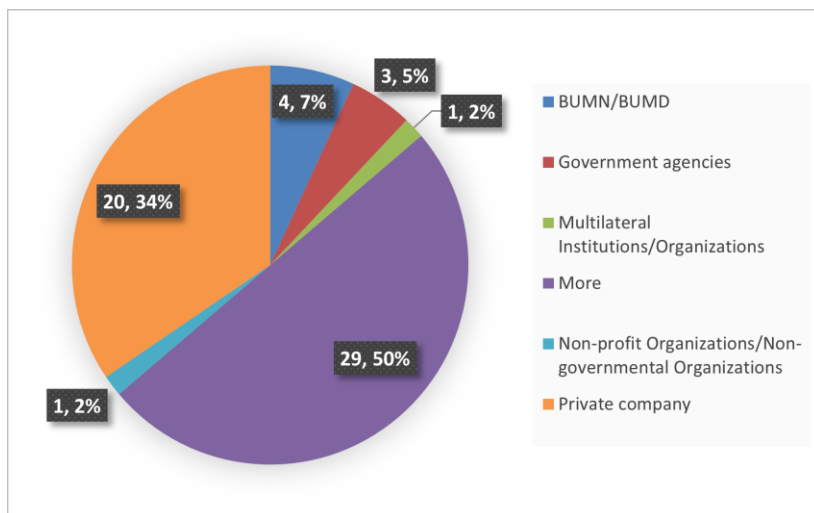
- Current employment status:



- Duration from after graduated to obtain the first main job:



- Current companies sector:



BPAE 5.2. The result of users survey for alumni graduated in 2017-2020

