

## **Accreditation Report**

**University of Bengkulu,  
Sumatra - Republic of Indonesia**

Faculty of Mathematics and Natural Sciences (FMIPA)

**Bachelor in Biology (Bachelor of Science), Bachelor in Chemistry (Bachelor of Science), Bachelor in Pharmacy (Bachelor of Pharmacy), Bachelor in Physics (Bachelor of Science), Bachelor in Geophysics (Bachelor of Science), Bachelor in Mathematics (Bachelor of Mathematics), Bachelor in Statistics (Bachelor of Statistics), Master in Chemistry (Master of Science), Master in Statistics (Master of Science)**

and the

Faculty of Medicine and Health Sciences (FKIK)

**Bachelor in Medicine (Bachelor of Medicine)**

### **I Procedure**

Date of contract: 31 March 2022

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Date of site visit: November 2022

Attendance by ACQUIN office: Robert Raback

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The **Assessment Report** of the peer-review experts is **based on** the self-assessment report of the Higher Education Institution (HEI) and extensive discussions with the HEI management, deans and/or heads of the departments, heads of study program(s), lecturers, staff representatives, students, and alumni.

The basis of the **Assessment Criteria** is part 1 of the “Standards and Guidelines for Quality Assurance in the European Higher Education Area” (ESG) in the current official version. For PhD study programs the Salzburg Recommendations are considered additionally. At the same time the national context, particularly the national regulations regarding the establishment of study programs, are taken into account.

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## **II Introduction**

The experts would like to thank the representatives of the HEI as well as students that they have taken part in the discussions and willingly shared information and their views during the site visit. The discussions are valuable not only for the assessment of the institution, but also for a better understanding of the legal and sociocultural context of the local higher education system.

Evaluation basis for the peer-review experts is the self-assessment report of the HEI as well as intensive discussions during the site visit with the HEI management, deans and/or heads of the departments, head(s) of the study programs, study programs coordinators, teachers, lecturers, administrative staff, students, and graduates.

Main objective of the accreditation procedure is to assess the quality of the study programs and compliance with the "Standards and Guidelines for Quality Assurance in the European Higher Education Area" (ESG). The ESG standards are applied as main assessment criteria in the international accreditation procedure. In addition, the respective country-specific criteria and standards are taken into account.

A group of experts was set up, which ensured that all areas relevant to the accreditation procedure (e.g. legal, structural, social etc. aspects) as well as the ESG and national criteria were considered. The peer-review experts include professors, representatives of the professional practice and the student representative. A certificate with the ACQUIN seal is awarded upon accreditation of the study programs.

### **1 The Higher Education System in Indonesia**

#### **1.1 Historical development**

The modern Indonesian Higher Education System evolved from the colonial education system of the Dutch East Indies. The need for professionally trained personnel who could be used in the administration led to the establishment of a number of higher education institutions (HEIs) in the late 19th century and the first decades of the 20th century, and to the establishment of a number of colleges mainly on the island Java with the largest population. The institutions primarily provided practical vocational education in the fields of medicine (Medical College in Batavia, 1902), Engineering (Technical College in Bandung, 1920), Agriculture (Bogor Agricultural College) and law (Jakarta Law College, 1924) and were less research oriented. These education institutions predominantly benefited a small number of European and, to a lesser extent, native indigenous elites – in 1930, only a little over 100 indigenous students were enrolled in the country's universities, where teaching was conducted in Dutch.



After Indonesia's declaration of independence in 1945, the education system underwent a massive expansion, reflecting the increased value of education for the young nation. Numerous foundations of universities like the Universitas Gadjah Mada in Yogyakarta (1949) and the Universitas Indonesia in Jakarta (1950, which emerged from earlier institutions) date from this period. A particularly important role with regard to the diversification of the higher education system was played by the higher education legislation of the early 1960s. The Higher Education Act No. 22 of 1961 stipulated that every province in Indonesia had to have at least one state university, which led to the establishment of 23 new HEIs.

In addition, the law established comparable structures at the universities, the "Tri Dharma" (three pillars) of higher education (teaching, research, and service to the community service), which are still valid today. Private universities were recognized as equal to public HEIs, which led to a significant expansion of the private sector.

While particularly the primary and secondary education sector experienced significant growth in the first decades after independence, the development of the tertiary education sector was much slower. Favoured by strong economic growth and – associated with it – an increasing demand for a well-educated labour force as well as an expanding middle class changed this situation from the mid-1970s onwards: While 260,000 students were enrolled at Indonesian universities in 1975, the numbers increased by more than one million each decade. In the mid to late 1970s, the structure of the study programs was standardised along the lines of the Anglo-American system with bachelor's, master's and PhD degrees, a credit point system, and the division into fully academic and vocational study programs were introduced.

## 1.2 Contemporary situation

With currently 4,593 private and public institutions in tertiary education, Indonesia has one of the largest and most divergent higher education systems in the world (Pendidikan Tinggi 2020 statistics, p. 8, as of December 2020). 633 of these higher education institutions are considered universities (*universitas*). Since the state-run HEIs cannot meet the demand for primary, secondary, and tertiary education, there is a very broad market for private providers. Of the 4,593 HEIs, 122 are public, state-funded institutions and 3,044 are private. In addition, there are 187 state-owned higher education institutions (e.g. military and administrative colleges) and 1,240 religious' colleges. These are not only higher education institutions for the training of religious functionaries, but also – religiously based – institutions with a variety of faculties and a wide range of courses of study and training. Thus, less than 10 per cent of all tertiary education institutions are state-run, more than 90 per cent are private universities. The state universities are generally regarded as particularly qualified and have most of the country's current 739 doctoral programs.



Despite the large number of private colleges, “only” about 52 percent of students study there, while 35 percent are enrolled at state colleges. The remaining 17 per cent study at religious colleges or state-owned colleges that are under neither the Ministry of Education nor the Ministry of Religion.

Most of the state-run higher education institutions are administered and financed by DIKTI (Directorate for Higher Education at the Ministry of Education and Culture). The Ministry of Religion, on the other hand, is responsible for the large number of denominationally oriented higher education institutions. However, there are also higher education institutions that are administered and financed by other ministries, for example the Ministry of Finance and the Ministry of Defence. The private university sector is anchored in DIKTI with regionally organised so-called KOPERTIS networks.

In terms of their legal status, state universities are divided into three categories: autonomous universities (PTN-BH: Perguruan Tinggi Negeri – Badan Hukum); universities with partial financial flexibility (PTN-BLU: Perguruan Tinggi Negeri – Badan Layanan Umum); and universities as full state educational institutions (PTN). Initial efforts to grant universities more autonomy date back to 1999 and were expanded in the following years, gradually first to seven state universities – including the country's top four universities – which were granted the status of autonomous universities (PTN-BH). Currently, twelve state universities out of the 122 belong to this group. They are all characterised by a higher degree of self-governance and independent financial management, as well as a dual management structure: in all academic as well as development-related matters, decisions are made by a senate composed of members of the faculties. Financial supervision and the election of the rector, on the other hand, are subject to a university council, which includes representatives of the Ministry of Education. (For comparison: in the non-autonomous universities, the rectors are still appointed by the ministry). In financial terms, these universities are allowed to make shifts within their overall budget, generate their own income and build up capital.

Both private and state-supported universities charge tuition fees. The amount of tuition fees varies greatly, depending on the subject studied, the socio-economic situation of the student (there is a subsidy for socially disadvantaged students) and according to the type of university:

At a state university, undergraduate studies (bachelor's degree) cost up to Rp. 10,000,000 (approx. 690 euros) per semester for Economic Studies, Social Sciences and Humanities, up to Rp. 15,000,000 (approx. 1,035 euros) for Engineering and up to Rp. 23,000,000 (approx. 1,590 euros) for medical studies. For the master's program (in Indonesian “Sarjana 2”), the tuition fees per semester range from between 8,000,000 Rp. (approx. 550 euros) and 31,000,000 Rp. (approx. 2,140 euros); the highest tuition fees are charged in the field of



management. Doctoral studies at state universities cost between 11,000,000 Rp. (approx. 760 euros) and 45,000,000 Rp. (approx. 3,100 euros).

At private universities, the tuition fees for a particular subject can vary greatly. For an undergraduate/bachelor program, one has to pay on average between 12,000,000 Rp. (approx. 830,- Euro) and 20.000.000,- Rp. (approx. 1.380,- Euro), for a medical degree up to 54.000.000,- Rp. (approx. 3,725 euros), which does not include the sometimes very high very high enrolment fees for the first semester. In the master's program, the tuition fees per semester at the private Atma Jaya University in Jakarta, to name just one example, range from 7,000,000 Rp. (approx. 480 euros) and 37,000,000 Rp. (circa 2,550 euros). Again, management is the most expensive field of study. For doctoral studies, which are seldom offered by private universities, one has to pay fees ranging from about 20,000,000 Rp. (approx. 1,380 euros) and 30,000,000 Rp. (approx. 2,070 euros) per semester.

The DIKTI distinguishes between the following types of HEI (in brackets the number of state and private institutions per type): Universitas (646), Institute (132), Sekolah Tinggi (1,361), Akademi (772), Akademi Komunitas (36), Politeknik (219). All these institutions can be either state as well as private.

Fully academic education with the degrees S1, S2 and S3 (which are equivalent to a bachelor's, a master's and doctoral degrees respectively) are offered at universities. In addition to the 646 state and private universities, there is also a distance learning university ("Universitas Terbuka"), which was opened in 1984 and offers mainly undergraduate courses. More than 310,000 students are currently enrolled there, with the largest proportion (over 40 per cent) study at the Faculty of Teacher Education and Pedagogy. The degrees S1, S2, and S3, are also offered at subject-oriented HEIs: at institutes (Institut) and at high schools (Sekolah Tinggi).

Unlike the universities, the so-called Instituts are usually focused in certain areas of specialisation. Courses of study can be completed with a diploma as well as with a bachelor's degree. Some institutes also offer postgraduate courses. Another form of subject-oriented higher education institutions are the Sekolah Tinggi ("High School"), which often consist of only one faculty and for the most part offer courses leading to professional courses of study. They account for almost half of all higher education institutions in Indonesia and are for the most part private. The usual degrees obtained here are D 1 to D 4. These "Diploma" degrees are awarded in application-oriented courses of study; they are not recognised as academic degrees in the European Higher Education Area. The highest D degree, the Diploma 4, concludes a four-year course of study and can be equated to a bachelor's degree (S1) in Indonesia, albeit with the addition of "Bachelor of Applied Science". In addition to the Sekolah Tinggi, the Diploma degree can also be obtained at the 909 so-called academies ("Akademi").





Similar to the institutes, the Akademi are usually specialised in one field of study such as e.g. accounting, foreign languages or obstetrics, and are therefore rather small. They too are for the most part private institutions. The courses of study are concluded with a diploma degree. The 304 so-called polytechnics (“Politeknik”) offer only three- and four-year programs with diploma degrees that focus on practical vocational training. To meet the demand for qualified personnel in regions with high industrial or labour market potential, but which do not have HEIs, the establishment of 36 so-called Akademi Komunitas was started in 2012, which offer one-year and two-year courses of study leading to professional qualifications with the degrees D 1 and D 2 respectively.

Most universities still lack university teaching staff with doctoral degrees. Of the 308,600 lecturers statistically recorded, only around 47,625 have a doctorate. About 72 percent of university teachers have a master’s degree as their highest qualification; all others teach with bachelor's, diploma or other degrees. The most qualified university teachers, by a wide margin over the other islands, are on Java, where about 26,000 hold doctorates and a good 108,700 have master's degrees. More than 60 per cent of all lecturers with a doctorate are thus employed at higher education institutions on Java.

### **1.3 Accreditation System in Indonesia**

The issue of quality assurance plays a major role in Indonesia with its enormously diverse system of tertiary education institutions. While, for example, in Java and Sumatra 88 and 90 percent of the HEIs are nationally accredited, in the provinces of Papua and West Papua the number is only 40 percent.

The authoritative institution for the accreditation of HEIs and study programs in Indonesia is the National Accreditation Authority BAN-PT (Badan Akreditasi Nasional Perguruan Tinggi), founded in 1994. In addition, there are also independent accreditation agencies for specific disciplines, e.g. medicine and teachers’ education.

The accreditation system is three-tiered and is carried out in a five-year rotation. An “A” accreditation is the best rating. “B” means “very good”, “C” is the lowest classification level and is also used for newly established study programs. The designations “unggul” (excellent), “baik sekali” (very good) and “baik” (good) were introduced in 2020 and have been used instead of A, B and C since then.

Out of approximately 4,600 higher education institutions in the country, about 62 per cent have been institutionally accredited so far. By the end of 2020, 99 institutions had been accredited with an “excellent” grade (the majority of which were state higher education institutions), 859 with a “very good” grade and 1,755 with a “good” grade. Among the study programs that have already been accredited, 19.0 per cent received an “excellent” grade (by far the most of these



in the subjects of management and accounting), 51.9 per cent a “very good” grade and 29.2 per cent a “good” grade. Clear differences can be seen between state and private higher education institutions: while more than 40 percent of bachelor’s and master’s programs at state universities are accredited with an “excellent”, this applies to only 7.5 percent of bachelor’s and 12.9 percent of master’s programs at private universities (Pendidikan Tinggi 2020 statistics, p. 24f).

According to the government’s plans, the accreditation system is to be fundamentally revised. For existing accreditation, the obligation to re-accredit is to be dropped. The previous classification will remain in place but can be reviewed by the accreditation authority in the event of a suspected “decline in performance” of the university, in which case a downgrading is also possible. The HEIs are free to apply for re-accreditation on a voluntary basis, e.g. to move up from the “very good” to the “excellent” level.

## **2 Short profile of HEI**

### **2.1 The University of Bengkulu (UNIB)**

The University of Bengkulu is a state university under the authority of Ministry of Education, Culture, Research, and Technology located in Bengkulu city of Bengkulu province. The University of Bengkulu was established based on the Regulation of the President of Republic Indonesia Number 17 of 1982 on the Establishment of the University of Bengkulu on March 31st, 1982, and it was officially operated on April 24<sup>th</sup>, 1982.

The strategic plans of the Ministry that are relevant to the university are (1) emphasising on quality and relevance focused on students’ development; (2) developing the students’ character; (3) emphasising on qualified educational access expansion, especially through equitable and inclusive affirmation; (4) preserving and advancing not only Indonesian culture, language, and literature but also its main impact on education.

The university’s goal is “Becoming a world-class university in 2025” and it has formulated the following targets:

1. To develop a world-class education and research.
2. To produce works with Intellectual Properties Rights (IPR).
3. To conduct service in accordance with the needs of local, national, and international society.
4. To develop a good and clean university governance system.
5. Performing the integration of Tri dharma activities that have an impact on the development of science, society, and national resilience.



## University Values

The University of Bengkulu aims to implement the equality and diversity of the community in carrying out the educational process at the diploma, Master, doctoral, and professions levels in science, technology, and arts. The implementation should be in accordance with the regulations consisting of the main values that must be possessed by the academic community of the University of Bengkulu. The main values are: 1. Culture 2. Innovation 3. Humanity 4. Leadership 5. Integrity 6. Transparency 7. Academic Freedom 8. Divinity.

The implementation of vision, missions, and values of a university is called the *Tri Dharma* of higher education which includes education, research, and community service. The education pillar is implemented in the form of education administration including vocation, academic, and postgraduate program study. The research pillar is implemented to conduct qualified, innovative, and updated research to solve scientific, social, and humanity problems. The community service pillar is implemented to introduce and to apply lecturers' and students' ideas and research results in society in order to contribute to national and regional development. The Tri Dharma are implemented through the study programs at UNIB with the coordination of the Office of Research and Community Service.

The arrangement of the vision, mission, objectives, and strategies (VMTS) involved internal and external parties. Internal parties include lecturers and students. While external parties include potential employers and parties who use the services of the faculty of agriculture: government agencies, private companies, business communities, etc. The process was officially accommodated through a workshop.

At the end of 2021 the University of Bengkulu had 8 faculties with 81 study programs in all levels of education consisting of 5 study programs on doctoral degree, 21 study programs on magister/master degree, 44 study programs on bachelor degree, 9 study programs on vocational or diploma level. It employs 819 lecturers, consisting of teaching staff (18%), Assistant Professor (6%), Assistant Professor (32%) (p. 27), Associate Professor (37%) and Professor (7%) 308 other staff (librarians, lab assistants, administrators).

The number of active students at the University of Bengkulu in the odd semester 2021/2022 is 21,932 students, consisting of 1,286 vocational students, 18,755 bachelor students, 1,563 magister/master students, 161 doctoral students, and 167 profession program students.

## Faculty of Mathematics and Natural Sciences

The Faculty of Mathematics and Natural Sciences (FMIPA) and the Faculty of Medicine and Health Sciences (FKIK) have study programs with various specialisations. Currently, FMIPA consists of seven bachelor study programs : the Bachelor in Mathematics, Bachelor in Statistics, Bachelor in Physics, Bachelor in Geophysics, Bachelor in Chemistry, Bachelor in



Pharmacy, and Bachelor in Biology study program, and two master study programs : the Master in Statistics and Master in Chemistry study program. Meanwhile, FKIK consists of one undergraduate study program: the Bachelor in Medicine.

At the end of 2021 the UNIB had 8 faculties with 81 study programs in all levels of tertiary education. There are 5 study programs on doctoral level, 21 study programs with magister/master degree, 44 study programs with bachelor's degree, 9 study programs with vocational or diploma level.

UNIB employs 819 lecturers – consisting of teaching staff (18%), Assistant Professors (38%), Associate Professors (37%) and Professors (7%) – and 308 other staff (librarians, lab assistants, administrators).

The number of active students at the University of Bengkulu in the odd semester 2021/2022 is 21,932 students, consisting of 1,286 vocational students, 18,755 bachelor students, 1,563 magister students, 161 doctoral students, and 167 students in profession programs.



### 3 General information on the study programs

#### 3.1 Bachelor in Biology (B.Sc.)

Location	University of Bengkulu
Date of introduction	2001
Faculty/ department	The Faculty of Mathematics and Natural Sciences
Academic Degree	Bachelor of Science
Standard period of study	4 years
Number of ECTS credits	217,44
Number of study places per year	100
Number of students currently enrolled	234
Average number of graduates per year	46
Form of study	Full-time
Tuition fee	Ranges from 66 USD to 305 USD per year for Indonesian students, depending on the financial situation.

#### 3.2 Bachelor in Chemistry (B.Sc.)

Location	University of Bengkulu, The Faculty of Mathematics and Natural Sciences
Date of introduction	1999
Faculty/ department	The Faculty of Mathematics and Natural Sciences
Academic Degree	Bachelor of Science
Standard period of study	4 years
Number of ECTS credits	218.95
Number of study places per year	150
Number of students currently enrolled	100
Average number of graduates per year	28
Form of study	Full-time
Tuition fee	Ranges from 31 USD to 305 USD per year for Indonesian students, depending on the financial situation.



### 3.3 Bachelor in Pharmacy (B.Pharm.)

Location	University of Bengkulu, Faculty of Mathematics and Natural Sciences
Date of introduction	2017
Faculty/ department	The Faculty of Mathematics and Natural Sciences
Academic Degree	Bachelor of Pharmacy
Standard period of study	4 years
Number of ECTS credits	220.46
Number of study places per year	90
Number of students currently enrolled	115
Average number of graduates per year	25
Form of study	Full-time
Tuition fee	Appr. 305 USD per year for Indonesian students.

### 3.4 Bachelor in Physics (B.Sc.)

Location	University of Bengkulu, The Faculty of Mathematics and Natural Sciences
Date of introduction	2001
Faculty/ department	The Faculty of Mathematics and Natural Sciences
Academic Degree	Bachelor of Science
Standard period of study	4 years
Number of ECTS credits	217.44
Number of study places per year	40
Number of students currently enrolled	204
Average number of graduates per year	28
Form of study	Full-time
Tuition fee	Ranges from 31 USD to 305 USD per year for Indonesian students, depending on the financial situation.



### 3.5 Bachelor in Geophysics (B.Sc.)

Location	University of Bengkulu
Date of introduction	2017
Faculty/ department	The Faculty of Mathematics and Natural Sciences
Academic Degree	Bachelor of Science
Standard period of study	4 years
Number of ECTS credits	217.44
Number of study places per year	40
Number of students currently enrolled	104
Average number of graduates per year	28
Form of study	Full-time
Tuition fee	Ranges from 31 USD to 305 USD per year for Indonesian students, depending on the financial situation.

### 3.6 Bachelor in Mathematics (B.Math.)

Location	University of Bengkulu
Date of introduction	2001
Faculty/ department	The Faculty of Mathematics and Natural Sciences
Academic Degree	Bachelor of Mathematics
Standard period of study	4 years
Number of ECTS credits	217.44
Number of study places per year	70
Number of students currently enrolled	263
Average number of graduates per year	45
Form of study	Full-time
Tuition fee	Appr. 305 USD per year for Indonesian students.



**3.7 Bachelor in Statistics (B.Stat.)**

Location	University of Bengkulu
Date of introduction	2016
Faculty/ department	The Faculty of Mathematics and Natural Sciences
Academic Degree	Bachelor of Statistics
Standard period of study	4 years
Number of ECTS credits	217.44
Number of study places per year	50
Number of students currently enrolled	191
Average number of graduates per year	20
Form of study	Full-time
Tuition fee	Appr. 305 USD per year for Indonesian students.

**3.8 Master in Chemistry (M.Sc.)**

Location	University of Bengkulu
Date of introduction	2016
Faculty/ department	The Faculty of Mathematics and Natural Sciences
Academic Degree	Master of Science
Standard period of study	2 years
Number of ECTS credits	54.36
Number of study places per year	20
Number of students currently enrolled	11
Average number of graduates per year	5
Form of study	Full-time
Tuition fee	Appr. 405 USD per year for Indonesian students.





**3.9 Master in Statistics (M.Stat.)**

Location	University of Bengkulu
Date of introduction	2014
Faculty/ department	The Faculty of Mathematics and Natural Sciences
Academic Degree	Master of Statistics
Standard period of study	2 years
Number of ECTS credits	66.44
Number of study places per year	20
Number of students currently enrolled	20
Average number of graduates per year	3
Form of study	Full-time
Tuition fee	Appr. 405 USD per year for Indonesian students.

**3.10 Bachelor in Medicine (B.Med.)**

Location	University of Bengkulu
Date of introduction	2008
Faculty/ department	Faculty of Medicine and Health Sciences
Academic Degree	Bachelor of Medicine
Standard period of study	4 years
Number of ECTS credits	223.48
Number of study places per year	50
Number of students currently enrolled	324
Average number of graduates per year	40
Form of study	Full-time
Tuition fee	Ranges from 495 USD to 1.310 USD per year for Indonesian students, depending on the financial situation.



### **III Implementation and assessment of the criteria**

The peer-review experts assess the quality of the study programs and compliance with the ESG standards as well as with the national standards. The report must document the assessment of each study program in the cluster, taking into account each criterion. Depending on the criterion, the assessment of criterion may be appropriate at the study programs cluster level in order to avoid repetition and better describe general context.

#### **1 ESG 1.1: Policy for quality assurance**

Institutions should have a policy for quality assurance that is made public and forms part of their strategic management. Internal stakeholders should develop and implement this policy through appropriate structures and processes, while involving external stakeholders.

##### **1.1 Status**

The University of Bengkulu has a quality assurance system which consists of different policies of Indonesian Higher Education Quality Assurance. With the Internal Quality Assurance System (SPMI), the University of Bengkulu always strives to improve the quality of education in a planned and sustainable manner. The implementation of SPMI at the University of Bengkulu starts from the university level to the study program level to maintain the educational quality. It checks whether targeted educational outcomes are met, and targeted graduates' competencies are achieved.

The evaluation of the Implementation of Higher Education Standards is carried out through an Internal Quality Audit (AMI). AMI is a systematic, independent, and documented assessment process. AMI ensures that the implementation of activities in the university are following the procedures and that the results are in accordance with the standards to achieve institutional goals.

To strengthen the content of curricula and respond to changes and existing needs of the labour market, external and internal stakeholders are involved and asked for their input. External stakeholders are for example graduates, graduate employers including the government agencies, private companies, and business communities.

Every faculty of the university has its own quality assurance unit (UPM) that monitors the learning process. It evaluates the process twice a year at the end of each study period. In addition, UPM conducts exit surveys biannually to evaluate implementation of thesis guidance and academic services in laboratories, study programs, departments, and faculties. The results of the evaluation process conducted by the quality assurance unit are considered for future improvement. UPM also measures the performance of lecturers' teaching activities. This



evaluation is divided into four aspects: pedagogic, social, personality and professional. UPM findings are followed up the Vice Dean of the Academic Division.

## 1.2 Assessment

The quality assurance policy at UNIB is highly regulated by state laws that define the purpose of the universities policies (e.g., the Tri Dharma), the organization of the quality assurance units (e.g., SPMI), and the level of operation of the study programs (Indonesian Qualification Framework). However, as the legal framework defines the range of policies and the instruments to be used, the UNIB has to give substance to the framework. And according to the information presented and the impression of the discussions with UNIB-stakeholders, the UNIB filled the framework ambitiously.

UNIB has a clear vision and mission statement as well as core values that formulate the policies for the next decades. These vision, mission, objectives, and strategies are constantly revised and broken down into five to ten-year development plans that are closely monitored by a strategic business plan.

At the heart of the quality assurance system sits the SPMI. It is a rather large department with 18 employees covering all aspects of quality assurance.

How far the scope of the SPMI reaches, is displayed in the Manual of Internal Quality Assurance System that covers a wide range of quality aspects including, such as: Student and alumni standards; Academic service standards; Student admission standards; Student enrolment standards; Curriculum implementation standards; E-Learning instruction standards; Course materials preparation standards; Laboratory / studio standards and many more.

The expert panel had the opportunity to discuss the actual work of the SPMI with the Vice Rector for Academic Affairs and the Head of Quality Assurance of the FKIP. Based on recent surveys and quality assurance measurements the experts could exemplary see how the evaluation measurements are working at the UNIB in general and the FKIP in particular. According to the expert's impression, the policy for quality assurance covers all relevant areas and all relevant bodies and institutions are involved in development and implementation of quality policies. For an even better understanding within the programs, gaining more transparency of employees and students as main stakeholders in the development process of the individual curriculums would be beneficial.

The HEI demonstrates adequate concepts on gender equality and equal opportunities. Discrimination based on gender, race, or religion is not tolerated according to university



management. There's a notable presence of female permanent and non-permanent staff, with no evidence of a policy of intolerance.

However, the implementation, monitoring, and revision of the policy seem to involve setting aims for each quality step toward achieving excellence by 2035.

### **1.3 Conclusion**

The criterion is **fulfilled**.

## **2 ESG 1.2: Design and approval of programs**

Institutions should have processes for the design and approval of their programs. The programs should be designed so that they meet the objectives set for them, including the intended learning outcomes. The qualification resulting from a program should be clearly specified and communicated and refer to the correct level of the national qualifications framework for higher education and, consequently, to the Framework for Qualifications of the European Higher Education Area.

### **2.1 General Implementation**

#### **2.1.1 General**

In the curriculum, graduate profiles of each study program are determined and described in terms of learning outcomes based on the National Standard of Higher Education (SN-DIKTI). The structure of the curriculum is developed according to learning outcomes and learning materials to achieve the specified graduate profile.

The structure of the curriculum is constructed to facilitate the achievement of learning outcomes. The achievement of learning outcomes is designated to main and enrichment courses. Learning outcomes are formulated in terms of knowledge, general and special skills, and attitude. Moreover, learning units are formed and credits are distributed. To complete the bachelor programs, students must take a minimum of 144 credits during 8 semesters. Meanwhile, for the Magister/Master programs students have a minimum load of 36 xxx credits which can be completed in 4 semesters, and the doctoral program students' minimum load is 42 credits which may be completed in 8 semesters. Because of the structure of a curriculum per semester, students can divide the credit load to be completed for each semester. If the learning outcomes are good, then students can complete their studies even faster.

To strengthen the content of the curriculum and to respond to the changes and existing needs, external and internal stakeholders are involved and asked for input in the curriculum preparation of the study programs. The external stakeholders are potential employers including the government agencies, private companies, business communities, etc.

#### **2.1.2 Bachelor in Biology (BB)**

The BB study program was designed to be at the forefront of developing tropical biological natural resources conservation to support sustainable development by studying natural phenomena and playing a role in making positive innovations. The BB study program has superiority in three areas of research specialisation: function of bio-flora, environmental



biology, and bio food-health. The BB study program has a vision of being superior and globally competitive in the conservation, protection, and utilisation of tropical biodiversity in Southeast Asia by 2025.

The mission of the study program is to carry out education, research, and community service to produce biology graduates who excel in the conservation, protection, and utilisation of tropical biodiversity to contribute the sustainable national development. In the learning process, the study program refers to: a) the SN-Dikti SPMI standard document in 2020; b) the Regulation of the Minister of Education, Culture, Research, and Technology Number 73/2013 on the application of KKNI in the field of higher education; and c) the Regulation of the Minister of Education, Culture, Research, and Technology Number 3/2020 on National Higher Education Standards (SN-DIKTI). The study program fulfils the demands of KKNI Level 6 by preparing Learning Outcomes (LO) in order to meet the five profiles of the biology study program graduates: researchers and academics, educators, consultants and experts (environmental, parks, and landscapes, biodiversity conservation, and bio-food and health), functional staff (curator of specimens, environment, BPOM, and hospitals), and entrepreneur.

The graduates will have the following skills: 1) understanding and mastering biological sciences, especially in the fields function of bio-flora, environmental biology, and food-health biology; 2) owning skills in applying biological sciences that utilise and preserve natural resources in carrying out their profession for the community welfare; 3) becoming an individual who is willing to learn for life and develop himself through formal and informal education, and; 4) understanding and applying the attitude of nationalism, leadership, professionalism in work, critical thinking in solving problems, oral and written communication, creativity, and innovative approaches.

### **2.1.3 Bachelor in Chemistry (BC)**

The missions of the BC study program are to provide high-quality education to produce chemistry graduates who are religious, virtuous, independent, creative, innovative, professional, and able to compete at the Southeast Asian business area; to develop chemistry through research, especially in natural chemistry, material chemistry and catalysis, and applied analytical chemistry, in which the results can be disseminated through publications and utilised in the development of chemical industry technology and management of natural resources and the environment; to apply the results of education and research in chemistry with other institutions and the industrial world to provide solutions for problems faced by society and the chemical industry, and; to embody the management of the BC study program based on good university governance.



Chemistry graduates can occupy jobs in various industries, laboratories such as laboratory assistants, researchers, and professional workers in government institutions like BPOM, National Research and Innovation Agency (henceforth BRIN - *Badan Riset dan Inovasi Nasional*), etcetera. The Bachelor in Chemistry study program graduates must be able to work in any chemistry-related field so they can meet the needs of society, both national and international, including research (e.g., environmental issues, science, and technology), industrial (e.g., quality control/assurance, process, and production management, Research and Development (R&D), and technical representative), or private services (entrepreneurship), and must have the ability to follow the development of Informational and Communication Technology (ICT) and increase their knowledge and skills through life-long learning.

#### **2.1.4 Bachelor in Pharmacy (BPharm)**

The missions designed of the BPharm study program are to develop philosophical, theoretical, and practical abilities in pharmaceutical science through an active learning process; to study and develop pharmaceutical science based on natural resource insights through research activities; to develop practical and professional skills in the pharmaceutical field that useful for the community through the implementation of community service activities; to develop practical and professional abilities in building ethical and moral behaviour in the development of standardised medicinal ingredients for human viability.

Pharmacy graduates are pharmacists with S.Farm. (*Sarjana Farmasi* - Bachelor in Pharmacy) degrees. Pharmacy graduates can occupy jobs in various pharmaceutical facilities such as pharmacies, hospitals, and community health centres. In addition, the Bachelor in Pharmacy study program graduates may also dedicate themselves as pharmaceutical professionals by working in governmental institutions (National Agency of Drug and Food Control (henceforth BPOM - *Badan Pengawas Obat dan Makanan*) and health offices); various industries, including medicine, food, herbal medicine, herbal and cosmetic industries; research institutes; clinical laboratories; quality testing laboratories; drug information agencies, health insurance agencies; and can take part in the field of education as academicians in universities.

#### **2.1.5 Bachelor in Physics (BP)**

The main goals of the BP study program are to organise teaching and learning activities based on the results of the research on physical sciences related to coastal resources and tropical climates based on competence, technology, ethics, and social responsibility, to organise community service, outreach consult and services to stakeholders and the industrial world, to establish institutional cooperation at the national and international levels and to manage resources effectively and efficiently.



Graduates of the study program should have high integrity, be professional and capable of competing both nationally and globally in the ICPEO field. Graduates should be capable of publishing academic scientific works with good communication in scientific as well as outreach services for stakeholders. Our graduates are expected to have their professional work regarding global and societal issues including health, safety, and the protection of the environment. This vision and mission can produce graduates with profiles as scientists, academia, national defence/cyber securities, government policies, managers of physics institutions, and entrepreneurs. The formulation of the VMTS is in line with the vision and mission of the Ministry of Education, Culture, Research, and Technology of Indonesia. Graduates are capable of life-long learning through professional activities and training, the pursuit of higher educational degrees, and individual professional improvement.

The study program provides education in the field of physics to produce undergraduate/Bachelor of Physics (S1) who are excellent in physics, professional, skilled, and sensitive to the environment and social-cultural development. The aim of the study program is to advance science and technology which is focused on specific fields namely: Instrumentation-Computational of Physics, Earth Sciences including Oceanography (ICPEO). The profiles of the study program are compiled based on the vision and mission of the study program, which is to create graduates leading and professional in physics especially in ICPEO, being scientists, academia, national defence/cyber securities, government policies (Meteorology, Climatology and Geophysical Agency (BMKG), The National Agency for Disaster Countermeasure (BNPB), National Research and Innovation Agency (BRIN)), managers of physics institutions, and entrepreneurs.

### **2.1.6 Bachelor in Geophysics (BGP)**

The main characteristic of the geophysics study area is the exploration of shallow earth layers in the coastal area of Sumatra Island, which is uniquely influenced by the Subduction of the Indo-Australian and Eurasian Plates in the west, the highlands of the Bukit Barisan mountains, and the Sumatran fault that runs along the island. To improve the quality of research (exploration) and utilisation (exploitation) of natural resources, geophysics synergises with the Water Sciences (geohydrology, fisheries, and marine), Civil Sciences, Planology, Natural Disaster Mitigation (environmental sciences), and other fields that require subsurface information.

The educational focus of the study program is oriented to the coastal areas, tropical forests, and the policy accomplishment period that must be accomplished in 2030. This educational focus is in accordance with the vision of the study program, which is "becoming a high-quality Geophysics study program, producing graduates, and becoming a role model in the





exploration of coastal areas in 2030 at the Asian business area". The missions of the BGP program are to organise a high-quality geophysics learning activity; to manifest the implementation of researches, community services, and publications at the National and International levels; to establish cooperation in learning and publication areas at the National and International Levels; to improve the quality of geophysics graduates resources effectively and efficiently, and; to provide services to the community in the exploration and exploitation of natural resources.

Based on the learning outcomes of graduates, the targeted profile of BGP graduates is that they can work in the fields of science (research assistants), Lecturers or Academics, Consultants (entrepreneurs), and practitioners in government agencies and private companies, both national and multinational companies.

### **2.1.7 Bachelor in Mathematics (BMath)**

Mathematics graduates have the opportunity to occupy mathematics-related careers in the business or science and technology-related sectors. In addition, mathematics graduates can occupy roles such as mathematician, actuary, statistician, technician, academics, economist or market researcher.

The mathematics study program strives to achieve excellence at the national level in the teaching and learning process of mathematics so that it can produce graduates with professional abilities through the creation of an academic atmosphere that is conducive to the intellectuality, professionalism, and personality development of staff and students. In addition, BMath study program actively conducts research and development of mathematics that results in intellectual property rights and national and international publications. The study program is also active in building a network of cultural and educational exchange of knowledge, technology, and resources with various national and international institutions.

### **2.1.8 Bachelor in Statistics (BStat)**

The Bachelor in Statistics study program strives to carry out education in environmental statistics with professional abilities according to the situation of the current era. The study program also conducts research and development of science and technology in environmental statistics. In addition, the Bachelor in Statistics strives to conduct community service in applying science and technology in environmental statistics. The BStat study program actively builds a network that allows the exchange of knowledge, technology, and resources culturally and educationally with various institutions at national, international, and the wider community levels.



Statistics graduates have the opportunity to occupy careers within business or science and technology-related sectors. In addition, the graduates can occupy roles such as actuary, statistician, technician, economist, or market researcher.

#### **2.1.9 Master in Chemistry (MC)**

As the need for chemical research and development rises in areas such as renewable energy, the Master in Chemistry study program graduates could see an increase in career opportunities to support these technological changes. The Master in Chemistry study program will also teach transferable communication and problem-solving skills, making graduates employable across various careers, for example, in industry, academia, government, and other fields. Most Chemistry graduates at all levels are hired to work in the chemical industry either as a chemist working in a factory or an office or as a technically knowledgeable employee who works on the business side of the company. These careers offer a wide variety of paths for the graduates of the study program.

The targeted profiles of the graduates are researchers, educators, quality curators, and chemical entrepreneurs. Therefore, to meet the targeted profiles and competencies of graduates, a prepared curriculum includes courses that can achieve the profiles and competencies of these graduates. These courses are expertise courses in the field of chemistry, including organic chemistry, inorganic chemistry, physical chemistry, analytical chemistry, and biotechnology. In addition, the curriculum also includes courses such as advanced spectrophotometric and chromatographic analysis, structure elucidation of inorganic materials, and structural elucidation of advanced organic compounds. The current curriculum is also adjusted to the SNPT and HKI.

#### **2.1.10 Master in Statistics (MStat)**

The Master in Statistics also conducts research resulting in intellectual property rights or publications of national and international reputable journals. The study program is committed to innovating and creating statistics-based novelties that are useful for the community at the national level, implementing an accountable governance system for the study program, and being active in interweaving cooperation in statistics education and research with various national and international institutions.

Graduates of the study program have the opportunities for professional accomplishments, such as lecturers, researchers, or teachers; academic achievements, such as competence for the Doctoral program; or social achievements, such as leadership related to statistics-based policy making.



### **2.1.11 Bachelor in Medicine (BM)**

The Bachelor of Medicine Undergraduate Programme at UNIB was established in 2008 and covers four academic years, or eight semesters. This programme, initiated by the Decree of the Director General of Higher Education Number 1661/02.2/2008 dated July 11, 2008, predates the FKIK. The Medical Doctor Profession Education Programme was established under the Decree of the Director General of Higher Education Number 2132/D/T/2008, with student admissions beginning in 2009. Graduates of the Bachelor of Medicine programme must continue their studies in the Profession Programme in Medicine.

This program aims to prepare students to be competitive in the job market and pursue higher education at various levels, including Profession, Magister/Master, Specialist, Subspecialist, and Doctoral degrees in Medical Science.

The Bachelor of Medicine Programme is committed to achieving the following intended learning outcomes: 1. Providing competitive professional education and teaching. 2. Conducting research, producing scientific publications, and creating works in medicine and health to enhance the welfare of people in coastal areas and tropical forests. 3. Organizing community and health services based on the needs of coastal areas and tropical forests, as well as disaster response efforts. 4. Establishing a transparent and accountable Bachelor of Medicine program.

## **2.2 Assessment**

### **2.2.1 General**

During the procedure, it was found that the curriculum effectively defines graduate profiles for each study program, outlining specific learning outcomes based on the National Standard of Higher Education in Indonesia. The individual curriculum structure is meticulously developed to align with the given learning outcomes, encompassing both core and enrichment courses. Learning outcomes are categorized into knowledge, general and specialized skills, and attitudes.

The individual curriculum structure is organized into learning units with designated credit distributions. Bachelor's programs require a minimum of 144 credits over 8 semesters, Magister/Master programs require a minimum of 36 credits over 4 semesters, and Doctoral programs require at least 42 credits over 8 semesters. This structure allows students to manage their credit load per semester, enabling those with good performance to potentially complete their studies more quickly.

To ensure the curriculum remains relevant and robust, both external and internal stakeholders are engaged in its development. External stakeholders include potential employers,



government agencies, private companies, and business communities, who provide valuable input to address current and future needs.

### **2.2.2 Bachelor in Biology (BB)**

The integration of the biology study program into the mission statement and overall strategy of the university is somewhat challenging. However, there are evident intentions to align the topics of biology with the broader strategic goals of the university. The involvement of external stakeholders and students in the design of the study program could be significantly improved. Currently, their engagement is limited and does not fully leverage their potential contributions.

The learning outcomes of the biology program are aligned with international requirements in the field of biology. They appropriately reflect the professional and academic demands expected at the Bachelor level. The curriculum includes most of the important topics in biology, contributing significantly to meeting the defined objectives. However, as there is always room for improvement, particularly in incorporating modern aspects of biology and enhancing hands-on laboratory experiments.

The career opportunities for graduates are well-defined and very promising. The program provides a robust foundation for various professional paths in the field of biology. The expected student workload is clearly defined and transparent, ensuring that students understand the demands of the program.

The mandatory internships are structured in accordance with international standards. The university offers the necessary infrastructure and personal assistance, including support from professors and technical staff. The study program effectively reflects the four purposes of higher education as defined by the Council of Europe: preparation for sustainable employment, personal development, preparing students for active citizenship, and creating a broad advanced knowledge base while stimulating research and innovation.

The approval process for the study program is transparently published and meets international standards. It provides multiple pathways for entering the program, ensuring accessibility and clarity. Particularly noteworthy is the high motivation observed among both students and staff. Their enthusiasm and dedication are evident and contribute positively to the overall quality of the program.



### 2.2.3 Bachelor in Chemistry (BC)

The primary goal of the bachelor's degree program in chemistry is to qualify students for further Master's degree programs with any specialization in the field of chemistry. This is intended, among other things, to create the basis for later doctoral studies. A further goal is the direct qualification for qualified employment in industry, research institutes or administration. These goals are appropriately represented in the examination regulations. The target group is graduates of secondary schools who are interested in science and ideally already have a good background in science and mathematics.

The concept of the BC program in chemistry, with its focus on the core areas of chemistry, is aligned with the primary goal of qualifying students for further studies in chemistry. The individual modules with balanced theory and laboratory practice are suitable for obtaining this qualification for the MC program or alternatively for entry-level professional positions.

The forms of examination in the BC and MC are basically varied and adapted to the competencies to be learned in the respective modules. It is suggested that the structure of the examinations and the respective weightings of the different elements is defined in the course handbook before the start of each module. The module-related character of an examination performance is basically given. Many of the exams seem to consist of some multiple-choice questionnaires combined with essay-type questions. The examination of practical skills by means of pre- and post-laboratory discussions is also used in addition to the classical instruments of written reports.

Mobility and overseas stays are possible in the MC. Discussions with student and staff have revealed that these are taken up on a regular basis. It is very encouraging to see that the UNIB has already built good relations with several overseas institutions. Students have the opportunity to complete part of their studies at a foreign university or to broaden their horizons through an internship abroad. The work done at the host universities can be credited to the achievements of the student.

### 2.2.4 Bachelor in Pharmacy (BPharm)

The program is thoroughly designed to align with the Asian standards, especially focusing the needs of graduates from the area of Bengkulu. The mission of the program is to cultivate a comprehensive understanding of pharmaceutical science, encompassing philosophical, theoretical, and practical competencies through an interactive and sometimes even dynamic learning environment. The program emphasizes the advancement of pharmaceutical



knowledge grounded in natural resource exploration via ongoing research activities with the respective possibilities in Bengkulu and within Indonesia.

Furthermore, the program aims to enhance practical and professional skills that benefit to the community, particularly through the execution of community service initiatives that are well integrated into the program. A core objective is to inspire strong ethical and moral principles in students, ensuring their capability to develop standardized medicinal substances that support human health and well-being.

Graduates of the Bachelor program are granted with the Sarjana Farmasi degree, which equips them with the qualifications to pursue a diverse array of professional roles within the pharmaceutical sector. Career opportunities for the graduates include positions in pharmacies, hospitals, and community health centers that are very much needed in the area. Graduates may also serve in governmental bodies such as the National Agency of Drug and Food Control and also any kind of health departments. As seen so far, BPharm graduates are well-prepared for roles in various industries, including pharmaceuticals, food, herbal medicine, cosmetics, and more. Employment opportunities extend to research institutions, clinical and quality testing laboratories, drug information agencies, and health insurance organizations. Graduates also have the option to contribute to the field of education as academic staff in universities.

### **2.2.5 Bachelor in Physics (BP)**

The overall direction of the study program has a strong top-down component, with the ministry, the university and the faculty all setting directions and boundaries. As such there is a clear alignment between the mission of the study program and the overall mission of the faculty and university. Community is an integral part of the mission of the university.

The design of the study program is much inspired by the local strengths in instrumentation, ocean physics and geophysics. In a recent review of the program alumni, management, teachers and students were all consulted to benefit the development of the program over time.

The learning outcomes are not made explicit in a document but can be found e.g. in the employability survey. They comprise disciplinary knowledge, research skills, problem solving, software skills and soft skills. The curriculum is generally well-structured and building up to a respective Bachelor level. It is narrow on mathematics and modern theoretical physics and could use strengthening in these fields. The final level obtained as evidenced from the bachelor theses meets what is expected from a bachelor in physics.



Job prospects for graduates are good, with low unemployment and a short period before finding a position (78% find a job within 6 months). The range arises from education to government and industry positions.

Students work hard, typically 50 hours/week during the semester. There is a mentoring/academic advisor system in place for those who fall behind. The expected amount of work per credit is clearly indicated and seems reasonable. Internships agreements were transparently discussed between students and teachers to meet the intended requirements.

The study program does reflect the four purposes of higher education of the Council of Europe.

### **2.2.6 Bachelor in Geophysics (BGP)**

The study program aligns well with the mission statement and strategic goals of the higher education institution, considering both overarching aspects and regional specifics in the field. External stakeholders and students were engaged in the design process through meetings and discussions with relevant bodies of the HEI, as outlined in the given documents. The main objectives and learning outcomes of the study program adequately reflect the requirements of the professional field at the Bachelor level, as indicated in the provided documents. The structure of the program, including the curriculum and module distribution, contributes to achieving the defined objectives effectively. The Career Development Centre supports students in identifying adequate career opportunities, suggesting that the defined opportunities are sufficient. The expected student workload, measured in credits, is sufficiently defined and transparent. Internships are structured as courses at other national and some international universities, and the HEI provides adequate support in this regard. The study program reflects the four purposes of higher education outlined by the Council of Europe, encompassing preparation for employment, personal development, active citizenship, and fostering advanced knowledge and innovation. The given documents likely outline the formal institutional approval process for study programs. Positive aspects include a comprehensive approach to study objectives and outcomes. Areas for optimization include the need for uniform and consistent module descriptions with adequate literature, as mentioned in the suggestions for improvement.

Overall, the provided answers indicate a structured approach to designing and approving study programs in alignment with European standards, with structural areas for improvement.

### **2.2.7 Bachelor in Mathematics (BMath)**

UNIB's vision is to become a world-class university by 2025 by developing world-class education and research and by carrying out community service according to the needs of local, national, and international communities. The Bachelor of Mathematics study program clearly



supports this mission by establishing an adequate framework for graduating high-level professionals in Mathematics at the Asian and Indonesian level.

Governmental stakeholders are involved in the design of the study program automatically by complying with the Indonesian National Qualification Framework. To adapt the curriculum to the development of science and technology and the needs of stakeholders, Curriculum Review and Evaluation are implemented through various activities such as workshops and seminars. These activities involve experts in curriculum preparation, mathematics, alumni, and graduates. Students can provide feedback on teaching performance personally and through their representatives, although direct involvement of students in the design of the study program is not available.

The study program aims to produce graduates in Mathematics who can develop mathematical thinking from procedural and computing understanding to broad understanding, logical reasoning, generalization, abstraction, and formal proof. Graduates are also expected to observe, recognize, formulate, and solve problems through a mathematical approach with or without software. They should be able to reconstruct, modify, and analyze mathematical problems, assess accuracy, and interpret results. Additionally, graduates should be capable of independently or collaboratively utilizing various mathematical problem-solving alternatives to make informed decisions and adapt or develop themselves in mathematics and other relevant fields. These general objectives and learning outcomes correspond to international standards.

The curriculum consists of standard compulsory courses within the first five semesters, including Calculus, Real and Complex Analysis, Ordinary Differential Equations, Linear Algebra, Partial Differential Equations, Algebraic Structures, Discrete Mathematics, Algorithms and Programming, and Probability Theory. Students can choose from a range of courses in Mathematics. Semesters six to eight are devoted to elective courses, ensuring specialization, and include an internship, a seminar, and the Bachelor thesis. The defined objectives can be well met by the presented curriculum.

Career opportunities for graduates are defined in terms of academics (continuing studies to the Masters and/or Doctorate level to become a teacher in Mathematics), research assistant roles (assisting researchers with knowledge and scientific methods in mathematics), consultancy (providing professional advice in mathematics for industry, services, and government), practitioners in industry, services, and government, and entrepreneurship. This description is adequate from an international perspective, as specialization in Mathematics allows graduates to establish careers in a broad variety of job tracks, also partly in the field of statistics.





To achieve international quality standards in Mathematics, the curriculum should include more topics related to mathematical theory rather than just calculations. Proofs should play a more significant role in both lecture material and exercises. Courses such as Calculus I-IV should be at a higher theoretical level, starting with Real Analysis I-II in the first year. Subsequent courses could include Measure Theory, Integration Theory, Vector Analysis, Ordinary Differential Equations, Partial Differential Equations, and Numerical Methods, all explained at a higher level of abstraction. Typically, these advanced courses are taken after the main concepts from Real Analysis I-II are taught.

### **2.2.8 Bachelor in Statistics (BStat)**

The Bachelor in Statistics strives to provide high-quality education in environmental statistics, equipping students with professional abilities suited to the current field. The program is dedicated to conducting research and advancing science and technology in statistics. The program tries to integrate with the university's mission to become a world-class institution by 2025. This alignment is partly evident in the program's focus on developing high-level professionals in statistics who can compete at both the ASEAN and Indonesian levels. The program's curriculum and objectives reflect this mission by raising skills that mostly meet international standards.

Governmental stakeholders are involved in the design of the study program through compliance with the Indonesian National Qualification Framework. To ensure the curriculum remains relevant to scientific and technological advancements and stakeholder needs, the program undergoes regular Curriculum Review and Evaluation. This process includes workshops and seminars with experts in curriculum development, environmental statistics, alumni, and graduates. While students can provide feedback on teaching performance, there is no direct involvement of students in the curriculum design process. These objectives and learning outcomes are in line with international standards for a Bachelor's degree in Statistics.

The program's structure includes standard compulsory courses in the first five semesters. Elective courses are available in the last semesters and allow students to specialize in areas such as Environmental Statistics, Actuarial Science, or Data Science. The curriculum also includes an internship, seminar, and Bachelor thesis, ensuring that the defined objectives are met.

Graduates of the Bachelor in Statistics program have diverse career opportunities in business, science, and technology sectors. They can work as actuaries, statisticians, technicians, economists, or market researchers. The program's focus on environmental statistics also



prepares graduates for specialized roles in this field. An employability survey is conducted to maintain and analyze job placement statistics.

The study program reflects the four purposes of higher education as defined by the Council of Europe. Personal development is encouraged through hard and soft skills courses. Obligatory courses on Indonesian state and culture prepare students for active citizenship. Research and innovation are stimulated through the internship phase.

### **2.1.9 Master in Chemistry (MC)**

The primary goal of the Master's degree program in Chemistry at the University of Bengkulu is to provide advanced education and training, preparing students for specialized roles in the field of chemistry and creating a foundation for potential doctoral studies afterwards. Another significant objective is to equip graduates with the qualifications necessary for advanced positions in industry, research institutes, or administration. These goals are clearly outlined in the examination regulations. The target group comprises graduates with a bachelor's degree in chemistry or a related field who are seeking to deepen their expertise and pursue advanced career opportunities in chemistry.

The concept of the Master in Chemistry program focuses on key areas of chemistry, ensuring that students receive a comprehensive education that combines both theoretical knowledge and practical laboratory skills. The curriculum is designed to support students' readiness for further academic pursuits or entry into professional positions. The individual modules are structured to provide a balanced mix of theoretical instruction and hands-on laboratory practice, facilitating a seamless transition to doctoral programs or professional employment.

The examination formats in the Master program are diverse and tailored to the competencies required for each module. It is suggested that the structure of the examinations and the weightings of different elements be clearly defined in the course handbook before the start of each module. The examinations are module-specific, with many incorporating a combination of multiple-choice questionnaires and essay-type questions. Practical skills are assessed through pre- and post-laboratory discussions, as well as through traditional written reports.

The program strongly supports mobility and overseas stays. Discussions with students and staff reveal that many students take advantage of these opportunities regularly. It is encouraging to see that the University of Bengkulu has established robust relationships with several national and international institutions in Asia and globally. Students have the opportunity to complete part of their studies at foreign universities or enhance their learning experience through internships abroad. Work completed at host universities can be credited



towards the student's degree at the University of Bengkulu, further enriching their academic and professional development.

Overall, the Master in Chemistry program at the University of Bengkulu is well-structured to achieve its primary goals, offering students a pathway to advanced education and professional success in the field of chemistry.

#### **2.1.10 Master in Statistics (MStat)**

The Master program at the University of Bengkulu strives to provide advanced education in statistics, equipping students with professional abilities suited to the current academic field. The program is dedicated to focus on research-methodologies that results in intellectual property rights or publications in national and international reputable journals. The Master in Statistics program also emphasizes community service by applying scientific and technological advancements in environmental statistics to benefit society.

The program integrates well with the university's mission to become a world-class institution. This alignment is mostly evident in the program's focus on developing high-level professionals in statistics who can compete at both the Asian and Indonesian levels. The program's curriculum and objectives reflect this mission by raising skills that meet international standards in the respective field.

Governmental stakeholders are involved in the design of the study program through compliance with the Indonesian National Qualification Framework. To ensure the curriculum remains relevant to scientific and technological advancements and stakeholder needs, the program undergoes regular Curriculum Review and Evaluation. This process includes workshops and seminars with experts in curriculum development, environmental statistics, alumni, and graduates. While students can provide feedback on teaching performance, there is no direct involvement of students in the curriculum design process. These objectives and learning outcomes are in line with international standards for a Master's degree in Statistics.

The program's structure includes core compulsory courses in the first two semesters and elective courses in the last semesters. These allow students to specialize in areas such as Environmental Statistics, Actuarial Science, or Data Science. The curriculum also includes a research thesis, ensuring that the defined objectives are met.

Graduates of the Master in Statistics program have diverse career opportunities. They can pursue professional roles such as lecturers, researchers, or teachers, academic achievements such as competence for a Doctoral program, or social accomplishments such as leadership in statistics-based policy making. The program's focus on environmental statistics also prepares



graduates for specialized roles in this field. An employability survey is conducted to maintain and analyze job placement statistics.

The mandatory internship lasts for about two months and is conducted in partner institutions under an agreement that includes guidance, application, supervision, and reporting. Upon completion of the internship, a seminar with supervisors and examiners is conducted to evaluate the results.

The study program reflects the four purposes of higher education as defined by the Council of Europe. Personal development is fostered through courses devoted to hard and soft skills. Obligatory courses on Indonesian state and culture prepare students for active citizenship. Research and innovation are stimulated through the internship phase.

#### **2.1.11 Bachelor in Medicine (BM)**

The primary ambitions of the program are to provide a solid foundation in medical education, preparing students for more advanced studies and professional practice in the field of medicine. Established in 2008, the program spans four academic years or eight semesters. Graduates of this program must continue their education in the Medical Doctor Profession Education Program to achieve full qualification as medical doctors, which should be the final achievement for students. The program aims to produce graduates who are competitive in the job market and equipped to pursue higher education at various levels, including Profession, Magister/Master, Specialist, Subspecialist, and Doctoral degrees in Medical Science.

The Bachelor program is designed to achieve several key learning outcomes. Firstly, it provides competitive professional education and teaching. The curriculum is structured to offer comprehensive medical education, balancing theoretical knowledge with practical skills, thus ensuring graduates are well-prepared for the demands of the medical profession. Secondly, the program emphasizes conducting research and producing scientific publications. The focus is particularly on enhancing the welfare of people in coastal areas and tropical forests. Students are encouraged to engage in research activities, contributing to scientific knowledge and producing publications that address local and global health issues. Thirdly, the program is committed to organizing community and health services. This includes addressing the needs of coastal areas and tropical forests, as well as disaster response efforts. This objective ensures that students are not only equipped with medical knowledge but are also prepared to apply this knowledge in real-world settings to improve public health. Lastly, the program strives to establish a transparent and accountable educational environment. This transparency and accountability in its operations ensure that the educational processes and outcomes are clear and reliable.



The curriculum is structured to support these outcomes through a combination of core medical courses and practical training. The program covers essential medical disciplines, integrating both theoretical instruction and clinical practice to provide a holistic medical education.

The examination formats in the Bachelor of Medicine program are varied and aligned with the competencies required for each module. It is suggested that the structure of the examinations and the weightings of different elements be clearly defined in the course handbook before the start of each module. The examinations are module-specific, with many incorporating a combination of multiple-choice questionnaires, essay-type questions, and practical assessments.

Overall, the Bachelor of Medicine Undergraduate Program at UNIB is well-structured to achieve its primary goals, offering students a pathway to advanced education and professional success in the field of medicine.

## **2.3 Conclusion**

The criterion is **fulfilled**.

## **3 ESG 1.3: Student-centred learning, teaching, and assessment**

Institutions should ensure that the programs are delivered in a way that encourages students to take an active role in creating the learning process, and that the assessment of students reflects this approach.

### **3.1 Implementation**

General

Faculty of Mathematics and Natural Sciences (FMIPA) and Faculty of Medicine and Health Sciences (FKIK) apply a learning system that is interactive, holistic, integrative, scientific, contextual, thematic, effective, collaborative, and student-centred. Students are given the autonomy to construct their acquired knowledge independently. Lecturers and institutions provide their support in the form of guidance and facilities to support the expectation of students.

The learning system at FKIK is different from the learning system in other study programs at UNIB. The study programs at FKIK, including the Bachelor in Medicine, adopted a module learning system that is different from the general course system. The module system is different from the course system in the number of lectures and learning time. In the course



system, students take several courses within one semester with a period of 16 weeks. While in the module learning system, students focus only on one module within 3-6 weeks, depending on the number of SKS/ECTS.

In addition to academic activities, students are also given the opportunity to develop their non-academic abilities. In this regard, FMIPA and FKIK can attend student competency development programs. These programs lead to quality improvement of graduates in soft skills. Some of the activities conducted are development programs for scientific competencies, interests, and talents of students, including reasoning teaching, software training, and coaching in the fields of sports and arts. These activities are facilitated in various student activity units held by the Student Activity Unit (UKM) at the faculty level and by the Student Association (HIMA) at the study program level.

The learning plan documents are prepared in detail. Each RPS prepared by the lecturer must include at least the number of SKS (ECTS), the intended graduate learning outcomes of the course, the final abilities planned at each learning stage to meet the graduate learning outcomes, study materials related to the abilities to be achieved, learning methods, the time provided to achieve abilities at each stage of learning, student learning experiences expressed in descriptions of tasks that students must do in a semester, criteria, indicators, weights of assessment, and list of references used. Every detail in the RPS makes the lecturers easier to conduct the learning process.

The learning systems implemented in FMIPA and FKIK are blended learning, synchronous, and asynchronous systems. To support the implementation of the learning activity, UNIB, through LPTIK, facilitates the availability of e-learning that can be accessed by students and lecturers on <https://elearning.unib.ac.id/> page.

### **3.2 Assessment**

Each FMIPA and FKIK student must complete a number of workloads to obtain a degree in their respective study program. Undergraduate students complete a minimum of 144 SKS and a maximum of 160 SKS (equivalent to ECTS-workload) which are completed in at least eight semesters and a maximum of 14 semesters. Magister/Master program students complete a minimum of 36 SKS and a maximum of 44 SKS for the magister/master program completed in at least four semesters and a maximum of eight semesters. A small amount of SKS is reserved for elective courses and a final project.

Assessment of students is conducted in each course that is carried out to evaluate learning outcomes. The assessment type or system applied to each course may differ depending on the lecturer's prepared RPS. Assessment of the students can be done with written exams, oral exams, assignments, seminars, practical exams, and others.



The study programs are clearly structured and consist of face-to-face lectures as well as laboratory projects. Furthermore, the courses require individual learning possibilities and the work with exercises in addition to lectures. The exam modalities as well as the method of examination are discussed and agreed with all students at the beginning of each module, according to UNIB. Each professor can freely access the e-learning platform, make use of it for digital teaching formats or the upload of learning material and exercises.

The quality of teaching, the match between exercises and lectures, additional material as well as the professor's creativity regarding the use of new teaching methods is evaluated every semester. Beside anonymous feedback via analogue or digital evaluation sheets, a student executive board is in good contact to the professors and is able to forward gathered feedback from students. In addition, open discussion about the curriculum takes place on assigned dates according to students. Further involvement of engaged students in each study program's organization and beyond is yet not foreseen but was discussed in the individual sessions.

In order to investigate the student's workload, the amount of credit points (ECTS) as well as the academic hours are listed in a study program's module handbook also published online. Depending on the study program of interest, additional information such as the responsible professor, learning outcomes and covered materials are also shown in the module handbook or in additional documents named module evaluation process (RDP) which can only partially be found online. Especially for international students, the orientation for a study program at UNIB as well as the allowance of courses at their home university is complicated.

According to the discussion with students of every accredited study program and exam results, the workload seems to be feasible. Each assessment can be repeated twice, and the dropout rates are low in the first semesters and even negligible in higher semesters. The students name mainly personal problems as dropout reason instead of deficient performance. Professors also mentor about 10 students, but students see a conflict of interest in talking about technical or other problems with a rater.

In general, learning and teaching is evaluated regularly by all students and certified with high quality. Also support beyond the subject is offered such as for disadvantaged students or community service.

For an international orientation, processes and documentation have to be adjusted to international standards. An international office could be implemented to advice students for a semester or an internship abroad as well as to support international students studying at UNIB.



### 3.3 Conclusion

The criterion is **fulfilled**.

## 4 ESG 1.4: Student admission, progression, recognition, and certification

Institutions should consistently apply pre-defined and published regulations covering all phases of the student “life cycle”, e.g. student admission, progression, recognition and certification.

### 4.1 Implementation

#### Admission

State University National Admission Selection (henceforth SNMPTN - *Seleksi Nasional Masuk Perguruan Tinggi Negeri* on [www.snmptn.ac.id](http://www.snmptn.ac.id)) is a national selection system based on academic achievement screening by using students’ report sheets from semester 1 (one) to semester 5 (five) for Senior High School (Henceforth SMA - *Sekolah Menengah Atas*) / Islamic High School (henceforth MA – *Madrasah Aliyah*) or Vocational High School (henceforth SMK – *Sekolah Menengah Kejuruan*) and Vocational Islamic High School (henceforth MAK - *Madrasah Aliyah Kejuruan*) with a study period of 3 (three) years or semester 1 (one) to semester 7 (seven) for SMK with a study period of 4 (four) years, and an Academic Portfolio and other achievements while in SMA/SMK/MA/MAK that are relevant to the chosen study programs. The government bears the selection fee so that student applicants are not charged a selection fee.

State University Joint Admission Selection (henceforth SBMPTN – *Seleksi Bersama Masuk Perguruan Tinggi Negeri* on <https://tmpt.ac.id/>) is a joint selection carried out by all state universities under the coordination of a Central Committee, with selection based on the results of a paper - based written test (henceforth PBT) or a computer - based test (henceforth CBT). The test materials include (1) Scholastic Potential Test (henceforth TPS - *Tes Potensi Skolastik*) to measure cognitive abilities such as quantitative knowledge, which consists of the knowledge and mastery of basic mathematics. (2) English Language Proficiency Test and Academic Ability Test (henceforth TKA - *Tes Kemampuan Akademik*), which measures cognitive abilities directly related to the content of subjects studied in school. The test emphasises Higher Order Thinking Skills (Henceforth HOTS).

State University Independent Admission Selection - Western Region (henceforth SMM PTN Barat - *Seleksi Mandiri Masuk Perguruan Tinggi Negeri Indonesia Bagian Barat* on <http://smmptnbarat.id/>) is an independent admission selection held jointly by 15 state universities in Western Indonesia. This selection is based on a written exam with a registration fee and an additional Institutional Development Fee (henceforth BPI - *Biaya Pengembangan*





Institusi). SMMPTN is intended for high school graduates from the current year, one year ago, and two years ago.

The decision to stipulate the student acceptance follows the new student admission standard of the University of Bengkulu, in which the decision to accept new students is based on the results of a meeting among the Rector, Vice - Rector for Academic Affairs, and the Dean of the Faculties based on the SBMPTN scores of applicants.

### Progression

Student progress is monitored through the UNIB Academic Portal application (<https://www.pak.unib.ac.id> ). Academic advisors and the study programs must provide direction and consultation for the students. The sub-division of Student Affairs of FMIPA and FKIK supports student activities such as counselling, scholarship information, student exchanges, student creativity activities, and others.

Guidance and counselling for students are conducted by an Academic Advisor (PA) whose duties include guidance on filling out KRS, determining the specialisation of elective courses, and helping students to deal with the obstacles in lectures and other problems. PA also establishes good communication with parents/guardians of students through Whatsapp Groups (WAG). This communication is established to support the implementation of a better teaching and learning process. The students are monitored for their progress when they have researched and written an undergraduate thesis or thesis. Supervisors and study programs conduct the development of research and writing of an undergraduate thesis or thesis.

To support the continuity of student studies, the faculty facilitates all students to get scholarships from various schemes offered by UNIB and other parties. The scholarship schemes offered include Improving Academic Achievement (PPA), Bidikmisi, Affirmations, various banks, Alumni, Djarum, Sampoerna, and Aspirasi scholarships. In each given scheme, there are requirements that prospective scholarship recipients must meet, such as the GPA, achievement, and economic level.

### Recognition and Certification

FMIPA and FKIK facilitate and support student activities in both academic and non-academic fields. The facilitating and supporting aims to develop scientific insight and increase interest in talent and soft skills. Students who are declared as graduates in the Bachelor or Magister/Master study program at FMIPA and FKIK are entitled to get a diploma following the regulations. Academic titles for all study programs at FMIPA and FKIK follow the Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 154 of 2014 on Clusters of Science and Technology and Higher Education Graduate Title and are stipulated by the Rector. The format of the diploma published follows the regulations. In addition to the



document, the students also receive an SKPI as a complement to the diploma, which explains the learning outcomes and achievements of the diploma holder during the study period. SKPI provides information on a student's achievements in addition to learning outcomes that have been compiled in the curriculum. The achievements include: 1) award and championship, 2) organisational experience, 3) certification, 4) mastering an international language, 5) industrial internship, and 6) soft skills training.

#### **4.2 Assessment**

The entry and admission requirements of UNIB are clearly defined and set out transparently for applicants. The higher education entrance qualification is a prerequisite, followed by government admission tests and personal interviews. Thus, a multi-stage admission system is provided for the students. The government decides on the admission capacity. As a consequence, the UNIB in general and the faculties itself cannot decide the student's entry level. However, the number of applicants surpasses the number of available study places by far so that in the meeting among the Rector, Vice-Rector for Academic Affairs, and the Dean of the Faculties to decide the list of the successful candidates a selection of the best is possible.

The progression of the students is not so much limited by the time span of the study time – a limit to the length of the study time is not set –, but by success in accomplishing all courses. However, the threshold to continue to the next semester seems not too high. The usual GPA rate of the students in all study programs of the faculty is far above the level that prohibit an advancement.

The university has procedures for the recognition of work done elsewhere. Whether these procedures work well in practice cannot be assessed by the expert panel, because the number of cases is too small to make a fair judgement of the procedures. In every study program, just few cases have gathered international experience – and most of these cases have not had an exchange semester at another university, but have taken part in international competitions etc.

To transform the vision of “Becoming a world-class university in 2025” into reality, the international collaboration with universities and companies in the ASEAN-region should be expanded. The possibilities for a student exchange should be enhanced and the number of intakes and outgoings should grow to better integrate in the international scientific community.

The faculties have submitted a diploma supplement that proves study content and degree level to employers and other universities for continuing studying on master level – an option that some 10% of the bachelor study programs' graduates chose. For international use, the diploma could be supplemented with information on the national higher education system of Indonesia.

Summary: All main elements of admission are present, and the general process is so far transparent. Indonesia is not signature of the Lisbon Recognition Convention. However, at



faculty level they are ready to recognise mobilities abroad on individual basis. There is sufficient information on university degrees and programs, although in some cases the quality of information provided could be improved.

### 4.3 Conclusion

The criterion is **fulfilled**.

## 5 ESG 1.5: Teaching staff

Institutions should assure themselves of the competence of their teachers. They should apply fair and transparent processes for the recruitment and development of the staff.

### 5.1 Implementation

#### General

The University of Bengkulu establishes and follows a clear, transparent, and fair process for the recruitment of teaching staff. This is explained in a guideline for planning and recruiting lecturers and education personnel. The selection/recruitment process of civil servants and non - civil servants are guided by the Regulation of the Minister of Administrative and Bureaucratic Reform and the National CPNS Selection Guidebook issued by the State Civil Service Administration Agency (henceforth BAKN - *Badan Administrasi Kepegawaian Negara*) number 9 of 2012 concerning guidelines for the implementation of the procurement of civil servants candidates, and the Regulation of the Government of the Republic of Indonesia Number 63 of 2009 concerning amendments to the Regulation of the Government Number 9 of 2003 concerning the Authority to Appoint, Transfer, and Discharge the Civil Servants.

The University of Bengkulu offers opportunities and promotes the professional development of teaching staff. The activities implemented include study assignments, internships, seminars, workshops, e - learning training, e - book training, e - journal training, teaching materials training, Applied Approach training, and training on RPS preparation based on OBE (Outcome Based Education).

The career path of a lecturer is divided into four levels: Instructor, Assistant Professor, Associate Professor, and Professor. Each level has terms, rights and obligations described in the guidelines made by the Higher Education, and all lecturers can access it. UNIB focuses on implementing programs that can help to accelerate the achievement of professors through special research grants for professor acceleration. In addition, there is also a mentoring program where a senior lecturer guides junior lecturers to accomplish the university's *Tri Dharma* obligations.



To encourage innovation in teaching methods and the use of new technologies, UNIB has undertaken:

1. Provision of a Moodle platform as a learning management system that lecturers and students can use during lectures.
2. Teaching grants finance the development of teaching materials which include books, videos, websites and others
3. Online lectures using Zoom, Google-meet and other similar services.

The improvement of the lecturers' quality of the faculty is carried out by: 1) holding workshops on research and community service proposal writing for national competition grants, teaching material writing, and article writing, 2) holding workshops on the use of e-learning, and academic positions, 3) providing incentives for publications or intellectual property rights, 4) providing financial assistance in the form of research grants, community services, and writing of teaching materials, and 5) sending young lecturers to take part in AA or Improved Basic Skills of Instructional Techniques PEKERTI training programs that are intended to improve the professional competence of lecturers in holding functional positions, especially in improving pedagogical skills (AA/Pekerti), 6) Providing education personnel to assist lecturers' promotions.

The potential of SDM owned by FMIPA includes 115 lecturers consisting of 110 PNS lecturers and five non-PNS lecturers spread over 13 PS. FMIPA also has six professors. There are 39 Associate Professors who have the potential to become Professors, 36 Assistant Professors, and 36 Assistant Professors or education personnel. Regarding education level, 26.9% of SDM have doctoral degrees, and 73.1% have magister/master degrees. In addition to lecturers, FMIPA UNIB has 63 employees or education personnel, both PNS and non-PNS (Table 33). In contrast, FKIK, as a new faculty, has lecturers who are qualified as Magister/Master and has no lecturer with doctoral qualifications. However, five lecturers are in the process of obtaining a doctoral degree.

### **Bachelor in Biology**

In 2022, the BB study program has 19 permanent lecturers, with one lecturer still studying in the doctoral program. All lecturers have met the required educational qualification according to SN DIKTI, which is having a minimum of a magister/master degree. Lecturers with a doctoral degree are 31.5% or 6 out of 19, and lecturers with a magister/master degree are 68.5% or 13 out of 19 lecturers. The BB study program lecturers consist of 2 graduates of international universities and 18 graduates of national universities. All of the lecturers' expertise is compatible with the subject being taught. The areas of expertise of the BB study program lecturers include Swamp and Watershed Ecology, Microbiology, Genetics, Molecular Biology,



Soil Animal Biology, Entomology, Human Ecology, Plant Developmental Biology, Ichthyology, Molecular Biology, Ornithology, Plant Tissue Culture, Botany, Mammalogy, Microbiology, Plant Systematics, Plant Physiology, Microbiology, Plant Ecophysiology, Animal Physiology, and Herpetology or Molecular Systematics.

### **Bachelor in Chemistry**

Until 2021, the Bachelor in Chemistry study program has 20 DTPS, in which four of them are continuing their doctoral program studies. Therefore, until this assessment year, there are 16 DTPS in the Bachelor in Chemistry study program. Every DTPS has met the educational qualifications required according to the SNPT: owning a minimum of a magister/master degree. DTPS with doctoral degrees were 56% (9 people), and magister/master degrees were 44% (7 people). The nine lecturers who have doctoral degrees are graduates from well-known national and international universities, including Gadjah Mada University (in the field of physical or computing chemistry, analytical chemistry, and organic chemistry), Padjadjaran University (in the field of physical & polymer chemistry), Johannes Gutenberg Universitat Mainz, Germany (in the field of physical chemistry & catalysis), Toulouse France University, France (in the field of applied chemistry), Tohoku University, Japan (in the field of inorganic chemistry), and Gifu University (in the field of organic chemistry and physical chemistry).

### **Bachelor in Pharmacy**

The BPharm study program currently has 12 lecturers consisting of 12 magister/master degree graduates with functional positions of four education personnel, six assistant professors, and two assistant professors. The competence of lecturers at FMIPA UNIB is proven by educator certificates and competency certificates of the lecturers in their certain fields of expertise. There are two education personnel with educator certificates and 12 education personnel with pharmacist competency certificates.

The workload of lecturers at FMIPA UNIB in carrying out the *Tri Dharma* of higher education is 12-16 SKS per semester. The Bachelor in Pharmacy study program lecturers' workload has met the standard, which is an average of 14 SKS per semester. The ratio of permanent lecturers and the number of students at the Bachelor in Pharmacy study program is 1:21, which perfectly meets the ideal ratio of 1:30 for the health sciences group based on the Regulation of the Minister of Research, Technology, and Higher Education Number 2 of 2016 concerning amendments to the Regulation of the Minister of Research, Technology, and Higher Education Number 26 of 2015 concerning the Registration of Educators in Higher Education.

### **Bachelor in Physics**

In 2021, BP study program had 17 DTPS, in which 10 lecturers were home base lecturers. In the BP study program, 41% (7 lecturers) of DTPS have doctoral degrees, and the rest have



magister/master degrees (10 lecturers). Based on the functional positions, in 2021, 64.5% of lecturers had functional positions as associate professors, and the rest with functional positions as assistant professors, assistant professors, or education personnel. As many as 76.5% of DTSPS have educator certificates.

### **Bachelor in Geophysics**

The BGP currently has 10 DTSPS. Seven out of ten lecturers, or as many as 70% of the total lecturers, have educator certificates. This number has exceeded the statutory provisions and government regulations related to lecturers, which state that the minimum number of certified educators must be at least 40%. From the level of education, the number of lecturers with doctoral degrees at BGP is 50%. Based on the functional positions, there are one professor (10%), six associate professors (60%), one assistant professor (10%), and two assistant professors (20%). The composition of education levels, functional positions, and teacher educator certificates are advantages for GSP, especially in the SDM aspect.

The ratio of lecturers to students is very good, which is around 1:10 (PDDIKTI Database standard 1:20), with an average workload of 15.28 SKS per semester.

### **Bachelor in Mathematics**

Currently, BMath has ten home base lecturers. Based on the functional positions, there are five associate professors, two assistant professors, and three assistant professors. Meanwhile, based on the educational qualifications, BMath has two lecturers with doctoral degrees and nine lecturers with magister/master degrees. Of the 11 lecturers, 72% have educator certificates. All BMath lecturers are members of the Indonesian Mathematical Society (IndoMS). Many beneficial matters were obtained, including information on updated discourses, issues, and information from the mathematics study programs in Indonesia and especially in the western region, which can be used as a reference for the Tri Dharma activities.

### **Bachelor in Statistics**

The qualifications and experience of the permanent lecturers assigned to BStat are very potential. There are six permanent lecturers assigned to teach compulsory university courses with educational backgrounds of doctoral degrees and magister/master degrees and their field of expertise is relevant to the subject being taught. Meanwhile, the number of permanent lecturers at BStat is 12 people. The lecturer has qualified academic qualifications and expertise in accordance with the study program. Lecturer qualifications are indicated by the number of lecturers holding doctoral degrees, as many as three people, and nine people holding Magister/Master degrees. In addition to the educational qualifications of BStat's permanent lecturers who have met the requirements, 58% of BStat's permanent lecturers already have educator certifications.



Meanwhile, based on the functional positions of the lecturers, BStat has one professor, two associate professors, one assistant professor, three assistant professors, and five education personnel. The five education personnel are proposing to become an assistant professor during TS. Of the 12 lecturers, all of them are lecturers who are in charge of study programs full-time in providing services to 152 BStat students. Based on the number of lecturers and students owned by BStat, the ratio of BStat lecturers and students is 1:12. This ratio explains that the number of lecturers to the number of students owned by BStat is good for the scientific field because it is still below the standards set by the faculty, university, and ministry.

### **Master in Chemistry**

The lecturers in the Master in Chemistry study program consist of 11 permanent lecturers whose home base is FMIPA. Nine lecturers are from the Department of Chemistry and two are from the Department of Biology. Every lecturer has a doctoral degree from international and national universities.

Generally, each course in the MC study program will be taught by a teaching team consisting of 2 or 3 lecturers.

### **Master in Statistics**

The MStat study program is supported by the SDM which consists of seven lecturers with doctoral degrees and one administrative staff. The seven lecturers compose five lecturers whose home-base is in the MStat study program, two lecturers whose home-base is in the BMath study program. From the perspective of functional positions, the seven lecturers comprise 2 professors and 5 associate professors.

The performance of the MStat study program lecturers based on the implementation of the *Tri Dharma* of higher education is very good, indicated by an average workload of 15.54 SKS per semester, in accordance with the Lecturer Workload (henceforth BKD - *Beban Kerja Dosen*) Guidelines.

### **Bachelor in Medicine**

Currently, the number of permanent lecturers from the BM is 44 (See Table 2.5.2). The BM has eight lecturers with academic positions as Assistant professors and 19 lecturers with academic positions as Assistant Professors. All permanent university lecturers who teach a course have areas of expertise compatible with their BM competencies. The DTPS at the BM is 44 lecturers consisting of 5 lecturers (11.4%) currently pursuing a doctoral degree and 25 lecturers (56, 8%) with Magister/Master degrees or specialists. In addition, 14 lecturers (31.8%) are pursuing Magister/Master and specialist education.



In performing educational services, the BM lecturers are assisted by lecturers or education personnel from external institutions who collaborate with UNIB, such as specialist doctors at M.Yunus Hospital and education personnel from the Faculty of Medicine Diponegoro University.

## 5.2 Assessment

The processes for the recruitment and development of staff at the UNIB comply with international standards and are deemed clear and transparent. UNIB provides good opportunities for staff to succeed. The recruitment process for home-based staff follows standard procedures for Indonesia, and there is an added focus on developing staff from neighbouring institutions. This clear and transparent approach ensures that the university attracts and retains qualified teaching staff. Most of the teachers are originally from their own university.

The university supports the scholarly activities of the teaching staff through scholarships and grants for conference and research visits, available at both the university and national levels. This support enhances the academic and research capabilities of the staff.

The university offers the teaching staff all the important equipment required, including lab space, which contributes to a very good working atmosphere and high motivation among the staff.

In the development of the individual study programs, several goals are pursued at both university and faculty levels. These include increasing the academic qualifications of lecturers through further study activities, improving the quality of lecturers and administrative staff through conferences, seminars, workshops, internships, and training activities, and increasing the scientific publications of lecturers in national and international journals. This comprehensive support ensures that teaching staff are equipped with the latest teaching methods and technologies.

The teaching staff is appropriate to carry out the study programs. However globally, an increase in the number of teachers, especially at higher levels (Full Professors) and lab technicians, would be beneficial for national and international students. Having only one home-based professorship for the entire program could be viewed internationally as insufficient.

Another improvement in staff development would particularly be to supporting teachers to conduct research abroad. This would also improve the level of English of the lecturers, enhance scientific contributions and improve opportunities to involve students in advanced projects. Additionally, there is a need to further improve the technical equipment, especially in areas like molecular biology, bioanalysis, and greenhouse facilities for some of the programs.





### 5.3 Conclusion

The criterion is **fulfilled**.

## 6 ESG 1.6: Learning resources and student support

Institutions should have appropriate funding for learning and teaching activities and ensure that adequate and readily accessible learning resources and student support are provided.

### 6.1 Implementation

#### General

The University of Bengkulu occupies a land area of 24.9 ha located in Bengkulu Province. This location is easy to access by people from outside of the Bengkulu province since it is only around 30 minutes from Fatmawati airport. The University of Bengkulu has public facilities that may be used by all students of the faculty of agriculture including Integrated Service Building, UNIB library, clinic, sports facilities, banking facilities, and prayer facilities (mosques). The faculty of agriculture is divided into 12 study programs. To conduct the educational activities, the faculty of agriculture has 14 main buildings: 10 office buildings, 1 teaching/learning building, 3 laboratory buildings, 1 library building, 1 PKM building, and 1 health care building. In addition, there are several supporting facilities: canteens, student association secretariats, entrepreneurship hangars, etc. UNIB implements resource sharing of facilities to support the educational activities. Therefore, all study programs at the faculty of agriculture may access the facilities owned by other faculties, for instance the teaching/learning buildings and laboratories.

Additionally, there is a shared administration room for the education personnel of the faculty of agriculture who serve students in each study program. In the teaching/learning building, there are 26 classrooms with a capacity of 1660 students. The classrooms can be used for 5 sessions a day to accommodate 8300 students. The available classrooms are sufficient for the number of 3229 students. All rooms are equipped with air conditioners, and 6 classrooms are equipped with smart TV and the other classes may use mobile LCDs. The teaching/learning building is equipped with toilets, 2 administration rooms, 1 prayer room, and a garden. The Master classes are conducted in the teaching/learning building and the Master building. The seminar and final exam rooms are located within the building of each study program.

#### Administrative student support

During the study period, the students are supported by the SIAKAD system. SIAKAD includes the KRS, LHS, transcripts, class schedules, academic guidance, and e-learning that can be accessed by students and lecturers. Students can easily consult with the best possible



lecturers directly in the workspace or through the internet and SIAKAD facilities provided. Students can consult in planning their studies with their academic advisor at the beginning of the semester before the lecture starts. Lecturers as academic advisors provide advice and input regarding the student's study plans and study results of each semester.

New students are encouraged to join the student organisations or associations to develop their interests and talents in academic and non-academic fields. These activities can help students develop their potential to balance their learning activities. The division which oversees this activity is the division of student affairs of the faculty.

Students are also encouraged to seek information about career and work goals through the skill, insight, and career development. These activities may be conducted through workshops and training on entrepreneurship, seminars on career development, public lectures with practitioners according to their fields, and collaboration with the industry by involving the students

### **Student research**

Already during their studies, students are guided to apply for research funds. The most competitive funds are provided by the Ministry of Education, Culture, Research, and Technology. These funds were received through the PKM and Student Creativity Competition scheme. The emphasis of student's research is to follow the research roadmap of each study program.

### **Library**

The library's its mission is to provide access to information, to support the Tri Dharma of Higher Education, and to improve the quality of library resources to become relevant and professional. The library facilities can be accessed freely by registered users with a library membership card.

The availability of the faculty of Agriculture Reading Room with various collections of reading materials creates a conducive academic atmosphere. The academic atmosphere is also improved by the support of the internet network with adequate accessibility and speed of up to 800 Mbps to allow the academic community to access the required reading materials/journals from abroad and within the country.

The library of UNIB and Agriculture faculty Reading Rooms currently have an area of 6,000 m<sup>2</sup> and 400 m<sup>2</sup>, respectively. They continue to be developed as the institution's commitment to improve the quality of the facilities and learning resources and the quality of education. The collection of the library of UNIB currently includes more than 75,000 copies of textbooks, 11 national journals accredited by Dikti/LIPI, 1 international journal, 3 proceedings, 339 theses with 1,117 copies, 2 dissertations, and 11,000 undergraduate thesis with 15,251 copies.



Meanwhile, the faculty of agriculture has a collection of 605 textbooks, 37 magazines, 986 journals, thousands of undergraduate thesis, etc. Many journals can be accessed without a subscription. UNIB collaborates with the national library so that library users can access various books, journals, etc.

In addition to the collection of books in the library, the library of UNIB is also equipped with the digital collections for students to access the learning resources for free.

UNIB has also innovated in developing an integrated online digital library with all Faculty Reading Rooms within UNIB through the SlimS application and website or the Senayan Library Information System (<https://slims.unib.ac.id/index.php>). Through this application and website, the academic community can connect to the National Library and access all books and journal collections including: the books, references, magazines, national and international journals. In addition to supporting facilities, the library of UNIB is also managed by professional librarians. They all have sufficient qualifications to properly help the academic community and employees within UNIB. The work of librarians is also assisted by the administrative staff (civil servants and honorary staff) who are placed by the university at the library of UNIB.

### **IT Service**

The information system of UNIB is connected using the Local Area Network (LAN) and Wide Area Network (WAN). This system has a big data capacity and adequate accessibility with a speed of 800 Mbps. The area of UNIB has been connected using optical fibre and WiFi for LAN connection to access the internet. Therefore, these facilities will help the academic community and education personnels to access various UNIB internal information and the internet.

UNIB already has an LMS-based e-learning application (<https://elearning.UNIB.ac.id/>) which has been used intensively to support blended learning. The system can be used to provide lecture materials and modules that the lecturers and students can use to support synchronous and asynchronous learning. The online learning is conducted through video conference applications.

The department, study program, laboratory, and dean building of the faculty of agriculture have available wifi networks that can be utilised by the academics and education personnel. Each student has an account to access the WiFi with a speed of up to 3.5 GB. The utilisation of wifi facilities within the Faculty of Agriculture is conducted by using a resource-sharing system with the students. Moreover, the existence of the Agrivoice community radio and the faculty website makes the information easier to access by the public. The Faculty of Agriculture has also developed the system for exit surveys and tracer studies.



The management of the information system of the faculty of agriculture is integrated to the one developed by UNIB. LPTIK is an institution responsible for the utilisation and development of information systems for the benefit of learning and program management which can be accessed at <https://lptik.UNIB.ac.id>. The development of information systems conducted by LPTIK is related to the needs of the university. The system includes New Student Registration System, Academic Portal System, Lecture Attendance System, Graduation Registration System, UNIB Academic Information System, Online Community Service System, Personnel System, Remuneration System, Planning System for UNIB PPK Bureau, Lecturer and Employee Absence System, Registration SIM, UNIB Portal PIN Making System, e-Learning System, Library System, Correspondence System, e-Journal System, Book Search System, UNIB Repository System, Learning Evaluation Information System, Database Information System, and UNIB Graduates Tracer study application.

The information system of UNIB is used to improve the effectiveness in archiving, decision-making, efficient learning, and improving the quality of academic programs. The development of the information system is a part of the internal quality assurance in learning activities. To improve the quality of academic program implementation, each study program can use various applications: the Academic Portal, Lecture Attendance, UNIB Academic Information, Online KKN, e-Learning, Library, Correspondence, e-learning Journal, Book Search, UNIB Repository, and Learning Evaluation Information System.

### **Training events and support services**

UNIB conducts various approaches of training for the management, lecturers, and students to support the improvement of the learning standards, research and community service, and institutional management. Training of staff is described elsewhere, students can participate in training to increase their competence through soft skills training, student creativity programs, entrepreneurship, and organisational management. These training programs support the main competencies of students in their respective fields. They are conducted by the division of the student affairs of the university and faculty, and the UPT PKM.

UNIB has a Career Development Center to implement programs to align education and professional work. In the future, this unit is expected to be able to prepare UNIB graduates to compete in the job market to increase their employability. The career and entrepreneurship guidance is also conducted by the Technology Business Incubator, which aims to grow young creative entrepreneurs at UNIB with several activities including technical business guidance, Business Competitions, Business Training based on livestock products, etc.

### **Bachelor in Biology**



The Bachelor in Biology study program has three lecture rooms, two seminar rooms, one thesis examination room, and six laboratories (basic biology, zoology laboratory, botanical laboratory, ecology laboratory, microbiology and Biotechnology Laboratory, Tissue Culture Laboratory).

### **Bachelor in Physics**

The Bachelor in Physics study program has laboratories located at the Basic Science (BS) building, which the Physics Department of FMIPA UNIB manages. The available laboratories are:

- a. Fundamental Physics I and II Laboratories
- b. Fundamental Electronics Laboratory
- c. Computation Laboratory
- d. Advanced Physics Laboratory
- e. Research laboratories in every field, such as oceanography, instrumentation, and geophysics

### **Bachelor in Geophysics**

The BGP study program laboratory equipment also supports student research for thesis and PKM research, research, and service for lecturers and education personnel. All of the BGP study program students can easily access various available laboratory facilities according to their individual needs.

For laboratories, there are various advanced and up-to-date equipment such as Magnetoteluric, Resistivitymeter, Proton Portable Magnetometer, MASW Seismometer, HVSR seismometer, GPS Geodetic etc.

The average operational cost of education at FMIPA for the last three years is Rp. 13,000,000- per student per semester, exceeding the standard university fees that have been set, which is Rp. 10,000,000,- per student per semester. Meanwhile, for lecture facilities, the ratio of the available lecture room for each student is 2.8 m<sup>2</sup>, exceeding the standard room area, which is 2 m<sup>2</sup>/student. For library facilities, the area per student is 0.39 m<sup>2</sup>, exceeding the standard of 0.2 m<sup>2</sup>/student. The DTPS room has an area of 9 m<sup>2</sup>/lecturer, equipped with adequate office equipment, exceeding the standard of 4 m<sup>2</sup>. The laboratory infrastructure for each student is 4 m<sup>2</sup>. This accomplishment is in accordance with the existing standards. However, in the future, it is necessary to add more laboratories considering the increase in the number of students.

### **Bachelor in Pharmacy**



Educational facilities include furniture and equipment needed to equip each building/room in conducting its functions to improve the quality and relevance of the outcome of its products and services.

Based on the type, the facilities are divided into 3 (three) groups:

a. Learning facilities, including: (1) facilities for conducting the learning process as equipment in the classroom, for example, writing desks, manual whiteboards, electronic whiteboards, Over Head Projector (OHP), LCD, microphones, CCTV, personal computers/desktops, teaching aids, consumables, and others. (2) laboratory equipment following the type and laboratory characteristics of each study program/department, study centres, and service centres.

b. Learning resource facilities include textbooks, journals, magazines, information sheets, the internet, audio-visuals, CD-ROMs, and satellite images. These learning resources must be selected, sorted, and adapted to the learning objectives.

c. Supporting facilities include office equipments and supplies, office tables and chairs, printing tools and equipment, household appliances, transportation equipments, meeting tables and chairs, audiovisual (sound system, LCD, Laptop), stages and podiums, tents, cameras, electrical equipment, tools and equipments for religious activities.

### Bachelor in Chemistry

The Bachelor in Chemistry study program has three lecture rooms, two seminar rooms, two thesis examination rooms, and four laboratories. These rooms are located in the Teaching and Learning Building V and the Basic Science Building. The average lecture hall has a capacity of 40/50 students.

The Bachelor in Chemistry study program has four laboratories in the Basic Science Building to support the learning and research activities. Each laboratory is equipped with adequate practicum and research equipment. The Chemistry Laboratory has three PLPs (laboratory technicians) who coordinated with the laboratory's head. The academic community uses rooms, instruments, and materials through prepared standard operating procedures.

The fundamental chemistry laboratory is a type of basic laboratory in the Bachelor in Chemistry study program. As a basic laboratory in the field of education, it supports practicum activities for students of FMIPA who take introductory chemistry courses. Another activity in the fundamental chemistry laboratory is research conducted by lecturers and students to complete thesis research.

Chemistry Laboratory of Organic-Biochemistry is an academic laboratory facility in the Bachelor in Chemistry study program that students and lecturers use for practicum activities,



researches, and community services in the fields of organic chemistry of natural materials, microbiology, and others. This laboratory is equipped with tools that support student research and practicum, including laminar air flow, autoclave, rotary evaporator, oven, and others.

Chemistry Laboratory Inorganic-Physical provides facilities to support the research and practicum of students in the Bachelor in Chemistry study program. In this laboratory, various instruments are available, including furnace ovens, fume hoods, shaker baths, and others. This laboratory supports research by students and lecturers in the fields of membrane materials, biopolymers, chemical and adsorption kinetics, etc.

Analytical Chemistry Laboratory is one of the existing laboratory facilities in the Bachelor in Chemistry study program. The laboratory provides equipment that supports students in conducting research to complete final assignments and practicums and supports lecturers in conducting research. Some tools available in the analytical laboratory are UV-VIS Spectrophotometer, FTIR Spectrophotometer, optical microscope, rotary evaporator, centrifuge, and others.

### **Bachelor in Mathematics**

The Department of Mathematics is equipped with a Research Laboratory that can improve the quality of research of the lecturers and students, as indicated by the increasing number of publications by lecturers and students. This facility is expected to speed up student study time because students can focus on completing their undergraduate thesis research in the Mathematics Laboratory. Therefore, the quality of graduates majoring in mathematics can be improved, as indicated by the increase in the GPA of graduates from the Department of Mathematics. The students can study independently and do mini research on solving problems given by lecturers during face-to-face lectures. In addition, students will have good programming skills because of the availability of the programs needed in mathematics, such as MATLAB, Maple, Winedit Latex, and others, which can be learned autodidact.

The BStat study program has a lecture hall and laboratory to carry out the learning and teaching process. The lecture hall is located in learning and teaching building V, which consists of six rooms: R4, R5, R12, R14, R16, and R17. To carry out the practicum, the Bachelor in Statistics study program uses two rooms in the Mathematics Laboratory, located in Building V. This laboratory is a resource shared with the BMath study program and the MStat study program. Software available at the Mathematics Laboratory to support the learning process is licensed SAS and open-source software that supports statistical learning processes such as R. Other software available is Python, Maple, Minitab, Matlab, and SPSS. In 2018, the Department of Mathematics obtained one laboratory room that is used for research activities of students and lecturers located in the Integrated Laboratory Building of the Faculty of



Mathematics and Natural Sciences, the University of Bengkulu. This room can be used for the study programs in the Department of Mathematics. The Department of Mathematics has a reading room located in Building V with a size of 97.5 m<sup>2</sup>.

Computer facilities used in the learning and research process are available at the Mathematics Laboratory and LPTIK. There are 70 units of personal computers (PCs) in the Mathematics Laboratory, while in LPTIK, there are 245 All-in-One PCs.

### **Master in Chemistry**

Currently, the study rooms for the Master in Chemistry study program are two chemistry multimedia rooms and one room in FMIPA's dean building. The lecture hall has complete facilities such as projectors, whiteboards, and air conditioners. However, the FMIPA lecture rooms use the principle of resource sharing so that students can use the lecture rooms of other study programs, both bachelor and Master study programs, while not being used by other study programs. For the thesis proposal seminars, thesis results seminars, and thesis defences, a special room is provided next to the Chemistry Laboratory.

As for research activity in completing a thesis, a MC study program student has the same access as a BC study program student in the laboratory. Currently, the Chemistry Laboratory, which the Chemistry Department directly manages, has five laboratories under the field of study of the Chemistry Department: the Analytical Laboratory, Organic Chemistry Laboratory, Physical Chemistry Laboratory, Inorganic Chemistry Laboratory, and Biochemistry Laboratory.

### **Master in Statistics**

Each room has been provided with an LCD and a laptop by PS. Postgraduate lecture rooms have standard AC, LCD, laptop, and internet/wifi networks. The room is also clean and safe and has an adequate ventilation system. Some facilities are damaged after being used (due to frequent power outages), but this situation is always overcome by fixing the damaged part. In order to improve the quality and conformity with the VMTS, it is necessary to procure several development-relevant facilities. FMIPA also provides study rooms, libraries, internet/wifi networks, laboratories, meeting rooms, research and community service unit rooms, sports facilities, prayer rooms, canteens, art facilities, and other facilities for the talent and artistic development of the students. All the facilities are adequate to support the implementation of *Tri Dharma* of higher education.

The Department of Mathematics, is equipped with a Research Laboratory that can be used to improve the quality of research by lecturers and students, as indicated by the increasing number of publications by lecturers and students. This facility is expected to speed up student study time since students can focus on completing their thesis research in the Mathematics Laboratory. Students can study independently and do small research on solving problems





given by lecturers during face-to-face lectures. In addition, students will have good programming skills because of the available programs that are needed in mathematics, such as Matlab, Maple, Winedit Latex, and others, which can be learned in autodidact. Students can study these programs in the research laboratory.

### **Bachelor in Medicine**

Facilities in the BM study program include building and infrastructure facilities. The building consists of three floors, the front area of the 1st floor is used for Faculty management, the BM study program, lecturer rooms, Medical Education Unit, *musholla*, finance section, and academic section with an area of 494.77 m<sup>2</sup>. The back area of the 1st floor is used for the biomedical laboratory, IT room, audiovisual laboratory, and other supporting rooms with an area of 837.72 m<sup>2</sup>. The 2nd floor is mostly used for the teaching and learning process, which consists of the lecture room (five rooms), group discussion room (12 rooms), KKD Room (12 rooms), seminar room (two rooms), and library room with a total area of 1428.06 m<sup>2</sup>. The back of the 2nd floor is used for research laboratories and laboratory management with an area of 587.62 m<sup>2</sup>. The 3rd floor facilitates student activities consisting of one BEM Room, two UKM Rooms, and a hall with a total area of 331.74 m<sup>2</sup>. Infrastructure for student support activities includes BEM, soccer fields, table tennis, photocopying, parking lots, and parks.

Each lecture room is equipped with facilities to support the learning process, such as an LCD, whiteboard, sound system, and pointer. Each group discussion room is equipped with a whiteboard. Each KKD room is equipped with facilities according to the OSCE Centre of the Indonesia Medical Doctor National Competency Examination (henceforth UKMPPD -*Uji Kompetensi Mahasiswa Program Profesi Dokter*) standards. Each learning room has been supported by an internet network in the form of Wi-Fi.

Currently, the University of Bengkulu is building a public university hospital. This hospital is expected to support the educational process and increase the revenue of funds for the continuity and improvement of the quality of education at the Faculty of Medicine and Health Sciences UNIB. The procurement, maintenance, and use are in accordance with applicable regulations within the Ministry of Research, Technology, and Higher Education scope. The use of facilities and infrastructure managed by the Bachelor in Medicine study program is prioritised to provide optimal services for lecturers and students, especially in implementing the *Tri Dharma* of Higher Education.

The research support facilities are available in the biomedical laboratory and research laboratory. The facilities available in both laboratories currently can be used for DNA, RNA, and protein isolation, PCR, electrophoresis, chromatography, tissue processing, blood



biochemistry and haematology analysis, microscopic analysis, and bacterial and fungal cell culture and analysis.

## **6.2 Assessment**

### **Physical facilities**

The university, connecting to the different faculties have a various range of libraries to which students have free access. In these libraries, students and lecturers have the full opportunity to access various forms of literature in both physical and online form and there are reading rooms where students can study without being disturbed.

The various teaching rooms at the faculty are of suitable sizes and well equipped with various IT- and technical equipment which enables a modern and pedagogically up-to-date form of teaching. In all classrooms there is Wi-Fi which enables access to the internet and the information system used at the university.

The various laboratories of the faculty used in the different study programs are of varying quality, but all have a minimum level that enables practical and experimental teaching lessons. The laboratories meet students' needs and expectations in Indonesia. However, the laboratories in general are aimed to receive a strong quality boost in terms of the age of the equipment. In several laboratories, the quality of teaching will benefit if the number of equipment/machines/test equipment is increased. Having in mind the vision that the university will increase international cooperations, it is essential that UNIB continuously seeks for modern and up-to-date laboratory equipment that ensures validity and quality according to international standards. In addition, there should be student working spaces installed at the laboratories.

It is pleasing that UNIB also has various offers for the practice of sports activities, such as basketball, volleyball, and football. These sports facilities enable the students to exercise and thus ensure good conditions for a mental and physical surplus that will benefit them during busy periods of study.

### **Student Support**

There are several options for students to get help and support during their studies. Using academic counselling and support of the career centre, there is advice and guidance for the students during their studies. This help is especially important when the students must contact companies in connection with choosing an internship and later in connection with the preparation of a graduation project. In addition, several of the study programs have a well-functioning student association where events are regularly held with visits from former students and companies who give presentations about working as a teacher in a school or company.



These events give the students insights into the working life after their studies and opportunities to establish a network with the industry.

Based on interviews with the students, it seems that various support opportunities work well, and they also confirm that the administrative staff are good at helping when problems arise during the course of study. In addition, tutors are assigned to help new students get off to a good start in their studies.

As good as these support activities are, the expert panel misses support for international exchange as a key to become a (visible) global university. Students aiming at a student exchange should be more supported financially, conditions for an exchange should be enhanced by supporting English language skills either on a voluntary, informal base, e.g., an English café, or by setting certain requirements like some mandatory courses in English.

A newly opened student centre at the campus will contribute to a productive learning and studying environments for all students.

### **IT-infrastructure and LMS systems**

It generally seems that the university has an IT infrastructure that supports the work of all groups of employees and that ensures a quick and efficient handling of everything related to teaching and research.

The university's information system PAK and their Learning Management System (LMS) ensure students safe and quick access to various relevant information such as grades, schedules, homework, teaching material and material from various lectures, which makes it easier for students to have a continuous overview of their studies. Based on interviews with the students, it seems that the IT technical systems support their everyday life at the university, and students say that the various lecturers are good at using them.

### **Student research and safety standards**

Through recurring investments in the equipment and the improvement of the technical infrastructure in the programs, the university can provide academic support at a high level and therefore address a larger number of research activities in general and international students who want to come to Bengkulu. With this investment, also safety standards in the laboratories should be upgraded in the long term. They do not meet to a sufficient extent yet. The laboratories therefore should also be raised in terms of protecting everyone involved to meet international standards. In the case of chemical and biological experiments in particular, these standards should be trained and advised by the laboratory staff.



### 6.3 Conclusion

The standard is **fulfilled**.

## 7 ESG 1.7: Information management

**Institutions should ensure that they collect, analyse and use relevant information for the effective management of their programs and other activities.**

### 7.1 Implementation

The University of Bengkulu has effective management to collect and evaluate data of students, lecturers, teaching staff, graduates, and other stakeholders which are evaluated against Key and Additional Performance Indicators. Data gathering starts with an Entry survey. This survey is conducted on new students at orientation time. The purpose of the survey is to obtain background information on students for instance area/ethnic/province origin, economic background, school origin, etc. The results of this survey can be one of the foundations for the implementation of learning methods in each study program.

The student academic progress information system can be monitored through the academic portal system (<https://pak.unib.ac.id>). Moreover, academic supervisors can monitor the academic progress based on student GPA in each semester, while academic progress is monitored through the Academic Information System (Siakad). Students with academic problems, including those who must drop out, will also be addressed through the study program. The data includes student profiles, study development and progress, the record of study results (grades), student successes and failures, courses and lecturers, class schedules, academic supervisors, number of students, the status of active and inactive students, student graduation, file sharing references and guides. Students can access a list of courses, room and class schedules, lecturers, KRS, academic supervisors, reports of the semester and cumulative study results (grade), student status, and student profiles. They also can evaluate courses and the learning process. Siakad can be accessed by relevant units to input, process, update, monitor and evaluate the progress of students' studies. Siakad is also connected with bank partners for students to carry out tuition fee payments.

Furthermore, the information management related to student satisfaction with the learning process for each lecturer can be accessed through (<https://siepel.unib.ac.id/>). The institution of Learning Development and Quality Assurance (LPMPP) is a unit that works to compile and report the evaluation result to the university leaders which will be submitted to the faculty, which later will be forwarded to the study programs . This evaluation is conducted every



semester on all courses offered at UNIB. The Quality Assurance Team at the faculty level and the Quality Assurance team in each study program will analyse and closely consider any recommendations made as a result of the learning evaluation's findings for potential future improvements. The results of the learning evaluation are also followed up by the dean, the head of study programs, and supporting lecturers to find solutions and raise the standard of learning. The learning outcomes report will be used as the basis for UNIB leaders to improve the quality of learning, including improving the infrastructure.

The University of Bengkulu established a graduate career information centre (CDC) that connects with stakeholders outside the university. The centre conducts stakeholder satisfaction surveys of employers of graduates. This survey can be conducted directly in person, online using Google form, or using other methods. It includes questions about graduate performance in integrity, professionalism, communication, teamwork, foreign language mastery skill, management, and IT skills.

The Class Attendance System is created to record the attendance of lecturers in the class that they teach in that semester. It is also created as a course journal for quality assurance of the conformity of lecture materials with RPS and Lesson Plan designed by the lecturers. In addition, it is also created to monitor student attendance as a basis for eligibility to take exams.

The Online community service system monitors students' participation in community service activities by tracking their location real-time. Students can document their activities and share them with their supervisors.

The Human Resources System (SISTER) collects data on lecturers and manages their portfolios for career development purposes. The data in the portfolio can be claimed in the credit score assessment process and lecturer certification. Assessors or reviewers can evaluate lecturer activities and products that have been claimed.

The Remuneration Information System assists the remuneration team in handling employee incentive calculations and provides reports of direct incentives, indirect incentives, incentives received by employees, and the percentage of incentives divided for the needs of the manager.

An Attendance system using fingerprint mechanism records attendance of lecturers and educational staff once they are within the area of UNIB.

The Inter-semester class registration system is an additional system to facilitate inter-semester classes whose duration is shorter than the regular one. Registration for inter-semester class is intended to record students who will take part in these activities.

The Library Management Information System (e-library) is the developed information system to help the services and library staff in managing the library. The library staff can always



monitor the availability of books, the list of new books, borrowed books, and returned books. The library system at UNIB simplifies the inventory of the available books and other related information at the library.

## 7.2 Assessment

The accreditation process is able to depict modules, reveal mistakes and assist the data-driven improvement of modules. Through various tools, UNIB records different aspects of the study programs such as course modules, community services, lecture materials or library services adequately. Furthermore, the surveys capture all phases of a study program starting with an entry survey and also including the alumni for feedback.

Low hurdles are presented by offering feedback via analogue as well as digital channels. The distinction in various platforms separates the targeted audience to better find the intended tool and analyze the gathered data properly later on. The proposed questions for each module are presented in the PBM report of learning process evaluation and capture four relevant aspects of teaching: pedagogic, professional, personal and social competences. Furthermore, the questions also address the surrounding learning environment such as internet connection and other equipment.

Also, the workload calculation from SKS to ECTS is considered so that students and university's administrative staff can relate to the respective workload and convert these into their own system to ensure that all requirements to complete a course from an international perspective are fulfilled.

Results are gathered in internal quality audits by the Institute for Quality Assurance and Learning Development at UNIB. Recently, the latest quality audit reported a high quality in 2021. Most teachers and courses in natural science study programs are evaluated "good" or "very good".

## 7.3 Conclusion

The criterion is **fulfilled**.

## 8 ESG 1.8: Public information

**Institutions should publish information about their activities, including programs, which is clear, accurate, objective, up-to date and readily accessible.**

### 8.1 Implementation

The information on the University of Bengkulu can be accessed at the university official website ([www.unib.ac.id](http://www.unib.ac.id)). The website provides access to the latest data of information related to the university profile, institution, student affairs, and academic regulation. The information on the



website is periodically updated in accordance with the content presented in the website by the public relation (henceforth HUMAS - *Hubungan Masyarakat*) division that is coordinated by the information and documentation officers (henceforth PPID - *Pejabat Pengolah Informasi dan Dokumentasi*).

The website of the University of Bengkulu is available in two languages English and Indonesian. The contents of information that can be accessed by the public are the information on the university profile, offices, academics, scholarships, general information, and reports, admission system for the new students and the academic regulations.

In addition to the contents above, the website is equipped with the external and internal links to ease the academic community to be integrated to all academics, official websites of the ministry of education, governments, and stakeholder systems.

In addition to the website, the public can access similar information through social media accounts such as Facebook, Instagram, Twitter and YouTube.

## **8.2 Assessment**

Most members of the expert panel have no language competencies in Indonesian. Therefore, the assessment concentrates on the English version of UNIB's website.

UNIB has made a SWOT-analysis of their website and came to the conclusion that despite the strength of a continuous updating the "design of the website is outdated [and the] layout (...) is unorganized". The immediate plans for improvement, however, concentrate on elimination of user complaint and on technical issues like stability of the website's performance in case of massive increases of users at a given time.

The expert panel strongly suggests that a relaunch of the website with a more attractive and user-friendly design and layout should be a priority. Interested international students, national students, employers, and other stakeholders should find the most relevant information immediately without bigger struggles.

How informative the website is in Indonesian; the expert panel cannot assess (see above). However, the information in English is definitely not a mirrored version of the Indonesian one. In general, information about the study programs in English are inadequate, difficult to find, or not current or dummy data from when the website was created. For an international recognition, the website of UNIB should be enhanced both in structure and in content, especially in regards of international students, seeking for program-related information such as curriculum structure, module handbooks and study plans.



Furthermore, public information should not be reduced to websites or social media. The students should be given all relevant information about the study programs they want to attend. A website may be a good introduction of key information. For an in-depth information, additional documents should be provided, e.g. syllabi of the study programs, informal students guide, RPS etc. This documentation should be included on the study programs' website. Alternatively, an information package could be presented via e-mail to interested people that at least the applicants for a study program are thoroughly informed.

### 8.3 Conclusion

The criterion is **fulfilled**.

## 9 ESG 1.9: On-going monitoring and periodic review of programs

Institutions should monitor and periodically review their programs to ensure that they achieve the objectives set for them and respond to the needs of students and society. These reviews should lead to continuous improvement of the program. Any action planned or taken as a result should be communicated to all those concerned.

### 9.1 Implementation and status

The University of Bengkulu conducts regular monitoring and review of study programs to ensure the learning outcomes are set and adapted to the needs of students and the community. Systematic monitoring is a part of the Internal Quality Assurance System (henceforth SPMI –*Sistem Penjamin Mutu Internal*) of UNIB conducted by LPMPP (the institution of Learning Development and Quality Assurance) through the Internal Quality Audit (henceforth AMI –*Audit Mutu Internal*). AMI is an objective evaluation process to ensure that the implementation of activities at UNIB is in accordance with the procedures and that the results are in accordance with the standards set by UNIB. If the implementation of the program is not in accordance with the standards, the corrective actions are applied.

The effectiveness and productivity of the educational process at UNIB can be represented by the length of the graduate study period and the grade point average (GPA) of the graduates. The data of performance measurement and management of the University of Bengkulu and its evaluation were compiled by the Implementation Team for the Performance Accountability System for Government Agencies (henceforth SAKIP –*Sistem Akuntabilitas Kinerja Instansi Pemerintah*) of the University of Bengkulu, which was stipulated by the rector in 2021.

In order to increase the effectiveness and productivity of the education process, UNIB created policies related to service indicators on program implementation through user satisfaction surveys. The implementation of the survey was obtained from a series of quantitative research





with survey methods whose sample was determined by random sampling technique. Furthermore, the survey was conducted on program service users at UNIB.

Data collection techniques included questionnaires consisting of 48 questions which cover: service requirements, procedures, paces, fees/tariff, facilities and infrastructures, conformity of service products according to standards, the ability/ competence and manners of service officers, complaints, suggestions, inputs handling and information provision services at UNIB.

Furthermore, the three indicators of the effectiveness and productivity of the educational process at UNIB can be supported to achieve improvement by a learning environment and supporting services which are aligned with the program objectives. Therefore, UNIB creates a policy regarding the academic atmosphere in order to increase the indicator achievement of study success. One of the very important aspects in supporting the implementation of the academic atmosphere policy is the design and maintenance of classroom facilities so that the teaching and learning process becomes more comfortable and helpful for students and lecturers. Additionally, classrooms have been equipped with learning media in order to assist students to understand the material presented by the lecturers. The learning media consists of audio and visual media, for instance, slides, projectors, etc. The purposes of using these instructional media are to facilitate the teaching and learning process, improve teaching and learning efficiency, maintain the relevance of teaching objectives, and increase learners' concentration. The references used by both students and lecturers in the form of books and e - journals are up - to - date and relevant to support the learning process. In addition, respondents felt that the quality of physical infrastructure, for instance, laboratories, toilets, prayer and sports facilities, is supportive. Evaluation on achievement and alignment between academic atmosphere and program objectives are assessed not only through achievement indicators but also through feedback on improvement obtained from user satisfaction surveys.

All indicators set in the RSB (UNIB Business Strategic Plan) and standards implemented at UNIB are evaluated by AMI. In its implementation, AMI has full, independent and unlimited authority to evaluate the documents prepared by the study programs and the completeness of the supporting documents. The auditor checks the completeness of all forms of documents from both the university administrators and the object of university administration in order to obtain the necessary data and information according to the scope of the audit. AMI collects documents on three levels university, faculty and study programs. study programs have to provide among others academic manuscripts, curriculum documents, lesson plans, learning modules, learning implementation and evaluation documents.

The AMI results of each studyprogram are discussed in the Management Review Meeting (henceforth RTM –*Rapat Tinjauan Manajemen*) at the faculty level. In the RTM, the causes of possible programs and its corrective actions are determined. Afterwards, the RTM results of



all faculties are used as university - level RTM materials. Corrective actions determined based on the RTM are implemented in determining the Business and Budget Plan (henceforth RBA –*Rencana Bisnis dan Anggaran*) of the faculty in accordance with the improvement targets to be achieved. In addition, the results of the RTM are used as the basis for standard revisions so that sustainable quality improvement is achieved.

The evaluation of the implementation of the learning process is conducted by LPMP and the study program Management Unit (henceforth UPPS - *Unit Pengelola Program Studi*) through the Quality Assurance Unit (henceforth UPM - *Unit Penjamin Mutu*) using an instrument filled out by each student through the <https://siepel.unib.ac.id/> page. Through this evaluation, students can provide feedback to the lecturers regarding the learning process. The evaluation includes four aspects: 1) pedagogic competence, 2) professional competence, 3) personal competence, and 4) social competence, which is conducted regularly every semester. The evaluation results are submitted to the lecturers to be used as the basis for continuous improvement

## 9.2 Assessment

UNIB has implemented a continuous monitoring and readjustment process for all study programs. The review panel can approve that the internal quality management works because all curricula include important and well-established subjects according to international standards – international literature, methods and trends are integrated into the study programs. The content of the study programs reflects primarily the needs of Indonesian society and the district of Bengkulu but is in line with the national strategy.

All study programs are evaluated uniformly and regularly with the relevant stakeholders involved in the readjustment of the programs. Evaluation of the study programs is done regularly and according to international standards. Each semester, all courses are evaluated, and the study programs designs are evaluated every four years. Evaluation of courses is done in the form of a survey anonymously, and questions are partially tailored to individual programs. Results are communicated to students and teaching staff adequately. The measures in place are effective in meeting students' expectations, students' satisfaction, and students' successful completion of the programs. New study programs benefit herein from existing standards and procedures that are already in place. The quality assurance instruments are suitable for ensuring the quality of the programs according to international standards.

Administrative staff, teaching staff, and – in particular – students are aware of the monitoring and readjustment processes, the engagement of the stakeholders in the monitoring and readjustment processes, and the strategic goals of UNIB and their implications for the department and the study programs. In particular, students are aware of the potential and



impact of their engagement in the processes, yet they are not informed about the results (see below). Student progress regulations comply with regulations of the Indonesian government.

The selection of evaluation reports has been limited, and it seems that all evaluation reports provided for the accreditation have been only positive. Out of this, a suggestion would be to provide a wider selection of evaluation reports and ensure that also critical remarks are being considered in evaluation.

The integration of state of art and how it develops can be refined in the study programs. This means intensifying student and teaching staff exchange with an international level, and a strategic plan to integrate modern developments concerning in particular, sustainability as an important topic for society in curricula.

However, students, unlike faculty and teaching staff, do not receive insight into the evaluation results, although this desire exists and was discussed during the visit. As a result, students do not receive feedback on what impact the evaluation results have on the further development of the faculty, teaching staff and the study program. The results of the course evaluations, therefore, should be presented to the student of the respective course in a suitable form.

### **9.3 Conclusion**

The standard is **fulfilled**.

## **10 ESG 1.10: Cyclical external quality assurance**

Institutions should undergo external quality assurance in line with the ESG on a cyclical basis.

### **10.1 Implementation**

The Ministry of Education, Culture, Research and Technology implements a Higher Education Quality Assurance System (SN Dikti) to ensure the quality of the study programs and the higher education institution. The assessment is planned, implemented, documented and evaluated by the National Accreditation Board for Indonesian Higher Education (BAN-PT) or the Independent Accreditation Board (LAM) through the accreditation process based on their authority. SPME implements an assessment every five years. The goals of SPME are to: (a) determine the quality of the study program and Higher Education based on the criteria of SN Dikti and b) ensure the quality of the study program externally in both academic and non-academic fields. The higher education institution submits a request for re-accreditation of the study program to LAM or BAN-PT for maintaining and enhancing the accreditation status and accreditation rank.



The process of accreditation is conducted at the level of study programs, faculty, and university. The office of Education and Teaching Quality Assurance (LPMPP) prepares the documents of the policy of quality management, quality management manual, quality management report, and others.

Based on the latest data of the accreditation of study programs at the University of Bengkulu until June 2022, 17 study programs gained A rank, 48 study programs gained B rank, 3 study programs gained C rank, 3 study programs gained “excellent” rank, 3 study program gained “very good” rank, and 7 study programs gained “good” rank. In conclusion, 25% of the study programs at the University of Bengkulu has gained the top rank in the last accreditation.

## 10.2 Assessment

UNIB’s external quality assurance is performed by national regulation. Other forms of quality assurance have not been considered so far on a regular basis.

According to the self-evaluation report and the discussions of the expert panel with the UNIB management, lecturers, staff, and students, the external quality assurance of the Indonesian government is appropriate and does cover all academic levels, i.e. university, faculty, and study program level. The external quality assurance that observers not only the internal development in a five-year span, but also ensures the compliance with the legal requirements. As UNIB is highly regulated by national legislation, the internal quality assurance system has been developed in accordance with the external standards by BAN-PT and LAM. The results of the accreditations are published, and the rating of study programs, faculty and UNIB as a whole influence student in their decision where to start studying.

From the point of view of the expert panel, the thorough process of accreditation and re-accreditation on a recurring basis helps to promote internal quality assurance and to implement new official requirements such as the introduction of a new competency scheme in 2015 that differentiates between core competencies, additional and other competencies with respect to the learning outcomes of the individual study programs.

However, it seems to the expert panel that the criteria of the external quality assurance are formal and mostly based on KPIs. UNIB should consider adding other external quality assurance tools like an assessment of the research activities by an international expert panel. This could strengthen the commitment to the vision of “Becoming a world-class university” and could provide essential recommendations for action.

## 10.3 Conclusion

The criterion is **fulfilled**.



#### **IV Recommendation to the Accreditation Commission of ACQUIN**

##### **1 Assessment of compliance the Standards and Guidelines in the Higher European Area (ESG) in the actual official version**

The study programs „study program“ (degree) were assessed on the basis of the "Standards and Guidelines for Quality Assurance in the European Higher Education Area" (ESG) and the national or other relevant regulations.

The expert group concludes that the **ESG standards** 1.1 (Policy for quality assurance), 1.2 (Design and approval of programs), 1.3 (Student-centred learning, teaching and assessment ), 1.4 (Student admission, progression, recognition and certification), 1.5 (Teaching staff), 1.6 (Learning resources and student support), 1.7 (Information management), 1.8 (Public information), 1.9 (On-going monitoring and periodic review of programs) and 1.10 (Cyclical external quality assurance) are fulfilled.

##### **The assessment criteria are as follows:**

**Standard 1.1 Policy for quality assurance:** Universities have a publicly accessible quality assurance strategy, which is part of their strategic management. This strategy is developed and implemented by internal stakeholder representatives through appropriate structures and processes, involving external stakeholders.

The criterion is **fulfilled**.

**Standard 1.2 Design and approval of programs:** Universities have procedures for the design and approval of their courses. The courses are designed in such a way that their objectives, including the desired learning outcomes, can be achieved. The qualification obtained during a degree program is clearly defined and communicated; it refers to the corresponding level of the national qualification's framework for higher education and, consequently, the qualifications framework for the European Higher Education Area.

The criterion is **fulfilled**.

**Standard 1.3 Student-centred learning, teaching and assessment:** Universities ensure that the courses offered are carried out in such a way as to encourage students to play an



active role in the design of the learning process and that this approach is also taken into account when assessing students / examinations.

The criterion is **fulfilled**.

**Standard 1.4 Student admission, progression, recognition and certification:** Universities ensure that the courses offered are carried out in such a way as to encourage students to play an active role in the design of the learning process and that this approach is also taken into account when assessing students / examinations.

The criterion is **fulfilled**.

**Standard 1.5 Teaching staff:** Universities ensure the competence of their teachers. They use fair and transparent procedures for the recruitment and further training of their employees.

The criterion is **fulfilled**.

**Standard 1.6 Learning resources and student support:** The university has adequate funding to finance study and teaching and ensure that there is always a sufficient and readily available range of learning and support available for their studies.

The criterion is **fulfilled**.

**Standard 1.7 Information management:** Universities ensure that they collect, analyze and use the relevant data relevant to the successful conduct of studies and other activities.

The criterion is **fulfilled**.

**Standard 1.8 Public information:** Universities publish easily understandable, correct, objective, up-to-date and well-accessible information about their activities and courses of study.

The criterion is **fulfilled**.

**Standard 1.9 On-going monitoring and periodic review of programs:** Universities are constantly monitoring their courses and regularly reviewing them to ensure that they achieve the goals set and meet the needs of students and society. The tests lead to a continuous improvement of the courses. All affected parties will be informed about any measures planned or resulting from this.

The criterion is **fulfilled**.

**Standard 1.10 Cyclical external quality assurance:** Universities regularly undergo external quality assurance procedures in accordance with the ESG.

The criterion is **fulfilled**.

**National criteria:** National criteria are (if possible) integrated in the assessment of this evaluation report. The peer-review experts note that the recommendations from the previous national accreditation procedure have been adequately taken into account.

## 2 Accreditation Recommendation

**The peer-review experts propose an unconditional accreditation of the programs:**

“Bachelor in Biology” (B.Sc.), “Bachelor in Chemistry” (B.Sc.), “Bachelor in Pharmacy” (B.Sc.), “Bachelor in Physics” (B.Sc.), “Bachelor in Geophysics” (B.Sc.), “Bachelor in Mathematics” (B.Math.), “Bachelor in Statistics” (B.Stat.), “Master in Chemistry” (M.Sc.), “Master in Statistics” (M.Stat.), “Bachelor in Medicine” (B.M.).

### Accreditation Conditions

- None



## Accreditation Recommendations

### General recommendations for all study programmes:

- It is recommended to draft a module handbook in a university-wide format. Each module should detail the teaching goals, course content, teaching formats, number of credits, list of literature, exam descriptions, prerequisites, frequency of offering, winter/summer term, and conditions to pass the exam. This will help ensure long-term teaching standards.
- It is recommended to offer elective courses in English for all programs. This would improve the English skills of students and teaching staff and open the program to international students.
- It is recommended to establish a sound form of feedback through individual discussions with the module teachers at the end of the semester. (Recommendation 3 for all programs)
- The laboratories should have more and modernized equipment that meet international standards and are also equipped with a more modern safety standards in the labs.
- Students should be integrated in the development process by giving them feedback of the course evaluation results.

### Recommendations for the programme “Bachelor in Physics” (Bachelor of Science):

- It is recommended to improve modern theoretical physics, which is somewhat limited in the current curriculum. Teachers have little time for research.





## **V Decisions of the Accreditation Commission of ACQUIN**

Based on the evaluation report of the peer group and the statement of the institution the Accreditation Commission of ACQUIN decided on 02 July 2024:

### **General recommendations for all study programmes:**

- It is recommended to draft a module handbook in a university-wide format. Each module should detail the teaching goals, course content, teaching formats, number of credits, list of literature, exam descriptions, prerequisites, frequency of offering, winter/summer term, and conditions to pass the exam. This will help ensure long-term teaching standards.
- It is recommended to offer elective courses in English for all programs. This would improve the English skills of students and teaching staff and open the program to international students.
- It is recommended to establish a sound form of feedback through individual discussions with the module teachers at the end of the semester. (Recommendation 3 for all programs)
- The laboratories should have more and modernized equipment that meet international standards and are also equipped with a more modern safety standards in the labs.
- Students should be integrated in the development process by giving them feedback of the course evaluation results.

### **Bachelor in Biology (Bachelor of Science):**

**The study programme “Bachelor in Biology” (Bachelor of Science) is accredited without any conditions.**

**The accreditation is valid until 30. September 2030.**

### **Bachelor in Chemistry (Bachelor of Science):**

**The study programme “Bachelor in Chemistry” (Bachelor of Science) is accredited without any conditions.**

**The accreditation is valid until 30. September 2030.**

### **Bachelor in Pharmacy (Bachelor of Pharmacy):**

**The study programme “Bachelor in Pharmacy” (Bachelor of Pharmacy) is accredited without any conditions.**

**The accreditation is valid until 30. September 2030.**



**Bachelor in Physics (Bachelor of Science):**

The study programme “Bachelor in Physics” (Bachelor of Science) is accredited without any conditions.

The accreditation is valid until 30. September 2030.

The following recommendations are given for the further development of the study programme:

- It is recommended to improve modern theoretical physics, which is somewhat limited in the current curriculum. Teachers have little time for research.

**Bachelor in Geophysics (Bachelor of Science):**

The study programme “Bachelor in Geophysics” (Bachelor of Science) is accredited without any conditions.

The accreditation is valid until 30. September 2030.

**Bachelor in Mathematics (Bachelor of Mathematics):**

The study programme “Bachelor in Mathematics” (Bachelor of Mathematics) is accredited without any conditions.

The accreditation is valid until 30. September 2030.

**Bachelor in Statistics (Bachelor of Statistics):**

The study programme “Bachelor in Statistics” (Bachelor of Statistics) is accredited without any conditions.

The accreditation is valid until 30. September 2030.

**Master in Chemistry (Master of Science):**

The study programme “Master in Chemistry” (Master of Science) is accredited without any conditions.

The accreditation is valid until 30. September 2030.

**Master in Statistics (Master of Science):**

The study programme “Master in Statistics” (Master of Science) is accredited without any conditions.

The accreditation is valid until 30. September 2030.

**Bachelor in Medicine (Bachelor of Medicine):**

The study programme “Bachelor in Medicine” (Bachelor of Medicine) is accredited without any conditions.

The accreditation is valid until 30. September 2030.

