ASIIN Seal

Accreditation Report

Bachelor's Degree Programs

Chemistry

Biology

Provided by

Universitas Islam Negeri Maulana Malik Ibrahim Malang, Indonesia

Version: 12 December 2025

Table of Content

A About the Accreditation Process

Name of the degree program (in original language)	(Official) English translation of the name	Labels applied for [1]	Previous accreditation (issuing agency, validity)	Involved Technical Committees (TC)[2]
Sarjana Biologi	Bachelor's program in Biology	ASIIN	BAN-PT, valid until 16.11.2026	10
Sarjana Kimia	Bachelor's program in Chemistry	ASIIN	BAN-PT, valid until 19.08.2026	09
Date of the contract: 08.04.2024 **Submission of the final version of the self-assessment report:** 06.02.2025 **Date of the audit:** 26.05. – 27.05.2025				
Expert panel: Prof. Dr. Wolfgang Nellen, Universität Kassel Prof. Dr. Carla Vogt, Technische Universität Bergakademie Freiberg Mr. Sujatmoko Sujatmoko, PT Roche Indonesia Miss. Fadilla Nur Rahma, student at Universitas Islamic Negeri Sunan Kalijaga Yogyakarta				
Representative of the ASIIN headquarters: Dr. Emeline Jerez				
Responsible decision-making committee: Accreditation Commission for Degree Programmes				
Criteria used:				

[1] ASIIN Seal for degree programs;
[2] TC: Technical Committee for the following subject areas: TC 10 – Life Sciences; TC 09 – Chemistry

European Standards and Guidelines as of 15.05.2015 ASIIN General Criteria as of 28.03.2014 Subject-Specific Criteria of Technical Committee 10 – Life Sciences as of 28.06.2019 Subject-Specific Criteria of Technical Committee 09 - Chemistry, Pharmacy as of 29.03.2019	

B Characteristics of the Degree Programs

a) Name	Final degree (original)	b) Areas of Specialization	c) Corresponding level of the EQF[3]	d) Mode of Study	e) Double/Joint Degree	f) Duration	g) Credit points/unit	h) Intake rhythm & First time of offer
Sarjana Sains Biologi	Bachelor of Science	-	6	Full time	no	8 Semester	210.22 ECTS / 144 CP	Annually, 2003
Sarjana Sains Kimia	Bachelor of Science	-	6	Full time	no	8 Semester	241.10 ECTS / 149 CP	Annually, 2003

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

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

Universitas Islam Negeri Maulana Malik Ibrahim Malang (UIN Malang) is a state Islamic university located in East Java, Indonesia. It originated from the State Islamic Institute (IAIN) Sunan Ampel, which was established in 1965 by the Ministry of Religious Affairs Decree No. 20. Over time, the institute developed and expanded, eventually receiving official recognition as a state Islamic university in 2004.

The university has a postgraduate school along with eight faculties: 1) Faculty of Islamic Education (*Tarbiyah*), 2) Faculty of Islamic Law (*Sharia*), 3) Faculty of Humanities, 4) Faculty of Economics, 5) Faculty of Psychology, 6) Faculty of Medicine and Health Sciences, 7) Faculty of Engineering, and 8) Faculty of Science and Technology. These academic units provide both undergraduate and postgraduate programs, including masters and doctoral programs in the fields of Islamic education and law.

UIN Malang envisions an "integrative higher education combining science and Islam with an international reputation". In line with this vision, the university has the mission of "producing scholars with the character of ulul albab", and "producing relevant science, technology, art and highly competitive culture".

The Faculty of Science and Technology[4]

Fakultas Sains dan Teknologi (SAINTEK) offers eleven bachelor's degree programs and two master's degree programs.

SAINTEK's vision is "the realization of the Faculty of Science and Technology is integrative in combining science and Islam with an international reputation". The faculty's mission is:

1. "Organizing Education in the Field of Science and Technology that is Superior and Islamic in Spirit;
2. Conducting Research for the Development of Science and Technology that Contributes to the Development of the People and Nation;
3. Establishing Partnerships and Providing Services to the Community Based on Science and Technology Products;
4. Developing a Good Governance System Based on the Utilization of Information Technology."

[4] https://saintek.uin-malang.ac.id/

Through the audit, the Faculty of Science and Technology is seeking ASIIN accreditation for its Bachelor's degree program in Biology and Bachelor's degree program in Chemistry. The programs are presented with the following profile in the respective websites:

i. Bachelor's program Biology (BSP)

"Vision

To produce internationally reputed biology graduates who contribute to the sustainable development of biological resources with excellence in integrating science and Islam.

Program Educational Objectives (PEO)

1. "To develop biology graduates distinguished by the qualities of ulul albab—individuals who excel in basic biology and applied biology, and who are equipped to advance the field as both a science and a technology, guided by Islamic values.
2. Producing biology graduates who are aware of problems and capable of solving them using methods related to biological concepts in the management of sustainable biological resources.
3. Developing entrepreneurial spirit, communication skills, teamwork abilities, and empowering communities through the application of biological innovations and the utilization of sustainable biological resources."

ii. Bachelor's program Chemistry (CSP)

"Scientific Vision:

To establish a Chemistry Study Program that is excellent and internationally reputable in the development of scientific knowledge in the fields of halal products chemistry, phytopharmaceuticals, energy, and the environment."

Educational Objectives:

4. "To produce graduates who uphold Islamic values and are equipped with fundamental and applied chemistry knowledge to solve chemistry-related problems.
5. To produce graduates who can contribute to research, work effectively in industrial and entrepreneurial environments.
6. To develop individuals with the ability to pursue lifelong learning through further education."

Based on the presented profile, the experts note that Chemistry is framed with a scientific vision, whereas Biology is presented with just a vision. Biology integrates science and Islam,

while Chemistry does not. Further discussion on this integration will follow under Criteria 1.1 and 1.3.

During the audit, the expert team asked the university management to explain the rationale behind pursuing international accreditation for the Biology and Chemistry study programs. It was conveyed that UIN Malang is currently in the early stages of its internationalization efforts. In this context, ASIIN accreditation will serve as a foundation for enhancing the university's quality and international reputation. This is an important step in the efforts to improve the programs and gain international recognition.

C Expert Report for the ASIIN Seal

1. The Degree Program: Concept, content & implementation

Criterion 1.1 Objectives and learning outcomes of a degree program (intended qualifications profile)

Evidence:

- Self-Assessment Report
- Study plans
- Module descriptions
- UIN Malang Website: https://uin-malang.ac.id/
- Faculty of Science and Technology website: https://saintek.uin-malang.ac.id/
- Bachelor of Biology website: https://biologi.uin-malang.ac.id/
- Bachelor of Chemistry website: https://kimia.uin-malang.ac.id/en/home-english/
- Discussions during the audit

Preliminary assessment and analysis of the experts:
The experts evaluate the objectives and learning outcomes based on the information provided on the program websites and the Self-Assessment Report.

For both undergraduate programs, UIN Malang outlines vision, objectives, graduate profile, and Intended Learning Outcomes (ILOs). The vision, objectives, and graduate profile are broader statements that align with the overall vision and mission of the Faculty of Science and Technology and the university. The Intended Learning Outcomes (ILOs), presented in the Appendix, outline the specific competencies that students are expected to develop in their respective degree programs.

The experts refer to the Subject-Specific Criteria (SSC) of Technical Committee 10 – Life Sciences as the basis for judging whether the intended learning outcomes of the Bachelor's program in Biology, as defined by UIN Malang, correspond to the competencies outlined by the SSC. They come to the following conclusions:

Graduates of the Bachelor's program in Biology should understand the basic biological processes and be capable of applying the scientific methods of the biological sciences. In

addition, graduates should acquire relevant scientific knowledge in the different biological areas such as botany, zoology, biotechnology, microbiology, ecology, cell biology, molecular biology and related natural sciences (chemistry, physics) and mathematics.

Students should master the principles and concepts of assessing biological resources and be able to design, execute, and evaluate independent laboratory experiments and fieldwork in biology. Additionally, they should learn how to collect, analyze, and interpret data to address biological issues. Finally, students should be prepared for lifelong learning and be able to work effectively both individually and as part of a team. They should also demonstrate a scientific, critical, and innovative attitude in their biology studies, laboratory work, and environmental care.

According to its profile, the Bachelor's program Biology's educational objectives and learning outcomes are expected to equip the graduates with the skills required to develop and adapt to diverse career opportunities. These include roles as (SAR, p.2):

1. Scientists/Research Assistants - who develop biology knowledge and are able to provide consultations in the field of biology and its applications, are able to plan, implement and supervise the use of natural resources, conservation based on Islamic values.
2. Community pioneers NGO - who execute activities for sustainable biological resources based on Islamic values.
3. Academics - who develop biology knowledge for educational purposes based on Islamic values.
4. Staff in private and government institutions - who are able to control product quality, waste processing, and preservation of biological resources based on Islamic values.
5. Bio-entrepreneurs - who are able to produce products or services or create jobs related to the field of biology based on Islamic values
6. Knowledge developers - who are ready for further studies (S2).

Based on the submitted documentation and the insights from the audit, the experts acknowledge that the program's profile highlights UIN Malang's unique focus on Islamic values. However, within the context of this international accreditation process, the experts strongly believe that, to achieve scientific knowledge on an internationally competitive level, natural sciences and theological content should not be mixed together. Interestingly, the Chemistry program places much less emphasis on this integration compared to the Biology program. The experts ask the university to address this concern, as the issue is reflected in certain defined competencies and aspects of the curriculum (further details are provided under Criterion 1.3).

The experts refer to the Subject-Specific Criteria (SSC) of the Technical Committee 09 - Chemistry, Pharmacy as the basis for judging whether the intended learning outcomes of the Bachelor's program in Chemistry, as defined by UIN Malang, correspond with the competences as outlined by the SSC. They come to the following conclusions:

Chemistry graduates should possess a foundational understanding of the natural sciences and develop both methodological and scientific competencies in various areas of chemistry, including analytical chemistry, organic chemistry, inorganic chemistry, physical chemistry, food chemistry, and biochemistry. This knowledge will help them explore the structure, dynamics, and properties of chemicals while also grasping the theoretical principles and practical solutions related to the identification, analysis, isolation, transformation, and synthesis of chemicals.

Furthermore, graduates should also be able to carry out practical work in laboratories, design and perform experiments, and know how to operate common chemical devices. They also should be familiar with modern experimental methods of chemistry and the safe handling of chemicals, have a sound knowledge of safety and environmental and health issues and the underlying legal framework, and be able to interpret, critically assess, present, and communicate relevant information and new research results, and to discuss them with specialist colleagues. Moreover, the graduates should be capable of using the acquired knowledge and skills to find solutions to practical chemical problems and conduct scientific work. Finally, they should be familiar with chemical hazards and issues relevant to the community and be able to apply appropriate means to solve these problems to improve the quality of people's lives.

Based on its profile, the graduates of the Chemistry study program have several job opportunities. They are equipped to pursue various career paths, including roles as (SAR, p.5):

1. Research assistants - Graduates are qualified to conduct research in chemistry laboratories.
2. Quality Controllers - Graduates are able to analyze data and quality standards of products within the chemistry-related industries.
3. Entrepreneurs - Graduates are able to execute entrepreneurship for chemical-based products.

During the discussion with the assessment team, students and alumni expressed their satisfaction with both programs in terms of the learning experiences, and job prospects. The experts appreciate that UIN Malang aims to provide high standards to give its graduates good chances in the national job market and a good starting point for pursuing

further education. They see evidence that the intended qualification profiles of both study programs under review allow students to take up an occupation that corresponds to their qualifications.

The acceptance of UIN Malang graduates in the labour market was ensured after discussions with industry partners who expressed willingness to accommodate interns and recruit graduates. They reported positive results regarding technical competence and personal attributes, such as resilience and adaptability.

However, the industry partners also identified areas for improvement, specifically regarding students' soft skills. They emphasized the importance of preparing students to confidently express themselves and articulate their ideas clearly. Key areas of focus include scientific communication for a layman's audience, reporting on their work, public speaking, leadership, critical thinking, problem-solving, and conflict management. The partners highlighted the value of these soft skills and recommended placing greater emphasis on developing students' communication abilities.

Feedback from academic stakeholders also indicated that the graduates' ability to operate instruments and handle substances could be enhanced, suggesting a need to strengthen practical laboratory competencies.

Despite the identified shortcomings, the experts find that the intended qualification profiles of both programs under review appear to enable graduates to pursue occupations aligned with their qualifications. The study programs seem to be designed in a way that they meet the goals set for them.

Most objectives of the degree programs are well-established, and the learning outcomes are generally coherent with these objectives. To a large extent, they reflect the intended level of academic qualification and correspond sufficiently with the ASIIN Subject-Specific-Criteria (SSC) of the respective Technical Committees. However, as previously mentioned, the experts suggest that science and theology should not be integrated when it comes to subject-specific competencies in the sciences. Additionally, based on the SSC, they recommend a stronger emphasis on basic sciences within the curriculum, with further discussion on this point to follow under Criterion 1.3.

Criterion 1.2 Name of the degree program

Evidence:

- Self-Assessment Report
- Study plans

- Sample Diploma Certificate

Preliminary assessment and analysis of the experts:
UIN Malang awards a Bachelor of Science (Sarjana Sains, S.Si.) to the graduates of both undergraduate programs.

The experts confirm that the names of both Bachelor's degree programs appropriately reflect the focus and content of the respective programs. Moreover, the programs' English translation and original Indonesian names correspond with the intended aims and learning outcomes.

Criterion 1.3 Curriculum

Evidence:

- Self-Assessment Report
- Study plans
- Module descriptions
- Academic Guidelines
- UIN Malang Website: https://uin-malang.ac.id/
- Faculty of Science and Technology website: https://saintek.uin-malang.ac.id/
- Bachelor of Biology website: https://biologi.uin-malang.ac.id/
- Bachelor of Chemistry website: https://kimia.uin-malang.ac.id/en/home-english/
- Discussions during the audit

Preliminary assessment and analysis of the experts:
The undergraduate programs under review are full-time programs to be completed in eight semesters or four academic years, with a maximum duration of 14 semesters or seven academic years, according to academic regulations. The academic year officially runs from September to August, and each year comprises two semesters: an odd semester, from September to January, and an even semester, from February to August. Each semester is equivalent to 16 weeks of learning activities. Besides these learning activities, there is one week for midterm exams and one week for final exams.

The curriculum structure of both programs is similar, although the required credit points slightly differ. The Bachelor's program in Biology encompasses 144 credit points (210.22 ECTS), while the Bachelor's program in Chemistry requires 149 credit points (241.10 ECTS).

Both programs fall within the required range of 144 to 160 credit points for undergraduate programs according to the Minister of Education and Culture's regulation No.3/2020.

The curriculum of both programs consists of university mandatory courses, study program mandatory courses and elective courses. University mandatory comprises courses attended by all undergraduate students at UIN Malang. In addition to English I (3 CP) and English II (3 CP), there are twelve university mandatory courses with 24 CP:

> *Pancasila (2CP), Bahasa Indonesia (2CP), Arabic I (2CP), Arabic II (2CP), Philosophy of Science (2CP), Citizenship (2CP), Arabic III (2CP), Arabic IV (2CP), History of Islamic Civilization (2CP), Theosophy (2CP), Study of the Qur'an and Hadith (2 CP) and Study of Fiqh (2CP).*

These courses are offered in the first four semesters of studies alongside courses conveying basic knowledge of natural sciences and mathematics.

Courses on the different subject-specific disciplines are offered from the third to the eighth semester. Students can select elective courses starting from the third semester, typically choosing those that align with their thesis topics or personal interests. The Biology program is organized into four study field groups: zoology, botany, ecology, and microbiology/biotechnology. The Chemistry program, on the other hand, comprises five groups: biochemistry, analytical chemistry, organic chemistry, inorganic chemistry, and physical chemistry.

In the seventh semester, students participate in community service activities known as KKM, where they apply their academic knowledge to address challenges in rural or remote communities. The experts support KKM, but strongly recommend that the topics should be as close to the respective study program as possible, and this should be pointed out in the curriculum.

In the eighth semester, students are required to complete their thesis (6 CP).

During the discussion with UIN Malang management, the experts asked about the inclusion of one and a half semesters of non-scientific content, particularly focused on Islamic law and the Arabic language. The experts expressed concern that this amount of non-scientific content could risk overloading the curriculum. While they acknowledged the importance of including ethics, they emphasized that the programs under review—Biology and Chemistry—are scientific disciplines that require the use of an international language.

UIN Malang management explained that the university's goal is to equip students not only with knowledge but also with strong character values. These values include equality, respect for others, morality and more. The university's profile is built on the five pillars of Pancasila and it is crucial that students embody them. Additionally, the curriculum aligns with the national education standards. Every university is required to offer courses such as Citizenship, Pancasila, and Bahasa Indonesia, among others. UIN Malang offers more Arabic

courses than English because some important aspects in the curriculum are primarily taught in Arabic. Not all students have prior experience with Arabic, while most have studied English in high school. Furthermore, students have opportunities to enhance their English skills. For example, the university provides internship opportunities that can be conducted in English, and promotes independent learning managed by the students themselves.

However, the experts observed that the increased emphasis on the Arabic language has led, as reported by students, to improved communication in Arabic among peers, but not in English. Although it was stated during the meetings that both faculty and students possess good English proficiency, communication with the experts often required a translator. This indicates that further efforts are needed to strengthen English language skills across the programs.

Furthermore**,** as stated in Criterion 1.1, the expert panel restate their concern about the strong integration between natural sciences and theological content.

The panel acknowledge that Natural Sciences have become a wide field of sub-disciplines. Study programs become specialized, and some have become interdisciplinary (mostly among sister Sciences). In the experts' view, combinations between Humanities/Social Sciences/Philosophical Sciences are rare and require special scrutiny.

After further review of the modules in the curriculum for the Bachelor's program in Biology, the experts noted that the General Chemistry course in the first semester focuses rather on a small section of Biochemistry. The experts believe the study program should consider more General Chemistry. Together with this, the experts identify a lack of General Physics and suggest that adding this course to the curriculum would significantly improve students' overall preparation for subsequent stages of their studies.

The experts also noted that Bioinformatics is currently offered as an elective course. During the discussion with industry representatives, the importance of this field in all sub-disciplines of biology was emphasized, with a strong recommendation that students should develop skills in Bioinformatics given its growing relevance. The experts believe that the current elective nature of the course limits students' opportunities to gain knowledge in this critical area. Therefore, a key recommendation is to ensure that Bioinformatics be compulsory where it fits within the curriculum.

After reviewing the modules in the curriculum for the Bachelor's program in Chemistry, the experts observed that the coverage of General Mathematics is limited, with only one course offered in the first semester. Given the foundational role of mathematics, they recommend that the program integrate additional General Mathematics content across the first two semesters.

Further discussion with the industry partners shed light on other potential areas for improvement within the curriculum for both programs, specifically in laboratory management and issues of regulation in Biology/Chemistry. The experts concur with these recommendations, emphasizing that a strengthened approach to laboratory management and regulatory issues (e.g., laboratory safely, good laboratory practice – GLP, animal welfare and more) would better equip students for the complexities they will face in professional environments.

The experts also discussed the curriculum with the students. The students expressed overall satisfaction and did not identify overlapping content. They felt that the available elective options were sufficient to support the personalization of their learning paths. However, the discussions during the audit suggest that both students and lecturers' English proficiency could be improved. In the experts' view, since English is the common language of science, a greater focus on enhancing English language skills and better integration into the curriculum (e.g. lectures and/or courses in English language instead of some English slides) would improve internationalization and the overall learning experience.

Given that UIN Malang aims to enhance the international profile of its degree programs, the experts engaged in discussions with both the program coordinators and students to assess whether any courses within the Faculty of Science and Technology are taught in English. The coordinators explained that the teaching staff generally use English-language materials, such as textbooks and slides, to support students in improving their English skills. This was corroborated by students, who indicated that while some content is presented in English, courses are not fully taught in English.

The experts highlight the importance of improving the English proficiency of teaching staff as a critical first step toward increasing the use of English in the classroom. The experts suggest that strengthening English language capacity is essential for delivering lectures fully in English, introducing Scientific English, and encouraging students to submit assignments in English. These measures would provide students with more consistent opportunities to develop their academic writing and speaking skills.

Curriculum reviews are conducted periodically, and major changes can be implemented every 4-5 years. Curriculum development is conducted collaboratively, involving faculty members, alumni, industry representatives, and academic peers from both national and international backgrounds. Nevertheless, as further elaborated in Criterion 5, there should be a formal forum for stakeholders to give feedback about the curriculum.

The expert team concludes that, apart from the mentioned restrictions, the courses are overall aligned with the intended learning outcomes outlined in the curriculum documents. The alumni interviewed during the audit indicated that the curricular content and learning

outcomes have met their expectations for their professional careers. Furthermore, during the discussion with the experts, while emphasizing the importance of placing greater emphasis on developing students' soft skills and strengthening practical laboratory competencies, as outlined under Criterion 1.1, the employers expressed overall satisfaction regarding the knowledge and technical skills of the graduates.

International Mobility

During the audit, the experts discussed with UIN Malang management whether there are mobility windows for the students. The representatives from the Rector's office highlighted the university's commitment to supporting mobility programs and providing opportunities for students to participate in internships and exchange programs abroad. Additionally, lecturers are encouraged to conduct joint research activities with international partners and to involve students in these projects.

The Indonesian government's policy actively supports activities outside of the university by implementing the Merdeka Belajar-Kampus Merdeka (MBKM) regulation. This regulation encourages students to complete part of their bachelor's programs outside the university. The courses students undertake outside the university are recognized based on the comparability of the intended learning outcomes. The Ministry of Religious Affairs also provides funds for academic mobility programs.

The UIN Malang's International Office is responsible for managing and coordinating international activities such as student mobility programs. It develops and maintains relationships with partner institutions and organizations around the world, recruiting and admitting international students. The International Office also provides support and assistance to international students during their time at the university, such as helping with housing, visa issues, and other practical matters. Inbound mobility includes, but it is not limited to, students from Sudan, Yemen, Malaysia and Japan.

Despite these efforts, the experts observed that the number of students studying abroad remains low. They inquired with the representatives from the Rector's Office about the reasons behind this trend. The representatives explained that the university actively supports students in pursuing opportunities abroad. Many students have received assistance to study in countries such as Japan, Saudi Arabia, Thailand, and Malaysia. The low number of Biology and Chemistry students studying abroad is partly due to limited funding. While there are opportunities available, participation requires going through a selection process. The faculty supports the possibility of internship opportunities, but some students may hesitate due to a lack of confidence in their English skills (which, once again, highlights the need for better training in English).

During the discussion with the experts, the students confirmed that opportunities for international academic mobility are available and that credits earned abroad are recognized by the university. However, the experts suggest that these opportunities could be expanded. They recommend increasing the number of available places and providing better-funded scholarships to support both long- and short-term study abroad programs, ensuring broader access and participation among students. UIN Malang can provide limited travel grants while student demand is rising. The lack of financial support hinders students from joining the outbound programs. The national scholarships available are highly competitive, so only a few students receive them.

The experts understand there has been severe budget cuts. However, they recommend increasing the effort to further internationalize UIN Malang by offering more places in international exchange programs and more scholarships. It is also possible for students and teaching staff to apply to international organizations like ERASMUS or the German Academic Exchange Council (DAAD) to receive funds for stays abroad.

The experts emphasize that it is very useful for students to spend time abroad during their bachelor's studies to improve their English proficiency, get to know other educational systems, and enhance their job opportunities.

In summary, the experts appreciate the effort to foster international mobility and support the Faculty of Science and Technology to further pursue this path.

Criterion 1.4 Admission requirements

Evidence:

- Self-Assessment Report
- Academic Guideline
- UIN Malang Website: https://uin-malang.ac.id/
- Admission website: https://pmb.uin-malang.ac.id/
- Faculty of Science and Technology website: https://saintek.uin-malang.ac.id/
- Discussions during the audit

Preliminary assessment and analysis of the experts:

According to the Self-Assessment Report, admission procedures and policies for new students follow the national regulations in Indonesia. The requirements, schedule, registration venue, and selection test are announced on UIN Malang admission website and thus accessible for all stakeholders.

There are different pathways by which students are admitted to the Bachelor's programs under review:

1. National general admission:
   - **National Selection Based on Merit** (*Seleksi Nasional Berdasarkan Prestasi*, SNBP): A national admission system based on the academic performance during the high school.
   - **National Selection Based on Tests** (*Seleksi Nasional Berdasarkan Tes*, SNBT): A computer-based written examination held every year to assess new students' abilities (i.e., cognitive ability, mathematical reasoning, and Indonesian as well as English literacy).
2. Ministry of Religious Affair
   - **National Academic Achievement Selection of State Islamic Religious Universities** (*Seleksi Prestasi Akademik Nasional Perguruan Tinggi Keagamaan Islam Negeri*, SPAN-PTKIN)
   - **State Islamic Universities Entrance Examination** (*Ujian Masuk Perguruan Tinggi Keagamaan Islam Negeri*, UM-PTKIN)
3. Independent admissions
   - UIN Malang Independent Performance (*Mandiri Prestasi*)
   - UIN Malang Test-based (*Mandiri Tes*)

International student admissions are conducted through the International Student Scholarship (ISS) program at UIN Malang, which is managed by the International Office.

According to the Self-Assessment Report, the intake capacity per cohort is 120 students per year in the Bachelor's program Biology and Bachelor's programs Chemistry. The quotas are based on the number of lecturers and the capacity of the teaching facilities.

The following table display the number of applications as well as accepted and registered applicants for both programs:

Table 1: Student admissions for BSP and CSP in 2020-2023
Source: Self-Assessment Report, UIN Malang

Academic Year	Biology			Chemistry		
	Applicants	Offered	Enrolled	Applicants	Offered	Enrolled
2020/2021	1476	246	162	656	163	132
2021/2022	1466	212	147	675	155	98
2022/2023	1621	198	134	695	133	92

In the period 2020 – 2023, the average number of new enrolments in the Bachelor's degree program Biology was 148, which was below the offered places. However, the number of applications exceeded the number of offered study places. The Biology program had an acceptance quota of 12% in 2022/2023.

Between 2020 and 2023, the average number of new enrolments in the Bachelor's program in Chemistry was 107, which is also below the program's offered places. However, the number of applications consistently exceeded the offered study places. In 2022/2023, the Chemistry program had an acceptance rate of 19%.

Overall, the experts observe that both programs under review attract an acceptable number of applications, with demand significantly surpassing the number of offered study places. However, they note that this conclusion is based on outdated data, with the most recent figures from the 2022/2023 academic year. The experts expect the university to provide the most up-to-date data available.

Undergraduate students at UIN Malang have to pay tuition fees. The fees for each study program vary according to the operational costs of the teaching and learning process. In addition, the fees for each student differ according to the financial ability of their parents, which is categorized into eight groups. Based on the information displayed on the admission website, the single tuition fee for the academic year 2024-25 ranges from IDR 400.000 - 13.021.250 (€22 – 700) for Biology and IDR 400.000 - 8.507.500 (€22 – 458) for Chemistry per semester.

The experts find the terms of admission to be binding and transparent. They confirm that the admission requirements support the students in achieving the intended learning outcomes.

Criterion 1.5 Workload and credits

Evidence:

- Self-Assessment Report
- Study plan
- Module descriptions
- Report Survey Workload, Even Period 2022/2023
- Statistical data 2017-2024 cohorts
- Discussions during the audit

Preliminary assessment and analysis of the experts:

At UIN Malang, course activities follow the guidelines set by the Minister of Education and Culture Regulation No. 3/2020. In Indonesia, the credit point system is known as SKS (*Satuan Kredit Semester*) or Semester Credit Unit (CU). 1 CU represents 170 minutes of academic workload per week per semester, distributed as follows:

- For courses involving lectures, discussions, or tutorials, 1 CU consists of 50 minutes of learning activities, 60 minutes of structured assignments, and 60 minutes of independent study per week per semester.
- For courses such as seminars or similar formats, 1CU entails 100 minutes of learning activities and 70 minutes of independent study per week per semester.
- For hands-on learning experiences, such as studio work, workshops, field practice, internships, research, or community service, 1CU requires 170 minutes of engagement per week per semester.

The conversion of credits to ECTS based on the learning format and meeting frequency for the Biology and Chemistry study programs is detailed in the table below:

Table 2: Conversion of Credits to ECTS
Source: Self-Assessment Report, UIN Malang

Forms of learning	1 credit (minute/week)	Total learning time per credit (minutes)	Number of meeting (weeks/ semester)	Total learning time (minutes)	Hours	ECTS*
Courses a. on-site b. assignments c. self-learning	 50 60 60	170	16	2720	45.3	1.6
Seminar a. on-site b. assignments	 100 70	170	16	2720	45.3	1.6
Practicum	(BSP) 170	170	7	1190	19.8	0.7
	(CSP) 270	270	10	1700	28.3	1.61

*ECTS = total learning hours: 28 h/1 ECTS

The Biology study program comprises 144 Indonesian credits (210,22 ECTS) distributed between 117 credits of compulsory courses, 21 credits of elective courses, and 6 credits for the thesis. The Chemistry study program involves 149 Indonesian credits (241,1 ECTS) distributed between 131 credits of compulsory courses, 12 credits of elective courses, and 6 credits for the thesis. The distribution per semester is as follows:

Table 3: Distribution of workload per semester
Source: Self-Assessment Report, UIN Malang.

Semester	Biology		Chemistry	
	CU	ECTS	CU	ECTS
1	21	30,9	18	29,15
2	21	30,9	22	35,63
3	22	30,7	24	38,85
4	23	31,4	24	38,86
5	22	29,8	23	37,23

Semester	Biology		Chemistry	
	CU	ECTS	CU	ECTS
6	23	32,3	24	38,84
7	6	14,6	6	9,66
8	6	9,6	8	12,88
Total	144	210,22	149	241,1

The student's academic load refers to the total credit hours for the courses the student must register for each semester. First-year students receive a package of credit hours, while second-year students and onwards take a number of credit hours per semester based on the GPA of the previous semester. The minimum academic load is 12 SKS if GPA < 1,50, and the maximum is 24 SKS if GPA ≥ 3.00. The workload of each course is listed in the respective module handbook.

According to the information provided, the experts learned that UIN Malang monitors whether the actual workload aligns with the number of credits awarded. This is done through a survey that gathers students' perceptions of the suitability of credit hours in relation to the time required to complete coursework, as well as the relevance of assignments, practical courses, and lecturers' workloads. The survey uses a four-point Likert scale, with 4 indicating very suitable, 3 suitable, 2 somewhat suitable, and 1 less suitable.

The experts were provided with the student workload survey report for the Even Semester 2022/2023 academic year. For example, the figure below illustrates Chemistry students' perceptions of the suitability of the number of credits with the time spent to complete the credit load. Based on the results, 54% of students stated that the credit load given was suitable, 24% stated that it was very suitable, 18% stated that it was somewhat suitable, and the rest stated that it was less appropriate.

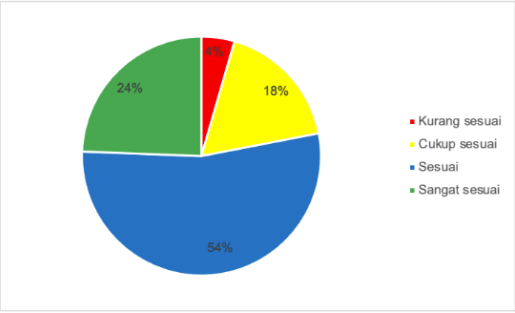

Figure 1: Example of Workload monitoring in Chemistry study program
Source: Student Workload Survey, UIN Malang

According to the Self-Assessment Report, the student workload survey results also indicated that students perceived the credit load somewhat challenging, especially concerning practicum workload. Students reported that the time required for practicum

work, including report writing, is extensive and burdensome. One suggested solution was the partial digitalization of these reports.

The experts raised this issue during the meeting with students. The students explained that support is now provided for practical sessions, and that a template for lab reports is printed and filled in, which has improved efficiency compared to fully handwritten reports. The experts acknowledge this progress, but encourage further digitalization of course components, suggesting that digital protocols could be provided to eliminate the need for printing and handwriting altogether.

While the experts appreciate the availability of workload survey data, they once again note the need for more up-to-date information. Further discussion about the lack of updated data will follow in Criterion 5.

In addition, the experts observe from the submitted student workload survey report that suitability is measured at the program level. They point out that monitoring and ECTS points must be calculated separately for each course. This is necessary because each course's time students need for self-study is different. The experts state that UIN Malang should follow the ECTS Users' Guide to determine the student's total workload. As described in the ECTS Users' Guide, the estimation of students' workload should include all learning activities, including lectures, seminars, projects, practical work, self-study and examinations.

The experts also paid particular attention to the seventh and eighth semesters, asking the program coordinators why the allocated credits drop to only 6 or 8 credit units during these periods. The coordinators explained that the lower credit allocation is due to some students having unfinished courses from previous semesters. Additionally, during the seventh semester, students normally engage in community service or internships, which often require them to relocate.

The program coordinators explained that many students begin their thesis at the end of the sixth semester, after completing the course "Research Methodology." Following this, students enter a structured process that leads to their thesis. During the seventh and eighth semesters, students will consult with their supervisors since they will already have a proposal in place.

The experts appreciate the explanation provided but note that the current structure may result in students beginning their thesis process at different times. This could potentially lead to unequal access to time and guidance, giving some students an unintended advantage. Therefore, the experts emphasize the importance of ensuring that all students have the same amount of time to prepare and complete their thesis in order to guarantee equal conditions.

UIN Malang provides key performance indicator data showing that the average time to complete studies is 4.5 years for the Biology program and 5 years for the Chemistry program. Recognizing that these durations exceed the standard four-year timeframe, the university is implementing several initiatives to accelerate graduation. These measures include engaging students in research projects with lecturers, assigning thesis supervisors starting in semester 6, enhancing thesis supervision services (more about thesis supervision in Criterion 2), improving laboratory facilities for research, and increasing the involvement of academic advisors in monitoring both academic and extracurricular student activities.

Program data is presented in the table below.

Table 4: Performance Summary Cohort 2017-2024
Source: Appendix to the Self-assessment report, UIN Malang

Program	Active	Active with Scolarship	On leave	Transferred/former student	Inactive	Graduation process
Biology	545	34	2	17	76	369
Chemistry	426	21	2	17	64	298

Based on the data, out of a total of 1.043 Biology students enrolled between the 2017 and 2024 cohorts, 17 discontinued their studies, 76 were inactive, and 2 took a leave of absence—representing approximately 9% of the cohort. For the Chemistry program, out of 828 students over the same period, 17 discontinued, 64 were inactive, and 2 took a leave of absence, amounting to about 10%.

During the meeting with students, the experts asked about the main reasons why some students drop out of the programs. Based on the experiences of their former peers, the students identified personal reasons—particularly mental health challenges—as a primary factor. Financial difficulties were also cited, as some students struggle to meet the economic demands of their studies. Additionally, a number of students felt unsuited to the program, expressing that they were unprepared for the academic demands of university life and found it difficult to cope.

Despite these constrains, and although many students take longer than the standard duration to graduate, the experts confirm that most students are able to persist and ultimately complete their studies. Both programs maintain a high, yet manageable, workload. During the audit, most students reported that their study schedules still allow sufficient time for personal activities, including hobbies, social life, and family.

Criterion 1.6 Didactic and Teaching Methodology

Evidence:

- Self-Assessment Report
- Study plans
- Module descriptions
- Teaching Methodology and Related Activities
- Discussions during the audit

Preliminary assessment and analysis of the experts:

In the Self-Assessment Report, UIN Malang records that appropriate didactical instruments and methods are implemented for the Bachelor's programs under review. The variations in learning methods and tools are adjusted to the level of knowledge, skills, and competences set in each course. Learning methods are listed in the Semester Learning Plan (RPS), which serves as a roadmap for both lecturers and students during the learning process.

The university's approach to learning is student-centred and involves teaching methods that prioritise the student's involvement in the learning process in alignment with guidelines from the Minister of Education and Culture. The MBKM policy has been integrated into the Bachelor's curricula to give students more flexibility in achieving their goals. With MBKM, students can learn from different institutions and communities.

The diverse array of teaching methods employed within both programs include but are not limited to lectures and presentations, alongside case-based and project-based learning. The module handbooks state the teaching methods applied in each learning unit, providing instructions for laboratory work, learning resources, and the learning plan and assessment. The medium of instruction is predominantly Bahasa Indonesia. While some courses do incorporate English, its use in the classroom should be further expanded, as highlighted in Criterion 1.3.

The university e-learning system (SIAKAD) supports blended learning activities and facilitates access to attendance records, learning materials, assignments and exams. Although, in connection with Criterion 1.5, the university is encouraged to further digitalize course components to streamline the reporting process, especially for practical courses.

The Faculty of Science and Technology connects its students with relevant external parties through various initiatives, including inviting guest lecturers, promoting student exchanges, organizing competitions and internships, and establishing partnerships with international institutions. The experts appreciate these initiatives and suggest that more of them could

support the goal of integrating more English into the teaching and learning process (e.g., online guest lectures from foreign lecturers).

The programs have courses on research methodology, which guide students in developing, writing, and publishing papers and theses.

During the discussions with students, the experts learned that they are generally satisfied with the quality of teaching and learning in the programs under review.

The expert group considers the range of teaching methods and instruments suitable for supporting students in achieving the Intended Learning Outcomes. They confirm that the study concepts of the programs under review comprise a variety of teaching and learning forms as well as practical parts adapted to the respective subject culture. Finally, they attest that the imparting of academic research skills is sufficiently ensured.

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

The experts thank UIN Malang for the provided statement concerning criterion 1.

(ASIIN 1.1, 1.3, 4.1) Integration of science and Islam – both programs

In response to concerns about the integration of science and theology, UIN Malang explains that the integration of Islamic content is intended to strengthen scientific ethics, highlight the contributions of Islamic civilization to scientific development, and incorporate moral and spiritual values into the application of knowledge. While the experts take note of this explanation, they remain seriously concerned, particularly regarding the Biology program, where Islamic content is not limited to ethical aspects but is deeply embedded in the foundational principles of the natural sciences. Given this situation—and in the absence of any proposed measures to address the issue, with the university instead reaffirming that Islamic philosophy, history, and law are integral parts of the Biology curriculum—the experts recommend a suspension of the accreditation for the Biology program until the prerequisites have been fulfilled.

For the Chemistry program, the experts reiterate that the integration of natural sciences and theological content is much less pronounced. However, they expect that if Islamic content is limited to ethics, it could be reduced to the appropriate course and should be completely removed from the module descriptions of the scientific modules (Requirement A7).

In this context and regarding Comment 1 from the university, the experts note that there appears to be a misunderstanding. They appreciate that the Chemistry program is framed

with a scientific vision, where science and religion are not intertwined. The experts note that this was not addressed as a problem; rather, they consider it an example for the Biology program. In their view, it makes a significant difference whether a scientific curriculum is explicitly framed as scientific or not.

(ASIIN 1.1, 1.3) Soft skills and practical laboratory abilities in students – both programs

UIN Malang outlines various efforts by the Chemistry program to enhance students' soft skills and practical laboratory competencies. However, since no additional information is provided for the Biology program, the experts clarify that the identified areas for improvement apply to both programs. While the experts appreciate the initiatives taken, they focus on the workshops students attend at their own expense, noting that the university should provide these workshops as an integral part of the curriculum. As this area requires ongoing support and development, the experts issue Recommendations E1 and E2.

(ASIIN 1.3) KKM activities – both programs

The university states that the various KKM activities, designed to help students integrate with local communities, have been conducted under the guidance of field supervising lecturers, while taking into account the cultural context of the local community. Examples of these activities include the production of natural fertilizers and assistance for halal certification for micro and small businesses. However, since the linked document does not explicitly describe a mechanism to ensure that KKM activities are sufficiently aligned with the study program, the experts issue Recommendation E3.

(ASIIN 1.3, 1.6, 2, 3.1) Language skills (overload of Arabic vs English) – both programs

UIN Malang clarifies that Arabic is used primarily for religious and general subjects to support a deeper understanding of Islamic literature. English, meanwhile, is being gradually integrated into the programs through various approaches, such as the use of English-language reference materials, guest lectures, international seminars, English-written assignments and theses, and research presentations. While the experts appreciate this clarification, they once again point out an overload of Arabic language, which appears to come at the expense of students' English language proficiency.

The experts acknowledge the ongoing initiatives to improve English proficiency, including the TOEFL graduation requirement, which can serve as a motivational tool. However, it remains unclear whether the provided courses are sufficient to help students pass the test. The experts observed notably low levels of English proficiency among both students and teaching staff during the audit. Moreover, the absence of clear goals—such as targets for the number of theses written in English, plans to expand English-taught courses, or

structured strategies to improve faculty language skills—indicates that this area needs focused attention. As a result, the experts issue Requirements A1 and A2, emphasizing that improving English language competence is critical to achieving the programs' internationalization goals. For instance, offering external lectures in English, especially through online formats, could be a cost-effective way to enhance language exposure and partially address teaching staff language limitations.

(ASIIN 1.3) General Chemistry, General Physics and Bioinformatics – Biology program

The experts appreciate the revision of the module handbook for Basic Chemistry. However, they still note a lack of emphasis on inorganic chemistry, as no salts or significant inorganic compounds are mentioned. The university reports that General Physics is already included in the curriculum as Biophysics. However, the experts point out that "biophysics" is a subdiscipline of physics and is not equivalent to "basic physics." Moreover, they believe that allocating only 2 SKS to a course that focuses on the biological applications of physical principles appears to be not enough for comprehensive instruction. Regarding Bioinformatics, the experts appreciate that it will be made a mandatory course for the next curriculum review. Considering these points and that actions have yet to be implemented, the experts issue Recommendation E14.

(ASIIN 1.3) General Mathematics – Chemistry program

UIN Malang outlines its plan to integrate mathematics into the course "Structure of Materials" as part of a curriculum revision scheduled for August 2025. The experts support this approach but emphasize that the mathematical components should be clearly reflected in the module descriptions, including the learning outcomes and course brief descriptions. As this change is yet to be implemented, the experts continue to recommend the inclusion of more general mathematics (Recommendation E15).

(ASIIN 1.3) Laboratory management and regulatory issues – both programs

The university explains that the Chemistry program includes a mandatory Laboratory Management course. In addition, students have the opportunity to participate in internal and external training programs. However, it remains unclear whether these programs are integrated into the curriculum or offered as separate activities, and who is responsible for providing and financing them. With regard to the Biology program, the experts find it unclear to what extent this aspect is covered. They encourage continued and sustained efforts to strengthen this component and therefore issue Recommendation E5.

Based on UIN Malang’s responses regarding curriculum content, the experts also issue an overall recommendation to implement concrete measures aimed at enhancing the scientific quality of both curricula (Recommendation E4).

(ASIIN 1.3) International mobility – both programs

The experts appreciate the ongoing efforts to increase budget allocations in support of student mobility programs. UIN Malang is prioritizing regional collaboration in Southeast Asia, with active partnerships in Thailand, Japan, and Turkey. Additionally, the Project Management Unit is leading student exchange programs with European universities, and there are also collaborative activities with Australia. The experts support these initiatives and recommend that UIN Malang continue on this path (Recommendation E7).

(ASIIN 1.4) Updated data on enrolments – both programs

The experts thank UIN Malang for providing the updated enrolment data and confirm that they have no further comments on this matter.

(ASIIN 1.5, 1.6, 2) Digitalization of course components – both programs

UIN Malang informs about the development of a digital laboratory system application designed to reduce the workload associated with practical work and streamline the report-writing process. This digital tool is designed to eliminate the need for printing and handwriting by offering students digital templates, online submission platforms, and interactive protocols accessible on various devices. The experts support this initiative and recommend its further development, implementation, and evaluation of its effectiveness (Recommendation E8).

(ASIIN 1.5, 5) Workload monitoring at the course level – both programs

The university presents a course-level workload mapping for both programs. This mapping converts SKS to ECTS, using a standard of 25–30 hours per 1 ECTS credit. The experts appreciate the account of hours for lectures, tutorials/seminars, and laboratory work; however, the university does not indicate what measures are in place to ensure that the calculated workload corresponds to the actual workload experienced by students. Therefore, the experts reiterate their recommendation of implementing a monitoring mechanism at the course level (Recommendation E9).

(ASIIN 1.5, 2) Thesis completion period– both programs

UIN Malang explains that the faculty thesis guidelines have been updated, allowing students to begin their thesis work after completing at least 110 credit hours. The experts appreciate that this enables successful students to start their thesis earlier. However, they note that a minimum GPA of 2.00 is also required, and some students may need to repeat courses they have failed or retake them to improve their grades in order to meet this requirement. The university should reports on how many students have to repeat coursed to meet the minimum GPA condition and determine if this could also be the reason for the

sometimes very long study duration. The experts believe that since repeating complete courses can be very time consuming, the introduction of an opportunity to retake passed exams to improve grades would be very helpful to meet the faculty's thesis guidelines (Recommendation E10).

The experts consider criterion 1 to be not fulfilled.

2. Exams: System, concept and organisation

Evidence:

- Self-Assessment Reports
- Module descriptions
- Academic Guidelines
- Academic calendar
- Samples of student's work (projects, exams and thesis)
- Discussions during the audit

Preliminary assessment and analysis of the experts:

Forms of Examinations and Exam Schedule

The Biology and Chemistry study programs use formative and summative assessments to evaluate the achievement of the intended learning outcomes and course learning outcomes. The examination system adheres to the university's academic guidelines with the assessments including mid-term exams, final exams, assignments, and class participation.

Lecturers assign two types of assignments: structured and independent. Structured assignments consist of research papers, problem sets, lab reports, and quizzes or tests. Independent assignments, which encourage self-directed learning and critical thinking, include project-based learning, essays, case studies, and capstone projects. Both types of assignments can serve as midterm or final exams based on the course's learning outcomes.

For example, members of the teaching staff highlighted during the audit that the Chemistry program employs project-based learning. In this approach, students do not take traditional exams; instead, they are required to prepare a report. This project-based assessment does not adhere to the regular exam schedule. Students submit their reports through the e-learning system, where they are evaluated according to a provided rubric.

The module description specifies the course's Program Learning Outcomes (CLO) and identifies the types of examinations used to assess the achievement of these objectives. During the first class, students and the lecturer agree on a written record that includes key items such as attendance, course content, assessment methods, and the evaluation system.

The experts confirm that both programs use various forms of examination, which are competence-oriented. These examinations are suitable for verifying the achievement of the program learning outcomes.

Grading and Graduation Requirements

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

Table 5: UIN Malang Grading system
Source: Appendix to the Self-Assessment Report, UIN Malang.

Value Range 0-100.	Letter Value	Score	Description.
85 – 100	A	4	Passed
76 – 84	B+	3,5	Passed
71 – 75	B	3	Passed
66 – 70	C+	2,5	Passed
61 – 65	C	2	Passed
51 - 60	D	1	Not pass
< 50	E	0	Not pass

Students at the Bachelor's level pass if they obtain at least a C grade. Based on the regulation, for Bachelor's students to be eligible to take the final exam, they must have attended at least 80% of the face-to-face meetings held.

To graduate from the programs, students must have completed the required 144/149 credits and scored a minimum GPA of 2.0 with the lowest grade of C. They are required to complete their thesis work and hold a foreign language proficiency test. Students must have successfully passed the undergraduate Islamic boarding school program (*Ma'had Ali*) and completed their study of the *Al Qur'an*. The maximum study period for undergraduate students is 14 semesters.

Regarding graduation requirements, the experts request additional information from UIN Malang about the foreign language proficiency test that students are required to take. They also seek clarification on the undergraduate Islamic boarding school program, specifically, the program outline with its duration, how successful completion is assessed, and the criteria for passing.

According to the academic guidelines, the programs would provide make-up examinations in cases of illness with a doctor's note, urgent family matters with official documentation, disasters such as accidents verified by police or hospital reports, tasks assigned by UIN Malang with supporting documents, and participating in *Hajj* or *Umrah* with a travel certificate. If a student presents credible evidence demonstrating that a disability or illness prevents them from fully or partially completing an examination, the course lecturer may adjust deadlines, or provide an alternative exam format.

Students who fail must retake the course in the subsequent semester. When students have objections to their exam results, they have the chance to appeal within the period established in the academic calendar.

UIN Malang has a policy on academic integrity in all student activities, including examinations and assignments. If a student engages in plagiarism, fraudulent behaviour or falsifying administrative and academic data, they will face sanctions corresponding to the severity of their actions. These may range from grade cancellation, suspension, or even dismissal from the university.

Thesis

In accordance with the academic guidelines, Bachelor's students are required to complete a research project as their final assignment before graduation. As discussed under Criterion 1.5, this project normally starts with a course on research methodology during the sixth semester, which equips students with basic research knowledge. Students are then grouped based on interest and guided by the lecturers in selecting a research topic.

During the onsite visit, the teaching staff confirmed to the experts that for both programs, the lecturers suggest topics for final theses, and students select based on interest. Once a topic is chosen, a thesis supervisor is assigned. Upon inquiry, the program coordinators indicated that in the Chemistry study program, the majority (90%) of students join one of the program's research groups, with funding provided by the lecturers. In the Biology program, about 55% of students participate in projects within research groups, while 10% conduct their thesis with Indonesian organizations. The remaining students pursue their research by proposing their own ideas. A final project conducted outside the institution involves guidance from supervisors within the program and external institutions.

The experts acknowledge this process; however, as outlined earlier, the university should address the potential variability when students begin their thesis work, as this might result in unequal conditions that could affect the fairness and comparability of outcomes.

In their appreciation of this criterion, the experts come to the following conclusions:

The expert group finds that appropriate university-wide and program-specific rules and procedures govern the examination systems. These rules and procedures are adequately communicated and transparently published. It is regularly reviewed whether the exams can adequately determine the achievement of the learning objectives and whether the requirements are appropriate to the level of the degree programs.

During the audit, most students indicated satisfaction with the organization of exams. The students confirmed that they were aware of all necessary information regarding examination schedules, forms, and grading rules. They reported that they are provided with sufficient time to prepare for exams and are given the opportunity to complain about their grades due to dissatisfaction. Additionally, students expressed appreciation for the approachability of lecturers, allowing them to meet and clarify class material.

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

The expert group also examined a selection of final theses and determined that they were of an appropriate academic level. However, as noted earlier in this report, students write their theses in Bahasa Indonesia. To align with the programs' international aspirations, the experts suggest incorporating titles and abstracts in English. Writing the thesis in English should be encouraged.

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

The experts thank UIN Malang for the provided statement concerning criterion 2.

(ASIIN 1.3, 1.6, 2, 3.1) Language skills (overload of Arabic vs English) – both programs

Addressed under criterion 1.
UIN Malang reiterates that students typically learn basic English in high school, whereas Arabic is not part of the standard school curriculum. However, based on the experts' observations during the site visit, English proficiency appears to be low among both students and teaching staff. In contrast, Arabic is commonly used by some students in daily conversations.

The university also states that the thesis writing guidelines require students to provide their thesis titles and abstracts in three languages: Indonesian, English, and Arabic. However, the experts were unable to verify this practice during the audit. They suggest that the programs

establish a clear target for the percentage of theses written in English to be achieved over the coming years.

Given this context, the experts emphasize that the role of English must be significantly strengthened, and that targeted staff training is essential to support this goal. Therefore, Requirements A1 and A2 are issued to address these concerns.

(ASIIN 2) Undergraduate Islamic boarding school program (Ma'had Ali) – both programs

The experts appreciate the additional information provided by the university regarding the undergraduate Islamic boarding school program. However, they note that, in accordance with Pancasila principles, UIN Malang is open to students of all religious backgrounds, as confirmed during the audit by a Christian student from Papua. In this context, the experts request that the university provide further clarification on the following points: Are these students required to follow the Islamic education program (including congregational prayer)? Are they required to integrate Islamic morals, Fiqh and Islamic values into their studies? (These values are in some cases different from Christian, Buddhist and other values) Do Islamic studies teachers decide whether a student can study Biology or Chemistry? What is assessed and on which criteria? (Requirement A3).

(ASIIN 1.5, 2) Thesis completion period– both programs

Addressed under criterion 1.

The experts consider criterion 2 to be partially fulfilled.

3. Resources

Criterion 3.1 Staff and Staff Development

Evidence:

- Self-Assessment Report
- Staff Handbook
- Study plans
- Module descriptions
- Discussions during the audit

Preliminary assessment and analysis of the experts:

At UIN Malang, staff members have different academic positions. There are professors, associate professors and assistant professors. The academic position of each staff member

is based on their research activities, publications, academic education, student supervision, and other supporting activities. For example, a full or associate professor needs to hold a doctoral degree. In addition, the responsibilities and tasks of a staff member with respect to teaching, research, and supervision depend on the academic position.

The Self-Assessment Report shows that the Bachelor's program in Biology has 24 academic staff members, while the Chemistry program has 22. The composition of the teaching staff in both undergraduate programs according to their academic position is shown in the following table:

Table 6: Number and qualifications teaching staff
Source: Self-Assessment Report, UIN Malang.

Position	Biology	Chemistry
Professor	3	0
Associate Professor	4	3
Assistant Professot	17	19
Total	**24**	**22**

The ratio between the number of academic staff members and students is 1:27,39 in the Bachelor's program Biology, and 1:18 in the Bachelor's program Chemistry. This ratio fulfils the national requirements in Indonesia for higher education as described in the regulation of the Ministry of Education and Culture and Research Technology No 105/M/V1/2015, which states 1:30 as the ideal ratio for exact sciences.

In addition to academic staff, the Faculty of Science and Technology employs non-academic personnel, including administrative staff, librarians and laboratory technicians. The role of laboratory technicians is to assist lecturers in carrying out practical activities and helping to prepare research experiments (starting from laboratory setup, materials preparation, equipment use, and maintenance).

Details of the academic qualifications of the teaching staff are accessible via the program websites. All full-time members of the teaching staff are required to be involved in the so-called *Tri Dharma* activities: teaching/advising, research, and community service.

Upon reviewing the submitted staff handbooks, the experts noted that most teaching staff members in both programs hold a Master's degree as their highest academic qualification. This raised inquiries about strategies to increase the number of PhD holders and the university's plans in this area. UIN Malang management emphasized that the university actively encourages its teaching staff to pursue PhD-level qualifications.

During the meeting with the teaching staff, the experts were informed that the university actively supports lecturers in pursuing doctoral studies. For example, one staff member received research funding from the university and the faculty, which helped them strengthen their research profile and prepare for doctoral work. Another staff member

benefited from a staff exchange opportunity provided by the university, which later led to an enrolment in a PhD program. A newer lecturer explained that, in their second year, the faculty encouraged them to pursue a doctoral degree and join an English language program.

The experts acknowledge the university's efforts to increase the number of teaching staff members with a PhD degree. The experts support these initiatives and strongly recommend that the Faculty of Science and Technology continue to expand its teaching staff with PhD holders, particularly if one of the strategic goals is to achieve international recognition. According to international standards, all teaching staff members should possess a doctoral degree.

During the audit, the experts also inquired about the teaching load of the staff and whether sufficient opportunities exist for research activities. They learned that the average teaching load is approximately 12 hours per week, with a total workload ranging from 12 to 16 credits; the national maximum allowable is 16 credits. The amount of time staff members actually dedicate to research varies depending on their academic position.

Furthermore, the experts learned that teaching staff members are assessed based on performance targets. Evaluation results serve to determine rewards or consequences. The feedback provided by students at the end of the semester is an important input for staff evaluation.

Overall, the audit team gained the impression that the teaching staff are satisfied with their working conditions in relation to the *Tri Dharma* activities. Staff members reported having a fair workload and appreciate that the university is supportive of their academic and professional needs. The experts were especially impressed by the diversity of scientific backgrounds among the members of the teaching staff, noting that most lecturers were recruited from other institutions. This demonstrates a commendable effort to provide diversity with experience from different universities.

Staff Development

As described in the Self-Assessment Report, faculty members undergo training to enhance their professional development and teaching competencies, including attendance to conferences and workshops.

Development opportunities were confirmed during the audit. The teaching staff informed the experts that they receive support from the university, faculty, and study program levels to enhance their knowledge and teaching skills. For example, the university offers a course on delivering lectures in English. New lecturers receive training on effective teaching methods, which they find essential, especially if they lack a previous educational

background. According to government regulations, all teaching staff must complete this training to obtain certification as a lecturer. This training is a requirement for the certification process mandated by the government.

The experts also inquired about opportunities for teaching staff to spend time abroad and participate in international projects. They were informed that lecturers receive research grants from the university to support ongoing research and publication efforts, including international journals, which are overseen by the Division of Research and Community Service. However, the experts gained the impression that funding for research is very limited and that only a reduced number of staff members have been involved in international activities to date.

In summary, UIN Malang has established support mechanisms and opportunities for the development of its teaching staff. However, additional actions are needed to actively encourage more staff members to pursue doctoral degrees and to strengthen research efforts. The experts also recommend expanding funding for research and advocate for more academic exchange networks to create more opportunities for student/staff mobility for national and international collaboration. Moreover, as noted under Criterion 1.3, there is room to further improve the English proficiency of the teaching staff. Addressing these areas is particularly important if the university aims to strengthen its international profile.

The experts got the overall impression that just a very small number of research collaborations was highlighted. The term “collaboration” was used, during the audit, to mostly denote some advice on how to organise the curricula and the administration. **The experts require more specification on what “collaboration” means in the context of the programs under review.**

Student Support

According to the Self-Assessment Report, UIN Malang has built a well-structured framework to provide students with academic and administrative support services.

First-year students must live in university-provided dormitories, mentored by senior students and supported by dormitory staff and a dormitory lecturer. They also participate in religious learning activities, including Qur'anic study and discussions on Islamic thought.

Furthermore, each student is assigned an academic advisor who serves as their primary point of contact in the event of any struggles or problems during their studies. The academic advisor monitors academic progress at the beginning of each semester through academic guidance books and identifies necessary improvement actions. The Faculty of Science and Technology has 54 supporting staff, including laboratory and administrative staff.

During the audit, the students emphasized that the teaching staff are approachable and maintain a positive relationship with them. Students reported feeling comfortable approaching lecturers outside of the classroom, and stated that the lecturers are open to questions and feedback. The students believe that the teaching staff value their opinions and suggestions, and changes are made when necessary.

Students preparing for their Bachelor's thesis have a supervisor allocated based on their research topic. During the audit, the teaching staff explained that each study program has research groups. Lecturers join a specific research group and align their teaching to support the group's focus areas. They also introduce students to their research activities and offer related topics for thesis projects, ensuring that each student's thesis is connected to an active research group. Lecturers involve students in their research projects and funded research grants.

When asked about the student-to-supervisor ratio, the teaching staff explained that the university has specific regulations regarding this ratio based on the academic position. On average, supervisors in the Biology department oversee up to eight undergraduate students, while those in the Chemistry department supervise around five. The role of the thesis supervisor is to guide students throughout the final project, including the research process and the writing of the final report.

All students have access to the SIAKAD academic information system. Through this system, they can view the list of available courses, including schedules that specify locations, class times, and assigned lecturers. Additionally, students can access their final grades, which are submitted online by their lecturers.

Additionally, students can join various organizations and activity clubs, such as the Maliki Herpetology Society, Botanical Garden, Micro Biotechnology Club, Envigreen, English Study Club, and Olympic Study Club. There is also a Career Development Center helping students develop essential job-search skills, including resume writing, interview preparation, and networking strategies.

Overall, there is a positive relationship between the students and the teaching staff, as well as effective mentoring by teachers and an open atmosphere between students and staff. Resources are available to provide students with individual assistance, advice and support. The support structures help students achieve the intended learning outcomes and complete their studies. Good mentoring by the teaching staff is an important criterion of success. The students are well-informed about the services available to them.

Criterion 3.2 Funds and equipment

Evidence:

- Self-Assessment Reports
- Visitation of the facilities
- Discussions during the audit

Preliminary assessment and analysis of the experts:

Funds and collaborations

The annual budget for the Faculty of Science and Technology is established at the university level. Each year, the university management requests that all the faculties prepare and submit a work plan and budget proposal. This process is coordinated by the General Affairs and Finance Bureau and involves university leaders, such as Vice Rectors, Deans, Vice Deans, and Heads of Study Programs or Units.

The final budget plan is approved by the Rector in the form of a Budget Implementation Entry List, which serves as the operational guideline for executing financial decisions throughout the fiscal year. Basic funding is allocated to each study program, including funds for operational activities, goods and services, travel expenses, employee salaries and honorariums.

Sources of funding include the Indonesian Government, which is largely allocated for faculty and staff salaries, as well as research grants and community service programs. Another important source of funding is the income from students' tuition fees and collaborative funding from domestic and international institutions.

With regard to external sources of funding, the experts learned during the audit that financial support from Saudi Arabia has played a significant role in the development of new facilities, such as laboratories and general infrastructure, on Campus 3. When the experts inquired about how the university maintains its independence while receiving such support, representatives from the Rector's Office explained that the government is involved in the management of international funding schemes. This involvement helps to ensure that institutional autonomy is preserved in matters related to external funding.

The experts also observed from the data presented in the Self-Assessment Report for the period 2020–2022 that there was a significant decline in funding in 2021 and 2022. UIN Malang's management attributed this drop in income to a general government budget cut and the impact of the COVID-19 pandemic. As previously noted in this report, the experts request updated financial data to better assess current funding trends.

The experts nonetheless acknowledge that, despite budget cuts, the university has, to

some extent, invested efforts and resources to improve its international profile. They believe that increased funding would further strengthen the outcomes of these internationalisation efforts. For instance, the university should support qualified lecturers to apply for national and international research grants.

Infrastructure and technical equipment

Learning facilities and infrastructure for the Chemistry and Biology programs include laboratories, lecture halls, lecturer rooms, administration rooms, library and literacy room, discussion rooms, e-learning and multimedia rooms.

During the audit, the expert group visited the listed facilities to evaluate whether the programs under review are committed to supporting both practical work and research. They aimed to assess whether the facilities are well-equipped for extensive laboratory and field activities. Due to time constraints and the fact that Campus 3 is still under construction, the visit focused primarily on Campus 1:

1. Biology laboratories
2. Chemistry laboratories
3. Library
4. Halal Center
5. Faculty and program rooms

<u>Bachelor's degree program in Biology</u>

During the site visit, the experts toured several laboratories. The Optical lab is designed for microscopic and macroscopic observations and is integrated with computers to facilitate observations. The Ecology and Natural Resources lab supports remote monitoring research by utilizing camera traps and waterproof camcorders for underwater observation.

The Genetic and Molecular Biology lab is equipped with a PCR machine and a DNA sequencer, facilitating molecular-based research. In the Animal Physiology lab, the experts found microtomes, microscopes, and micro-technical support equipment. The Microbiology lab features molecular-based instruments, including an autoclave, an incubator, and a laminar airflow cabinet. The Tissue Culture lab is equipped with an inverted microscope and an automated cell counter. Finally, the experts also visited the Animal Cage Facility.

In their assessment of these labs and facilities, the experts noted that the research laboratories are generally well-equipped and appear to be staffed by competent scientists. The laboratories were also clean and well-maintained.

The teaching labs have sufficient space. While the lab benches and chairs/stools are not of the highest quality, they are considered adequate for current use until the laboratories are relocated to Campus 3. However, safety measures are insufficient; the experts did not see eye-wash, emergency showers, and fire extinguishers, among other safety features, in all labs. This has to be urgently addressed.

In the experts' view, the equipment for teaching labs is insufficient. They saw 12 students sharing one pipette and working on one electrophoresis apparatus. The experts judge this as not enough and believe it has to be substantially extended: complete pipette sets for groups of 3 students, gas-burners on every bench for semi-sterile work (especially microbiology). The experts note that there are cheap electrophoresis sets to equip groups of 6 students at most with one set.

Laminar-flows/sterile working places are available for teaching, as well as for research-labs, but these are not used in an appropriate way. Instead of high-temperature gas burners, little oil-lamps are used, which have no effect on sterile working.

The number of supervisors/trainers per student group was good and they appeared competent.

As a general comment, the experts recommend reviewing the alignment between intended learning outcomes and the actual activities conducted in laboratory courses. In one of the observed sessions, the stated objective involved molecular analysis of a human gene; however, the practical component consisted only of casting an agarose gel and running a PCR product, with one gel shared among ten students. However, students were unable to identify the gene being studied when asked. The experts hope this is an isolated case and not representative of other practical courses.

Overall, the practical units at every station of a course appeared to be very small. Routine methods are taught, but often not in the context of a scientific question. The equipment is not sufficient to prepare students for future, more independent thesis (= research) work.

<u>Bachelor's degree program in Chemistry</u>

As part of the site visit, the experts also visited various laboratory facilities within the Chemistry department. The Instrument Laboratory is equipped with a range of analytical instruments, including Atomic Absorption Spectroscopy (AAS), High-Performance Liquid Chromatography (HPLC), Fourier Transform Infrared Spectroscopy (FTIR), UV-Visible Spectrophotometer (UV-Vis), and a Gas Chromatography-Mass Spectrometry (GC-MS) instrument. In addition, the experts observed the Analytical Chemistry Laboratory, the Physical and Inorganic Chemistry Laboratory, and the Organic Chemistry Laboratory, each of which supports practical teaching and research in their respective field.

In their assessment of these facilities, the experts found that safety measures across all Chemistry laboratories are insufficient. As with the Biology laboratories, a key recommendation is to improve safety measures to align with international standards. Additionally, the experts note the need to expand and modernize laboratory equipment to ensure that students receive practical training that meets current scientific and educational requirements.

Library

The central library offers services to UIN Malang faculty members, administrative staff, and students. Operating hours are from 8:30 am to 9:00 pm, Monday through Friday, and 8:30 am to 12:00 pm on Saturdays, with continuous access to online resources. The services encompass lending physical and e-books, as well as access to scientific databases. The students appreciate the library's online system, which provides them with 24/7 access to bibliographical resources.

During the library visit, the expert team was informed that the library provides access to digital tools, including Grammarly and Turnitin. Additionally, students have access to academic writing sessions aimed at enhancing their writing skills. Regarding Criterion 2, the experts sought clarification on the language options available for thesis writing. The librarians explained that, in addition to Bahasa Indonesia, students may also write their theses in English or Arabic, subject to approval by their academic supervisor.

The experts also reviewed the extent to which the library provides access to a collection of books that cover the modules in the Biology and Chemistry curricula, as well as the international scientific information that is needed to support teaching and research. Overall, the experts are satisfied with the resources available to support the learning process for Chemistry students.

However, for Biology, the experts state that text books are outdated and do not sufficiently cover the areas included in the curriculum. Additionally, the library lacks access to several major international biology journals and books. In view of the severe budget cuts and the outdated nature of the existing biology textbooks, it is essential for the library to expand and update its collection of books, as well as to invest in e-journals/subscriptions.

Halal center

The programs under review also collaborate with the Halal Center. During the evaluation, the expert team visited the center's facilities. The Halal Center is actively engaged in education, research, publications, and community service related to halal practices. Its scope includes halal regulations, analytical testing, product development, halal tourism,

Sharia-compliant economics, halal lifestyle promotion, certification processes, and other related fields.

Other supporting facilities include the Mosque, Medical Clinic, Student Dormitory, Cafeteria, and Sports Facilities.

In summary, the expert group judges the available funds, the technical equipment, and the infrastructure (laboratories, library, seminar rooms etc.) to comply with the requirements for sustaining the degree programs. However, to ensure viability, the mentioned restrictions should be addressed.

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

The experts thank UIN Malang for the provided statement concerning criterion 3.

(ASIIN 3.1) Increase in the number of PhD holders – both programs

UIN Malang states its commitment to fostering human resource development through various programs that support further education, particularly through scholarships in collaboration with the Ministry of Religious Affairs. For the Faculty of Science and Technology, this area is a strategic priority. A list of lecturers engaged in doctoral studies for the Chemistry program is provided; however, similar information is missing for the Biology program. While appreciating this commitment, the experts believe that the university should establish clear goals regarding the number of PhD holders it aims to achieve in the coming years. Specifically, a significant increase in the number of PhD holders among its permanent staff should be a defined objective (Requirement A4).

(ASIIN 3.1, 3.2) Research funding and collaborations – both programs

The experts acknowledge and appreciate the university's recognition of the need to increase research funding allocations. They support efforts to establish partnerships with government agencies, private organizations, and international bodies as a means of expanding research opportunities. To further encourage the acquisition of external funding—particularly from international sources—the experts recommend introducing small incentive awards for faculty members who successfully secure such grants. Additionally, they emphasize that strong English language skills should be a requirement for newly hired lecturers, as this is essential for fostering international research collaboration. In this context, the experts issue Requirement A2 and Recommendations E11 and E12.

(ASIIN 3.2) Laboratory equipment – Biology program

In response to the experts' concerns, UIN Malang states that a revitalization proposal has been submitted to the Ministry of Religious Affairs, requesting funding for the modernization of laboratory equipment and the procurement of safety equipment. However, in the experts' view, this proposal alone does not adequately address the issues raised. They note that an expert from the Senior Expert Service (SES) had already required the urgent update/extension of laboratory equipment in 2016. This included safety measures like emergency showers, eye-wash, technical manuals, hygiene plan, fire extinguishers, clean benches and more. It is not known if any measures have been taken since this report and serious safety issues still remain., making the situation far from satisfactory.

The experts highlight three substantial concerns from the application submitted to the Ministry of Religious Affairs:

1. No list of the requested equipment has been provided. The experts require this information in order to assess whether essential courses (e.g., biochemistry, molecular biology, and physiology) can be conducted in accordance with international standards.

2. It is unclear whether there are any experts at the Ministry who can evaluate what kind of equipment is required for higher education as well as for research projects in bio-sciences.

3. There might be a possibility that funds are not or not sufficiently granted.

The experts see that for the Biology program, a reasonable training of young scientists under safe conditions is not possible with the current equipment, and consider this as a critical issue.

(ASIIN 3.2) Laboratory equipment – Chemistry program

UIN Malang also explain that a revitalization proposal has been presented to the Ministry of Religious Affairs to request funds for the modernization of laboratory equipment and the procurement of safety equipment. The experts, nonetheless, request a clear plan and a timetable on how to update the instruments and the technical equipment within the accreditation period (Requirement A8).

(ASIIN 3.2) Safety standards in the laboratories – both programs

In the absence of an action plan, the experts issue Requirement A5.

(ASIIN 3.2) Access to updated literature and international journals – Biology program

UIN Malang has updated the module handbook and added more recent textbooks. However, the experts note that the provided links lead only to commercial publishers

selling the books, which raises concerns about affordability for students. It seems that most, if not all, of the newly recommended reading materials are not available in the library. As it stands, students lack access to essential textbooks and would need to purchase them at their own expense. The university plans to apply for additional funding, but this does not guarantee that it will be granted within the next year. The experts see that for the Biology program, a reasonable training and education of young scientists is not possible with the currently available literature, and consider this as a serious issue.

The experts consider criterion 3 to be not fulfilled.

4. Transparency and documentation

Criterion 4.1 Module descriptions

Evidence:

- Self-Assessment Report
- Module descriptions
- Bachelor of Biology website: https://biologi.uin-malang.ac.id/
- Bachelor of Chemistry website: https://kimia.uin-malang.ac.id/en/home-english/

Preliminary assessment and analysis of the experts:
The experts acknowledge that UIN Malang organizes module handbooks for the study program under review, and that these are available through the program websites. However, the experts have identified several issues with the presented module handbooks that need to be addressed:

Bachelor's program in Biology

- Even though the module descriptions provide insight into the content of the courses, the experts believe that the content has to be revised to ensure it is up to date.
- The experts also observed that the module descriptions do not specify prerequisites. In their view, this information is essential to help students follow the appropriate sequence of modules and ensure a coherent progression in their studies.
- Finally, the experts consider that some of the literature in the reading lists is outdated and needs, therefore, to be updated in a revision of the module handbooks.

Bachelor's program in Chemistry

- In connection with Criterion 1.3, the experts indicate that the module description needs to undergo a thorough revision to ensure that natural sciences and theological content are not mixed together.

The experts overall believe that the university needs to establish a structured and supervised process to ensure the module handbook is regularly reviewed and updated.

Criterion 4.2 Diploma and Diploma Supplement

Evidence:

- Self-Assessment Report
- Sample Diploma Certificate
- Sample Transcript of Records
- Sample Diploma Supplement

Preliminary assessment and analysis of the experts:
According to the information provided in the Self-Assessment Report, students receive a Diploma Certificate, a Transcript of Records and a Diploma Supplement upon graduation. The ASIIN experts are provided with samples of these documents.

The Diploma Certificate provides details about the student's academic profile and the degree conferred, including the graduation date. It is signed by the Rector and Dean of the Faculty of Science and Technology.

The Transcript of Records lists all the courses a graduate has completed, the achieved credits, grades, cumulative GPA, and the thesis title.

The Diploma Supplement (SKPI) is an official statement letter issued by the Faculty of Science and Technology. It contains information about the degree program, including Program Learning Outcomes, acquired soft skills and student achievement in academic, co-curricular, extracurricular, or non-formal education. It also provides information about the Indonesian higher education system.

Criterion 4.3 Relevant rules

Evidence:

- Self-Assessment Report

- All relevant regulations as published on the university's webpages

Preliminary assessment and analysis of the experts:
The experts confirm that the rights and duties of both UIN Malang and the students are clearly defined and binding. All rules and regulations are published on the university's website, and the students receive the course material at the beginning of each semester.

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

The experts thank UIN Malang for the provided statement concerning criterion 4.

(ASIIN 4.1) Module descriptions – Biology program

UIN Malang has revised the module descriptions in response to the experts' feedback regarding course content, prerequisites, and reading lists. However, as noted under Criterion 3 concerning access to essential textbooks, the experts observe that some of the recommended literature is linked directly to publishers' websites for purchase, with no indication of free access for UIN Malang students. This raises concerns regarding affordability and accessibility. The experts, therefore, stress that all recommended reading materials must be available through the university library to ensure access for all students.

Another serious concern is that the module descriptions for the Biology program incorporate "Islamic values" in almost every scientific module. This is what is considered by the experts as mixing theological and scientific content.

The experts, overall, judge the theological content of the entire curriculum as too high. It is therefore critical that the theological content be reduced in favour of strengthening the scientific focus of the program. The module descriptions must be revised accordingly.

(ASIIN 4.1) Module descriptions – Chemistry program

The university asserts that bringing together natural sciences and theological content has proven beneficial in fostering positive character traits among the students. The experts acknowledge that teaching Islamic values is an integral part of UIN Malang's distinctive mission and identity. However, they note that this aspect is already addressed through dedicated courses in the first three semesters of the program. The experts reiterate that theological content does not belong in science courses and should not be a significant part of the course descriptions for scientific modules. They therefore expect UIN Malang to revise the module descriptions accordingly, in line with Requirement A7.

The experts consider criterion 4 to be partially fulfilled.

5. Quality management: quality assessment and development

Evidence:

- Self-Assessment Report
- UIN Malang Website: https://uin-malang.ac.id/
- Quality Assurance Unit website: https://lpm.uin-malang.ac.id/
- Discussions during the audit

Preliminary assessment and analysis of the experts:
At UIN Malang, the university's leadership comprises the Rector and Vice-Rectors, who are responsible for the overall management and strategic direction of the institution. Academic governance is overseen by the university Academic Senate, which serves as the highest authority for academic decision-making and the development of institutional policies. Within the Faculty of Science and Technology, the Dean leads and oversees all teaching and learning activities. Furthermore, each academic program is managed by a Head of Study Program, who is responsible for implementing and coordinating the educational activities specific to their respective program.

UIN Malang's quality management system has been institutionalized in compliance with government regulations. This system incorporates elements and mechanisms of both internal and external quality assurance.

Internal quality assurance involves dedicated units at the university, faculty, and program levels. External quality assurance focuses on both national and international accreditations. National accreditation is mandatory for each study program and can be conducted by agencies approved by the Indonesian government.

Internal quality assurance mechanisms include annual internal quality audits coordinated at the university level. During these audits, trained internal auditors are assigned to each study program to evaluate data and perform on-site visits to verify the information. Any issues identified during the audit are addressed in a management review meeting, where measures for improvement are established.

Furthermore, as mentioned in Criterion 1.3, each study program conducts regular curriculum reviews every four to five years to ensure continued relevance and quality. Currently, both programs under review operate with two distinct curricula: the revised 2017 curriculum, which applies to students from 2021 and earlier, and the 2022 curriculum for students from 2022 onward.

Inputs for the internal evaluation of the quality of the study programs include student and alumni surveys, as well as student performance data.

Based on the submitted documentation, the experts reviewed data collected through various monitoring processes. While the experts appreciate UIN Malang's commitment to a data-driven approach, they suggest improving the reporting practices, as much of the data provided dates back to 2022/2023. In the context of international accreditation procedures, it is important that program data is up to date and readily accessible upon request. It would be also beneficial to enhance the bilingual accessibility of the documents, as some of them are only available in Bahasa Indonesia.

Students provide feedback on their courses through online questionnaires. In conjunction with the workload survey described in Criterion 1.5, a survey on lecturer performance is conducted at the end of each semester. The survey measures student satisfaction across multiple dimensions, including reliability, responsiveness, certainty, empathy, the Ulul Albab aspect, and religious moderation. The aggregated results are used to calculate a Student Satisfaction Index, which contributes to the evaluation of lecturers' performance as part of the institution's Key Performance Indicators (KPIs). For the academic year 2022/2023, data from both programs show that the majority of lecturers received a Student Satisfaction Index score above 3 on a 4-point scale. The faculty quality assurance also collects student satisfaction data during thesis supervision and academic advising. However, the current questionnaires for the degree programs can be quite superficial and may not ask for sufficient details on the specific curriculum or modules. To gather more insightful feedback for continuous curriculum improvement, the experts recommend enhancing these surveys by including more specific questions and incorporating free-text fields to capture valuable qualitative comments from students.

In addition, each program regularly conducts an alumni tracer study. By taking part in this survey, alumni can comment on their experiences while studying, the waiting period for employment after graduation, and their professional careers. They can also give suggestions on how to improve the program. In 2022, 90.5% of Biology program alumni respondents (21 individuals) reported securing employment within six months of graduation. In comparison, data from 2023/2024 show that 56.5% of Chemistry program alumni (433 individuals) achieved employment within the same timeframe.

UIN Malang furthermore monitors the overall performance of the graduates considering their GPA. The data show that most students graduate with a GPA surpassing 3.3 in the study programs under review (on a scale of 0 to 4).

The Self-Assessment Report indicates that quality management processes involve various stakeholders, including students, alumni, and users. However, during discussions with industry partners, the experts were unable to determine the extent of these stakeholders' involvement in the review and development of the curriculum. In the experts' opinion, a formal forum should be established for stakeholders to provide feedback on the curriculum. This could be achieved by implementing an official advisory board, stating who are the stakeholders, their qualifications, and how it will be conducted. The experts believe that the input from external stakeholders is crucial for the ongoing development of degree programs. An advisory board at the Faculty of Science and Technology would facilitate regular discussions about job market needs and new developments in the sciences. This advisory board should consist of professionals, employers, and experts from relevant fields outside the university.

Furthermore, the auditors acknowledge the involvement of international advisors in biology and chemistry to evaluate the adjustment of the teaching program to rapidly changing requirements/rapid scientific advances. However, questions arise on the qualifications of the advisors. The biology advisor comes from SES, a renowned German Institution, but appears not to have documented expertise in the subject.

The expert panel confirms that UIN Malang has established several structures to support its quality management processes. While the extent of industry partner involvement remains unclear, the university regularly conducts surveys to collect feedback from students, alumni, and staff. The panel also confirms that students have access to the survey results.

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

The experts thank UIN Malang for the provided statement concerning criterion 5.

(ASIIN 5) Student satisfaction survey – both programs

UIN Malang states that the survey instrument was developed based on recommendations from BAN-PT and adheres to a centrally provided template. Although the instrument allows for respondents' suggestions, these have not yet been incorporated into the report. While the experts take note of this explanation, they continue to recommend improvements to the survey instrument and emphasize the importance of reporting the qualitative data. (Recommendation E13).

(ASIIN 1.3, 5) Advisory board – both programs

The experts appreciate that the university is considering the establishing an official advisory board within the Faculty of Science and Technology. This board will consist of professionals, employers, and subject-matter experts from outside the university. However, since no actions have been implemented as of yet, the experts maintain their initial recommendation (Recommendation E6).

Regarding the involvement of international advisors, the experts emphasize the necessity for the university to ensure that these advisors possess documented expertise in their respective fields.

While the experts have issued the recommendations mentioned above, they consider Criterion 5 to be fulfilled.

D Additional Documents

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

- The statistics have to be updated to the latest and provided to the assessment team.
- Specification of the foreign language proficiency test that students are required to hold upon graduation.
- Outline of the undergraduate Islamic boarding school program as a graduation requirement, including its duration, how successful completion is assessed, and the criteria for passing.
- Specification of what “collaboration” means within the context of the programs under review.

E Comment of the Higher Education Institution (21.07.2025)

The institution provided the following detailed statement and additional documents [Links have been deactivated]:

No.	Report	Comment
1	**Page 6** Based on the presented profile, the experts note that **Chemistry is framed with a scientific vision**, whereas **Biology is presented with just a vision**. **Biology integrates science and Islam, while Chemistry does not**. Further discussion on this integration will follow under Criteria 1.1 and 1.3.	The designation of "scientific vision" for the Chemistry program is based on university regulations and policies that provide flexibility for each study program to formulate and present their vision according to their disciplinary characteristics and needs. While not explicitly stated in the vision naming, the Chemistry program has integrated Islamic values in its curriculum implementation, particularly through the development and research of halal product chemistry, including chemical analysis of halal food and beverages, development of non-halal substance detection methods, and research on chemical processes that comply with syariah principles. We greatly appreciate this constructive feedback and will consider it as an important input for the review and preparation of the Faculty Strategic Plan to be conducted in August 2025. This input from the expert panel is invaluable for the development and quality improvement of our Chemistry program moving forward.
2	**Page 8-9 (1.1 Objectives and learning outcomes of a degree program)**	This concern has been responded to in point 6.

	The experts refer to the Subject-Specific Criteria (SSC) of the Technical Committee 10 – Life Sciences as a basis for judging whether the intended learning outcomes of the Bachelor's program in Biology. Based on the submitted documentation and the insights from the audit, the experts acknowledge that the program's profile highlights UIN Malang's unique focus on Islamic values. However, within the context of this international accreditation process, **the experts strongly believe that, to achieve scientific knowledge on an internationally competitive** **level, natural sciences and theological content should not be mixed together**. Interestingly, the **Chemistry program places much less**	

	emphasis on this integration compared to the Biology program. The experts ask the university to address this concern, as the issue is reflected in certain defined competencies and aspects of the curriculum (further details are provided under Criterion 1.3).	
3	**Page 10-11** The experts refer to the Subject-Specific Criteria (SSC) of the Technical Committee 09 - Chemistry, Pharmacy as the basis for judging whether the intended learning outcomes of the Bachelor's program in Chemistry. However, the industry partners also **identified areas for improvement, specifically regarding students' soft skills**. They emphasized the importance of preparing students to confidently express themselves	The Chemistry Study Program has implemented comprehensive solution stages to enhance students' soft skills development. As part of this initiative, the study program has invited senior managers as industry experts to share their expertise, including Mr. Godot Dekaistiantono (PT. Aneka Atsiri Indonesia) and Ms. Lina Erdawati (PT. Otsuka Indonesia). Notably, several alumni from the Chemistry Study Program at UIN Malang have been employed by both companies, and alumni surveys have shown positive evaluations from their supervisors. These industry experts conducted sessions on basic communication skills and industrial work practices, specifically designed to sharpen students' capabilities in leadership, critical thinking, problem-solving, and conflict management. Godot emphasized the critical importance of adaptability and continuous learning to successfully complete assigned tasks, while also highlighting the necessity of effective team communication to ensure successful project completion. Lina stressed the significance of developing technological proficiency while maintaining creativity and personal development as irreplaceable human qualities that cannot be substituted by machines. Both experts expressed their willingness to engage in further discussions with students via email, and several students have subsequently contacted them for additional questions and discussions. Additionally, the study program has invited alumni who work as

	and articulate their ideas clearly. Key areas of focus include scientific communication for a layman's audience, reporting on their work, public speaking, leadership, critical thinking, problem-solving, and conflict management. The partners highlighted the value of these soft skills and recommended placing greater emphasis on developing students' communication abilities. Feedback from academic stakeholders also indicated that **the graduates' ability to operate instruments and handle substances could be enhanced, suggesting a need to strengthen practical laboratory competencies**.	entrepreneurs and employees in significant positions within industries to share their work experiences, which broadens students' perspectives and stimulates their critical thinking and communication abilities. Recognizing the challenges posed by the COVID-19 pandemic, where practical laboratory sessions were conducted online, the study program identified that students lacked sufficient fundamental laboratory working skills. To address this deficiency, the Chemistry Study Program established a comprehensive basic laboratory skills program for all seventh-semester students at the beginning of the semester. This program was strategically implemented to prepare students for conducting their thesis research effectively and obtaining accurate data. To enhance students' abilities in operating instruments and analyzing instrument output, the study program provides Instrumental Chemistry 1 and 2 practical courses in the fifth and sixth semesters. During sessions with alumni, students gained a deeper understanding of the importance of mastering instrumental skills. Following information about instrument workshops provided by the study program, several students took the initiative to attend these workshops at their own expense to enhance their skills. These initiatives collectively demonstrate the study program's commitment to addressing industry feedback and ensuring graduates possess both strong technical competencies and essential soft skills required in professional environments. Thank you for the insightful feedback. As one of the primary sources of information for the strategic plan review and curriculum development planned for August 2025, we truly appreciate it and will give it careful thought.
4	**Page 11** Despite the identified shortcomings, the experts find	This concern has been responded to in point 6.

	that the intended qualification profiles of both programs under review appear to enable graduates to pursue occupations aligned with their qualifications. The study programs seem to be designed in a way that they meet the goals set for them. Most objectives of the degree programs are well-established, and the learning outcomes are generally coherent with these objectives. To a large extent, they reflect the intended level of academic qualification and correspond **sufficiently** with the ASIIN Subject-Specific-Criteria (SSC) of the respective Technical Committees. However, as previously mentioned, **the experts suggest that science and theology should not be integrated when it comes to subject-specific competencies in the sciences**. Additionally,	

	based on the SSC, **they recommend a stronger emphasis on basic sciences within the curriculum**, with further discussion on this point to follow under Criterion 1.3.	
5	**Page 12 (1.3 Curriculum)** In the seventh semester, students participate in community service activities known as KKN, where they apply their academic knowledge to address challenges in rural or remote communities. **The experts support KKN, but strongly recommend that the topics should be as close to the respective study program as possible, and this should be pointed out in the curriculum**.	Various activities during KKM (Kuliah Kerja Mahasiswa) that facilitate students' integration with local communities were carried out based on guidance from field supervising lecturers while considering the local community's cultural context. These activities focus on applied chemistry and biology sciences that can be directly and easily implemented, such as natural fertilizer production, Halal Certification Assistance for micro and small business because they do not understand the importance of halal certification for their products and teaching science in schools through practical approaches using simple teaching aids, thereby providing enjoyable learning experiences for children in science education. Students engage in hands-on applications of their academic knowledge while addressing real community needs, ensuring that the KKM activities remain closely aligned with their study program. These community-based projects not only allow students to apply theoretical concepts in practical settings but also develop their communication skills and social awareness. Examples of KKM reports can be accessed through the provided link KKM report
6	**Page 13-14** During the discussion with UIN Malang management, the experts asked about the inclusion of one and a half semesters of non-	We appreciate the assessor panel's concerns regarding the integration of non-science content in our curriculum and would like to provide clarification on several key points. **Non-Science Content in Curriculum** The inclusion of non-science subjects in our curriculum adheres to SN-Dikti regulations that mandate general courses including Pancasila (2 credits),

	scientific content, particularly focused on Islamic law and the Arabic language. **The experts expressed concern that this amount of non-scientific content could risk overloading the curriculum. While they acknowledged the importance of including ethics, they emphasized that the programs under review—Biology and Chemistry—are scientific disciplines that require the use of an international language.** UIN Malang management explained that the university's goal is to equip students not only with knowledge but also with strong character values. These values include equality, respect for others, morality and more. The university's profile is built on five pillars and it is crucial that students embody them. Additionally, the curriculum aligns	citizenship (2 credits), Indonesian language (2 credits), and English I-II (6 credits). Religious and institutional distinctive courses comprise Arabic I-IV (8 credits), philosophy of science (2 credits), history of Islamic civilization (2 credits), theosophy (2 credits), Quranic studies (2 credits), and Hadith studies (2 credits). These courses are strategically placed in early semesters (1-3) and constitute approximately 20% (30 credits) of the total 149 credit hours, leaving sufficient space for in-depth science material, practicum, and research in subsequent semesters. As a religious university, UIN Malang implements an integrative education model based on the "ulul albab" vision that combines scientific knowledge mastery with character, ethical, and spiritual development. Arabic language instruction (8 credits, reduced from previous 12 credits) strengthens students' understanding of Islamic literature and serves as a practical application of Arabic as a UN language. This philosophical foundation positions Arabic as a tool to support religious understanding and sources. **Arabic and English Language Usage** We clarify that Arabic is not used as an instructional language for science-based courses but exclusively for religious and general subjects to enhance Islamic literature comprehension. English is gradually implemented in science learning through several mechanisms: using English reference books and scientific journals for learning and research activities, conducting guest lectures and international seminars in English, writing assignments and theses in English, producing scientific articles from thesis results in English, and delivering student research presentations in English. We acknowledge that while passive English skills (writing) among students and faculty are adequate, active skills (speaking) require improvement, particularly in academic contexts. Therefore, we have developed enhancement programs including English training for faculty

	with the national education standards. Every university is required to offer courses such as Citizenship, Pancasila, and Bahasa Indonesia, among others. UIN Malang offers more Arabic courses than English because some important aspects in the curriculum are primarily taught in Arabic. Not all students have prior experience with Arabic, while most have studied English in high school. Furthermore, students have opportunities to enhance their English skills. For example, the university provides internship opportunities that can be conducted in English, and promotes independent learning managed by the students themselves. However, **the experts observed that the increased emphasis on the Arabic language has led, as reported by students, to**	and students, establishing English study groups in student organizations, scientific writing training in English, and requiring TOEFL test results for graduation. Regarding the TOEFL requirement, we have released an amended announcement. A minimum TOEFL score of 450 is required for students to be eligible for graduation registration. **Theological Content Integration in Science Programs** We emphasize that our Biology and Chemistry programs are not designed as "Islamic Biology" or "Islamic Chemistry" in an epistemological sense that alters scientific substance or methodology. Core courses and teaching methods follow applicable national and international standards, delivered by faculty with scientific competence in their respective fields. Islamic content integration focuses on strengthening scientific ethics, understanding Islamic civilization's contributions to scientific development, and incorporating moral and spiritual values in knowledge application contexts. We agree that this integration requires strict academic supervision. Therefore, we conduct regular curriculum reviews through internal quality assurance systems to evaluate integration effectiveness and continuously develop collaboration between science and Islamic studies faculty to ensure each discipline receives equitable benefits while maintaining depth in their respective fields. As a result, we intend to perform a curriculum review activity to determine the theological concept's position within our curriculum.

	improved communication in Arabic among peers, but not in English. Although it was stated during the meetings that both faculty and students possess good English proficiency, **communication with the experts often required a translator. This indicates that further efforts are needed to strengthen English language skills across the programs.** Furthermore**,** as stated in Criterion 1.1, **the expert panel restate their concern about the strong integration between natural sciences and theological content.** The panel acknowledge that Natural Sciences have become a wide field of sub-disciplines. Study programs become specialized, and some have become interdisciplinary (mostly among sister Sciences). **In the**	

	experts' view, combinations between Humanities/Social/Philosophical Sciences are rare and require special scrutiny. The proposed study programs could be seen as "Islamic Biology" and "Islamic Chemistry". The experts believe that **it should be ensured by experts in Biology and Islamic Studies that both disciplines profit from the combination and do not lose any of their characteristics and values**.	
7	**Page 14** After further review of the modules in the curriculum for the Bachelor's program in Biology, the experts noted that **the General Chemistry course in the first semester focuses rather on a small section of Biochemistry**. The experts believe the study program should consider more General Chemistry. Together with	We appreciate your feedback and have revised the module handbook for Basic Chemistry. The study program will consider more Basic Chemistry. General Physics is already in the curriculum, under the name Biophysics, and it includes fundamental physics and related biology to enhance students' overall preparation for the next stage of study. Apart from that, we will also revise our curriculum to include basic physics content in our curriculum. Bioinformatics was previously a mandatory course in the curriculum and will be made a mandatory course again for the next curriculum review.

	this, **the experts identify a lack of General Physics** and suggest that adding this course within the curriculum would significantly improve students' overall preparation for subsequent stages of their studies. The experts also noted that **Bioinformatics is currently offered as an elective course**. During the discussion with industry representatives, the importance of this field in all subdisciplines of biology was emphasized, with a strong recommendation that students should develop skills in Bioinformatics given its growing relevance. The experts believe that the current elective nature of the course limits students' opportunities to gain knowledge in this critical area. Therefore, **a key recommendation is to ensure that Bioinformatics be**	

	compulsory where it fits within the curriculum.	
8	**Page 14-15** After reviewing the modules in the curriculum for the Bachelor's program in Chemistry, the experts observed that **the coverage of General Mathematics is limited**, with only one course offered in the first semester. Given the foundational role of mathematics, they recommend that the program integrate additional **General Mathematics content across the first two semesters**.	In the 2014 curriculum for Chemistry, there were two separate courses: Basic Mathematics 1 and Basic Mathematics 2, each carrying 2 credits and offered consecutively in the first and second semesters. However, based on discussions within the academic unit, it was determined that mathematical knowledge in chemistry would be more effectively delivered through the Structure of Matter course offered in the third semester, as it incorporates differential and integral calculus with direct applications to chemical sciences. Following this agreement, the 2017 and 2022 curricula were revised to provide Basic Mathematics as a single course in the first year with an increased credit load of 3 credits. This restructuring was designed to consolidate mathematical foundations while ensuring that advanced mathematical concepts are taught within the context of their chemical applications. The curriculum modification reflects the study program's commitment to providing students with a more integrated and application-oriented approach to mathematical concepts essential for chemistry studies. The Course Learning Plan for the Structure of Matter course can be accessed here. We intend to integrate mathematics subjects into the course Structure of Materials as part of the curriculum revision exercise scheduled for August 2025.
9	**Page 15** Further discussion with the industry partners shed light on other potential areas for **improvement within the curriculum for both programs**,	In response to the industry partners' recommendations regarding curriculum improvement in laboratory management and regulatory issues, the Chemistry Study Program has proactively addressed these concerns since 2017 through the implementation of a mandatory Laboratory Management course. This curricular enhancement was developed following comprehensive discussions during curriculum review sessions with industry stakeholders, particularly with Ms. Lina Erdawati, who emphasized the critical importance of laboratory safety knowledge and proper laboratory conduct, especially in relation to product quality analysis management. The

	specifically in laboratory management and issues of regulation in Biology/Chemistry. The experts concur with these recommendations, emphasizing that a strengthened approach to laboratory management and regulatory issues (e.g., laboratory safety, good laboratory practice – GLP, animal welfare and more) would better equip students for the complexities they will face in professional environments.	course was strategically designed to bridge the gap between academic learning and professional practice by ensuring students possess fundamental competencies in laboratory operations and safety protocols. Additionally, laboratory safety awareness is reinforced throughout the curriculum, with students required to include Material Safety Data Sheets (MSDS) for all chemicals used in every practical session. Furthermore, the Basic Chemistry 1 practicum specifically incorporates occupational health and safety materials focused on laboratory environments, ensuring early exposure to safety protocols and risk management practices. To provide comprehensive practical understanding, students are facilitated to participate in both internal and external training programs that cover essential aspects of laboratory management, biosafety/bioethics regulations, and standard operating procedures (SOP) implementation. These training opportunities are carefully structured to align with industry standards and regulatory requirements, ensuring students develop both theoretical knowledge and practical skills necessary for professional laboratory environments. Furthermore, the study program actively facilitates external certification opportunities when available, recognizing the value of professional credentials in enhancing students' career prospects and ensuring compliance with industry standards. BSP has courses regarding laboratory management and regulatory issues (e.g., laboratory safety, good laboratory practices – GLP, animal welfare, etc.) will better equip students to deal with the complexities they will encounter in a professional environment. The course Basic Laboratory contains laboratory management, laboratory safety and good laboratory practice.

10	**Page 15** The experts highlight the importance of improving the English proficiency of teaching staff as a critical first step toward increasing the use of English in the classroom. **The experts suggest that strengthening English language capacity is essential for delivering lectures fully in English, introducing Scientific English, and encouraging students to submit assignments in English**. These measures would provide students with more consistent opportunities to develop their academic writing and speaking skills.	We appreciate the valuable feedback and recommendations regarding the importance of improving lecturers' English skills as a strategic first step in expanding the use of English in the learning process. We are committed to continuously and continuously improving our lecturers' English language capacity. Several courses are taught in English or bilingually (Indonesian and English). Furthermore, lecturers actively use English-language scientific references in the learning process, supervising students' final assignments, and writing for national and international journals. To enhance lecturers' capacity, the university has facilitated English language training for teaching staff and encouraged them to participate in the Advanced Study Preparation Program (PPSL), available through the Ministry of Religious Affairs platform (the official website of the Ministry of Religious Affairs). This program is part of the human resource development strategy as outlined in the Faculty Strategic Plans (Renstra). Furthermore, lecturers are encouraged and facilitated to participate in various international activities such as staff mobility, international conferences, and visiting lectureships, which not only expand their academic networks but also strengthen their English language competency in professional and academic contexts.
11	**Page 16 (International mobility)** Despite these efforts, the experts observed that **the number of students studying abroad remains low**. They inquired with	We sincerely appreciate the valuable feedback. Furthermore, efforts are underway to increase budget allocations to support student mobility programs, both at the faculty and university levels, as has been and is being implemented by the UIN Malang Project Management Unit (PMU). This program is outlined in the Faculty and University Strategic Plans. We are optimistic that with better training and funding support, student participation in international programs will increase significantly in the future. We are concentrating this work in Southeast Asia

	the representatives from the Rector's Office about the reasons behind this trend. The representatives explained that the university actively supports students in pursuing opportunities abroad. Many students have received assistance to study in countries such as Japan, Saudi Arabia, Thailand, and Malaysia. **The low number of Biology and Chemistry students studying abroad is partly due to limited funding**. While there are opportunities available, participation requires going through a selection process. The faculty supports the possibility of **internship opportunities**, but some students may hesitate due to **a lack of confidence in their English skills** (which, once again, highlights the need for better training in English).	because of the comparatively high expenses. Thirteen students are taking part in KMUTT's internship program this month, which runs from July 7 to August 1, 2025.

12	**Page 17** During the discussion with the experts, the students confirmed that opportunities for **international academic mobility are available** and that credits earned abroad are recognized by the university. However, **the experts suggest that these opportunities could be expanded**. They recommend increasing the number of available places and providing better-funded scholarships to support both long- and short-term study abroad programs, ensuring broader access and participation among students. UIN Malang can provide limited travel grants while student demand is rising. The lack of financial support hinders students from joining the outbound programs. **The national scholarships available are highly**	We sincerely appreciate the valuable feedback regarding the importance of expanding international academic mobility opportunities for students. Currently, UIN Maulana Malik Ibrahim Malang continues to strive to increase the number and quality of international mobility programs by strengthening collaborations with various international partners. Some established collaborations include those with King Mongkut's University of Technology Thonburi (KMUTT) in Thailand, Fukuoka University, and Ondokuz Mayis University, which have provided opportunities for students to participate in exchange programs and internships. The Project Management Unit (PMU) also spearheads several student exchange programs at universities in Europe. We have also participated in international collaborative activities with the University of Western Australia, a partnership between seven state universities (PTN) in East Java that encompasses academic collaboration, cultural exchange, and institutional capacity building on an international scale, implemented in both Indonesia and Australia. We recognize that limited funding, including travel grants, remains a challenge. Nevertheless, efforts to broaden access for students are ongoing. Going forward, the institution will continue to expand its international partner network and strive for additional funding allocations, both domestically and through international collaborations. We have started communicating with the EURAXESS Worldwide Representative for ASEAN to examine potential research funding options. We intend to invite them in September of 2025.

	competitive, so only a few students receive them. The experts understand there has been severe budget cuts. However, they recommend **increasing the effort to further internationalize UIN Malang by offering more places in international exchange programs and more scholarships**. It is also possible for students and teaching staff to apply to international organizations like ERASMUS or the German Academic Exchange Council (DAAD) to receive funds for stays abroad. The experts emphasize that it is very useful for students to spend time abroad during their bachelor's studies to improve their English proficiency, get to know other educational systems, and enhance their job opportunities.	

13	**Page 18 (1.4 Admission requirements)** In the period 2020 – 2023, the average number of new enrolments in the Bachelor's degree program Biology was 148, which was below the offered places. However, the number of applications exceeded the number of offered study places. The Biology program had an acceptance quota of 12% in 2022/2023. Between 2020 and 2023, the average number of new enrolments in the Bachelor's program in Chemistry was 107, which is also below the program's offered places. However, the number of applications consistently exceeded the offered study places. In 2022/2023, the Chemistry program had an acceptance rate of 19%.	In response to the note stating that the latest available data only covers the 2022/2023 academic year, the following provides the latest data on the number of students enrolled in the BSP and CSP programs through the 2024/2025 academic year. The data indicates that enrollment trends for both programs remain quite high, despite a decrease in enrollment compared to the previous year in 2022/2023.

	Overall**, the experts observe that both programs under review attract an acceptable number of applications**, with demand significantly surpassing the number of offered study places. However, they note that this conclusion is based on **outdated data**, with the most recent figures from the 2022/2023 academic year. **The experts expect the university to provide the most up-to-date data available**.	
14	**Page 19** Undergraduate students at UIN Malang have to pay tuition fees. The fees for each study program vary according to the operational costs of the teaching and learning process. In addition, the fees for each student differ according to the financial ability of their parents, which is categorized into eight groups. Based on the information displayed in the	The information is clear, and no response is needed.

	admission website, the single tuition fee for the academic year 2024-25 ranges from IDR 400.000 - 13.021.250 (€22 – 700) for Biology and IDR 400.000 - 8.507.500 (€22 – 458) for Chemistry per semester. The experts find the terms of admission to be binding and transparent. **They confirm that the admission requirements support the students in achieving the intended learning outcomes**.	
15	**Page 20 (1.5 Workload and credits)** According to the Self-Assessment Report, the student workload survey results also indicated that students perceived the credit load somewhat challenging, especially concerning practicum workload. **Students reported that the time required for practicum work, including report writing, is**	We appreciate the experts' acknowledgment of our progress in improving laboratory report efficiency and their constructive suggestions for further digitalization. We are pleased to inform you that we are actively developing a comprehensive digital laboratory system application that will address the concerns raised regarding practicum workload and report writing processes. Currently, we are in the development phase of implementing a digital system for laboratory management that will streamline various aspects of practical work, including digital protocols, electronic report submission, and automated data processing. This initiative aligns with our strategic plan's digitalization agenda, as outlined in our institutional roadmap. The digital laboratory system will eliminate the need for printing and handwriting altogether, as suggested

	extensive and burdensome. One suggested solution was the partial digitalization of these reports. The experts raised this issue during the meeting with students. **The students explained that support is now provided for practical sessions, and that a template for lab reports is printed and filled in, which has improved efficiency compared to fully handwritten reports**. **T**he experts acknowledge this progress, but **encourage further digitalization of course components, suggesting that digital protocols could be provided to eliminate the need for printing and handwriting altogether**. While the experts appreciate the availability of workload survey data, they once again note **the need for more up-to-date information**. Further discussion	by the experts, by providing students with digital templates, online submission platforms, and interactive protocols that can be accessed through various devices. As referenced in our Faculty Strategic Plan page 83, under PS.9, we have allocated resources for laboratory revitalization, which includes the integration of digital technologies to enhance learning efficiency and reduce administrative burden on students. The digital system will feature automated report generation, real-time data collection, digital protocol access, and streamlined workflow management that will significantly reduce the time students spend on manual report writing while maintaining the quality and accuracy of their practical work documentation. We recognize the experts' observation regarding the need for more up-to-date information in our workload survey data. Moving forward, we are committed to implementing regular data collection and analysis through our new digital platform, which will provide real-time insights into student workload patterns and enable us to make timely adjustments to optimize the learning experience. This digitalization initiative represents our dedication to continuous improvement and our responsiveness to both expert recommendations and student needs.

	about the lack of updated data will follow in Criterion 5.	
16	**Page 22** In addition, the experts observe from the submitted student workload survey report that suitability is measured at the program level. **They point out that monitoring and ECTS points must be calculated separately for each course**. This is necessary because each course's time students need for self-study is different. **The experts state that UIN Malang should follow the ECTS Users' Guide to determine the student's total workload**. As described in the ECTS Users' Guide, the estimation of students' workload should include all learning activities, including lectures, seminars, projects, practical work, self-study and examinations.	We sincerely thank the expert panel for highlighting the importance of course-level workload analysis and the accurate application of the ECTS system. In response: 1. **Course-Level Workload Mapping:** A detailed mapping of student workload has been conducted for **each course** in the Biology program. The mapping includes estimated hours for lectures, tutorials/seminars, laboratory work. 2. **ECTS Conversion:** The total workload per course has been calculated and converted into **ECTS credits**, following the guidance of the *ECTS Users' Guide*, using a standard of **25–30 hours per 1 ECTS credit**. This ensures that the allocation accurately reflects the total learning time required by students. 3. **Attached Documentation:** The complete table includes the following information for each course: a) Course name b) Number of Indonesian credits (SKS) c) Distribution of learning activities d) Equivalent ECTS credits The full document can be accessed via the following link: https://drive.google.com/drive/folders/1UxKCH0dhn1DCaLQIqk1cNtBlu1wuso-

		b?usp=sharing. We hope this revised and transparent workload documentation addresses the concerns raised and demonstrates our alignment with European standards for curriculum design and credit calculation.
17	**Page 22-23** The experts also paid particular attention to **the seventh and eighth semesters**, asking the program coordinators why the allocated **credits drop to only 6 or 8 credit units during these periods**. The coordinators explained that the lower credit allocation is due to some students having unfinished courses from previous semesters. Additionally, during the seventh semester, students normally engage in community service or internships, which often require them to relocate. The program coordinators explained that many students begin their thesis at the end of the sixth semester, after completing	According to the University's Academic Guidelines, students writing a thesis are required to have met a certain number of Semester Credit Units (SKS) and completed a number of core courses as determined by the Study Program in which they are enrolled. The faculty's thesis guidelines require that active students in the current semester achieve a minimum Cumulative Grade Point Average (GPA) of 2.00. In the sixth semester, students are equipped with basic skills in writing a thesis proposal through the Research Methodology course. Then, in the seventh semester, students are given the opportunity to take Thesis/Proposal, community service, internships, and several other elective courses. However, in some cases, a small number of students still repeat courses they have not yet passed or improve their grades to improve their academic performance. As part of efforts to improve academic quality and accelerate the study period, the Study Program has initiated various strategies to encourage timely graduation, as reflected in the increasing trend in student permissions over the past three years, as shown in the graduation achievement chart. The faculty thesis guidelines have been updated, and students can now start their thesis after completing at least 110 credit hours.

	the course "Research Methodology." Following this, students enter a structured process that leads to their thesis. During the seventh and eighth semesters, students will consult with their supervisors since they will already have a proposal in place. The experts appreciate the explanation provided but note that the current structure may result in **students beginning their thesis process at different times**. This could **potentially lead to unequal access to time and guidance, giving some students an unintended advantage**. Therefore, the experts emphasize the importance of ensuring that all students have **the same amount of time to prepare and complete their thesis in order to guarantee equal conditions**.	

18	**Page 25 (1.6 Didactic and Teaching Methodology)** The Faculty of Science and Technology connects its students with relevant external parties through various initiatives, including inviting guest lecturers, promoting student exchanges, organizing competitions and internships, and establishing partnerships with international institutions. **The experts appreciate these initiatives and suggest that more of them could support the goal of integrating more English into the teaching and learning process** (e.g., online guest lectures from foreign lecturers).	The recommendation has been accepted.
19	**Page 27 (2. Exams: System, concept and organisation)** **NOTE :** **Regarding graduation requirements, the experts**	Regarding the foreign language proficiency test, students are required to pass a TOEFL examination as a mandatory graduation requirement. This ensures that our graduates possess adequate English language competency to meet international academic standards. The TOEFL

	request additional information from UIN Malang about the foreign language proficiency test that students are required to take. They also seek clarification on the undergraduate Islamic boarding school program, specifically, the program outline with its duration, how successful completion is assessed, and the criteria for passing.	requirement is integrated into our graduation assessment process and must be fulfilled 450 scores before students can proceed with their final academic evaluation. Our undergraduate Islamic boarding school program (Ma'had Ali) operates with comprehensive documentation and structured assessment mechanisms. The program includes academic progress reports, placement tests for new students, regular evaluations, and detailed academic guidelines. The language learning component in Ma'had focuses primarily on habituation and practical application rather than formal academic instruction. The program structure encompasses four core focus areas as outlined in our academic handbook, each with specific assessment criteria including midterm and final examinations. These areas include: Ta'lim Afkar (Islamic thought education) with specific graduation criteria, Ta'lim al-Qur'an (Quranic education) with established passing standards, Tashih al-Qur'an (Quranic recitation correction) based on placement test levels, and monitoring of social-religious competencies. The boarding school component (*kepesantrenan*) incorporates character development through two key assessment areas: active participation in congregational prayers (*jama'ah sholat*) and adherence to disciplinary regulations through a point-based violation system. Students must demonstrate consistent participation in religious activities and maintain good conduct according to established guidelines. Successful completion of the Ma'had program is assessed through a combination of academic performance in the four focus areas, active participation in religious activities, and compliance with boarding school regulations, ensuring that graduates possess both academic knowledge and strong moral character foundation. For your information, all Indonesian students, from elementary to high school, are mandated to learn English. As a result, their English competence is often higher by the time they start university, allowing them to read and interpret English materials. In contrast, Arabic is often

		introduced at the university level, therefore more credit hours are assigned to it. Students should be able to understand texts and speak well in Arabic.
20	**Page 28** During the onsite visit, the teaching staff confirmed to the experts that for both programs, the lecturers suggest topics for final theses, and students select based on interest. Once a topic is chosen, a thesis supervisor is assigned. Upon inquiry, the program coordinators indicated that in the Chemistry study program, the majority (90%) of students join one of the program's research groups, with funding provided by the lecturers. In the Biology program, about 55% of students participate in projects within research groups, while 10% conduct their thesis with Indonesian organizations. The remaining students pursue their research by proposing their	This concern has been responded to in point 17.

	own ideas. A final project conducted outside the institution involves guidance from supervisors within the program and external institutions. The experts acknowledge this process; however, as outlined earlier, **the university should address the potential variability when students begin their thesis work, as this might result in unequal conditions that could affect the fairness and comparability of outcomes**. In their appreciation of this criterion, the experts come to **the following conclusions**: The expert group finds that appropriate university-wide and program-specific rules and procedures govern the examination systems. These rules and procedures are adequately	

	communicated and transparently published. It is regularly reviewed whether the exams can adequately determine the achievement of the learning objectives and whether the requirements are appropriate to the level of the degree programs.	
21	**Page 28** The expert group also examined a selection of final theses and determined that they were of an appropriate academic level. However, as noted earlier in this report, students write their theses in Bahasa Indonesia. To align with the programs' international aspirations, **the experts suggest incorporating titles and abstracts in English. Writing the thesis in English should be encouraged.**	The thesis writing guidelines have stipulated that students are required to write their research titles and abstracts in three languages: Indonesian, English, and Arabic, as can be verified through this link thesis. In line with the faculty's increasing collaboration with universities in the Asian region, particularly Malaysia and Thailand, there has been a growing number of research partnerships, including joint supervision arrangements, which has resulted in an increasing number of students writing their theses in English. Examples of English-language theses can be accessed through this link Thesis Report.
22	**Page 30 (3.1 Staff and Staff Development)**	We express our gratitude for the appreciation and recommendations given by the assessors regarding efforts to increase the number of lecturers with doctoral qualifications (S3). We fully

	The experts acknowledge the university's efforts to increase the number of teaching staff members with a PhD degree. The experts support these initiatives and strongly recommend that the Faculty of Science and Technology continue to expand its teaching staff with PhD holders, particularly if one of the strategic goals is to achieve international recognition. **According to international standards, all teaching staff members should possess a doctoral degree**.	accept this response. The university actively encourages human resource development through various programs supporting further study, both through scholarships such as the Indonesia Bangkit Scholarship (BIB) which is the result of LPDP's collaboration with the Ministry of Religious Affairs, the Outstanding Santri Scholarship Program (Program Beasiswa Santri Berprestasi), etc. The institution's commitment to developing lecturer qualifications is also reflected in the Faculty of Science and Technology's Strategic Plan (Renstra), specifically on page 82 (PS.06), which explicitly states support for further study for lecturers in order to improve academic quality and strategic achievements. With the support of this policy, we continue to encourage lecturers who do not yet have a doctoral qualification to pursue doctoral studies, in order to meet international standards that recommend all teaching staff have a doctorate. The list of lecturers who are currently pursuing their doctoral studies and have registered for their doctoral studies for CSP and BSP. The number of lecturers assigned is adjusted to the lecturer-to-student ratio to ensure a smooth learning process. Therefore, lecturers are deployed on a rotating basis to avoid disrupting the continuity of academic activities in the study program
23	**Page 31** The experts also inquired about opportunities for teaching staff to spend time abroad and participate in international projects. They were informed that lecturers receive research grants	The recommendation has been accepted.

	from the university to support ongoing research and publication efforts, including international journals, which are overseen by the Division of Research and Community Service. However, **the experts gained the impression that funding for research is very limited and that only a reduced number of staff members have been involved in international activities to date**.	
24	**Page 31-32** In summary, UIN Malang has established support mechanisms and opportunities for the development of its teaching staff. However, **additional actions are needed to actively encourage more staff members to pursue doctoral degrees and to strengthen research efforts**. The experts also recommend **expanding funding for research and advocate for more academic**	We appreciate the experts' recommendations regarding staff development and research enhancement. We acknowledge the need for improvement in several key areas to strengthen our international profile. To encourage more staff members to pursue doctoral degrees, we will establish financial assistance programs, provide study leave arrangements, and create mentorship support systems. We are also developing partnerships with national and international universities to facilitate advanced degree pathways for our faculty. For research strengthening, we are committed to increasing our research funding allocation and diversifying funding sources through partnerships with government agencies, private

	exchange networks to create more opportunities for student/staff mobility for national and international collaboration. Moreover, as noted under Criterion 1.3, there is room to further **improve the English proficiency of the teaching staff**. Addressing these areas is particularly important if the university aims to strengthen its international profile.	organizations, and international funding bodies. We will establish dedicated research grants and create research clusters to encourage collaborative projects among faculty members. Regarding academic exchange networks, we plan to expand our international partnerships and participate in consortium programs to create more opportunities for student and staff mobility. This will foster meaningful national and international collaborations that enhance our academic reputation.
25	**Page 32** The experts got the overall impression that just a very small number of research collaborations was highlighted. The term “collaboration” was used, during the audit, to mostly denote some advice on how to organise the curricula and the administration. **NOTE :**	We appreciate the experts' observation regarding the need for clearer specification of what "collaboration" means in the context of our programs under review. We acknowledge that our previous presentation may have emphasized administrative and curricular aspects rather than comprehensive academic collaborations, and we would like to provide a more detailed clarification of our collaborative activities. In the context of our academic programs, "collaboration" encompasses a broad spectrum of substantive academic partnerships that directly contribute to the quality of education and research outcomes. Our collaborative framework includes joint thesis supervision arrangements, where faculty members from our institution work alongside international supervisors to guide students through their research projects, ensuring exposure to diverse academic perspectives and methodologies. Additionally, we actively engage in collaborative

	The experts require more specification on what "collaboration" means in the context of the programs under review.	research initiatives with partner institutions, involving joint research projects that result in co-authored publications in reputable journals and conference proceedings. Our collaboration also extends to practical training opportunities through internship programs, where students gain hands-on experience in partner institutions' laboratories and research facilities, fostering knowledge transfer and skill development. Furthermore, we facilitate faculty exchange programs that enable our academic staff to conduct research visits, participate in joint seminars, and develop collaborative publications with international counterparts. These collaborative research efforts often lead to co-authored scientific publications, joint grant applications, and shared intellectual contributions that enhance the academic reputation of all participating institutions.
26	**Page 34 (3.2 Funds and equipment)** With regard to external sources of funding, the experts learned during the audit that financial support from Saudi Arabia has played a significant role in the development of new facilities, such as laboratories and general infrastructure, on Campus 3. When the experts inquired about how the university maintains its independence while receiving such support, representatives	Between 2022 and 2024, the institution's budget increased by 9.3%, reflecting a strategic focus on academic quality, research development, and infrastructure improvement. The largest portion of the budget was consistently allocated to lecturer costs, reaching 46.2% in 2024, while research and infrastructure funding saw the highest growth rates 26.8% and 59.8% respectively indicating an emphasis on innovation and long-term sustainability. However, allocations for educational personnel and community service grew modestly, suggesting the need for more balanced investment in support functions and societal engagement. Overall, the budget trend supports institutional advancement, but greater attention to non-academic staff and outreach activities is recommended to ensure inclusive development (link)

	from the Rector's Office explained that the government is involved in the management of international funding schemes. This involvement helps to ensure that institutional autonomy is preserved in matters related to external funding. The experts also observed from the data presented in the Self-Assessment Report for the period 2020–2022 that there was a significant decline in funding in 2021 and 2022. UIN Malang's management attributed this drop in income to a general government budget cut and the impact of the COVID-19 pandemic. As previously noted in this report, **the experts request updated financial data to better assess current funding trends**. The experts nonetheless acknowledge that, despite budget cuts, the university has, to some	

	extent, invested efforts and resources to improve its international profile. They believe that **increased funding** would further strengthen the outcomes of these internationalisation efforts. For instance, **the university should support qualified lecturers to apply for national and international research grants**.	
27	**Page 35-36 (Biology' laboratories)** The teaching labs have sufficient space. While the lab benches and chairs/stools are not of the highest quality, they are considered adequate for current use until the laboratories are relocated to Campus 3. However, **safety measures are insufficient; the experts did not see eye-wash, emergency showers, and fire extinguishers, among other**	Annual maintenance for the lab and building infrastructure is always required. Further discussion will be conducted in the strategic plan review in August 2025 to ensure adequate lab safety equipment. The revitalization proposal will include equipment for modernizing lab equipment and safety annually. Laboratory revitalization not only meets the need for the latest equipment but also meets the needs for student practicums and research. In 2025 we submitted a comprehensive revitalization proposal to the Ministry of Religious Affairs, specifically requesting funding for laboratory equipment modernization and the procurement of essential safety equipment.

	safety features, in all labs. This has to be urgently addressed. In the experts' view, **the equipment for teaching labs is insufficient**. They saw 12 students sharing one pipette and working on one electrophoresis apparatus. The experts judge this as not enough and believe it has to be substantially extended: complete pipette sets for groups of 3 students, gas-burners on every bench for semi-sterile work (especially microbiology). **The experts note that there are cheap electrophoresis sets to equip groups of 6 students at the most with one set**. **Laminar-flows**/sterile working places are available for teaching, as well as for research-labs, but these **are not used in an appropriate way**. Instead of high-temperature gas burners, little	

	oil-lamps are used, which have no effect on sterile working. As a general comment, **the experts recommend reviewing the alignment between intended learning outcomes and the actual activities conducted in laboratory courses**. In one of the observed sessions, the stated objective involved molecular analysis of a human gene; however, the practical component consisted only of casting an agarose gel and running a PCR product, with one gel shared among ten students. However, students were unable to identify the gene being studied when asked. The experts hope this is an isolated case and not representative of other practical courses. Overall, **the practical units at every station of a course appeared to be very small**.	

	Routine methods are taught, but often not in the context of a scientific question. **The equipment is not sufficient to prepare students for future**, more independent thesis (= research) work.	
28	**Page 36 (Chemistry' laboratories)** In their assessment of these facilities, the experts found that **safety measures across all Chemistry laboratories are insufficient**. As with the Biology laboratories, a key recommendation is to improve safety measures to align with international standards. Additionally, **the experts note the need to expand and modernize laboratory equipment** to ensure that students receive practical training that meets current scientific and educational requirements.	We sincerely appreciate the valuable feedback and recommendations provided by the experts regarding the safety measures and equipment modernization in our Chemistry laboratories. We fully acknowledge these concerns and recognize the critical importance of maintaining laboratory safety standards that align with international requirements while ensuring our students receive practical training with modern, adequate equipment. In response to these recommendations, we have established a systematic approach to address these issues comprehensively. Our institution maintains an annual budget allocation for laboratory and building infrastructure maintenance, and we are committed to continuously increasing the nominal amount of this allocation each year to ensure sustained improvements. Taking concrete action toward modernization, in 2025 we submitted a comprehensive revitalization proposal to the Ministry of Religious Affairs, specifically requesting funding for laboratory equipment modernization and the procurement of essential safety equipment. This proposal represents our proactive approach to addressing the identified gaps in our laboratory infrastructure and safety measures. The proposal aims to bring our facilities up to international standards while ensuring compliance with current scientific and educational requirements.

		Furthermore, we have scheduled a strategic review meeting in August 2025 to discuss the continuation of equipment procurement and infrastructure development. This review will be conducted as part of our strategic plan evaluation process, where we will assess the progress of our modernization efforts and determine the next phases of laboratory enhancement.
29	**Page 37 (library)** The experts also reviewed the extent to which the library provides access to a collection of books that cover the modules in the Biology and Chemistry curricula, as well as the international scientific information that is needed to support teaching and research. Overall, **the experts are satisfied with the resources available to support the learning process for Chemistry** students. However, **for Biology, the experts state that text books are outdated and do not sufficiently cover the areas included in the curriculum**. Additionally, the library lacks access to several	We would like to express our gratitude for the expert panel's constructive feedback regarding the availability of library resources for the BSP and CSP. In response to the concerns raised: 1. **Book Request System:** UIN Maulana Malik Ibrahim Malang has established an online book request system that allows individual faculty members, departments, or study programs to propose new book acquisitions at any time. This service can be accessed through the university library website at https://library.uin-malang.ac.id, which then redirects users to the official request form at the following link: https://docs.google.com/forms/d/e/1FAIpQLSdvLK85I1rHVEu8ehlqO8HYVi-CFhLhCWgbhbJJJp4Lgm2BzA/viewform. Requests are processed periodically based on academic relevance and budget considerations. A screenshot of the form and procedure is attached to this response. 2. **Access to Electronic Resources:** UIN Malang maintains a centralized e-resources portal at https://eresources.uin-malang.ac.id, offering access to a range of national and international academic databases, e-books, and journals. Notably, the university currently **subscribes to** major international scientific journal platforms, including:

	major international biology journals and books. In view of the severe budget cuts and the outdated nature of the existing biology textbooks, it is **essential for the library to expand and update its collection** of books, as well as to invest in e-journals/subscriptions.	● **Cambridge University Press Journals**: https://www.cambridge.org/core ● **SpringerLink**: https://link.springer.com These platforms provide full-text access to high-quality scientific literature in the fields of biology and life sciences, supporting both teaching and research activities. 3. **Updated Book Subscriptions:** A curated list of newly acquired and subscribed textbooks and reading materials relevant to the Biology curriculum has been compiled. This list reflects the latest developments in biological sciences and has been selected based on input from academic staff and program needs. The complete list is available via the following link: https://drive.google.com/drive/folders/1_FEXEvFXVIpG59cp3f98dHlNZrBH-nnK?usp=sharing We acknowledge the need for ongoing improvement and are working closely with the library to prioritize the acquisition of essential biology literature, including access to key international journals, as budget conditions allow.
30	**Page 37** In summary, the expert group judges the available funds, the technical equipment, and the infrastructure (laboratories, library, seminar rooms etc.) to	The recommendation has been accepted.

	comply with the requirements for sustaining the degree programs. However, to ensure viability, the mentioned restrictions should be addressed.	
31	**Page 38 (4.1 Module descriptions)** The experts acknowledge that UIN Malang organizes module handbooks for the study program under review, and that these are available through the program websites. However, the experts have identified several issues with the presented module handbooks that need to be addressed: <u>Bachelor's program in Biology</u> ● Even though the module descriptions provide insight into the content of the courses, the experts believe that the content has to be	<u>Bachelor's program in Biology</u> We sincerely thank the expert panel for their insightful observations regarding the module descriptions of the Bachelor's program in Biology. In response to the identified issues, we have undertaken a thorough revision of the module handbooks to ensure they meet the quality standards expected. 1. **Updated Course Content:** All module descriptions have been reviewed and revised to reflect the latest developments in biological sciences. The content now aligns with current scientific knowledge and educational trends in the field, especially in General Chemistry and Biophysics (according to no 7 comment). 2. **Inclusion of Prerequisites:** Prerequisite information for each module has been clearly added. This is intended to help students understand the recommended sequence of courses and to support a logical and coherent academic progression throughout the program. 3. **Updated Reading Lists:** The reading lists for each module have been comprehensively updated. We have replaced outdated references with more recent textbooks and scholarly publications

	revised to ensure it is up to date. ● The experts also observed that the module descriptions do not specify prerequisites. In their view, this information is essential to help students follow the appropriate sequence of modules and ensure a coherent progression in their studies. ● Finally, the experts consider that some of the literature in the reading lists is outdated and needs, therefore, to be updated in a revision of the module handbooks. <u>Bachelor's program in Chemistry</u> ● In connection with Criterion 1.3, the experts indicate that the module description needs to undergo a thorough revision to ensure that natural sciences and	(mostly within the last 5–10 years), ensuring that students have access to current and relevant learning materials. Supporting documentation and samples are also provided in the appendix: https://drive.google.com/drive/folders/1tGgxzDn1AtAgCKg_J_OajtUbJCnmdNn4?usp=sharing for the panel's review. We hope that these improvements adequately address the concerns raised and demonstrate our commitment to continuous quality enhancement. <u>Bachelor's program in Chemistry</u> We sincerely appreciate the valuable feedback and recommendations provided by the experts regarding our module handbooks and the integration of natural sciences with theological content. Your insights will be carefully considered and incorporated into our annual module handbook review process, which we conduct regularly to ensure continuous improvement and alignment with academic standards. Furthermore, these recommendations will be thoroughly discussed during our strategic plan review meeting scheduled for August 2025. We would like to share our institutional perspective based on our extensive experience since the establishment of our Chemistry program in 2003. Throughout these years, we have observed that bringing together natural sciences and theological content has proven to be beneficial in shaping positive character traits among our students. This unique pedagogical approach has demonstrated remarkable results in helping students overcome academic challenges and difficulties encountered during their learning journey. Bringing together scientific rigor with spiritual values has cultivated students who possess resilience, determination, and a strong sense of gratitude – qualities that make them less likely to give up when facing obstacles in their studies.

	theological content are not mixed together. The experts overall believe that the university needs to establish a structured and supervised process to ensure the module handbook is regularly reviewed and updated.	Our approach reflects the distinctive identity of UIN Malang as an Islamic university, where we believe that bringing together scientific knowledge and theological wisdom creates well-rounded individuals who are not only academically competent but also spiritually grounded. This approach has consistently produced graduates who demonstrate both scientific excellence and strong moral character, equipped with the perseverance needed to tackle complex scientific problems while maintaining a grateful and humble attitude toward their achievements.
32	**Page 41 (5. Quality management: quality assessment and development)** Based on the submitted documentation, the experts reviewed data collected through various monitoring processes. While the experts appreciate UIN Malang's commitment to a data-driven approach, they suggest **improving the reporting practices, as much of the data provided dates back to 2022/2023.** In the context of international accreditation procedures, it is important that	Thank you for your suggestion. We recognize that most of the data received refers to the 2022/2023 academic year. In response, we have updated and included the latest data on several surveys for the 2023/2024 and 2024/2025 academic year (link). We recognize the importance of ensuring that key documents are not only fluid but also accessible in both Indonesian and English, especially in the context of international accreditation. To address this, we are taking steps to improve our bilingual documentation practices by gradually translating key academic and administrative documents and making them easily accessible via the website. The university's rebranding program, launched in May 2025, was developed based on a netnographic approach, aiming to explore the perceptions, aspirations, and expectations of the academic community and the wider community. Through this approach, the rebranding strategy was designed to authentically represent the university's vision and mission, while also integrating the strategic values it seeks to develop to strengthen the institution's identity at the national and international levels.

	program data is up to date and readily accessible upon request. It would be also beneficial to enhance **the bilingual accessibility of the documents**, as some of them are only available in Bahasa Indonesia.	
33	**Page 41** The faculty quality assurance also collects student satisfaction data during thesis supervision and academic advising. However, **the current questionnaires for the degree programs can be quite superficial and may not ask for sufficient details on the specific curriculum or modules**. To gather more insightful feedback for continuous curriculum improvement, **the experts recommend enhancing these surveys by including more specific questions and incorporating free-text fields to**	The survey instrument was developed based on recommendations from BAN-PT and follows the template provided by SN-DIKTI regarding lecturer performance assessments. The instrumentation states that respondents' suggestions are available, but they have not yet been included in the report. However, we will revise the survey instrument questions, particularly those related to the curriculum, ie. the approach of the student learning process, the depth and the breadth of material that conduct into graduates learning outcome, the learning methods relevant with course learning outcomes. All updates were made following consultations with the Quality Assurance Unit (UPM), resulting in the preparation of the document and the corresponding survey Google Form.

	capture valuable qualitative comments from students.	
34	**Page 42** The Self-Assessment Report indicates that quality management processes involve various stakeholders, including students, alumni, and users. However, during discussions with industry partners, the experts were unable to determine the extent of these stakeholders' involvement in the review and development of the curriculum. In the experts' opinion, **a formal forum should be established for stakeholders to provide feedback on the curriculum**. This could be achieved by implementing an official advisory board, stating who are the stakeholders, their qualifications, and how it will be conducted. The experts believe that the input from external stakeholders is	Regarding this point, we appreciate the reminder on the importance of establishing an advisory board in curriculum development. This input is highly valuable and has been taken into consideration as part of our quality assurance measures. At present, the study program conducts an annual curriculum review, involving various stakeholders including academic staff, alumni, and employers. The report of this activity can be accessed here. As a further enhancement, we are committed to implementing a more formal and structured annual curriculum review process, which will involve representatives from alumni, industry partners, and academic colleagues from both domestic and international institutions. In response to the experts' recommendation, we will also initiate the establishment of an official advisory board at the Faculty of Science and Technology. This board will consist of professionals, employers, and experts in relevant fields external to the university. We believe the advisory board will help align our program with job market needs and scientific advancements.

	crucial for the ongoing development of degree programs. **An advisory board at the Faculty of Science and Technology would facilitate regular discussions about job market needs and new developments in the sciences**. This advisory board should consist of professionals, employers, and experts from relevant fields outside the university.	
35	**Page 42** Furthermore, the auditors acknowledge the involvement of an international advisors in biology and chemistry to evaluate the adjustment of the teaching program to rapidly changing requirements/rapid scientific advances. **However, questions arise on the qualification of the advisors**. **The biology advisor comes from SES, a renowned German Institution but appears**	An external examiner from the National Research and Innovation Agency (BRIN) is involved in the academic evaluation process. In addition, practitioner lecturers from industry contribute to course delivery. SES also acts as a consultant, actively supporting curriculum development and laboratory management. The report from SES can be accessed here.

	not to have documented expertise in the subject.	
36	**Page 43 (D. Additional Documents)** Before preparing their final assessment, the panel ask that the following missing or unclear information be provided together with the comment of the Higher Education Institution on the previous chapters of this report: a. The statistics have to be updated to the latest and provided to the assessment team. b. Specification of the foreign language proficiency test that students are required to hold upon graduation. c. Outline of the undergraduate Islamic boarding school program as a graduation requirement, including its duration, how	a. The latest statistical data covering the years 2020 to 2025 b. Students have to meet specified foreign language proficiency standards before graduation. This involves taking standardized language tests like TOEFL and TOAFL, earning a minimum score of 450, and providing proper certification as mandated by university c. Outline of the undergraduate Islamic boarding school program referring to point 19 d. Specification of what "collaboration" means, referring to number 25

	successful completion is assessed, and the criteria for passing. d. Specification of what "collaboration" means within the context of the programs under review.	

F Summary: Expert recommendations (08.08.2025)

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

Degree Program	ASIIN-seal	Subject-specific label	Maximum duration of accreditation
Ba Biology	Suspension	-	Suspension for 18 months
Ba Chemistry	With requirements for one year	-	30.09.2031

Prerequisites

For the Bachelor Biology:

V 1. (ASIIN 1.1, 1.3, 4.1) Redesign the program, especially its scientific focus, so that it adheres to EQF Level 6. In this regard, it is necessary to ensure that it meets standards of scientific knowledge at an internationally competitive level, where natural sciences and theological content are kept separate and the amount of religious content is reduced to a level that is tolerable/appropriate for a curriculum in Natural Sciences. Consequently, revised study plans and module descriptions must be provided.

V 2. (ASIIN 3.2) Update laboratory equipment, ensure appropriate safety measures are in place, and provide adequate access to up-to-date, essential literature and international journals.

Requirements

For both programs:

A 1. (ASIIN 1.3, 1.6, 2, 3.1) Ensure that the role of English within the programs is strengthened (e.g., Scientific English courses, student work, training for teaching staff and guest lecturers).

A 2. (ASIIN 3.1) Ensure that English requirements for current teaching staff are upgraded (e.g., training in English in the next three years) and for new members, English proficiency must be obligatory (e.g., IELTS score minimum 6).

A 3. (ASIIN 2) Provide detailed information about the undergraduate Islamic boarding school program (Ma'had Ali) according to the annotations in the report (e.g.,

accommodation of students from other faiths and impact of students' performance on program selection and admission).

A 4. (ASIIN 3.1) Submit a concept on how to increase the proportion of teaching staff with doctoral qualifications.

A 5. (ASIIN 3.2) All laboratories need to follow international standards with respect to safety measures.

For the Bachelor Biology:

A 6. (ASIIN 4.1) Ensure that the module descriptions contain up-to-date content, literature and prerequisites for admission to the courses.

For the Bachelor Chemistry

A 7. (ASIIN 1.3, 4.1) Review the module description to ensure that natural sciences and theological content are not mixed together.

A 8. (ASIIN 3.2) Submit a concept and a timetable on how to expand and modernise the laboratory equipment to ensure adequate practical learning for students.

Recommendations

For both programs:

E 1. (ASIIN 1.1, 1.3) It is recommended, based on stakeholder feedback, that the university further develop students' soft skills, particularly in oral and written communication, leadership, critical thinking, problem-solving, and conflict management.

E 2. (ASIIN 1.1, 1.3) It is recommended to strengthen practical laboratory competencies, including the ability to operate instruments and handle substances.

E 3. (ASIIN 1.3) It is recommended that the topic of community service activities be as close to the respective study program as possible.

E 4. (ASIIN 1.3) It is recommended that steps be taken to improve the scientific quality of the programs.

E 5. (ASIIN 1.3) It is recommended that the curriculum be further strengthened in the areas of laboratory management and regulatory issues in Biology/Chemistry.

E 6. (ASIIN 1.3, 5) It is recommended that a formal forum be established for stakeholders to provide feedback on the curriculum.

E 7. (ASIIN 1.3) It is recommended to further promote international mobility opportunities for students by increasing funding and expanding exchange networks.

E 8. (ASIIN 1.5, 1.6, 2) It is recommended to further advance the digitalization of course components, including providing digital protocols instead of requiring students to print and handwrite them.

E 9. (ASIIN 1.5, 5) It is recommended to include a more specific question on the students' total workload in the course questionnaires.

E 10. (ASIIN 1.5, 2) It is recommended that students be given an opportunity to retake passed exams to improve their grades and meet the faculty's thesis guidelines.

E 11. (ASIIN 3.1, 3.2) It is recommended to increase funding for research activities and laboratory equipment.

E 12. (ASIIN 3.2) It is recommended to pursue further collaborations with local, regional, national, and international partners to expand educational and research opportunities.

E 13. (ASIIN 5) It is recommended to improve the student satisfaction survey by adding more specific questions and including free-text fields to gather qualitative feedback from students.

For the Bachelor Biology

E 14. (ASIIN 1.3) It is recommended to include more General Chemistry and General Physics courses at the beginning of the curriculum, and to make Bioinformatics a compulsory subject where it fits within the curriculum.

For the Bachelor Chemistry

E 15. (ASIIN 1.3) It is recommended to consider more General Mathematics in the first two semesters.

G Comment of the Technical Committees

Technical Committee 09 – Chemistry, Pharmacy (24.11.2025)

Assessment and analysis for the award of the ASIIN seal:

Since the degree programmes are taught in Bahasa Indonesia rather than English, the TC considers requirement A2 to be too far-reaching and proposes downgrading it to a recommendation. After discussing the other requirements and recommendations relevant to the Chemistry programme, the TC ultimately approves them.

The Technical Committee 09 – Chemistry, Pharmacy recommends the award of the seals as follows:

Degree Program	ASIIN-seal	Subject-specific label	Maximum duration of accreditation
Ba Chemistry	With requirements for one year	-	30.09.2031

Technical Committee 10 – Life Sciences (25.11.2025)

Assessment and analysis for the award of the ASIIN seal:

The mixing of theological and scientific content was a particular problem for the expert group, primarily affecting the Bachelor's programme in Biology, where the problem was particularly pronounced. The Technical Committee discusses whether it is therefore appropriate to suspend the accreditation of the biology programme. The TC sees no need to do so, as there is no clear evidence that the biology programme does not meet the necessary academic level of EQF 6. It bases its decision on the analysis of the module descriptions carried out by an experienced expert, who comes to the following conclusion: "The module descriptions appear sound, and the most important aspects are covered thematically (a neurology module could possibly be added). In any case, the module descriptions do not provide sufficient grounds for suspending the procedure, and I also see no evidence that would suggest a biased distortion of the teaching content." ASIIN also held a zoom meeting with the expert group to discuss the reasons for a possible suspension. It emerged that employers are satisfied with the qualifications of the graduates

and have no complaints about their skills and knowledge. Furthermore, the expert group only glanced at the final theses and did not examine them in depth to determine whether they had the necessary scientific depth.

It is therefore proposed that the prerequisites for resuming the procedure be converted into requirements. Furthermore, requirements A1 and A2 should be converted into recommendations, as the programmes are not taught in English and the university cannot be prescribed which language courses it offers. Furthermore, the Technical Committee proposes deleting recommendation E10, as it is within the discretion of each individual university to decide whether or not to allow an improvement examination.

After discussing the other conditions and recommendations envisaged for the biology programme, the Technical Committee approves them.

The Technical Committee 10 – Life Sciences recommends the award of the seals as follows:

Degree Program	**ASIIN-seal**	**Subject-specific label**	**Maximum duration of accreditation**
Ba Biology	With requirements for one year	-	30.09.2031

H Decision of the Accreditation Commission (12.12.2025)

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

The Accreditation Commission discusses the procedure in detail, especially the question if the Bachelor's degree programme Biology should be suspended or not. The AC sees that UIN Malang has a focus on Islamic education but cannot confirm that this is a negative aspect. The AC cannot confirm that this focus leads to insufficient scientific depth in the individual biology modules or in the entire degree program. In order to address the concerns of the expert panel, UIN Malang should submit current theses from the field of biology as part of the requirements for accreditation so that the quality of the degree program can be reviewed again on the basis of these documents. In this sense, the AC concurs with the assessment of the TC Life Sciences and votes to accredit the biology program with requirements for one year. In doing so, some changes are made to the requirements and recommendations, which largely follow the proposals of the TC Life Sciences.

The Accreditation Commission decides to award the following seals:

Degree Program	ASIIN-seal	Subject-specific label	Maximum duration of accreditation
Ba Biology	With requirements for one year	-	30.09.2031
Ba Chemistry	With requirements for one year	-	30.09.2031

Requirements

For both programs:

A 1. (ASIIN 2) Provide detailed information about the undergraduate Islamic boarding school program (Ma'had Ali) according to the annotations in the report (e.g., accommodation of students from other faiths and impact of students' performance on program selection and admission).

A 2. (ASIIN 3.1) Submit a concept on how to increase the proportion of teaching staff with doctoral qualifications.

A 3. (ASIIN 3.2) All laboratories need to follow international standards with respect to safety measures.

A 4. (ASIIN 3.2) Update the laboratory equipment and ensure appropriate safety measures are in place.

For the Bachelor Biology:

A 5. (ASIIN 4.1) Ensure that the module descriptions contain up-to-date content, literature and prerequisites for admission to the courses.

A 6. (ASIIN 1.3) Demonstrate that the program achieves the required scientific level of EQF 6 e.g. by providing current Bachelor's theses.

A 7. (ASIIN 3.2) Provide adequate access to up-to-date, essential literature and international journals.

Recommendations

For both programs:

E 1. (ASIIN 1.1, 1.3) It is recommended, based on stakeholder feedback, that the university further develop students' soft skills, particularly in oral and written communication, leadership, critical thinking, problem-solving, and conflict management.

E 2. (ASIIN 1.1, 1.3) It is recommended to strengthen practical laboratory competencies, including the ability to operate instruments and handle substances.

E 3. (ASIIN 1.3) It is recommended that the topic of community service activities be as close to the respective study program as possible.

E 4. (ASIIN 1.3) It is recommended that steps be taken to improve the scientific quality of the programs.

E 5. (ASIIN 1.3) It is recommended that the curriculum be further strengthened in the areas of laboratory management and regulatory issues in Biology/Chemistry.

E 6. (ASIIN 1.3, 5) It is recommended that a formal forum be established for stakeholders to provide feedback on the curriculum.

E 7. (ASIIN 1.3) It is recommended to further promote international mobility opportunities for students by increasing funding and expanding exchange networks.

E 8. (ASIIN 1.5, 1.6, 2) It is recommended to further advance the digitalization of course components, including providing digital protocols instead of requiring students to print and handwrite them.

E 9. (ASIIN 1.5, 5) It is recommended to include a more specific question on the students' total workload in the course questionnaires.

E 10. (ASIIN 3.1, 3.2) It is recommended to increase funding for research activities and laboratory equipment.

E 11. (ASIIN 3.2) It is recommended to pursue further collaborations with local, regional, national, and international partners to expand educational and research opportunities.

E 12. (ASIIN 5) It is recommended to improve the student satisfaction survey by adding more specific questions and including free-text fields to gather qualitative feedback from students.

E 13. (ASIIN 1.3, 1.6, 2, 3.1) It is recommended to strengthen the role of English within the programs (e.g., Scientific English courses, student work, training for teaching staff and guest lecturers).

E 14. (ASIIN 3.1) It is recommended to upgrade the English requirements for current teaching staff (e.g., training in English in the next three years).

For the Bachelor Biology

E 15. (ASIIN 1.3) It is recommended to include more General Chemistry and General Physics courses at the beginning of the curriculum, and to make Bioinformatics a compulsory subject where it fits within the curriculum.

For the Bachelor Chemistry

E 16. (ASIIN 1.3) It is recommended to consider more General Mathematics in the first two semesters.

Appendix: Program Learning Outcomes and Curricula

According to the Self-Assessment Report, the following **Intended Learning Outcomes** shall be achieved by the Bachelor's degree program Biology:

ILO1	Attitude	Attributing the attitude of a Muslim scientist in line with Islamic values, Pancasila, and the 1945 Constitution.
ILO2	Knowledge	Organizing theoretical concepts of cell and molecular biology; biology organism ecology and concepts of statistics, biophysics, organic chemistry and biochemistry; (ASIIN 1, 2)
ILO3		Appraising theoretical concept on environmental issues to manage sustainable biological resources in accordance with ethics, applicable laws and Islamic principles (ASIIN 5)
ILO4	Specific skills	Integrating the ability to work in the laboratory and field in accordance with Biology methodology and skills standards (ASIIN 3.4)
ILO5		Conducting research in accordance with research methodology including design, data collection, data analysis and interpretation, and dissemination of results (ASIIN 3.8)
ILO6		Solving biological problem and sustainable management of biological resources through the integration of science and Islam (ASIIN 6.7, Soc 1)
ILO7	Generic skills	Constructing written and oral communication in Indonesian and foreign languages related to biological science by integrating Islamic values (ASIIN 8, Soc 3).
ILO8		Working in a team in the fields of biological areas (ASIIN Soc 2,4,5).
ILO9		Developing entrepreneurial skills and lifelong learning (ASIIN Soc. 5).

The following **curriculum** is presented:

COURSE MODULE MAPPING

I	II	III	IV	V	VI	VII	VIII
PANCASILA	CIVIC EDUCATION	ENGLISH LANGUAGE I	ENGLISH LANGUAGE II	BIOSTATISTIC AND EXPERIMETAL DESIGN	METHODOLOGY OF RESEARCH	STUDENT COMMUNITY DEVELOPMENT	THESIS
INDONESIAN LANGUAGE	ARABIC LANGUAGE III	FIQH STUDI	ANIMAL PHYSIOLOGY	MOLECULAR BIOLOGY	BIOSISTEMATICS	INTERSHIP PROGRAM	
ARABIC LANGUAGE I	ARABIC LANGUAGE IV	STUDY OF AL QURAN AND AL HADITS	GENETICS	PLANT PHYSIOLOGY	ECOSYSTEM DIVERSITY	COLLOCIUM	
ARABIC LANGUAGE II	HISTORY OF ISLAMIC CIVILIZATION	CELL BIOLOGY	ECOLOGY	HUMAN ANATOMY AND PHYSIOLOGY	NATURAL RESOURCES MANAGEMENT		
PHYLOSOPHY IF SCIENCE	THEOSOPHY	PLANT ANATOMY	GENERAL MICROBIOLOGY	EVOLUTION	BIOETHIC		
GENERAL BIOLOGY	PLANT MORPHOLOGY	ANIMAL REPRODUCTION AND EMBRIOLOGY	METHODOLOGY OF INTEGRATED SCIENCE AND ISLAM	FUNGI AND PROTIST DIVERSITY	BOPRENEURSHIP		
BASIC OF BIOLOGY LABORATORIUM	HISTOLOGY	PLANT DIVERSITY	ELECTIVE COURSE 1	ELECTIVE COURSE 3	ELECTIVE COURSE 5		
BIOPHISYC	BASIC OF ENVIRONMENTAL SCIENCE	ANIMAL DIVERSITY	ELECTIVE COURSE 2	ELECTIVE COURSE 4	ELECTIVE COURSE 6		
GEBERAL CHEMISTRY	BIOCHEMISTRY				ELECTIVE COURSE 7		
MATHEMATICS							

According to the Self-Assessment Report, the following **Intended Learning Outcomes (ILO)** shall be achieved by the Bachelor's degree program Chemistry:

ILO1	Attitude	Bachelor who are attributed the attitude of a Muslim scientist in line with Islamic values and Pancasila
ILO2	General skills	Bachelor who can execute scientific procedures for chemistry-related areas
ILO3		Bachelor who can manage chemistry laboratories
ILO4		Bachelor who can communicate effectively in Indonesian and foreign languages
ILO5	Specific skills	Bachelor who can analyze substances using conventional and modern instruments as well as software
ILO6		Bachelor who can handle chemicals complying with the health and safety standards
ILO7	Knowledge	Bachelor who can analyze basic concepts of atomic structure and molecules for predicting properties and molecular reactivity
ILO8		Bachelor who can execute research in chemistry related issues

The following **curriculum** is presented:

SEMESTER 1	SEMESTER 2	SEMESTER 3	SEMESTER 4	SEMESTER 5	SEMESTER 6	SEMESTER 7	SEMESTER 8
29.15 ECTS	35.63 ECTS	38.85 ECTS	38.86 ECTS	37.23 ECTS	38.84 ECTS	9.66 ECTS	12.88 ECTS
3.24 ECTS Pancasila (ID)	3.24 ECTS Citizenship (ID)	4.86 ECTS English I (ID+EN)	4.86 ECTS English II (ID+EN)	4.86 ECTS Physical Organic Chemistry (ID+EN)	4.86 ECTS Analysis of Organic Compounds (ID+EN)	3.21 ECTS Internship (ID+EN)	9.64 ECTS Thesis (ID+EN)
3.24 ECTS Bahasa Indonesia (ID)	3.24 ECTS Arabic III (ID+AR)	3.24 ECTS Study of The Qur'an and Hadith (ID+EN)	4.86 ECTS Reaction and Synthesis of Organic Compounds (ID+EN)	1.61 ECTS Organic Compound Reaction Practicum (ID+EN)	1.61 ECTS Advanced Organic Chemistry Practicum (ID+EN)	3.21 ECTS Student Community Service program (ID+EN)	3.24 ECTS Elective course (ID+EN)
3.24 ECTS Arabic I (ID+AR)	3.24 ECTS Arabic IV (ID+AR)	3.24 ECTS Study of Fiqh (ID+EN)	4.86 ECTS Structure and Reactivity of Inorganic Compounds (ID+EN)	4.86 ECTS Coordination Compound (ID+EN)	4.86 ECTS Synthesis and Analysis of Inorganic Compounds (ID+EN)	3.24 ECTS Elective course (ID+EN)	
3.24 ECTS Arabic II (ID+AR)	3.24 ECTS History of Islamic Civilization (ID+AR)	4.86 ECTS Structure and Properties of Organic Compounds (ID+EN)	1.61 ECTS Elemental Chemistry Practicum (ID+EN)	1.61 ECTS Coordination Chemistry and Natural Minerals Practicum (ID+EN)	3.24 ECTS Enzymology (ID+EN)		

SEMESTER 1	SEMESTER 2	SEMESTER 3	SEMESTER 4	SEMESTER 5	SEMESTER 6	SEMESTER 7	SEMESTER 8
3.24 ECTS Philosophy of Science (ID+EN)	3.24 ECTS Theosophy (ID+AR)	1.61 ECTS Organic Compound Isolation Practicum (ID+EN)	3.24 ECTS Structure and Function of Biomolecules (ID+EN)	4.86 ECTS Biomolecules Metabolism (ID+EN)	1.61 ECTS Biomolecules Metabolism Practicum (ID+EN)		
4.86 ECTS Mathematics (ID+EN)	4.86 ECTS Physics (ID+EN)	4.86 ECTS Elemental Chemistry (ID+EN)	6.48 ECTS Thermodynamics and Chemical Equilibrium (ID+EN)	1.61 ECTS Biomolecules Compound Practicum (ID+EN)	3.24 ECTS Introduction of Statistical Thermodynamics (ID+EN)		
3.24 ECTS Biology (ID+EN)	3.24 ECTS Basic Chemistry II (ID+EN)	4.86 ECTS Structure of Matter (ID+EN)	4.86 ECTS Chemical Separation and Electrochemistry (ID+EN)	3.24 ECTS Chemical Dynamics (ID+EN)	1.61 ECTS Advanced Physical Chemistry Practicum (ID+EN)		
3.24 ECTS Basic Chemistry I (ID+EN)	1.61 ECTS Basic Chemistry Practicum II (ID+EN)	1.61 ECTS Basic Physical Chemistry Practicum (ID+EN)	1.61 ECTS Chemical Separation and Electrochemistry Practicum (ID+EN)	3.24 ECTS Symmetry and Spectroscopy (ID+EN)	3.24 ECTS Instrumental Analytical Chemistry II (ID+EN)		
1.61 ECTS Basic Chemistry Practicum I (ID+EN)	4.86 ECTS Chemical Bonding (ID+EN)	4.86 ECTS Basic Analytical Chemistry (ID+EN)	3.24 ECTS Chemical Informatics (ID+EN)	3.24 ECTS Instrumental Analytical Chemistry I (ID+EN)	1.61 ECTS Instrumental Analytical Chemistry Practicum (ID+EN)		
	1.62 ECTS Laboratory Management (ID+EN)	1.61 ECTS Basic Analytical Chemistry Practicum (ID+EN)	3.24 ECTS Elective course (ID+EN)	4.86 ECTS Chemical Statistics (ID+EN)	3.24 ECTS Halal Product Chemistry (ID+EN)		
	3.24 ECTS Environmental Chemistry (ID+EN)	3.24 ECTS Elective course (ID+EN)		3.24 ECTS Elective course (ID+EN)	3.24 ECTS Research Methodology (ID+EN)		
					3.24 ECTS Chemical Entrepreneurship (ID+EN)		
					3.24 ECTS Elective Course (ID+EN)		

University Course
Compulsory Courses
Elective Course
Final Project