ASIIN Seal

Accreditation Report

Bachelor's Degree Programme
Pharmacy

Master's Degree Programmes
Pharmaceutical Science
Herbal Science

Doctoral Programme
Pharmaceutical Science

Provided by
Universitas Indonesia (UI) – Indonesia

Version: 06 December 2024

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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 Committee (TC)[2]
Sarjana Farmasi	Bachelor of Pharmacy	ASIIN	Indonesian Accreditation Agency for Higher Education in Health (IAAHEH) - Until 02.10.2025	09
Magister Ilmu Kefarmasian	Master of Pharmaceutical Science	ASIIN	Indonesian Accreditation Agency for Higher Education in Health (IAAHEH) - Until 21.10.2027	09
Magister Herbal	Master of Herbal Science	ASIIN	Indonesian Accreditation Agency for Higher Education in Health (IAAHEH) - Until 07.07.2028	09
Doktor Ilmu Farmasi	Doctor of Pharmaceutical Science	ASIIN	Indonesian Accreditation Agency for Higher Education in Health (IAAHEH) - Until 29.10.2026	09
Date of the contract: 10.10.2023 **Submission of the final version of the self-assessment report:** 24.07.2024 **Date of the on-site visit:** 01.– 02.10.2024 **At:** Universitas Indonesia **Location:** Depok, Indonesia.				
Expert panel: Prof. Dr. rer.nat. Hans-Jürgen Duchstein, Universität Hamburg				

[1] ASIIN Seal for degree programs

[2] TC: Technical Committee for the following subject areas: TC 09 – Chemistry.

Mr Marcus Savsek, BfArM - Federal Institute for Drugs and Medical Devices Dr. Andayana Gani, Universitas Gadjah Mada Miss Rifda Tarimi Octavia, student at Universitas Airlangga	
Representative of the ASIIN headquarter: Dr. Emeline Jerez	
Responsible decision-making committee: Accreditation Commission for Degree Programs	
Criteria used: European Standards and Guidelines as of 15.05.2015 ASIIN General Criteria as of 28.03.2023 Subject-Specific-Criteria of the Technical Committee 09 – Chemistry as of 29.03.2019	

B Characteristics of the Degree Programs

a) Name	Final degree (original/English translation)	b) Areas of Specialization	c) Corresponding level of the EQF[3]	d) Mode of Study	e) Double/Joint Degree	f) Duration	g) Credit points/ unit	h) Intake rhythm & First time of offer
Bachelor of Pharmacy	S.Farm./Bachelor of Pharmacy		Level 6	Full time	No	8 semesters	144 credits equivalent to 216 ECTS	Annually First offered in 1965

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

a) Name	Final degree (original/English translation)	b) Areas of Specialization	c) Corresponding level of the EQF[3]	d) Mode of Study	e) Double/Joint Degree	f) Duration	g) Credit points/ unit	h) Intake rhythm & First time of offer
Master of Pharmaceutical Science	M. Farm./Master of Pharmaceutical Science	1. Clinical Pharmacy 2. Pharmaceutical Chemistry 3. Pharmaceutical Technology 4. Pharmaceutical Biology and Biotechnology 5. Pharmacology and Toxicology	Level 7	Full time	No	4 semesters	40 credits equivalent to 60 ECTS	Each semester First offered in 2001
Master of Herbal Science	M.Si./M.Sc.		Level 7	Full time	No	4 semesters	40 credits equivalent to 60 ECTS	Each semester First offered in 2010
Doctor of Pharmaceutical Science	Dr.		Level 8	Full time	No	6 semesters	42 credits equivalent to 63 ECTS	Each semester First offered in 2010

The experts acknowledged and considered the contextual framework within which the Bachelor's, Master's and Doctoral study programs currently being assessed are offered:

Universitas Indonesia (UI) is a public research university and one of the leading institutions in the country. Established in 1947, UI is located in the province of West Java, Indonesia, and its primary campus is situated in Depok.

With 14 faculties, 1 Vocational Program and 2 Schools, UI academic offering is comprehensive. This ranges from vocational and undergraduate to postgraduate programs, including specialist, professional, master's, and doctoral programs.

As per its vision statement, the University aims to "become a superior and competitive center of science, technology and culture, through efforts to educate the nation's life to improve people's welfare, thereby contributing to the development of Indonesian society and the world".

In the 2025 QS World Universities Ranking, UI is ranked 1st in Indonesia and 206th in the world.

The Faculty of Pharmacy

Fakultas Farmasi roots can be traced back to the Department of Pharmacy founded in 1965, which was transformed into a faculty in 2011. Currently, it manages 5 study programs, including the Bachelor of Pharmacy, the Pharmacist/Apothecary Education program, the Master of Pharmaceutical Science, the Master of Herbal Science and the Doctor of Pharmaceutical Science.

The faculty's vision is "to become a center for science and technology in the field of pharmacy and pharmaceutical sciences which are excellent, globally competitive and contribute to enlighten the life of the nation, to improve the welfare of the people of Indonesia and the world". In realising this vision, the Faculty of Pharmacy' mission is:

"1. Optimizing an extensive and fair access of quality education in the pharmaceutical field
2. Organizing quality activities of education, research and community services in the pharmaceutical field which are relevant to global challenges
3. Producing graduates in the pharmaceutical field with high intellectuality, noble character, and be able to compete globally
4. Creating an academic environment which is able to support the vision of the Faculty of Pharmacy' Universitas Indonesia."

The Faculty of Pharmacy pursues ASIIN accreditation for the Bachelor of Pharmacy, Master of Pharmaceutical Science, Master of Herbal Science and Doctor of Pharmaceutical Science. The programs are introduced with the following profile:

i. Bachelor of Pharmacy

Study Program Objectives

1. "Produce highly intellectual and morally upright graduates who are capable of competing at the national and regional levels, enabling them to apply, develop, enrich, and advance knowledge and technology in the field of pharmacy.
2. Develop knowledge and technology in the field of pharmacy and strive for its application to improve community welfare.
3. Encourage and support the active participation and involvement of the academic community of the Pharmacy undergraduate program in community service."

ii. Master of Pharmaceutical Science

"Objectives

1. To produce highly intelligence, virtuous, and nationally and internationally competitive graduates who can implement, develop, and support the enhancement of science and technology knowledge, and the Fourth Industrial Revolution in the pharmaceutical sector;
2. To produce original and quality pharmaceutical research based on the development of science and technology knowledge and pharmaceutical services; as well as
3. To produce beneficial community services for society."

iii. Master of Herbal Science

"Study Program Objectives

1. Produce graduates who:
- have high intellectuality, noble character, and entrepreneurial spirit;
- able to compete at national and regional levels;
- able to develop research-based science and technology that supports the industrial revolution 4.0 in the use of innovative and tested herbs;

2. Produce original and quality herbal research, as well as produce innovative herbal products based on entrepreneurship;

3. Produce community service in the herbal field that is beneficial to society."

iv. Doctoral program in Pharmaceutical Science

"Objectives of the Pharmaceutical Sciences Doctoral Study Program

1. Making the FFUI Pharmaceutical Sciences Doctoral Study Program the best Doctoral study program in Indonesia in the field of Pharmaceutical Sciences.
2. Strengthening scientific culture by improving the quality of research and community service.
3. Improving the quality and competitiveness of graduates of the FFUI Doctoral of Pharmaceutical Sciences Study Program, both at national and international levels.
4. Investing in developing the knowledge and insight of graduates which encourages the formation of a systematic scientific mindset and research spirit.
5. Encourage the realization of a healthy FFUI Doctoral Study Program in Pharmaceutical Sciences based on the implementation of good governance."

The experts believe that the objectives of degree programs are well-established. During the discussions with the representatives from the Rector's office, the expert panel learned that the university aims to achieve international recognition to enhance collaboration opportunities. The panel appreciates that, in pursuit of this goal, the university has dedicated efforts and resources to improve its international ranking and elevate the international profile of its programs.

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
- Objectives-Module-Matrices as part of the self-assessment report
- President of the Republic of Indonesia's regulation No. 8 of 2012 on the Indonesian National Qualification Framework
- Ba Pharmacy website: https://farmasi.ui.ac.id/en/program-studi-s1/
- Ma Pharmaceutical Science website: https://farmasi.ui.ac.id/en/program-studi-s2/ilmu-kefarmasian-s2/
- Ma Herbal Science website: https://farmasi.ui.ac.id/en/program-studi-s2/herbal-s2/
- Dr Pharmaceutical Science website: https://farmasi.ui.ac.id/en/program-studi-s3/
- Curriculum documents, all programs under review
- Minutes of Focus Group Discussion in the context of curriculum review
- Tracer Study Report 2023, Faculty of Pharmacy, all programs under review
- Discussions during the audit

Preliminary assessment and analysis of the experts:

i. Learning Outcomes

As documented, the programs' Learning Outcomes (PLOs) -as presented in the Appendix are designed around the graduate profile, which draws on the needs of health- and pharmacy-related business and the vision of science. This involves a stakeholder process, and benchmarking against pertinent national and international standards and references. The programs' PLOs align with the Indonesian National Qualification Framework (*Kerangka Kualifikasi Nasional Indonesia, KNNI)*, the National Standards for Higher Education (*SN-*

Standar Nasional Pendidikan Tinggi, DIKTI), UI's vision and mission and the mandate and strategic plan of the Faculty of Pharmacy.

Based on the Indonesian National Qualification Framework, the learning outcomes are abilities obtained through internalisation of knowledge, attitudes, skills, competencies and accumulated work.

Within the provided documentation, the University presents tabular mappings of linkages between PLOs and module objectives, as well as PLOs and ASIIN's subject-specific criteria.

PLOs can be accessed through various mediums, including the student handbook, study program websites, and promotional materials.

Overall, the experts see that the learning outcomes are consistent and aligned with the established objectives. They attest that the learning outcomes of the programs correspond to level 6 (Bachelor of Pharmacy), level 7 (Master of Pharmaceutical Science and Master of Herbal Science), and level 8 (Doctor of Pharmaceutical Science) of the European Qualification Framework (EQF), respectively.

The PLOs have been designed by considering the current Indonesian higher education framework, the provisions of the corresponding Indonesian professional and scientific associations and using the instrument of internal and external benchmarking. Moreover, the experts assess that the outlined objectives suffice the ASIIN Criteria for the Accreditation of Degree Programmes. Further discussion of the curricula will follow under Criterion 1.3.

ii. Graduate Qualification Profiles

The Bachelor of Pharmacy is expected to produce learners "able to design pharmaceutical dosage forms according to the quality standards and provide pharmaceutical services under supervision on the basis of scientific mastery, management capabilities, and information technology"

The Master of Pharmaceutical Science aims to produce graduates "able to develop pharmaceutical knowledge, manage pharmaceutical research, and solve pharmaceutical problems in accordance with areas of specialization, namely: Clinical Pharmacy, Pharmaceutical Chemistry, Pharmaceutical Technology, Pharmaceutical Biology and Biotechnology, and Pharmacology and Toxicology".

The Master of Herbal Science is anticipated to produce graduates "capable of utilizing and developing innovative and tested herbal products, recommending solutions to health issues through herbal products and managing research related to raw materials and herbal products that are beneficial for society and science itself".

The Doctor of Pharmaceutical Science expects its graduates to develop “knowledge and technology in the field of pharmacy (pharmaceutical technology, pharmaceutical chemistry, pharmaceutical biology, pharmacology, and clinical pharmacy) through research” and solve ”problems using interdisciplinary, multidisciplinary or transdisciplinary approaches. They are also able to manage, lead, and advance research that is beneficial to Pharmaceutical Science and Technology and human welfare, resulting in creative, original, and tested works, as well as gaining national and international recognition”.

Bachelor of Pharmacy’s graduates are required to complete the Apothecary Education program if they wish to work as pharmacists, but they can still work in the pharmaceutical field under supervision. Graduates of the Master of Pharmaceutical Science and Master of Herbal Science can find careers in various sectors, including academia, industrial research, hospitals, and government. Master's graduates may work in clinical settings or as traditional medicine practitioners. The Doctoral Program in Pharmaceutical Science focuses on advanced knowledge and research, opening opportunities in companies, academia, and research centers both in Indonesia and internationally.

During the discussion with the assessment team, students and alumni expressed their satisfaction with the programs under review, the learning experience, and future job prospects.

When asked about the acceptance of graduates in the labour market, the program coordinators explained that to monitor this, they conduct tracer studies. These studies have shown that over 80% of graduates are satisfied with their employment outcomes. Nearly 80% of graduates from the Bachelor of Pharmacy program secure jobs within three months of graduation. More than 70% of Master’s program graduates also secure employment within 1-3 months. In the case of doctoral candidates, they already have jobs when they enter the program.

Graduate labour market acceptance was confirmed during the discussions with the industry representatives as they expressed their willingness to take student interns and graduates. They noted the graduates' positive attitude, open-mindedness, and eagerness to learn. Faculty of Pharmacy’s graduates are also quick to adapt and are well-prepared for the workforce.

Several lines of evidence indicate that students are well prepared for entering the job market, and employers are satisfied with the knowledge and technical skills of the graduates. The expert panel is particularly impressed by the Faculty of Pharmacy's establishment of a collaborative network with industry and government agencies by providing them with professionals.

All in all, the assessment team gained the overall impression that the imparted qualification profiles of the programs satisfy expectations from all sides and allow the students to take up employment corresponding to their qualifications upon their graduation.

iii. Review of Learning Outcomes

As outlined in the self-assessment report, learning outcomes and curricula are reviewed every 4-5 years through a process that includes both internal and external stakeholders, including professional associations. The Bachelor of Pharmacy curriculum was last reviewed in 2022, resulting in the new 2024 curriculum. The current 2020 curricula for the Master's and Doctoral programs are undergoing review, with ongoing consultations involving stakeholders.

Minor evaluations on the progress of the learning outcomes are conducted each semester without restructuring.

When asked about the involvement of students and other stakeholders in the review of the learning outcomes, the program coordinators confirmed the use of various feedback mechanisms, including focus group discussions. Additionally, industry partners participating in the audit acknowledged their involvement and role in these focus groups.

From the provided documentation, their exchanges during the audit, as well as the further discussion about the University's quality assurance mechanisms under Criterion 1.3 and Criterion 5 , the experts gain the impression that appropriate, recurring review mechanisms concerning the objectives and learning outcomes of the programs under review are in place.

The panel particularly highlights that the program coordinators are satisfied and motivated, which drives their commitment to advancing the programs and fostering continuous improvement.

Criterion 1.2 Name of the Degree Programme

Evidence:

- Self-assessment report
- Faculty of Pharmacy website: https://farmasi.ui.ac.id/en/
- Curriculum Documents, all programs under review
- Sample Diploma, all programs under review
- Sample Diploma Supplement, all programs under review

Preliminary assessment and analysis of the experts:
According to the self-assessment report, the nomenclature for the degrees awarded adheres to the regulations established by the Director General of Higher Education, Research and Technology, as outlined in Decree No. 163/E/KPT/2022.

Graduates of the Bachelor of Pharmacy program are awarded the title Sarjana Farmasi (S.Farm.) or Bachelor of Pharmacy. Those completing the Master of Pharmaceutical Science receive the title Magister Farmasi (M.Farm) or Master of Pharmaceutical Science. Additionally, graduates of the Master of Herbal Science program are conferred the title Magister Sains (M.Si.) or Master of Science (M.Sc.).

Doctoral program graduates receive the title Doktor (Dr.) Program Studi Ilmu Farmasi, signifying Doctor of Pharmaceutical Science.

During the audit, the experts focused on the Master of Herbal Science, noting that the degree awarded is a Master of Science. This title is more general compared to the title used in the Master of Pharmaceutical Science program, despite the fact that herbal studies is a more specialized field. The experts inquired with the program coordinators if the degree title has caused any misunderstandings among stakeholders.

The program coordinators explained that the title "Master of Science" derives from the Faculty of Mathematics and Natural Sciences, where the program was originated. They also clarified that the title is defined by decree. Although there have been attempts to propose a new title for the study program, it is ultimately up to the Rector to approve any changes. The coordinators mentioned that there have been no misunderstandings. However, there have been instances where the stakeholders have asked why it is labelled "Master of Science" given its specific focus.

Based on this discussion, the experts suggest that the university consider adopting a more specific title for the program that better reflects its unique profile.

Apart from this, the experts confirm that the English translation and the original Indonesian names of the study programs under review are appropriate and correspond to the programs' intended aims and learning outcomes.

Criterion 1.3 Curriculum

Evidence:

- Self-assessment report
- Ba Pharmacy website: https://farmasi.ui.ac.id/en/program-studi-s1/

- Ma Pharmaceutical Science website: https://farmasi.ui.ac.id/en/program-studi-s2/ilmu-kefarmasian-s2/
- Ma Herbal Science website: https://farmasi.ui.ac.id/en/program-studi-s2/herbal-s2/
- Dr Pharmaceutical Science website: https://farmasi.ui.ac.id/en/program-studi-s3/
- Curriculum documents, all programs under review
- Academic calendar: https://www.ui.ac.id/akademik/kalender-akademik/
- Sample of Internship reports
- Discussions during the audit

Preliminary assessment and analysis of the experts:

The curricula, structure, and composition of the study programs under review are presented in the University's provided "Curriculum Documents", including the module handbooks. Per the self-assessment report, the programs align with the Indonesian Qualification Framework and the National Standards for Higher Education. Moreover, the Faculty of Pharmacy adheres to the standards set by the Minister of Health, including the Indonesian Pharmacist Competency Standard and the Pharmacist Code of Ethics.

i. Structure of the Programs

Each semester is equivalent to 16 weeks, including 14 weeks of learning activities and 2 weeks for midterm and final exams. The odd semester starts in August and ends in January, and the even semester lasts from February to July.

Bachelor of Pharmacy

The bachelor's program comprises 144 Indonesian Credit Points and has a formal duration of 8 semesters. The Bachelor's curriculum consists of:

a. **Compulsory university courses** that are mandatory for all UI undergraduate study programs.
b. **Compulsory study program courses** formulated to achieve the main competencies of the study program.
c. **Health science cluster courses** included as a characteristic of the competency of a group of sciences.
d. Elective courses chosen by the students to broaden their horizons and meet the minimum load requirements for the level of education.

The academic program concludes with the writing of a Bachelor's thesis.

Master of Pharmaceutical Science and Master of Herbal Science

The Master's programs require a minimum of 40 Indonesian Credit Points and are designed to be completed over a duration of four semesters. The structure of these programs is tailored to the student's chosen path: research or course-and-research (with a case study or final project). The course-and-research track encompasses mandatory courses, alongside specialized and elective courses. Depending on the selected track, students must complete a publication and prepare a thesis, case study report, or final project paper to fulfil the requirements for the Master's degree.

Doctor of Pharmaceutical Science

Discussed in section D 2 of the "Additional Criteria for Doctoral Programs".

Further details regarding the Indonesian Credit System and its alignment with the European Credit Transfer and Accumulation System (ECTS) can be found under Criterion 1.5.

ii. Contents

Bachelor of Pharmacy

As mentioned in the previous section and detailed in the course structure (see appendix), the curriculum comprises various categories of courses. In the initial stages of the program, students are introduced to general education subjects, including:

> General English, Religious Studies, Basic Biomedical Science, Healthcare Ethics and Law, Healthcare Communication, Organic Chemistry, Entrepreneurship, Cell and Molecular Biology, Introduction to Pharmacy, and Integrated General Education, among others.

These courses provide students with a comprehensive understanding of socio-cultural aspects and foundational principles relevant to their field of study.

As students advance through the programs, the courses become more focused and specific, allowing them to delve deeper into the field. Practical laboratory work is incorporated into the curricula, enabling students to gain hands-on experience.

In the later stages of the programs, the curriculum further narrows their focus on advanced areas. Students take specialized subjects and engage in professional development activities. They also write a thesis in the final year.

The curriculum also integrates the Independent Learning–Independent Campus program (*Merdeka Belajar – Kampus Merdeka, MBKM*), which encourages students to engage in activities outside their study program. This initiative provides opportunities for practical experience and skill development (see section iii internships for further details)

Master of Pharmaceutical Science and Master of Herbal Science

I. **Research track**

The research track involves mandatory courses up to 100 % of the total credits, with modules such as Periodic Seminar, Research Proposal Examination, Conference, Article Publication, Research Result Examination and Thesis. The students focus on their research from the first semester.

II. Course-and research-track

The course-and-research track has mandatory modules up to 45% of the credits, suggested elective module for specializations up to 35% of the credits, and free elective module up to 20% of the credit. During the first two semesters, students are provided with a foundational understanding of related pharmaceutical or herbal science knowledge, respectively, before embarking on their research in the third semester.

In specific, the Master of Pharmaceutical Science program offers five specializations paths, namely:

1. Pharmaceutical Technology,
2. Pharmacology-Toxicology,
3. Clinical Pharmacy,
4. Pharmaceutical Biology-Biotechnology, and
5. Pharmaceutical Chemistry.

In the third semester, the focus is on the final assignment and research, which allows students to enrol in the course Article Publication. However, there is an exception for students specializing in Clinical Pharmacy. In addition to beginning their research in the third semester, Clinical Pharmacy students are also required to undertake clinical practice at a hospital.

In the fourth semester, all students complete their final assignment by taking the course on the final project paper or case study report. This final assignment is evaluated through a seminar and a student defense.

Upon reviewing the structure and content of the curricula for the Bachelor and Master's programs under review, along with the discussions held during the audit, the experts confirm that these programs are suitable to adequately prepare students for the labour market.

Doctor of Pharmaceutical Science

Discussed in section D 2 of the "Additional Criteria for Doctoral Programs".

iii. Internships

For the Bachelor of Pharmacy's students, internship is optional. The study program identifies relevant institutions in the pharmaceutical field for potential internships. Interested students must submit an application to these designated institutions.

Internships are also integrated into the bachelor's program through the Independent Learning - Independent Campus (MBKM) activities. These activities encompass nine components, representing a mode of autonomous and flexible learning: 1. student exchange, 2. working practice, 3. teaching assistant, 4. research, 5. humanity project, 6. entrepreneurship, 7. independent project, 8. rural development, and 9. Bela Negara Program. Students taking part in internships or the MBKM program must have activity outputs, consisting of a logbook, progress report and final report.

During the audit, representatives from hospitals and the pharmaceutical industry confirmed that their institutions have received students as interns. One industry representative noted that student interns in their company support routine activities and projects. The company implements a rotation system across several departments, enabling interns to gain hands-on experience and develop essential soft skills, which has led to positive outcomes. Another representative highlighted that interns have also contributed to digital distribution efforts within the organisation.

iv. Mobility

When inquired about their interest in studying abroad and the university's initiatives to promote academic mobility, students provided a range of insights. The Bachelor's program has established connections with the International Pharmaceutical Federation, sending 5 to 10 students annually to conferences, with registration fees covered by the faculty. There is a strong demand for mobility opportunities, supported by an international scholarship scheme that allows students to study abroad for one semester, with four students recently accepted under this government initiative. The faculty also collaborates with institutions in countries such as Japan, actively seeking to accommodate students wishing to attend conferences. Additionally, students have the option to pursue independent study abroad opportunities, with financial support available for fees related to competitions.

In the Master's program, students noted that most government-sponsored mobility options are primarily available for Bachelor's students, which limits their opportunities.

However, there is collaboration with the University of Tokyo, and Master's candidates engage in research partnerships with international universities.

For doctoral candidates, opportunities to develop careers and conduct research abroad are available. Doctoral students are encouraged to apply for scholarships, and the university provides research grants to facilitate collaboration, including visits to Japan. The faculty has established international collaborations, such as with institutions in Turkey, resulting in joint publications. Additionally, the faculty actively facilitates internships and research collaborations with foreign institutions for doctoral candidates, enhancing their academic and professional development.

In terms of credit recognition for study performance achieved abroad, the University's "General Guidelines Implementation of Education at Universitas Indonesia" state the equivalency process as outlined further under criterion 1.5. This process is further facilitated through international and local agreements.

Doctor of Pharmaceutical Science

Discussed in section D 2 of the "Additional Criteria for Doctoral Programs".

v. Curriculum Review

As mentioned under Criterion 1.1, the learning outcomes and curricula of the programs under scrutiny are reviewed every 4-5 years, involving input from students, staff, alumni, professional associations and industry partners to ensure alignment with their needs.

When asked by the experts about the curriculum review process, the program coordinators explained that it involves focus groups and typically takes around two months to complete. They clarified that the curriculum is formally revised every five years, but minor adjustments may occur based on end-of-semester evaluations.

In general, the experts are satisfied with the provided information concerning the programs' curricular review procedures.

Criterion 1.4 Admission Requirements

Evidence:

- Self-assessment report
- UI website: https://www.ui.ac.id/
- UI admission website: https://penerimaan.ui.ac.id/
- SIMAK information system: https://simak.ui.ac.id/
- Academic calendar: https://www.ui.ac.id/akademik/kalender-akademik/

- Statistical data about the progress of studies, all programs under review
- Discussions during the audit

Preliminary assessment and analysis of the experts:
The admission and selection process for prospective students in the undergraduate and graduate programs within the Faculty of Pharmacy adheres to the university's established guidelines for new student admissions. This process is managed by the New Student Admissions Office through a specialized admission platform. Comprehensive information regarding admission requirements, schedules, registration locations, and selection tests is published online, ensuring accessibility for all stakeholders.

The tuition fee for the Bachelor of Pharmacy varies from 500,000 to 20,000,000 IDR (30 to 1,200 Euro) per semester depending on the parents' income. For the master's programs, the tuition fee is 23,500,000 IDR (1,400 Euro) for Indonesian citizens and 57,500,000 IDR (3,400 Euro) for international students per semester. For the doctoral program, the tuition fee is 25,000,000 IDR (1,490 Euro) for Indonesian citizens and 60,000,000 IDR (3,570 Euro) for international students per semester.

Bachelor of Pharmacy

At UI, admissions for the undergraduate programs are organised through four selection paths:

1. SNMPTN - National Joint Selection for State Higher Education Entrance is a selection mechanism based on high school academic performance. It represents a maximum of 20% of student capacity for bachelor's programs.
2. SBMPTN - Joint Selection for State Higher Education Entrance is organised nationally by the Indonesian government, based on a computer-based written examination. It accounts for 30% of the total student capacity.
3. PPKB - Program for Equal Learning Opportunities Based on Achievement aims to provide equitable access to higher education.
4. SIMAK UI - Integrated UI entrance selection for various levels and educational programs at UI, including bachelors, masters and doctors. 50% of bachelor's program student are accepted through this scheme.

Intake is possible annually, with a capacity of 160 students. As part of its self-assessment report, the University has provided the following student numbers:

Table 1: Number of applications and accepted students Bachelor of Pharmacy
Source: Self-Assessment Report, UI.

Admission Pathway	2021			2022			2023		
	Applicants	Accepted	Ratio	Applicants	Accepted	Ratio	Applicants	Accepted	Ratio
SNMPTN	368	18	1:20	370	18	1:21	765	30	1:26
SBMPTN	721	27	1:27	755	29	1:26	1100	45	1:25

Admission Pathway	2021			2022			2023		
	Applicants	Accepted	Ratio	Applicants	Accepted	Ratio	Applicants	Accepted	Ratio
PPKB	373	30	1:13	384	30	1:13	293	38	1:08
SIMAK	3062	74	1:42	2708	100	1:27	1789	46	1:39

Master of Pharmaceutical Science and Master of Herbal Science

The selection process for the Master's program candidates is centrally administered by the New Student Admissions Office, utilising the SIMAK information system. This process comprises several key steps: registration, administrative selection, entrance examination, and the announcement of results.

Prospective students must meet several prerequisites, which include, but are not limited to, holding a Bachelor's degree in designated fields, achieving a minimum score of 500 on the Academic Potential Test (TPA), satisfying English proficiency requirements, and having obtained a minimum GPA of 3.00 in their previous level of education. Graduates other than Bachelor of Pharmacy must take graduation courses in basic pharmaceutical sciences.

Additional requirements for the research track include having a documented research record demonstrated by scientific publications, as well as presenting a research plan that will be evaluated during the interview stage.

Admission is possible each semester, with an intake capacity of 60 students for the Master of Pharmaceutical Science and 30 students for the Master of Herbal Science. The university has presented the following enrolment figures in its self-assessment report:

Table 2: Number of applications and accepted students Master of Pharmaceutical Science and Master of Herbal Science Source: Self-assessment report, UI.

Study Program	2021			2022			2023		
	Applicants	Accepted	Ratio	Applicants	Accepted	Ratio	Applicants	Accepted	Ratio
Master of Pharmaceutical Science	77	37	1:2.0	65	43	1:1.5	69	56	1:1.2
Master of Herbal Science	20	14	1:1.4	18	9	1:2.0	19	16	1:1.2

Doctor of Pharmaceutical Science

The selection process for the Doctoral program candidates is also administered by the New Student Admissions Office through SIMAK.

Applicants for doctoral studies in Pharmaceutical Science need to fulfil a number of prerequisites. Besides having a Master's degree in designated fields, they need to provide an IELTS score of a minimum of 6.0 or equivalent. Moreover, applicants must score at least 550 on the Academic Potential Test (TKA). They must successfully complete an interview with an academic panel, have their research pre-proposal assessed by prospective supervisors, and possess a minimum of two scientific publications as the first author, with at least one publication in an international journal.

Admission is possible each semester, which a maximum intake capacity of 30 students. The University has provided the following enrolment numbers as part of its self-assessment report.

Table 3: Number of applications and accepted students Doctor of Pharmaceutical Science
Source: Self-assessment report, UI.

Study Program	2021			2022			2023		
	Applicants	Accepted	Ratio	Applicants	Accepted	Ratio	Applicants	Accepted	Ratio
Doctor of Pharmaceutical Science	14	14	1:1.0	13	9	1:1.4	27	22	1:1.2

Admission for prospective international students is available for the research track of the Master's and Doctoral programs. The experts note that among the various requirements, prospective students must "demonstrate good skills in Bahasa Indonesia". The experts believe that this specific requirement might be limiting the possibilities of the programs to appeal to a wider range of applicants. Consequently, the experts recommend that the university consider accepting students without prior proficiency in Bahasa Indonesia.

In assessing this criterion, the experts find that (prospective) students are informed in detail about the requirements and the necessary steps to apply for admission into the programs under review. This information can be accessed through the dedicated UI admission website and the academic guidelines. The corresponding rules and regulations are binding and transparent and are based on decrees by the Ministry of Research, Technology and Higher Education and on the University's written regulations.

Criterion 1.5 Workload and Credits

Evidence:

- Self-assessment report
- Curriculum Documents, all programs under review
- Academic Guidelines, all programs under review
- Discussions during the audit.

Preliminary assessment and analysis of the experts:

Study programs at UI must follow the Indonesian credit system (SKS) regulations. Each credit point is distributed between guided and independent learning activities, as well as between face-to-face activities, laboratory activities/practicum, and project and field practice. According to the National Standards for Higher Education (SNPT), the learning activities are lectures, responses and tutorials, seminars, and practicum. One credit of lecture and practicum is equivalent to 170 minutes per week per semester, with 50 minutes for a face-to-face activity, 60 minutes for structured assignments, and 60 minutes for self-study. Based on Rector's regulation No. 2/2024, 1 credit point is calculated for 45 hours of

activities per semester. Therefore, by considering 1 ECTS equals 30 hours of activities per semester, while 1 SKS equals 30 hours of activities per semester, the programs calculate 1 SKS corresponds to 1.5 ECTS of workload. Below is a detailed breakdown of the workload per semester for each program:

Table 4: Credits and ECTs of workload per semester
Source: Self-assessment report, UI.

Semester	Bachelor Pharmacy		Master Pharmaceutical Science (coursework)		Master Herbal Science (coursework		Doctor Pharmaceutical Science	
	Credits	ECTS	Credits (min)	ECTS	Credits	ECTS	Credits	ECTS
1	20	30	17	25.5	17	25.5	9	13,5
2	18	27	17	25.5	17	25.5	9	13,5
3	18	27	2	3	2	3	2	3
4	21	31.5	4	6	4	6	6	9
5	21	31.5					8	12
6	21	31.5					8	12
7	19	28.5						
8	6	9						
Total Credit	**144**	**216**	**40**	**60**	**40**	**60**	**42**	**63**

Bachelor of Pharmacy

The Bachelor's program curriculum requires a minimum study load of 144 credits (216 ECTS). Students must complete 9 credits of university compulsory courses (13.5 ECTS), 15 credits of compulsory health science cluster courses (22.5 ECTS), 100 credits of compulsory study program courses (150 ECTS), and 20 credits of elective courses (30 ECTS).

The semester GPA determines the maximum number of credits students can take the following semester, with a maximum of 24 SKS if the GPA range is 3.50-4.00. Bachelor's students are required to attend their classes in accordance with established regulations. They must be present for at least 80% of theoretical courses and 100% of practical courses. If a student's attendance falls below these percentages, they are not allowed to attend the final examination. The maximum time to complete the academic program is 14 semesters.

Master of Pharmaceutical Science and Master of Herbal Science

The Master of Pharmaceutical Science curriculum requires a minimum study load of 40 credits (60 ECTS). In the research track, students are required to complete 40 credits of compulsory courses (60 ECTS). In the course-and-research track, students are required to complete 18 credits of compulsory courses (27 ECTS), 14 credits of required specialization courses (33 ECTS), and 8 credits of elective courses.

Similarly, the Master of Herbal Science curriculum requires a minimum study load of 40 credits (60 ECTS). In the research track, students must complete 40 credits of mandatory courses, equivalent to 60 ECTS. In the course-and-research track, students are required to

complete 28 credits of mandatory courses (42 ECTS) along with 12 credits of elective courses (18 ECTS).

The semester GPA determines the maximum number of credits students can take the following semester, with a maximum of 18 SKS if the GPA range is 3.50-4.00. The Master's programs can be completed within the standard period of study (2 years), and a maximum of 4 years.

Doctor of Pharmaceutical Science

The doctoral program mandates a minimum requirement of 42 credits (63 ECTS). The cumulative study load includes research-related activities such as literature reviews, research proposals, publications, conferences, and dissertations.

The doctoral degree can be completed in a study period of 2-5 years and a maximum of 6 years (12 semesters).

In response to questions about the workload, students did not highlight any significant imbalance or excessive workload during the audit. They are mostly satisfied with the course workload and report having sufficient time to participate in activities outside study.

According to the self-assessment report, the student workload for each module is evaluated in the portfolio of the module prepared by the teaching team at the end of the semester. Moreover, during the audit, the experts inquired how the study programs ensure that the workload of a course aligns with the allocated credit hours. The program coordinators responded that the student evaluation on lecturer (EDOM) questionnaire includes a specific question related to workload, which facilitate this alignment

The university provided data on enrolments, dropouts, on-time graduation, and average study duration in its self-assessment report and accompanying appendices for the four programs under review. Analysing the cohorts from 2018/2019 to 2022/2023 revealed that, for the Bachelor of Pharmacy program, 687 students were admitted, with 70 withdrawing, which accounts for approximately 10% (70/687). The data indicate that most students continue their studies, and the average completion time aligns with the standard four-year study duration.

According to statistical data, the dropout rates for Master's programs are moderate for the Master of Pharmaceutical Science but higher for the Master of Herbal Science. During the same period, 180 students were admitted to the Master of Pharmaceutical Science, with 22 dropping out, resulting in a dropout rate of approximately 12% (22 out of 180). In contrast, for the Master of Herbal Science, 45 students were admitted, and 12 dropped out, leading to a dropout rate of about 27% (12 out of 45).

Additionally, the data indicate that students in the Master of Herbal Science typically complete the program within the expected duration of 2 years. Meanwhile, students in the Master of Pharmaceutical Science exceed the standard study duration, averaging 2.5 years to complete their degree.

For the Doctor of Pharmaceutical Science program, from the 2018-2022 cohorts, 42 students were admitted, and 6 withdrew, resulting in a dropout rate of 14% (6/42). This indicates that most students remain committed to their studies, even though the average completion time extends beyond the standard study period, averaging 4.5 years in 2022.

The Faculty of Pharmacy has identified the publication requirement as a significant barrier to timely completion for Master's and Doctoral students. In response, several measures are being implemented to address this challenge. The experts support these initiatives and believe that the university must enhance its assistance for student progression to promote timely graduation (e.g., mandatory workshops, seminars etc.).

The experts confirm that regulations for the transfer of credits obtained outside of UI exist (Rector's decree No 24/2022 concerning the Implementation of Undergraduate Programs). The experts also attest that the program's module handbooks clearly distinguish between credits given for various forms of supervised studies and self-study time.

The experts are mostly satisfied with the way UI and the Faculty of Pharmacy administer the system of academic credits. All in all, the experts confirm that a credit system centred on student workload is in place, that this workload encompasses both contact hours and self-study time and that credits are granted in accordance with the associated workload.

Criterion 1.6 Didactic and Teaching Methodology

Evidence:

- Self-assessment report
- Academic Guidelines, all programs under review
- E- learning management system (EMAS): https://emas.ui.ac.id/login/index.php
- Discussions during the audit.

Preliminary assessment and analysis of the experts:

In its self-assessment report, UI records that appropriate didactical instruments and methods are implemented for the programs under review. Each course may utilise one or a mix of different teaching methods, depending on the type of instruction: lectures, responses and tutorials, seminars, experiments, studio or workshop practices, fieldwork, and advanced research activities. Doctoral students, in particular, are required to

disseminate their research at national or international seminars and publish their findings in reputable international journals.

The teaching staff uses a Semester Learning Plan to document the instruments and methods for a course in accordance with the University and Higher Education learning process standards. Blended learning and electronic/online/offline learning (e-learning) are both acceptable learning methods. The programs utilise the learning management system (EMAS) for learning and teaching processes, especially for supporting blended learning.

The university's approach to learning is student-centred and involves teaching methods that prioritise the student's involvement in the learning process. Government regulations and internal curricula have recently focused on increasing problem-based and project-based learning. This approach helps students collect and analyse data, problem-solve, and present research results in laboratory and field settings. The Independent Learning-Independent Campus (MBKM) policy has been integrated into the Bachelor's curriculum to give students more flexibility in achieving their goals. With MBKM, students can learn from different institutions, industries, and communities, allowing for a more student-centred approach to education. Furthermore, the availability of laboratory facilities, including education, research, advanced labs, and field labs, will enable students to conduct independent research.

Moreover, the Faculty of Pharmacy works on exposing all students to relevant external parties through seminars by industry experts, internship offers, and partnerships with national and foreign institutions.

The four programs have courses on research methodology. Depending on their academic level, these courses guide students in developing, writing, and publishing papers, case-study reports, theses, and dissertations. To prevent plagiarism, an anti-plagiarism software subscription is used.

In the discussions with the students and alumni, the experts found that they are generally satisfied with the quality of teaching and learning in the programs under review, and they expressed a sense of proud in having chosen to join Universitas Indonesia.

In summary, the expert group considers the range of teaching methods and instruments suitable to support the students in achieving the intended learning outcomes. They confirm that the study concepts of all programs under scrutiny 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 the University for the provided statements and additional documentation concerning criterion 1.

(ASIIN 1.2) Reconsidering the Master of Herbal Science's name (Statement 1)

The experts reviewed the evidence regarding the efforts made by the study program and the faculty to propose changes to the program's title. The assessment team supports continued efforts to follow up on this title recommendation to ensure it better reflects the program's unique profile.

(ASIIN 1.4) Reconsidering Bahasa Indonesia as a requirement for the Master's and Doctoral programs (Statement 2)

The experts appreciate the Faculty of Pharmacy's commitment to improving the admission requirements for international students, especially concerning language proficiency. They recognize that proficiency in Bahasa Indonesia is a university requirement set at level 3 out of 9, which primarily supports basic conversational skills for daily life. The experts recommend making this transparent, as the current requirement may limit program opportunities.

(***ASIIN 1.5) Addressing barriers to timely completion of Master's and Doctoral programs (Statement 3)***

The experts acknowledge that the Faculty of Pharmacy has organized an annual seminar focused on article publication writing, referred to as a coaching clinic, to address this challenge. They also note that additional strategies will be implemented, such as regular writing sessions using the Pomodoro technique, along with other workshops aimed at enhancing writing skills. As these measures have not yet been implemented, the experts highlight the need for the university to strategically plan and execute them, with close attention to monitoring their effectiveness in helping students meet the publication requirement on time.

The experts consider criterion 1 to be mostly fulfilled.

2. Exams: System, Concept and Organisation

Criterion 2 Exams: System, Concept and Organisation

Evidence:

- Self-assessment report
- Module descriptions, all programs under review
- Academic Guidelines, all programs under review
- E-learning management system (EMAS): https://emas.ui.ac.id/login/index.php
- Academic Information System (SIAK-NG): https://academic.ui.ac.id/main/Authentication/
- Academic calendar: https://www.ui.ac.id/akademik/kalender-akademik/
- Samples of student's work (projects, exams and thesis)
- Discussions during the audit.

Preliminary assessment and analysis of the experts:

i. Forms of Examinations and Exam Schedule

According to the self-assessment report, formative and summative assessments evaluate students' academic performance. The exam component consists of quizzes/daily assignment, mid-semester exams, and end-of-semester exams.

Exams and the corresponding assessment rubrics measure students' learning outcomes (knowledge, attitudes, and skills competencies) according to a predefined grading scale reference. The module handbook specifies the course's intended learning outcomes (CLO) and identifies the types of examinations used to assess the achievement of these learning objectives. As seen in the module handbooks, various assessment methods are used in the programs, which can be performed as scheduled (i.e. mid-term and final exams) and flexible assessments in the form of structured tasks.

Table 5: Some exam types in the programs under review
Source: Module handbook as appendix to the self-assessment report, UI.

Program	Exam Format
Bachelor of Pharmacy	Assignment, including teamwork essay, oral presentation, role play, case-study, project-based simulation, project prototype, Written test, including essay, CBT Lab skill test (mid-term and final test) Research proposal and presentation, result examination rubric, closed comprehensive rubric.
Master of Pharmaceutical Science	Assignment, including Teamwork essay/paper, discussion, oral presentation, case study.

Program	Exam Format
and Master of Herbal Science	Exam and Quiz (multiple choice question, group review) Research proposal
Doctor of Pharmaceutical Science	Seminar, conference presentation Scientific writing and publication Seminar and doctoral Thesis

The Average Assignment Score (NTR) represents the mean score of quizzes, assignments, and laboratory exercises (if applicable) and typically accounts for 20% of the total grade. The Mid-Semester Exam Score (NUTS) and the Final Exam Score (NUAS) each contribute between 30% and 40% to the overall assessment.

Information about exam types and schedules is written in the Semester Learning Plan and Learning Contract, which are informed to students in the first session of each course. The form and length of each exam are specified in the course description available to the students via the university´s E-learning management system (EMAS). Through the latter, lecturers can conduct quizzes and examinations and provide feedback on assessments. The students also learn about mid-semester and end-of-semester exams via the academic calendar.

The experts confirm that all examinations and their conduct across the different qualification levels are governed by a range of university regulations and standard operating procedures.

ii. 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 6: Numerical Value of each Grading Scale
Source: Self-assessment report, UI.

Grade	Grade Point	Score
A	4.0	85 – 100
A-	3.7	80 - < 85
B+	3.3	75 - < 80
B	3.0	70 - < 75
B-	2.7	65 - < 70
C+	2.3	60 - < 65
C	2.0	55 - < 60
D	1.0	40 - < 55
E	0.0	00 - < 40

The minimum grade required to pass all courses:

1. Bachelor of Pharmacy: grade D (equal to a score of 1.00). If a student has a D-grade, they must re-enrol in the course.
2. Master's and Doctoral program: Grade B (equal to a score of 3.00)

Students with failing grades must take a remedial exam or course. Students with grades C, D, or E may also consider retaking the course in the next semester. The score used for students who take the remedial exam is considered the last final score. The conditions for re-sit exams and accommodations for students with disabilities are specified in the academic regulations.

Students are required to attend a minimum of 80% of lectures and 100% of practical sessions to be allowed to take the final examination. Students with an attendance below 80% may receive assignments from the course coordinator that must be completed within a specified timeframe, allowing them to take exams as scheduled in the academic calendar. However, students with attendance below 60% will not be permitted to sit for the Final Semester Examination.

Should students face exceptional circumstances, such as emergencies, hospitalisation, or bereavement, which prevents them from sitting for midterms or final exams, they may be eligible to take a follow-up exam. The lecturer or Faculty will determine the time for the makeup exam, and students must provide suitable evidence to support their request.

Final grades are available on students' academic accounts (SIAK-NG) no later than 2 weeks after the last exams. When students have objections to their exam results, they have the chance to appeal directly to the concerned lecturer within one week after the time of announcement of the grade. The students confirmed that an appeal mechanism exists if they perceive their grades as unfair.

In order to graduate from the programs under review, students must:

1. Bachelor of Pharmacy: not exceed the maximum study period, have active student status, and fulfil all administrative and academic requirements, achieving a minimum GPA of 2.00.
2. Master of Pharmaceutical Science and Master of Herbal Science: not exceed the maximum study period, have active student status, and fulfil all administrative and academic requirements, achieving a minimum GPA of 3.00. Students are required to produce one scientific paper related to their studies as the primary author, in collaboration with a supervisor, which must either be published in an accredited scientific journal or accepted for publication in an international journal.
3. Doctor of Pharmaceutical Science: not exceed the maximum study period, have active student status, and fulfil all administrative and academic requirements, achieving a minimum GPA of 3.00. Students are required to publish scientific articles in reputable international journals, such as those indexed in Scopus, and/or in nationally accredited journals classified as SINTA Level 2.

UI has a policy on academic integrity in all student activity, including examinations and assignments. According to the "Student Code of Ethics", if students engage in plagiarism, they will face sanctions that correspond to the severity of their actions. To help prevent plagiarism, the university offers teachers and students access to anti-plagiarism software, which can be used to check for similarities in written work.

iii. Thesis

In accordance with academic guidelines, Bachelor's, Master's, and Doctoral students must complete a final thesis or project prior to graduation. The specific modality varies by program and chosen track. This final assignment aim to demonstrate that students are able to work independently on a task at the intended level of the degree program.

Further discussion concerning the Doctoral program is provided in section D 4 of the "Additional Criteria for Doctoral Programs".

In their assessment of this criterion, the expert group finds that appropriate rules and regulations, which govern the examination systems university-wide, are in place. These rules and regulations are adequately communicated and transparently published. The students also confirm during the audit that they are well-informed about the examination schedule, form, and grading rules. Additionally, they are given sufficient time to prepare for the exams adequately.

The expert group also examined a selection of final theses/academic work and determined that they were of an appropriate academic level. **However, they recommend that the Doctoral and Master's thesis be written in English in line with the international aspirations of the programs.**

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

The experts thank the University for the provided statements and additional documentation concerning criterion 2.

(ASIIN 2) Writing Master's and Doctoral thesis in English language (Statement 4)

The experts are pleased to learn that their recommendations concerning the English writing of the thesis will be thoroughly considered in the development of future thesis writing guidelines.

The experts consider criterion 2 to be fulfilled.

3. Resources

Criterion 3.1 Staff and Staff Development

Evidence:

- Self-assessment report
- Staff handbooks and lecturer profiles, all programs under review
- Career pathway of permanent lecturer academic promotion
- Internal Semester Evaluation Report (EVISEM), Faculty of Pharmacy, PTA 2021/2022
- Discussions during the audit

Preliminary assessment and analysis of the experts:

i. Staff

Staff comprises lecturers and educational staff. Lecturers are categorised as professors, associate professors, senior lecturers/assistant professors, junior lecturers/assistant professor and lecturers. A lecturer's position is based on academic activities, publications, education level, and student supervision, among others. In addition, a lecturer's responsibilities and tasks concerning teaching, research, and supervision depend on the academic position.

The Faculty of Pharmacy comprises 11 full professors (21%), 2 associate professors (4%), 17 senior lecturers/assistant professors (32%), 14 junior lecturers/assistant professors (26%), and 3 lecturers (6%). 67% of lecturers hold a doctoral degree and 34% a Master's degree.

The Indonesian government has set specific staff-student ratios for universities, which are outlined in the Ministry of Education, Culture, Research and Technology's regulation. Currently, the Bachelor of Pharmacy has a ratio of 1:10, while the Master of Pharmaceutical Science has a ratio of 1:4.4. The ratio at the Master of Herbal Science stands at 1:1.2, whereas at the Doctor of Pharmaceutical Science, it is 1:1.7. The expert team observe that the ratio of lecturers to students appears to be appropriate to fulfil the current needs of the programs. They appreciate the university's efforts to maintain this standard.

Moreover, the Faculty of Pharmacy is supported by 40 educational staff members, including librarians, archivists, lab technicians, analysts, and operators.

Staff at UI is primarily composed of permanent full-time civil servants appointed by the government (*Pegawai Negeri Sipil, PNS*). However, based on workload and educational needs, UI can open additional opportunities for individuals to join as Employees of

Universitas Indonesia (*Pegawai Universitas Indonesia, PUI*), whose employment status requires formal appointment or confirmation by the Rector. Additionally, there are Non-Permanent or Temporary Employees (*Pegawai Tidak Tetap, PTT*), who are hired through fixed-term employment agreements via contracts that must be approved by the Dean and the Director of Human Resources.

The recruitment process is centralised at the university level. Minimum academic qualifications include a Master's degree for lecturer positions in the undergraduate program and a Doctoral degree for lecturer positions in Master's and Doctoral programs.

Regarding lecturer's promotion, those who are public servants must follow the system regulated by the government. The teaching staff's promotion to a higher academic position is based on several factors, such as achievement in teaching, research, and community service activities. In order to be promoted to the position of a full professor, the applicant must hold a doctoral degree and demonstrate robust scientific production.

When asked by the experts about the adequacy of staff to support their work, students expressed general satisfaction with the teaching staff. However, they noted that there are occasions when the number of laboratory technicians is insufficient, indicating a need for additional support. The experts recommend that the university consider increasing the number of laboratory technicians to better meet students' practical needs.

Job Conditions and Performance Review of Staff

Every semester, faculty members formulate their work objectives and submit their workload reports electronically using the Integrated Resource Information System (SISTER). SISTER is a program developed by the Ministry of Research, Technology, and Higher Education used a source system for the portfolios of lecturers in Indonesia. It records data on lecturer activities, teaching history, research, and community service

All lecturers must meet the national standards for lecturer workload of a minimum of 12 and a maximum of 16 credit hours of the so-called three pillars of higher education. Monitoring and evaluation of faculty member's performance in the three pillars are conducted every semester based on operational guidelines. The rewards provided to teaching staff are determined by the evaluation of outcomes of their workload and are disbursed on a monthly basis, including lecturer certification and performance incentives.

In order to evaluate performance and as outlined in Criterion 5, students are required to submit course evaluations for each course. The program coordinators confirmed that the results of these evaluations contribute to the overall assessment of the staff.

ii. Staff Development

The formal recognition of the quality of academic staff within the study programs is achieved through the 'Certification of Lecturers', which is a process overseen by the government in accordance with Regulation No. 37/2009 on Lecturers.

Teaching staff attend workshops and seminars on knowledge and skill enhancement organised by the government. Together with this, the University conducts regular teaching and learning workshops to improve/refresh the teaching skills of junior and senior lecturers. It is mandatory for every lecturer to attend training, including the Applied Approach (AA) and Training for Skills Development and Instructional Techniques (PEKERTI). These workshops cover various topics, including the fundamental principles of learning and teaching in higher education, curriculum planning, assessment of learning and teaching, and continuous improvement in teaching and learning.

Financial resources are available for staff members to go abroad for a limited time and to participate in conferences or other events to stay up to date with the scientific development in their area of expertise. In addition, the faculty promotes the internationalisation process at UI by hosting international scientific events and inviting international guest lecturers.

The experts discuss the opportunities to develop their skills with the members of the teaching staff and learn that the teachers are satisfied with the internal qualification program at UI. This provides them opportunities to improve their didactic abilities, spend time abroad to attend conferences and participate in workshops and seminars.

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

In the experts' opinion, the teaching staff's composition, scientific orientation and qualification are suitable for successfully implementing and sustaining the programs under review.

During the discussions with the assessment team, the lecturers confirmed that a range of professional development opportunities are available. The experts appreciate the University's efforts to support teaching staff in developing their skills and positively highlight the required teaching certification.

All in all, teaching staff expressed satisfaction with their working conditions for the Tridharma activities and professional development chances and exhibited a strong commitment to their students. The experts particularly highlight their approachable attitude and motivation to improve the curriculum.

As regards the students, they are equally satisfied with the approachable, enthusiastic, and motivated teaching staff as well as with the learning environment.

Criterion 3.2 Student Support and Student Services

Evidence:

- Self-assessment report
- University website: https://www.ui.ac.id/
- E-learning management system (EMAS): https://emas.ui.ac.id/login/index.php
- Academic Information System (SIAK-NG): https://academic.ui.ac.id/main/Authentication/
- Discussions during the audit.

Preliminary assessment and analysis of the experts:

As mentioned previously, UI utilises a learning management system called "EMAS" providing students access to lectures, course materials, and interactions with lecturers. Additionally, UI employs an integrated academic information system called "SIAK-NG" which allows students to access all their academic information, including course contracts, schedules, scholarships, and academic performance. During the auditors' interactions with students on-site, the students expressed their satisfaction with these online platforms

Every student is assigned to an academic advisor lecturer who is responsible for student activities from beginning to end. The academic advisors can monitor students' performance online through the academic portal SIAK-NG. The students confirmed during the discussion with the expert group that they all have an academic advisor, that they meet regularly, and that they can always contact their advisor personally and ask for help or advice.

Besides the above, students can rely on an early introductory program at the start of their studies, as well as on several dedicated support units, such as the Library, sports facilities, art and culture centers, dormitories, UI station for commuter line, UI yellow bus, counsellors and career services. To support student career development, representatives from the Rector's office explained to the experts that the university frequently invites speakers from start-up companies. Additionally, the university organises employer forums to facilitate discussions about the labour market.

Additionally, there are various events and developmental programs available for students to participate in outside of the classroom, including student organisations and clubs.

The experts attest that there is a good and trustful relationship between the students and the teaching staff; enough resources are available to provide individual assistance, advice

and support for all students. The support system helps students adjust to the university environment, achieve the intended learning outcomes and complete their studies successfully. The students are well-informed about the services available to them.

Criterion 3.2 Funds and equipment

Evidence:

- Self-assessment report
- UI website: https://www.ui.ac.id/
- Laboratory Facilities and Main Equipment of Study Programs
- List of collaborators, all programs under review
- Visitation of participating institutes and laboratories, Depok campus
- Discussions during the audit.

Preliminary assessment and analysis of the experts:

i. Funding

According to the self-assessment report, funding for all study programs comes from three sources: government, student tuition fees and private sector. Currently, contributions from independent businesses account for approximately 21.5% of total funding, while student tuition constitutes a significant 55.4%.

Given that over 50% of the funding currently derives from student fees, the experts inquired with the university management about the existence of a long-term financial plan for the faculty/study programs. They explained that a dedicated unit has been established to engage with external partners to enhance funding through collaborations with third parties. Additionally, the Faculty of Pharmacy is actively implementing strategies to secure more funding based on research projects.

ii. Collaborations

As part of its self-assessment report, a list of local and international collaborators was presented. The Faculty of Pharmacy has collaboration with industries, universities, and other institutions at national and international levels to support the implementation of the curriculum. There are also some important interfaculty collaboration initiatives.

The external collaborators attending the discussion during the site visit expressed satisfaction with their partnership with the University. This was further demonstrated by their willingness to participate in the accreditation meeting. In connection with this, the

experts highlight the good level of collaboration in research across faculties and with external partners.

iii. Infrastructure and technical equipment

Each year, the heads of each laboratory plan the procurement of new equipment while maintaining existing resources to ensure that students have access to high-quality and sufficient learning tools. The Faculty of Pharmacy's Cooperation Unit enhances researchers' capabilities by facilitating partnerships with industries, research institutes, and other universities. Through established Memorandums of Understanding and Implementation Agreements, faculty members and students can utilise the equipment and facilities of these partners, particularly for specialized research needs that may not be met by available resources within their study programs.

The evaluation of infrastructure and equipment is conducted using multiple methods, including student satisfaction surveys and monitoring of management practices related to learning support facilities. Additionally, feedback from laboratory heads and internal audits are incorporated into the assessment process.

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, with well-equipped facilities designed for extensive laboratory and field activities. The expert group was divided into two groups due to time constraints:

Group 1	Group 2
• UI Integrated Laboratory & Research Center (ILRC) Building • Touring the university's dormitory, student sports facilities and student activity center • Health Sciences Cluster Building	• Library Building • Universitas Indonesia Hospital (RSUI) • Faculty of Pharmacy Building

The experts observed that the integrated laboratory is housed in a relatively new building, and this is reflected in the modern, well-designed interior, which creates a positive working and research environment. The laboratories are well-equipped, neat, and organised, which facilitates both teaching and research activities.

Concerns were raised about the animal laboratory. Although it is a new facility, it appeared quite small, particularly for larger projects that involve multiple students and a higher number of animals. The preparation and surgery rooms seemed compact, which

could limit the scope of larger-scale projects. When the experts inquired, the lecturers mentioned that for bigger projects, the university collaborates with other institutions. As a result, the experts seek clarification on whether the faculty has access to a larger animal laboratory for such projects within its premises, aside from the visited integrated laboratory.

The experts, nonetheless, commend UI for implementing innovative approaches to learning. A notable example is the simulated pharmacy environment, which enables students to manage prescriptions and interact with customers within a realistic, simulated scenario.

Regarding the Central Library, the experts note that its building is intended to meet the needs of all students of UI. In addition to the standard collection of books found in most libraries, there is a special collection on traditional medicine. The library offers a silent reading room and various discussion spaces. It also provides several designated areas for doctoral students to write their dissertations.

During the visit to the Hospital, which is a teaching hospital type B, the experts note that adequate facilities are provided. In addition to serving as a practical training site for master's students concentrating in clinical pharmacy, this hospital also offers opportunities for undergraduate students to observe the general practices of drug distribution and the handling of sterile preparations in the hospital.

Concerning the teaching laboratories located in the Graduate School of the Faculty of Pharmacy building, the laboratories are situated on the first to fourth floors and are organised according to their respective fields of study. The space is adequate for lab work activities for undergraduate students, assuming a simultaneous participation of approximately 20 students. The majority of the tables are made of wood, with ceramic tops. Some equipment, such as the tablet press machine, is quite old but is still utilised for research purposes. Safety features include fire sprinklers within the laboratories and eye-face safety showers in the corridors between the labs. **With regard to these facilities, the university might consider modernising them, with more exhausters and wooden bench tops, which should be replaced for safety reasons.**

In their appreciation of the quality of infrastructure and equipment, the experts judge the available equipment and facilities to be sufficient to support teaching and research activities. **The experts acknowledge that if the equipment become a limitation, the institution has arranged several approaches such as resource sharing, collaborate with other universities and industries, and finding grant for procurement of equipment. However, they suggest that the university consider to provide NMR and LC-MS devices**

for the faculty.

iv. Supporting resources for staff

Lecturers may apply for staff exchange opportunities abroad in their areas of research, publication, or as guest lecturers or reviewers. The Faculty of Pharmacy's Cooperation Unit actively seeks to enhance collaborations with partners, as evidenced by the list of MoUs/AoIs provided. Furthermore, the unit promotes the dissemination of collaborative research outcomes to attract additional partners.

The experts received a comprehensive list of lecturers' international activities, which confirms their participation in doctoral studies, seminars, research collaborations, training courses, and sabbatical leaves in countries such as the Netherlands, Japan, Malaysia, Singapore, Korea, and Spain, among others. Regarding research, funding is accessible from various sources, including the university, government agencies, and national and international institutions.

When questioned by the experts, the teaching staff confirmed the availability of these opportunities. Overall, institutional support for research and community service is widely recognised by both senior and junior faculty members.

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

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

(ASIIN 3.1) Increase in the number of laboratory technicians (Statement 5)

The experts appreciate the response from the university and fully endorse the planned re-evaluation of the laboratory technicians' allocation, taking into account both current staffing levels and potential additions to better support the practical needs of students.

(ASIIN 3.2) Current Animal laboratory's conditions (Statement 6)

The experts acknowledge the explanation about the conditions of the animal laboratory and are pleased to learn that the Faculty has access to a larger and well-equipped animal laboratory located within the university, specifically at the Faculty of Medicine, Department of Biology. Additionally, they take note of the access to external facilities such as DLBS (Dexa Laboratories of Biomolecular Science).

(ASIIN 3.2) Improvements in the teaching labs (Statement 7)

The experts appreciate that facility improvements will be prioritized. They support that the focus is being placed on enhancing safety features, including increasing the number of exhaust systems, replacing wooden bench tops, and modernizing equipment.

(ASIIN 3.2) MNR and LC-MS devices at the Faculty (Statement 8)

The experts take note that the bioavailability and bioequivalence (BA-BE) laboratory currently provides students with access to LCMS equipment. Regarding NMR facilities, while NMR is available at the university level, the experts support the faculty's plan to submit a request to the university for dedicated NMR facilities specifically for the faculty.

The experts consider criterion 3 to be fulfilled.

4. Transparency and Documentation

Criterion 4.1 Module Descriptions

Evidence:

- Self-assessment report
- UI website: https://www.ui.ac.id/
- Faculty Pharmacy website: https://farmasi.ui.ac.id/en/
- Module descriptions, all programs under review

Preliminary assessment and analysis of the experts:
After studying the module descriptions the experts confirm that they include all necessary information about the persons responsible for each module, the teaching methods and workload, the awarded credit points, the intended learning outcomes, the content, the applicability, the admission and examination requirements, and the forms of assessment and details explaining how the final grade is calculated.

These module description files are stored in the digital platform EMAS, which ensures students' accessibility. The module description is explained to class participants during the first week of lectures.

However, the experts note that the module descriptions are unavailable on the respective program's website, therefore, access to all interested stakeholders is not ensured.

Criterion 4.2 Diploma and Diploma Supplement

Evidence:

- Self-assessment reports
- Sample Transcript of Records, all programs under review
- Sample Diploma/Degree Certificate, all programs under review
- Sample Diploma supplements, all programs under review

Preliminary assessment and analysis of the experts:
According to the information provided in the self-assessment report, students from the programs under review receive after graduation a Diploma Certificate, accompanied by an Academic Transcript. The issuance of Diploma certificates is the university's authority and is signed by the Rector and Dean of the Faculty of Pharmacy.

Along with these documents, the graduates receive a Diploma Supplement, which is an official statement letter issued by the Faculty of Pharmacy. It contains all necessary information about the degree program, including learning outcomes, acquired soft skills and student achievement in academic, co-curricular, extracurricular, or non-formal education.

The ASIIN experts are provided with samples of these documents. The experts confirm that the students of the degree programs under review are awarded a Diploma Certificate, as well as a Transcript of Records and a Diploma Supplement. The Transcript of Records lists all the courses the graduate has completed, the achieved credits, grades, cumulative GPA, and the seminar and thesis title.

Criterion 4.3 Relevant Rules

Evidence:

Self-Assessment Report

- Self-assessment report
- All relevant regulations as presented in the self-assessment report
- UI website: https://www.ui.ac.id/
- Faculty Pharmacy website: https://farmasi.ui.ac.id/en/prosedur-dan-formulir-layanan-akademik/

Preliminary assessment and analysis of the experts:

The auditors confirm that the rights and duties of both Universitas Indonesia and the students are clearly defined and binding. All rules and regulations are published on the university's website and hence available to all relevant stakeholders. In addition, the students receive all relevant course material in the language of the degree programs 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 the University for the provided statements and additional documentation concerning criterion 4.

(ASIIN 4.1) Access to module descriptions for all interested stakeholders (Statement 9)

Upon reviewing the provided links, the experts confirm that module descriptions are accessible through the program websites, and therefore, available to all relevant stakeholders.

The experts consider criterion 4 to be fulfilled.

5. Quality management: quality assessment and development

Criterion 5 Quality management: quality assessment and development

Evidence:

- Self-assessment report
- UI Internal Quality Assurance System Guidelines
- Faculty of Pharmacy's Academic Quality Assurance System Manual
- Internal Semester Evaluation Report (EVISEM), Faculty of Pharmacy, 2021/2022
- Annual Internal Evaluation Results (EVITAH), Faculty of Pharmacy, 2021/2022
- Student Evaluation on the Lecturers (EDOM)
- Tracer Study Report 2023, Faculty of Pharmacy, all programs under review
- LAM-PTKes Accreditation Certificates
- Discussions during the audit.

Preliminary assessment and analysis of the experts:
UI quality management system has been institutionalised in compliance with government regulations (Minister of Education and Culture Regulation No. 50/2014) and undergoes regular evaluation and updating. The self-assessment report indicates that quality is overseen internally by dedicated quality assurance units across the faculty (AQAU), and university levels (AQAB).

Based on the UI Internal Quality Assurance System Policy, the study programs undergo internal screening processes employing student surveys, lecturer performance assessments, evaluation of graduate competency achievements and data obtained from external stakeholders through tracer study and labour market observation. Feedback is also gathered by inviting stakeholders to specific forums.

According to the self-assessment report, multiple evaluations are conducted as part of the multi-layered internal quality assurance system. These include the Internal Semester Evaluation (EVISEM) and Annual Internal Evaluation (EVITAH), which assess various aspects such as student selection, lecturer competency, and student performance. Additionally, students provide feedback through the Student Evaluation on Lecturer (EDOM) each semester, while a yearly satisfaction survey gathers insights from multiple stakeholders. The Academic Internal Audit (AIA) and Managerial Internal Audit (AMI) ensure continuous improvement of study programs and managerial practices, respectively. Lastly, the Evaluation of Postgraduate Students regarding Education and Research (EMPIRIS) focuses on the performance of lecturers in postgraduate courses. The experts had access to documents reporting the results of these evaluations for 2021/2022.

When the students were asked about the surveys and whether they were informed of the evaluation results, they gave the feedback that a summary of the results had not been provided to them. The experts emphasise that the students' feedback is essential for further improving the program, but it is also important to inform the students about the results and possible improvements. Feedback cycles need to be closed. Therefore, the experts ask the university to take corrective actions in this regard.

Annual tracer studies are conducted to gather information about graduates, utilising the UI Directorate of Career Development and Alumni Relations system (https://alumni.ui.ac.id/). Lecturers and supporting staff also evaluate the quality of the study program services in the learning process on an annual basis. The insights from these surveys are utilised to drive continuous improvement in the programs.

The existence of such evaluation instruments was confirmed by program coordinators, students and lecturers of the respective programs during the audit. In the discussion with the experts, the alumni confirmed that tracer studies exist, and the industry

representatives also confirmed that the university is open to receiving feedback about new developments and trends that could enhance the employability of its graduates.

Together with internal quality assurance mechanisms, recurring external quality assurance exercises at UI relate to the legal obligation to submit every degree program for accreditation by a recognised agency in addition to the compulsory institutional accreditation. The five study programs under review have been awarded "Excellent" by the Indonesian Accreditation Agency for Higher Education in Health (IAAHEH/LAM-PTKes). The validity period for study program accreditation is five years.

The expert panel holds an overall good impression of the quality assurance system for the programs under review. Quality management has been prioritised within the university, and various functioning structures have been created to support this commitment. The panel notes that both UI and the Faculty of Pharmacy have implemented a series of evaluations designed to regularly gauge the perspectives of students, stakeholders, and staff.

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

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

(ASIIN 5) Closing the feedback loop (Statement 10)

The experts are pleased that their suggestion was well-received and that the Faculty of Pharmacy believes it will enhance its quality assurance process. After reviewing the provided link, the experts confirm that the survey results have been published, along with potential actions for improvement.

The experts consider criterion 5 to be fulfilled.

D Additional Criteria for Structured Doctoral Programs

Criterion D 1 Research

Evidence:

- Self-assessment report
- Samples of student dissertations and publications

- Discussions during the audit.

Preliminary assessment and analysis of the experts:

The Doctor of Pharmaceutical Science program at UI aims to contribute to the advancement of knowledge and technology in the pharmaceutical field (pharmaceutical technology, pharmaceutical chemistry, pharmaceutical biology, pharmacology and clinical pharmacy) through its graduates, as outlined in criterion 1.1. Doctoral candidates are encouraged to conduct research using interdisciplinary, multidisciplinary, or transdisciplinary approaches to solve various problems.

Students in the Doctor of Pharmaceutical Science program engage in research across a broad range of topics within the Faculty of Pharmacy's research domains, including:

- Natural Products
- Pharmaceutical Technology
- Pharmaceutical Chemistry
- Pharmacology
- Clinical Pharmacy and Social Pharmacy
- Microbiology and Pharmaceutical Biotechnology

These research topics align with the research themes of UI, specifically the focus on Health and Wellbeing, as described in the Rector's Decree No. 1738/SK/R/UI/2020.

All in all, the expert panel sees this criterion as fulfilled.

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

UI does not comment on this criterion in its statement.

The experts consider criterion D 1 to be fulfilled.

Criterion D 2 Duration and Credits

Evidence:

- Self-assessment report
- Rector’s regulation No. 26/2022 concerning Program Implementation Doctor
- http://farmasi.ui.ac.id/en/program-studi-s3/kurikulum-s3/
- Discussions during the audit.

Preliminary assessment and analysis of the experts:
The Doctor of Pharmaceutical Science consists of a minimum of 42 Indonesian credits (*Satuan Kredit Semester*, SKS).

i. Structure of the Program

The expected study duration is six semesters (3 years) with student intake each semester. In regard to the maximum duration, UI implements a limit of six years (12 semesters) in line with government regulations. An extension of the study period may be granted only under special circumstances.

The structure of the program is determined by the student's chosen pathway: research or course-and-research. However, the primary emphasis of the Doctoral program is research. This is reflected in the curriculum distribution, which includes research-related activities, such as literature review, research proposal, publication, conference, and dissertation.

Doctoral students confirmed during the audit that the workload is manageable, allowing them to maintain a balance between studies and other commitments.

ii. Contents

The cumulative study load for the Doctoral program consists of the following:

The **research track** requires participation in seminars on literature studies (6 credits, 9 ECTS), passing the research proposal exam (5 credits, 7.5 ECTS), and the research exam (8 credits, 12 ECTS). Students must also present scientific papers as the main author at international conferences (4 credits, 6 ECTS) and publish one paper in a reputable international journal (6 credits, 9 ECTS) as well as one in a national journal indexed by SINTA 2 (5 credits, 7.5 ECTS). Additionally, they must submit evidence of these publications to qualify for the promotion exam and present their Dissertation work during the Promotion Session, which is the final stage of the Doctoral Program (8 credits, 12 ECTS).

The **course-and-research track** requires the completion of structured coursework for 14 credits (21 ECTS), followed by a research proposal (4 credits, 6 ECTS) and a research exam (8 credits, 12 ECTS). Students must present scientific papers as the main author at international conferences (2 credits, 3 ECTS), alongside publishing one paper in a reputable indexed international journal (6 credits, 9 ECTS). Proof of these achievements is necessary for eligibility for the promotion exam. Finally, students must submit a dissertation and participate in the Promotion Session, which constitutes the final requirement of the Doctoral Program (8 credits, 12 ECTS).

Students have the opportunity to enhance their experience and skill through activities outside the study program, or even outside the university.

All in all, based on the provided documentation and their discussions during the audit, the expert group attests that modules within the doctoral program serve to achieve the intended academic qualification. Through the offered structure, students are able to individualise their doctoral journey.

The expert panel thus sees this criterion as fulfilled.

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

UI does not comment on this criterion in its statement.

The experts consider criterion D 2 to be fulfilled.

Criterion D 3 Soft Skills and Mobility

Evidence:

- Self-assessment report
- List of collaborators, Doctoral program
- Student mobility, Doctoral program
- Discussions during the audit.

Preliminary assessment and analysis of the experts:
Doctoral candidates are offered a wide range of personal and professional development opportunities and institutional support for career development and mobility. As part of their doctoral studies, candidates are exposed to guest lectures, and networking events to foster their research capacities and publication skills.

Students are encouraged to engage in international activities. One such opportunity is participation in international conferences organised by foreign institutions. From 2018 to 2023, 24 doctoral students attended international conferences, with 2 of these students presenting at these events.

To enhance the skills required for scientific writing and accelerate the publication of their research, the Faculty of Pharmacy conducts annual coaching clinics. These sessions provide doctoral students with the opportunity for one-on-one consultations with international experts. Furthermore, to improve doctoral students' ability to effectively communicate their research, a 3-minute research pitch competition was initiated in 2023, with plans for it to be held annually.

All in all, the expert panel sees this criterion as fulfilled.

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

UI does not comment on this criterion in its statement.

The experts consider criterion D 3 to be fulfilled.

Criterion D 4 Supervision and Assessment

Evidence:

- Self-assessment report
- Rector's regulation No. 26/2022 concerning Program Implementation Doctor
- Discussions during the audit.

Preliminary assessment and analysis of the experts:

At the doctoral level, modules, as well as research work, are graded on a letter grade scale as displayed below:

Table 8: Conversion of numerical values into letter grades and weighting of letter grades
Source: Program Implementation Doctor as appendix to the Self-assessment report, UI.

Score	Letter Value	Weight Value
85 – 100	A	4.0
80 - < 85	A-	3.7
75 - < 80	B+	3.3
70 - < 75	B	3.0
65 - < 70	B-	2.7
60 - < 65	C+	2.3
55 - < 60	C	2.0
40 - < 55	D	1.0
00 - < 40	E	0.0

The final scientific work in the Doctoral program is a dissertation. This work is based on research results and follows scientific methods and principles. The final scientific work can only be compiled if the student has met the publication requirement**.**

For their dissertation, doctoral students receive guidance from a so-called Promoter Team, comprising 1 promoter and 2 co-promoters (from UI, national/international partner universities/collaborating institutions). Additionally, an Examiner Team is tasked with providing a comprehensive assessment of the student's academic performance, by submitting questions and rebuttals. Evaluations of the final scientific work are divided into the forms of research proposal seminar, scientific article, research results seminar, dissertation manuscript study, and promotion exam. On the scoring range of 0 – 100, the passing threshold is 70.

Doctoral students are required to receive guidance at least four times per semester, which must be documented in guidance sheets and recorded in the university's SIAK NG system. In addition to this guidance, students are also expected to maintain a research logbook to track their research activities. The program conducts regular meetings with students at the beginning of each semester to outline the milestones to be achieved and to identify any challenges they may face in their studies.

All in all, the expert panel sees this criterion as fulfilled.

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

UI does not comment on this criterion in its statement.

The experts consider criterion D 4 to be fulfilled.

Criterion D 5 Infrastructure

Evidence:

- Self-Assessment Report
- Library website: https://lib.ui.ac.id/
- Visitation to research labs.

Preliminary assessment and analysis of the experts:
As highlighted by the University in its self-assessment report and during the audit, doctoral students can draw from a range of facilities to support their timely graduation, including dedicated workspaces, research labs, as well as library access to books, journals, and anti-plagiarism checkers.

The audit team visited the facilities provided for doctoral students at the Depok campus to evaluate the infrastructure and technical equipment. As indicated under criterion 3.2, the experts judged the available equipment and facilities as sufficient to support research activities **but suggest the procurement of NMR and LC-MS devices.**

All in all, the expert panel sees this criterion as fulfilled.

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

UI does not comment on this criterion in its statement.

The experts consider criterion D 5 to be fulfilled.

Criterion D 6 Funding

Evidence:

- Self-Assessment Report
- List of collaborators, Doctoral program
- Discussions during the audit.

Preliminary assessment and analysis of the experts:
Funding for research is accessible through multiple sources, including the university itself, research grants from the Indonesian government, or external organisations, the latter drawing from UI's network of industry partners. Further relevant aspects are discussed under criterion 3.2.

All in all, the expert panel sees this criterion as fulfilled.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion D 6:

UI does not comment on this criterion in its statement.

The experts consider criterion D 6 to be fulfilled.

Criterion D 7 Quality Assurance

Evidence:

- Self-assessment report
- Statistical data for the Doctoral program as part of the self-assessment report
- Rector's regulation No. 26/2022 concerning Program Implementation Doctor
- Discussions during the audit.

Preliminary assessment and analysis of the experts:
Based on the data provided in the self-assessment report, the experts confirm that the university collects student progression data, including average study time, drop-out rates and GPA averages for each doctoral student cohort.

The experts attest that academic guidelines are provided to the doctoral students to support their doctoral journey. Furthermore, UI pursues a strict scientific integrity policy. Further relevant aspects are discussed under criterion 5 and criterion D 4.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion D 7:

UI does not comment on this criterion in its statement.

The experts consider criterion D 7 to be fulfilled.

E Additional Documents

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

None

F Comment of the Higher Education Institution (05.11.2024)

The institution provided the following additional information [Most links have been deactivated]:

1. Proof of statement No 1: OFFICIAL MEMO No: ND-559/UN2.F15.D/PDP.01/2024; To: Director of Academic; From : Acting Dean of Faculty of Pharmacy; Subject: Recommendation of name of study program and title for Master of Herbal
2. Proof of statement No 1: OFFICIAL MEMO Number: ND-555/UN2.F15.P3/HKP.02.04.05/2023; To: Dean of the Faculty of Pharmacy, UI; From: Head of the Graduate Program, Faculty of Pharmacy, UI; Subject: Change of Name and Degree for the Master's Program in Herbal Medicine.
3. Proof of statement No 1: NOTA DINAS; Nomor: ND-555/UN2.F15.P3/HKP.02.04.05/2023; Yth. : Dekan FF-UI; Dari : Ketua Program Studi Pascasarjana FF-UI; Perihal : Perubahan Nama dan Gelar pada Magister Herbal
4. Proof of statement No 1: NOTA DINAS; Nomor: ND-559/UN2.F15.D/PDP.01/2024; Yth.: Direktur Pendidikan; Dari : plh. Dekan Fakultas Farmasi; Perihal : Perubahan Nama dan Gelar pada Magister Herbal
5. Proof of statement No 5: Cholesterol-Lowering Effects of Extract from Garcinia daedalanthera in Hyperlipidemic Rats (Research Article)
6. Proof of statement No 8:
    a. Nuclear Magnetic Resonance (NMR) In Research and Development Directorate, Universitas Indonesia
    b. LC MS MS In The Bioavailability and Bioequivalence Laboratory (BA-BE) Laboratory Faculty of Pharmacy, Universitas Indonesia
7. Proof of statement No 9: Module handbook of each study program can be accessed via website of Faculty of Pharmacy UI
8. Proof of statement No 10: Satisfactory Survey and possible action can now be access openly through following website link: https://farmasi.ui.ac.id/informasi-tersedia-setiap-saat/

The institution also provided the following statement:

We appreciate the careful assessment of both the document and the onsite visit conducted by the ASIIN expert team. After a thorough review of the draft report, we believe that the recommendations and findings outlined in the report from the ASIIN expert team will

improve the quality of our faculty. Below are our statements regarding the specific recommendations and findings from the experts.

1. Criterion 1.2 Name of the Degree Programme, Page 13

“During the audit, the experts focused on the Master of Herbal Science, noting that the degree awarded is a Master of Science. This title is more general compared to the title used in the Master of Pharmaceutical Science program, despite the fact that herbal studies is a more specialized field. The experts inquired with the program coordinators if the degree title has caused any misunderstandings among stakeholders. The program coordinators explained that the title "Master of Science" derives from the Faculty of Mathematics and Natural Sciences, where the program was originated. They also clarified that the title is defined by decree. Although there have been attempts to propose a new title for the study program, it is ultimately up to the Rector to approve any changes. The coordinators mentioned that there have been no misunderstandings. However, there have been instances where the stakeholders have asked why it is labeled "Master of Science" given its specific focus. Based on this discussion, the experts suggest that the university consider adopting a more specific title for the program that better reflects its unique profile.”

Faculty statement:

Thank you for suggesting that the university adopt a more specific title for the master of herbal program that better reflects its unique profile. The study program and the faculty have proposed the changes of the title and will continue to follow up on this title recommendation to the Universitas Indonesia.

The evidence can be seen in additional information (Section F), respectively.

2. Criterion 1.4 Admission Requirement, Page 21.

“Admission for prospective international students is available for the research track of the Master’s and Doctoral programs. The experts note that among the various requirements, prospective students must “demonstrate good skills in Bahasa Indonesia”. The experts believe that this specific requirement might be limiting the possibilities of the programs to appeal to a wider range of applicants. Consequently, the experts recommend that the university consider accepting students without prior proficiency in Bahasa Indonesia.”

Faculty Statement:

The Faculty appreciates the assessors’ recommendations and is committed to enhancing the admission requirements for international students, particularly regarding language proficiency. While Bahasa Indonesia proficiency is a university requirement, it is set at level 3 out of 9, which primarily supports basic conversational skills for daily life. Importantly,

proficiency in the Indonesian language is not the main criterion for accepting foreign students as all the courses are conducted in english. The Faculty of Pharmacy has recently admitted four international students without prior proficiency in Bahasa Indonesia. These students are required to take an Indonesian language course during the graduate program. This class not only introduces the language but also helps students adapt to their new environment in Indonesia. So far, these students have performed very well in the class.

3. Criterion 1.5 Workload and Credits,

The Faculty of Pharmacy has identified the publication requirement as a significant barrier to timely completion for Master's and Doctoral students. In response, several measures are being implemented to address this challenge. The experts support these initiatives and believe that the university must enhance its assistance for student progression to promote timely graduation (e.g., mandatory workshops, seminars etc.).

Faculty Statement:

Thank you for your recommendation. To ensure timely graduation for Master's and Doctoral students, our program will continue to monitor students' progress regularly by organizing periodic progress meetings, and offering counseling sessions to address academic challenges. Additionally, we will regularly evaluate the existing publication policies. According to the current policy for Master's students, the minimum requirement of the research article for graduation requirement is "submitted and/or under review". For Doctoral's students, the "accepted" status of the articles is compulsory according to the Rector's Decree for Doctoral Program. To address this challenge, we have organized a yearly seminar event focusing on article publication writing (coaching clinic). Other approaches are also going to be taken, such as regular writing session using pomodoro technique, and other workshops to enhance their writing skills.

4. Criterion 2: System, Concept and Organisation, Page 29

"The expert group also examined a selection of final theses/academic work and determined that they were of an appropriate academic level. However, they recommend that the Doctoral and Master's thesis be written in English in line with the international aspirations of the programs."

Faculty statement:

We appreciate your specific recommendations regarding the English writing of the thesis. These suggestions will be carefully considered in the development of future thesis writing guidelines.

5. Criterion 3.1 Staff and Staff Development, Page 31

“When asked by the experts about the adequacy of staff to support their work, students expressed general satisfaction with the teaching staff. However, they noted that there are occasions when the number of laboratory technicians is insufficient, indicating a need for additional support. The experts recommend that the university consider increasing the number of laboratory technicians to better meet students' practical needs.”

Faculty statement:

We appreciate your recommendation and will conduct a reevaluation of the mapping of laboratory technicians, considering both the current staffing levels and potential additions to better support the practical needs of students.

6. Criterion 3.2 Funds and Equipment, Page 35

Concerns were raised about the animal laboratory. Although it is a new facility, it appeared quite small, particularly for larger projects that involve multiple students and a higher number of animals. The preparation and surgery rooms seemed compact, which could limit the scope of larger-scale projects. When the experts inquired, the lecturers mentioned that for bigger projects, the university collaborates with other institutions. As a result, the experts seek clarification on whether the faculty has access to a larger animal laboratory for such projects within its premises, aside from the visited integrated laboratory.

Faculty statement:

We appreciate your specific concerns regarding the conditions of the animal laboratory. The Faculty has access to a larger, well-equipped animal laboratory within the university, specifically located at the Faculty of Medicine, Department of Biology, as well as at external facilities such as DLBS (Dexa Laboratories of Biomolecular Science). Evidence of our collaboration with external parties can be seen in the following publication: (https://www.phcogj.com/article/727), as also included in the additional information section.

7. Criterion 3.2 Funds and Equipment, Page 36

“Concerning the teaching laboratories located in the Graduate School of the Faculty of Pharmacy building, the laboratories are situated on the first to fourth floors and are organised according to their respective fields of study. The space is adequate for lab work activities for undergraduate students, assuming a simultaneous participation of approximately 20 students. The majority of the tables are made of wood, with ceramic tops. Some equipment, such as the tablet press machine, is quite old but is still utilised for research purposes. Safety features include fire sprinklers within the laboratories and eye face safety showers in the corridors between the labs. With regard to these facilities, the

University might consider modernizing them, with more exhausts and wooden bench tops, which should be replaced for safety reasons."

Faculty statement:

We appreciate your specific concerns regarding the laboratory conditions. Given the urgency of facility improvements, your recommendations will be prioritized for upgrading safety features, including the number of exhaust systems, replacement of wooden bench tops, and modernization of equipment.

8. Criterion 3.2 Funds and Equipment, Page 36

"In their appreciation of the quality of infrastructure and equipment, the experts judge the available equipment and facilities to be sufficient to support teaching and research activities. The experts acknowledge that if the equipment becomes a limitation, the institution has arranged several approaches such as resource sharing, collaboration with other universities and industries, and finding grant for procurement of equipment. However, they suggest that the university consider providing NMR and LC-MS devices for the faculty."

Faculty statement:

We appreciate your suggestion regarding the NMR and LCMS facilities for the faculty. For LCMS equipment, the faculty has already provided access to this equipment for students in the bioavailability and bioequivalence (BA-BE) laboratory which is located in the basement of the Faculty of Pharmacy at Universitas Indonesia; however, it was not visited during the facility tour (evidence of access is available in the additional information section). Regarding the NMR even though it has been provided at the University level, the faculty will consider the request to the University for the provision of NMR facilities for the faculty.

9. Criterion 4.1 Module Descriptions, Page 38

"…..However, the experts note that the module descriptions are unavailable on the respective program's website, therefore, access to all interested stakeholders is not ensured."

Faculty statement:

We appreciate your careful assessment of our faculty. The module descriptions are already accessible only for Students and Lecturers through the Universitas Indonesia website at brp.ui.ac.id (in Indonesian). We believe that this suggestion will facilitate easier monitoring of module descriptions by other stakeholders; therefore, we added the module

descriptions to the faculty website (evidence can be seen at additional information, respectively).

10. Criterion 5. Quality management: quality assessment and development, Page 40

“When the students were asked about the surveys and whether they were informed of the evaluation results, they gave the feedback that a summary of the results had not been provided to them. The experts emphasise that the students' feedback is essential for further improving the program, but it is also important to inform the students about the results and possible improvements. Feedback cycles need to be closed. Therefore, the experts ask the university to take corrective actions in this regard.”

Faculty statement:

We appreciate your inquiry regarding the communication of feedback results and potential improvements to students. We published the results and possible actions on the website, as we believe this suggestion will enhance our quality assurance cycle (evidence can be seen at additional information, respectively).

G Summary: Expert recommendations (11.11.2024)

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

Degree Programme	ASIIN Seal	Subject-specific label	Maximum duration of accreditation
Bachelor Pharmacy	Without requirements	-	30.09.2030
Master Pharmaceutical Science	With requirements for one year	-	30.09.2030
Master Herbal Science	With requirements for one year	-	30.09.2030
Doctor Pharmaceutical Science	With requirements for one year	-	30.09.2030

Requirements

For the Master's and Doctoral degree programmes

A 1. (ASIIN 2) Ensure that appropriate support, such as mandatory workshops, seminars or others, is available for students to meet the publication requirement, as this is a significant factor causing delays in graduation.

Recommendations

For the Bachelor's degree programme Pharmacy

E 1. (ASIIN 3.1) It is recommended to increase the number of laboratory technicians.

E 2. (ASIIN 3.2) It is recommended to modernise the teaching labs, including more exhausters and wooden bench tops in the pharmaceutical institute, which should be replaced for safety reasons.

For the Master's and Doctoral degree programmes

E 3. (ASIIN 1.4) It is recommended that the university reconsider the requirement for international students to demonstrate proficiency in Bahasa, in order to improve interest and applications from prospective international students.

E 4. (ASIIN 2) It is recommended that Doctoral and Master's theses be written in English in line with the international aspirations of the programmes.

E 5. (ASIIN 3.2) It is recommended that the university consider providing a NMR device for the Faculty of Pharmacy.

For the Master degree programme Herbal Science

E 6. (ASIIN 1.2) It is recommended that the university reconsider the current degree awarded (Master of Sciences) and adopt a title that is more specific and better reflects the programme's unique profile.

H Comment of the Technical Committee 09 – Chemistry, Pharmacy (18.11.2024)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee discusses the requirements and recommendations proposed by the expert group and concurs with their positive assessment. They recommend accrediting the Bachelor's programme in Pharmacy without requirements and accrediting the remaining programmes (two Master's and one PhD) with one requirement. This requirement pertains to improving support for students in preparing and submitting the required publication.

Additionally, six recommendations are to be issued, focusing primarily on enhancing technical infrastructure and internationalization efforts. Regarding the requirement, the committee agrees it is justified but notes that requiring the submission of a publication as a criterion for completing a Master's degree is not practical. They highlight that this requirement poses significant challenges for students and suggest that it should be eliminated altogether.

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

Degree Programme	**ASIIN Seal**	**Subject-specific label**	**Maximum duration of accreditation**
Bachelor Pharmacy	Without requirements	-	30.09.2030
Master Pharmaceutical Science	With requirements for one year	-	30.09.2030
Master Herbal Science	With requirements for one year	-	30.09.2030
Doctor Pharmaceutical Science	With requirements for one year	-	30.09.2030

Requirements

For the Master's and Doctoral degree programmes

A 1. (ASIIN 2) Ensure that appropriate support, such as mandatory workshops, seminars or others, is available for students to meet the publication requirement, as this is a significant factor causing delays in graduation.

Recommendations

For the Bachelor's degree programme Pharmacy

E 1. (ASIIN 3.1) It is recommended to increase the number of laboratory technicians.

E 2. (ASIIN 3.2) It is recommended to modernise the teaching labs, including more exhausters and wooden bench tops in the pharmaceutical institute, which should be replaced for safety reasons.

For the Master's and Doctoral degree programmes

E 3. (ASIIN 1.4) It is recommended that the university reconsider the requirement for international students to demonstrate proficiency in Bahasa, in order to improve interest and applications from prospective international students.

E 4. (ASIIN 2) It is recommended that Doctoral and Master's theses be written in English in line with the international aspirations of the programmes.

E 5. (ASIIN 3.2) It is recommended that the university consider providing a NMR device for the Faculty of Pharmacy.

For the Master degree programme Herbal Science

E 6. (ASIIN 1.2) It is recommended that the university reconsider the current degree awarded (Master of Sciences) and adopt a title that is more specific and better reflects the programme's unique profile.

I Decision of the Accreditation Commission (06.12.2024)

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

The Accreditation Commission discusses the procedure and decides to follow the suggestions of the expert group and the TC without making any changes to the proposed requirements and recommendations

The Accreditation Commission decides to award the following seals:

Degree Programme	ASIIN Seal	Subject-specific label	Maximum duration of accreditation
Bachelor Pharmacy	Without requirements	-	30.09.2030
Master Pharmaceutical Science	With requirements for one year	-	30.09.2030
Master Herbal Science	With requirements for one year	-	30.09.2030
Doctor Pharmaceutical Science	With requirements for one year	-	30.09.2030

Requirements

For the Master's and Doctoral degree programmes

A 1. (ASIIN 2) Ensure that appropriate support, such as mandatory workshops, seminars or others, is available for students to meet the publication requirement, as this is a significant factor causing delays in graduation.

Recommendations

For the Bachelor's degree programme Pharmacy

E 1. (ASIIN 3.1) It is recommended to increase the number of laboratory technicians.

E 2. (ASIIN 3.2) It is recommended to modernise the teaching labs, including more exhausters and wooden bench tops in the pharmaceutical institute, which should be replaced for safety reasons.

For the Master's and Doctoral degree programmes

E 3. (ASIIN 1.4) It is recommended that the university reconsider the requirement for international students to demonstrate proficiency in Bahasa, in order to improve interest and applications from prospective international students.

E 4. (ASIIN 2) It is recommended that Doctoral and Master's theses be written in English in line with the international aspirations of the programmes.

E 5. (ASIIN 3.2) It is recommended that the university consider providing a NMR device for the Faculty of Pharmacy.

For the Master degree programme Herbal Science

E 6. (ASIIN 1.2) It is recommended that the university reconsider the current degree awarded (Master of Sciences) and adopt a title that is more specific and better reflects the programme's unique profile.

Appendix: Program Learning Outcomes and Curricula

The following **learning outcomes** and **curricular structure** are presented in the self-assessment report and the provided "Curriculum Documents":

Bachelor Pharmacy

No	Program Learning Outcomes (PLO)
PLO 1	Able to systematically design pharmaceutical dosage forms in prototype form according to quality standards and present them responsibly and ethically.
PLO-2	Able to provide pharmaceutical services under supervision according to pharmaceutical service standards
PLO-3	Able to conduct research in the pharmaceutical field
PLO-4	Able to collaborate synergistically in managing health problems at the individual, family and community levels.

Curricular structure:

COMPULSARY SUBJECT

CODE	SUBJECT	CREDITS	CODE	SUBJECT	CREDITS	CODE	SUBJECT	CREDITS	CODE	SUBJECT	CREDITS
1st SEMESTER			2nd SEMESTER			3rd SEMESTER			4th SEMESTER		
UIGE60000	General English Proficiency	2	UIGE600006	Integrated General Education	5	PMSF602415	Physical Pharmacy 2	2	UILS600012	Health Research Methodology	3
UIGE60000	Religious Studies	2	UILS600014	Collaboration and Teamwork in Healthcare	2	PMSF602320	Physicochemical Analysis	2	UILS600013	Disaster Risk Management	2
UILS600010	Basic Biomedical Science 1	2	PMSF602414	Physical Pharmacy 1	2	PMSF602730	Basic Pharmacology	2	PMSF60244	Solid Dosage Form Technology	4
UILS600015	Basic Biomedical Science 2	2	PMSF601192	Organic Chemistry 2	2	PMSF602213	Pharmaceutical Raw Material Analysis	2	PMSF602534	Virology and Immunology	2
UILS600009	Healthcare Ethics and Law	2	PMSF602217	Basic Pharmaceutical Analysis	2	PMSF602642	Pharmacognosy 2	2	PMSF603662	Phytochemistry 1	2
UILS600011	Healthcare Communication	2	PMSF602633	Pharmacognosy 1	2	PMSF602412	Microbiology	3	PMSF602416	Physical Pharmacy Practicum	1
PMSF601191	Organic Chemistry 1	2	PMSF601413	Pharmaceutics	2	PMSF601757	Biochemistry	2	PMSF602326	Physicochemical Analysis Practicum	1
PMSF604182	Entrepreneurship	2	PMSF602218	Basic Pharmaceutical Analysis Practicum	1	PMSF602413	Pharmaceutical Microbiology Practicum	1	PMSF602219	Pharmaceutical Raw Material Analysis Practicum	2
PMSF601762	Cell and Molecular Biology	2				PMSF60364	Pharmacognosy Practicum	1	PMSF603774	Digestive Disorders Therapy Module	2
PMSF601763	Introduction to Pharmacy	2				PMSF601416	Pharmaceutics Practicum 1	1	PMSF603773	Endocrine and Reproductive Disorders Therapy Module	2
Total of Credit Units		20	Total of Credit Units		18	Total of Credit Units		18	Total of Credit Units		21

CODE	SUBJECT	CREDITS	CODE	SUBJECT	CREDITS	CODE	SUBJECT	CREDITS	CODE	SUBJECT	CREDITS
5th SEMESTER			6th SEMESTER			7th SEMESTER			8th SEMESTER		
PMSF603431	Biopharmaceutical	2	PMSF603772	Pharmaceutical Services	2	PMSF603464	Aseptic Dispensing	2	PMSF604000	Thesis	6
PMSF603542	Pharmacokinetics	2	PMSF603333	Pharmaceutical Material Analysis	3	PMSF603780	Musculoskeletal Disorders Therapy Module	1			
PMSF603350	Medicinal Chemistry	2	PMSF603465	Sterile Dosage Form Technology	2	PMSF603779	Kidney and Urinary Tract Disorders Therapy Module	1			
PMSF603443	Semi-solid and Liquid Form Technology	3	PMSF603777	Respiratory Disorders Therapy Module	2	PMSF604466	Sterile Dosage Form Technology Practicum	1			
PMSF603663	Phytochemistry 2	2	PMSF603778	Cardiovascular Disorders Therapy Module	3	PMSF604336	Pharmaceutical Material Analysis Practicum	2			
PMSF603775	Immune Response, Blood Disorders, and Malignancies Therapy Module	3	PMSF603456	Semi-solid and Liquid Form Technology Practicum	1		Elective Course	12			
PMSF603776	Neurological Disorders Therapy Module	2	PMSF603756	Pharmacology Practicum	1						
PMSF603546	Pharmacokinetics Practicum	1	PMSF601426	Pharmaceutics Practicum 2	1						
PMSF603666	Phytochemistry Practicum	1		Elective Course	6						
PMSF603446	Solid Dosage Form Technology Practicum	1									
	Elective Course	2									
Total of Credit Units		**21**	**Total of Credit Units**		**21**	**Total of Credit Units**		**19**	**Total of Credit Units**		**6**

ELECTIVE SUBJECT

Course Code	Subject	Credits	Course Requirement		Course Code	Subject	Credits	Course Requirement
PMSF603022	Radiopharmaceutical	2	Organic Chemistry		PMSF604458	Pharmaceutical Microparticle Formulation Technology	2	Physical Pharmacy
PMSF603130	Chemistry of Toxic Substances	2	Physicochemical Analysis, Pharmaceutical Raw Material Analysis		PMSF603134	Basic Pharmaceutical Biotechnology	2	Cell and Molecular Biology
PMSF603131	Pharmaceutical Bioanalysis	2	Physicochemical Analysis, Pharmaceutical Raw Material Analysis, Pharmaceutical Material Analysis		PMSF603139	Biomolecular Identification	2	
PMSF603132	Principles of Drug Design and Synthesis Techniques	2	Organic Chemistry		PMSF603761	Pharmaceutical Inventory Management	2	
PMSF603336	Quality Management	2	Physicochemical Analysis, Pharmaceutical Raw Material Analysis		PMSF604001	Internship	2	
PMSF604095	Standardization of Herbal Materials	2	Pharmacognosy 1 & 2		PMSF603142	Safety Analysis of Cosmetics and Food	2	
PMSF603133	Phytomedicine	2	Pharmacognosy 1 & 2, Pharmacognosy Practicum, Phytochemistry 1 & 2		PMSF603143	New Drug Compound Development	2	Medicinal Chemistry
PMSF604479	Herbal Formulation Technology	3	Pharmacognosy 1 & 2, Phytochemistry 1 & 2		PMSF603144	Bioequivalence and Biosimilar Studies	2	
PMSF603760	Self-medication Services	2	Basic Biomedical Science 1 & 2, Basic Pharmacology		PMSF603145	Drug Registration	2	
PMSF603137	Pharmacoepidemiology and Pharmacoeconomic	2	Basic Pharmacology		PMSF603146	Quality by Design	2	
PMSF603138	Research Data Management and Analysis	2	Health Research Methodology		PMSF603781	Skin Diseases Therapy Module	2	

Master Pharmaceutical Science

No	Program Learning Outcomes (PLO)
PLO 1	Capable of developing research-based science and technology that support the Fourth Industrial Revolution in the field of innovative and tested pharmacy
PLO-2	Capable of designing pharmaceutical problem solutions through both interdisciplinary and multidisciplinary approaches
PLO-3	Capable of recommending the use of drugs for pharmaceutical services
PLO-4	Capable of managing research in the field of pharmaceutical study following the needs of industry, hospital, government, or community in general
PLO-5	Capable of demonstrating high intelligence, noble characteristics, and professionalism

Curricular structure:

Research Track

1st Semester			2nd Semester			3rd Semester			4th Semester		
Code	**Subject**	**Credits**	**Code**	**Subject**	**Credits**	**Code**	**Subject**	**Credits**	**Code**	**Subject**	**Credits**
Mandatory Courses											
PMMF801511 PMMF801512	Periodic Seminars Research Proposal Examination	8 4	PMMF801513	Conference	4	PMMF802506 PMMF802507	Article publication Research Result Examination	8 6	PMMF802508	Thesis	10
	Total	12		Total	4		Total	14		Total	10

Course-and-research Track (Case Study)

1st Semester			2nd Semester			3rd Semester			4th Semester		
Code	**Subject**	**Credits**	**Code**	**Subject**	**Credits**	**Code**	**Subject**	**Credits**	**Code**	**Subject**	**Credits**
Mandatory Courses											
PMMF801102 PMMF801637 PMMF801642	Research Methodology Statistical Pharmacy Drug Development I	2 2 4	PMMF801643 PMMF801644	Drug Development II Pharmaceutical Policy	2 2	PMMF802509	Publication	2	PMMF802510	Study Case Report	4
	Total	8		Total	4		Total	2		Total	4
Clinical Pharmacy Specialization											
PMMF801635 PMMF801633 PMMF801641 PMMF801106	Drug Therapy Monitoring Advanced Pharmacotherapy Clinical Pharmacokinetics Article Seminars	2 2 2 2		Selective Courses	8	PMMF801638	Clinical Practice	6			
	Total	8		Total	8			6			

Course-and-research Track – (Final project)

1st Semester			2nd Semester			3rd Semester			4th Semester		
Code	**Subject**	**Credits**	**Code**	**Subject**	**Credits**	**Code**	**Subject**	**Credits**	**Code**	**Subject**	**Credits**
Mandatory Courses											
PMMF801102	Research Methodology	2	PMMF801643	Drug Development II	2	PMMF801639	Article Publication	2	PMMF802505	Final Project Paper	4
PMMF801637	Statistical Pharmacy	2	PMMF801644	Pharmaceutical Policy	2						
PMMF801642	Drug Development I	4									
	Total	8		Total	4		Total	2		Total	4
Pharmaceutical Technology Specialization											
PMMF801201	Pharmaceutical Dosage Forms Technology	3	PMMF801202	Drug Delivery System	3						
			PMMF801203	Drug Stabilization	2						
PMMF801204	Pharmaceutical Excipients	2	PMMF801103	Drug Delivery and Targeting System	2						
PMMF801106	Article Seminar	2		Selective Course II	6						
	Selective Course I	2									
	Total	9		Total	13						
Pharmaceutical Chemistry Specialization											
PMMF801302	Analytical Instrument	2	PMMF801304	Drug Synthesis	2						
			PMMF801303	Structure and Activity Correlation	3						
PMMF801302	Advance Medicinal Chemistry	3		Selective Course II	8						
PMMF801106	Article Seminar	2									
	Selective Course I	2									
	Total	9		Total	13						
Biotechnology and Natural Resources Specialization											
PMMF801101	Molecular Biology	2	PMMF801640	Bioinformatics	2						
PMMF801624	Structure Elucidation	2	PMMF801632	Natural Resources	2						
				Selective Courses	8						
PMMF801617	Pharmaceutical Biotechnology	2									
PMMF801106	Article Seminars	2									
PMMF801636	Biological Product	2									
	Total	10		Total	12						
Clinical Pharmacy Specialization											
PMMF801635	Drug Therapy Monitoring	2		Selective Courses	8	PMMF801638	Clinical Practice	6			
PMMF801633	Advanced Pharmacotherapy	2									
PMMF801641	Clinical Pharmacokinetics	2									
PMMF801106	Article Seminars	2									
	Total	8		Total	8			6			
Pharmacology and Therapy Specialization											
PMMF801506	Preclinical Trials	2	PMMF801509	Nervous Disease Pharmacology	2						
PMMF801507	Cardiovascular and Respiratory Pharmacology	2	PMMF801510	Endocrine and Reproductive System Pharmacology	2						
PMMF801508	Infectious Disease Pharmacology	2									
PMMF801104	Molecular Pharmacology	2		Selective Course	8						
PMMF801106	Article Seminars	2									
	Total	10		Total	12						

ELECTIVE SUBJECT

CODE	SUBJECT	CREDITS	CODE	SUBJECT	CREDITS	CODE	SUBJECT	CREDITS	CODE	SUBJECT	CREDITS
PMMF801603	Marine Natural Resources	2	PMMF801607	Drug Molecule Model	2	PMMF801612	Biosynthesis	2	PMMF801603	Marine Natural Resources	2
PMMF801608	Drug Metabolism	2	PMMF801611	Pharmaceutical Genetic Modification	2	PMMF801402	Natural Resources Technology	2	PMMF801608	Drug Metabolism	2
PMMF801628	Analysis in Biological Matrices	2	PMMF801627	Clinical Toxicology	2	PMMF801626	Pharmacogenomics	2	PMMF801628	Analysis in Biological Matrices	2
PMMF801616	Formula Development	2	PMMF801623	Nutraceuticals Technology	2	PMMF801614	Adverse Drug Reaction	2	PMMF801616	Formula Development	2
PMMF801622	Pharmaceutical Polymer	2	PMMF801606	Parenteral Preparations Technology	2	PMMF801604	Pharmacoepidemiology	2	PMMF801622	Pharmaceutical Polymer	2
PMMF801619	Pharmacoeconomics	2	PMMF801601	Radioisotop & Radiation Application in Pharmaceutics	2	PMMF801625	Computer Derived Drug Design	2	PMMF801619	Pharmacoeconomics	2
PMMF801629	Phytotherapy	2	PMMF801620	Clinical Data Interpretation	2	PMMF801613	Protein Modification	2	PMMF801629	Phytotherapy	2

Master Herbal Science

No	Program Learning Outcomes (PLO)
PLO 1	Capable of developing research-based knowledge and technology that supports the Industrial Revolution 4.0 in an innovative and proven utilization of herbal resources.
PLO-2	Capable of designing solutions to herbal issues based on scholarly knowledge.
PLO-3	Capable of recommending the beneficial and appropriate use of herbal products for the society based on scholarly expertise.
PLO-4	Capable of managing innovative research in the field of herbal sciences as well as its development.
PLO-5	Capable of demonstrating high intelligence, noble character, and an entrepreneurial spirit.

Curricular structure:

Research path

SEMESTER 1			SEMESTER 2			SEMESTER 3			SEMESTER 4		
Code	Course	Credits	Code	Course	Credits	Code	Course	Credits	Code	Course	Credits
Compulsory PMMH801507 PMMH801508	Periodic Seminar Research Proposal	8 4	PMMH801509	Conference	4	PMMH802505 PMMH802506	Article Publication Research Outcome Examination	8 6	PMMH802507	Thesis	10
	Total	12		Total	4		Total	14		Total	10

COMPULSARY SUBJECT

SEMESTER 1			SEMESTER 2			SEMESTER 3			SEMESTER 4		
Code	SUBJECT	Credits	Code	SUBJECT	Credits	Code	SUBJECT	Credits	Code	SUBJECT	Credits
PMMH801610 PMMH801503 PMMH801617 PMMH801105 PMMH801107	Research Methodology Herbal Materia Medica Herbal Technology Molecular Pharmacology Phytotherapy Elective Courses	 2 3 2 2 2 6	PMMH801616 PMMH801619 PMMH801606 PMMH801110 PMMH801613	Pharmaceutical Statistics Herbal Formulation Technology Herbal Quality Analysis Preclinical and Clinical Testing Herbal Business Development Elective Courses	2 2 2 3 2 6	PMMH802503	Article Publication	2	PMMH802504	Final Project Paper	4
	Total	**17**		**Total**	**17**		**Total**	**2**		**Total**	**4**

Course-and-research path

ELECTIVE SUBJECT

CODE	SUBJECT	CREDITS	CODE	SUBJECT	CREDITS	CODE	SUBJECT	CREDITS	CODE	SUBJECT	CREDITS
PMMH801609	Dermatology and Pathogenesis	3	PMMH801607	Biosynthesis	2	PMMH801109	Article Seminar	2	PMMH801618	Nutraceutical Technology	2
PMMH801103	Molecular Biology and Genetics	2	PMMH801601	Ethnopharmacology/ ethnomedicine	2	PMMH801615	Cosmetic Product Development	2	PMMH801614	Herbal Formulation Development	2
PMMH801620	Marine Natural Materials	2	PMMH801604	Topical Formulation Technology	2	PMMH801608	Pharmaceutical Biotechnology	2	PMMH801612	Pharmacogenomics	2
PMMH801202	Pharmaceutical Formulation Technology	2	PMMH801605	Herbal Solid Formulation Technology	2	PMMH801611	Excipients in Herbal Preparations	2			

Doctoral program in Pharmaceutical Science

No	Program Learning Outcomes (PLO)
PLO 1	Capable of developing knowledge and research-based technology, resulting in creative, original, and tested works in accordance with the latest (state-of-the-art) developments in the field of pharmacy.
PLO-3	Capable of recommending alternatives and solutions to problems in the pharmaceutical field with sharp analysis, sufficient review, and integrated problem-solving by following scientific principles through interdisciplinary, multidisciplinary and transdisciplinary approaches.
PLO-5	Capable of managing, leading, and developing research, as well as utilizing pharmaceutical science and technology in accordance with the needs of society at the strategic, managerial, and operational levels, and able to gain national and international recognition.
PLO-2	Demonstrate mature, open- minded thinking, and responsiveness to the developments of pharmaceutical science and technology.
PLO-4	Able to utilize and recommend information system platforms and management

Curricular structure:

Research Track

Subject	ECTS	Semester					
		1st	2nd	3rd	4rd	5rd	6rd
PMDF900119 - Periodic Scientific Seminar	9						
PMDF900034 - Research Proposal	7,5						
PMDF900120 - Publication 1 - International Conference	6						
PMDF900121 - Publication 2 - Scientific Article	9						
PMDF900122 - Publication 3 - Scientific Article	7,5						
PMDF900033 - Final Closed Examination	12						
PMDF900026 - Dissertation	12						
Total	63	9	7,5	6	9	7,5	24

Course-and-Research Track

Subject	ECTS	Semester					
		1st	2nd	3rd	4rd	5rd	6rd
PMDF900117 - Advanced Research Methodology	4,5						
PMDF900027 - Special Topic 1	4,5						
PMDF900028 - Special Topic 2	4,5						
PMDF900029 - Special Topic 3	4,5						
PMDF900118 - Advanced Statistics and Data Analysis	3						
PMDF900030 - Research Proposal	6						
PMDF900031 - Publication - International Conference	3						
PMDF900032 - Scientific Article Publication	9						
PMDF900033 - Final Closed Examination	12						
PMDF900026 - Dissertation	12						
Total	63	13,5	13,5	3	9	12	12