



ASIIN Seal

Accreditation Report

Bachelor's Degree Programme
Pharmacy

Master's Degree Programmes
Clinical Pharmacy
Pharmaceutical Sciences
Pharmacy Management

Doctoral Programme
Pharmaceutical Sciences

Provided by
Universitas Gadjah Mada – Indonesia

Version: 27 March 2026

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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	ASIIN until 2025-09-30 IAAHEH ³ until 2029-06-13	09
Magister Farmasi Klinik	Master of Clinical Pharmacy	ASIIN	ASIIN until 2025-09-30 IAAHEH until 2026-04-29	09
Magister Ilmu Farmasi	Master of Pharmaceutical Sciences	ASIIN	IAAHEH until 2025-11-25	09
Magister Manajemen Farmasi	Master of Pharmacy Management	ASIIN	IAAHEH until 2026-03-25	09
Doktor Ilmu Farmasi	Doctor of Pharmaceutical Sciences	ASIIN	IAAHEH until 2025-11-25	09
Date of the contract: 19.08.2024 Submission of the final version of the self-assessment report: 24.07.2024 Date of the on-site visit: 14.– 16.01.2025 At: Universitas Gadjah Mada				

¹ ASIIN Seal for degree programs

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

³ Indonesian Accreditation Agency for Higher Education in Health

Location: Yogyakarta, Indonesia.	
Expert panel: Prof. Dr. Moritz Bünemann, Phillips-University Marburg Dr. Ratika Rahmasari, Universitas Indonesia Sujatmoko Sujatmoko, M.Sc., PT Roche Indonesia Natasha Era Radita, Graduate School of Medicine, University of Tokyo	
Representative of the ASIIN headquarter: Rainer Arnold	
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 Programmes

a) Name	Final degree (original/English translation)	b) Areas of Specialization	c) Correspondin g level of the EQF ⁴	d) Mode of Study	e) Double/J oint Degree	f) Duration	g) Credit points/unit	h) Intake rhythm & First time of offer
Bachelor Pharmacy	Sarjana Farmasi / Bachelor of Pharmacy	-	6	Full time	no	8 Semester	149 CSU / 238.4 ECTS	1947, Once a year (July)
Master Clinical Pharmacy	Magister Farmasi Klinik / Master of Clinical Pharmacy	-	7	Full time	no	4 Semester	43 CSU / 104 ECTS	2004, Once a year (August)
Master Pharmaceutical Sciences	Magister Ilmu Farmasi / Master of Pharmaceutical Sciences	-	7	Full time	no	4 Semester	40 CSU / 101.6 ECTS	1993, Once a year (July)
Master Pharmacy Management	Magister Farmasi / Master of Pharmacy	-	7	Full time	no	4 Semester	44 CSU / 100.4 ECTS	2019, once a year (July)
Doctor Pharmaceutical Sciences	Doktor Ilmu Farmasi / Doctor of Pharmaceutical Sciences	-	7	Full time	no	6 Semester	46 CSU / 179.2 ECTS	1993, Twice a year (February and July)

⁴ EQF = The European Qualifications Framework for lifelong learning

For the Bachelor's degree programme Pharmacy (BP programme) Universitas Gadjah Mada UGM has presented the following vision and mission on its homepage:

Vision

To become a pioneer of pharmacy undergraduate education that excels at national and international level, that prioritize ethics and morals, imbued with Pancasila to serve the interests of the nation and humanity.

Mission

1. Organizing undergraduate pharmacy education that gets national and international recognition.
2. Carrying out research in the field of pharmacy based on science and technology to solve health and humanitarian problems.
3. Carry out community service that is beneficial to the welfare of the community.

“In line with its vision and mission, namely as a pioneer in pharmacy education with excellent national and international level; imbued with the core value of Universitas Gadjah Mada “Locally Rooted, Globally Respected,” PSPSF is committed to producing graduates who excel as pharmacy graduates with general pharmacy profiles who have 9 stars of pharmacist qualifications adapted from the World Health Organization (WHO) which describe the role of pharmacists in the world of health as caregivers, educators, communicators, leaders, decision-makers, managers, lifelong learners, possess personal and professional responsibilities, and possess scientific understanding and research capabilities

As a strategic step to respond to the industrial revolution 4.0, the graduates are equipped with soft skills obtained structurally from the curriculum, as well as co-curricular and extracurricular activities in the form of interdisciplinary content, soft skills, exposure to global competencies (enhanced studium generale), and early exposure to the world of work according to the interests of students namely: hospital pharmacy, pharmaceutical industry, pharmaceutical traditional medicine, pharmaceutical cosmetics and food, pharmaceutical distribution and marketing, pharmaceutical research and drug discovery, and community pharmacy and regulation.”

For the Master's degree programme Clinical Pharmacy (MCP programme) Universitas Gadjah Mada UGM has presented the following vision and mission on its homepage:

Vision

To become a pioneer in master's education in clinical pharmacy at the national and international levels, emphasizing ethics and morality, rooted in Pancasila, and dedicated to the nation's and humanity's interests.

Mission

1. To provide excellent, innovative, and effective master's education in clinical pharmacy nationally and internationally.
2. To conduct and advance education, research, and community service in line with advancements in science and technology in clinical pharmacy, while upholding ethics and morality, rooted in Pancasila, and serving the nation's and humanity's interests.

“The Master Program in Clinical Pharmacy is designed with emphasis on mastering the theories and the clinical practice; therefore, the outcomes of this program will be the mainstay of the pharmacist profession as expected.”

For the Master's degree programme Pharmaceutical Sciences (MPS programme) Universitas Gadjah Mada UGM has presented the following vision and mission on its homepage:

Vision

To be the pioneer of nationally-superior higher education in pharmacy with international standards, serving the interests of the nation and humanity, imbued with the Indonesian Basic Principles (Pancasila).

Mission

1. To organize superior, innovative, and effective nationally-and internationally-acclaimed higher education in pharmacy.
2. To carry out research-based education and community service that follows the advancement of science and technology and prioritizes ethics and morals imbued with Pancasila to serve the interests of the nation and humanity.

“The development of science, technology and national development requires high quality human resources, either in scientific development or practicing their expertise. Improving human resources quality can maintain and develop the continuity of various basic science and technology developments in the midst of interrelationships between scientific

disciplines that are increasingly pluralistic and complex. Professional expertise for development and the ability to develop science and technology are urgent demands in all fields including the pharmaceutical field.

Faculty of Pharmacy UGM as one of most experienced pharmacy education institution in Indonesia, contributes to the improvement of intellectual abilities in the field of pharmacy through excellent education, innovative research innovative research, and extensive networking so as to produce graduates who are able to manage change, innovate, and compete in accordance with the development of science and technology.”

For the Master’s degree programme Pharmacy Management (MPM programme) Universitas Gadjah Mada UGM has presented the following vision and mission on its homepage:

Vision

Becoming a pioneer of master education in pharmacy management and social pharmacy that excels at the national level, with international standards, which promotes ethics and morals based on Pancasila to serve the interests of the nation and humanity.

Mission

1. Conducting master education in pharmacy management and social pharmacy that excels at the national level, with international standards, based on research results and community service.
2. Organizing and developing research in pharmacy management and social pharmacy that excel by promoting ethics and morals to achieve national and recognition.
3. Managing and developing community services in pharmacy management and social pharmacy that excel based on research results applying the principles of Pancasila to serve the interests of the nation and humanity.

“The industrial revolution has brought major changes in various fields, including the health sector. Opportunities and challenges in the health sector require expertise from health professionals with cutting-edge knowledge. The development of social pharmacy science, including the field of pharmacy management, is rapidly evolving globally and supported by the demand for Master’s graduates who are specifically competent in the field of pharmacy management to occupy positions in various pharmaceutical work areas. The Magister of Pharmacy Management (MPM) Study Program is a strategic step to address the scientific developments in the field of pharmacy management and meet graduate needs based on

competencies required within this field. Graduates from the MPM study program can also pursue doctoral studies related to similar fields at universities both domestically and internationally.

MPM UGM is designed to train exceptional graduates who thrive in pharmacy management, equipping them with the skills and knowledge necessary for success. The program focuses on developing managerial expertise across government, industry, and health service settings while also fostering interdisciplinary collaboration with related fields of science. Graduates will dedicate their professional knowledge to pharmaceutical services guided by moral and ethical principles. They will cultivate a spirit of leadership and teamwork within integrated healthcare systems, applying scientific reasoning to address national and global community challenges. Additionally, they'll be well-prepared for further study in this dynamic field.

MPM UGM collaborates with international partners for various initiatives, including guest lectures, short training, and collaborative research. MPM also builds strong connections with its alumni through meaningful engagements, support, learning initiatives, and expanding professional networks. MPM UGM aims to train highly skilled graduates in the field of pharmacy management."

For the Doctor degree programme Pharmaceutical Sciences (DPS programme) Universitas Gadjah Mada UGM has presented the following vision and mission on its homepage:

Vision

To become a pioneer of excellent and innovative Doctor of Pharmacy education, at the national and international levels, following the advancement of science and technology, promoting ethical and moral values, imbued with Pancasila to serve the interests of the nation and humanity.

Mission

1. Organizing a research-based doctoral programme in pharmaceutical sciences, prioritizing ethical and moral values, and having an international outlook.
2. Carry out the development of multi-, inter- and trans-disciplinary research to produce applicable research works in the field of pharmacy and health with external cooperation.
3. Carrying out community service based on research results to solve national and humanitarian problems.

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
- President of the Republic of Indonesia's regulation No. 8 of 2012 on the Indonesian National Qualification Framework
- Ba Pharmacy website: <https://programsarjana.farmasi.ugm.ac.id/home/>
- Ma Pharmaceutical Sciences website:
<https://programmagister.farmasi.ugm.ac.id/en/home/>
- Ma Clinical Pharmacy website: <https://farmasi.ui.ac.id/en/program-studi-s2/herbal-s2/>
- Ma Pharmacy Management website: <https://mmf.farmasi.ugm.ac.id/en/homepage/>
- Doctor Pharmaceutical Sciences website:
<https://programdokter.farmasi.ugm.ac.id/en/>
- Discussions during the audit

Preliminary assessment and analysis of the experts:

The experts base their assessment of the learning outcomes on the information provided on the websites and in the Self-Assessment Report of the five degree programmes under review.

For all programmes, Universitas Gadjah Mada (UGM) has described and published Programme Educational Objectives (PEO) and Programme Learning Outcomes (PLO). While the PEO are rather general and refer to the vision and mission of the Faculty of Pharmacy, the PLO cover a number of specific competences students should acquire in their respective degree programme. Both, PEO and PLO of each degree programme are published on the respective programme's webpage.

The qualification objectives of the BP programme include acquiring sound fundamental knowledge of biology and chemistry. The graduates should gain methodological competences in the pharmaceutical sciences, should be able to carry out practical work in laboratories, be able to handle samples and organisms, and have essential knowledge and skills in pharmaceutical care to collaborate with fellow health personnel in clinics and community. In addition, students should be familiar with the safe handling of chemicals and pharmaceuticals and have knowledge of safety and environmental issues as well as the associated legal regulations. Moreover, they should acquire knowledge about the pharmaceutical manufacturing processes, including production, quality control and assurance, inventory control, and distribution according to current Good Manufacturing Practice (cGMP).

The vast majority of BP graduates directly continues their academic studies to obtain a professional degree as a pharmacist (apothecary) before applying for a job. They are required to complete the Apothecary Education programme, if they wish to work as pharmacists. Nevertheless, there are some job opportunities graduates of the Bachelor's programme. They can work in the pharmaceutical industry, biotechnology companies, hospitals and community pharmacies, as manager in drug stores, and analyst in medical laboratories or public institutions.

The overall goal of the BP programme is to educate general pharmacists that can work in different areas (hospitals, pharmacies, pharmaceutical companies, and health administration) after graduation..

The qualification objectives of the MCP Programme include the acquisition of advanced theoretical and practical pharmaceutical skills, especially an in-depth knowledge of clinical pharmacy. In addition, students learn to apply their competences in hospitals and are able to carry out advanced research activities. Graduates of the MCP programme should be prepared to provide rational drug therapy, deliver patient-centred care, and be able to communicate professionally with patients. The latter is necessary for establishing an appropriate patient–pharmacist communication, which is essential for preventing misunderstandings and/or medication errors. According to the Self-Assessment Report, the MCP programme aims to create graduates who are able to provide professional clinical pharmacy care in hospitals or other health care institutions and to practice interprofessional collaboration with other health professionals or other workers involved in health. The goal is to have graduates who are able to contribute to solving various health problems nationally and globally, specifically with respect to geriatric issues, through evidence based scientific methods.

The intended learning outcomes of the MPS programme were designed under consideration of current scientific developments in the field of pharmacy covering various aspects ranging from the drug industry, cosmetics, medical devices, and chemicals as well as pharmaceutical services in pharmacies, hospitals, and other health institutions.

Graduates of the MPS programme should be competent in developing and applying substances for pharmaceutical preparations from both natural ingredients and chemical synthesis including active molecular manipulation (polymorphs, nano particles, solid dispersion) and biological mimicry systems. Additionally, graduates should be able to solve advanced pharmaceutical problems in the development and manufacturing of drugs including quality control of the bioavailability and the feasibility of the delivery system by applying in-vitro and in-vivo analysis methods. This can result in designing concepts of quality assurance for pharmaceutical preparations in therapeutic and manufacturing facilities as well as in recommendations for analytical methods to ensure the quality of pharmaceutical products, food, and beverages.

Finally, graduates of the MPS programme should contribute to developing new methods and technologies in the field of pharmaceutical science through conducting and disseminating research activities. To achieve this goal, students should learn how to critically reflect current scientific publications in their area of interest and how to design and implement a research plan for their own scientific project.

As described in the Self-Assessment Report, graduates of the MPS programme can find suitable jobs as researcher in order to develop innovative products and technologies in the field of pharmaceutical science, as problem solver in order to solve advanced problems in the field of pharmaceutical sciences through an inter or multidisciplinary approach, or as managers, who manage research and development that benefits society and science and gets national and international recognition.

The goal of the MPM programme is to prepare graduates for addressing challenges in the pharmaceutical and healthcare industries, focusing on areas such as drug development, market access, regulatory affairs, supply chain management, healthcare policies, and social pharmacy. The programme combines elements of pharmacology, economics, business strategy, and health sciences. MPM graduates should have an in-depth understanding of the pharmaceutical industry's structure, challenges, and opportunities and should have acquired managerial skills for strategic decision-making and leadership roles. In addition, they should have expertise in regulatory frameworks, healthcare systems, and market dynamics in order to be able to foster innovation and entrepreneurial skills to address unmet needs in healthcare.

Graduates of the MPM programme can start careers in various areas, for example as pharmaceutical product manager, regulatory affairs specialist, clinical trials manager, healthcare consultant, or market access and pricing analyst.

The DPS programme focuses on advanced knowledge and research activities in the field of pharmacy in order to produce applicable research results and community service works. It is designed to foster independent, innovative, and ethical research practices. In addition PhD students should develop critical thinking and problem-solving skills and demonstrate mastery of advanced concepts and methodologies to address complex challenges in drug development and healthcare. To this end, they should conduct independent and innovative research that advances pharmaceutical sciences, publish impactful scientific papers in reputable journals, communicate research findings effectively to both scientific and non-scientific audiences, and understand ethical, regulatory, and societal implications of pharmaceutical research.

PhD graduates in Pharmacy are qualified for careers in research, academia, industry, and regulatory sectors. This includes positions such as lecturers in universities, research supervisor in academic institutions, scientist in pharmaceutical or biotechnology companies, policy advisor, public health researcher or analyst, as well as consultant for pharmaceutical firms or healthcare organizations.

In addition to the subject-related qualification objectives, students of the pharmacy programmes should be capable of working autonomously as well as in a team-oriented manner, and be able to conduct research activities. Furthermore, they should be able to solve subject-relevant problems, can present their results, have trained their analytical and logical abilities, and have an awareness of possible social and ethical effects of their actions. During the course of their studies, the students should acquire communicative and language skills, and have developed a strategy for life-long learning.

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.

The experts appreciate that UGM aims for high standards as to give their graduates good chances in the national job market as well as a good starting point to transfer to other academic programmes to complete a Master or a PhD-programme. They are convinced that the intended qualification profiles of all five degree programmes under review allow students to take up an occupation, which corresponds to their qualification.

The employers (from hospitals, pharmacies, pharmaceutical companies, and health administration) confirm during the discussion with the experts, that there is a high demand

for the graduates of both degree programmes. Furthermore, they emphasise that graduates from UGM are one of their first choice because they are in general better qualified than graduates from other Indonesian universities are. The excellent and manifold job opportunities are one of the strong points of the pharmacy programmes at UGM.

During the audit, alumni and employers mention that it would be useful if graduates of the Bachelor's programme would know about distribution processes and biological product manufacturing. However, these topics are already included in the current curriculum, so the experts are satisfied.

In summary, the experts hold the view that the objectives and intended learning outcomes of all five degree programmes under review are reasonable and well founded. The degree programmes are designed in such a way that they meet the goals set for them. The experts conclude that the objectives and intended learning outcomes of the degree programmes adequately reflect the intended level of academic qualification - EQF 6 for the Bachelor's programme, EQF 7 for the master's programmes, and EQF 8 for the PhD programme.

Criterion 1.2 Name of the Degree Programme

Evidence:

- Self-Assessment Report

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 in Pharmacy programme are awarded the title Sarjana Farmasi (S.Farm.) or Bachelor of Pharmacy (B.Pharm.). Those completing the Master in Pharmaceutical Sciences programme receive the title Master of Pharmaceutical Sciences (M.Pharm.Sci.). Similarly, graduates of the Master in Clinical Pharmacy programme are conferred the Master of Clinical Pharmacy (M.Clin.Pharm.) and graduates of the Master in Pharmacy Management programme are conferred the title Master of Pharmacy (M.Pharm.). Graduates of the Doctoral programme receive the title Doctor of Pharmaceutical Sciences (Dr.).

The names of the degree programmes properly reflect the respective focus and content of the degree programmes.

The experts confirm that the English translation and the original Indonesian names of all five degree programmes correspond with the intended aims and learning outcomes as well as the main course language (Bahasa Indonesia).

Criterion 1.3 Curriculum

Evidence:

- Self-Assessment Report
- Study plans of the degree programmes
- Module descriptions
- Ba Pharmacy website: <https://programsarjana.farmasi.ugm.ac.id/home/>
- Ma Pharmaceutical Sciences website:
<https://programmagister.farmasi.ugm.ac.id/en/home/>
- Ma Clinical Pharmacy website: <https://farmasi.ui.ac.id/en/program-studi-s2/herbal-s2/>
- Ma Pharmacy Management website: <https://mmf.farmasi.ugm.ac.id/en/homepage/>
- Doctor Pharmaceutical Sciences website:
<https://programdokter.farmasi.ugm.ac.id/en/>
- Discussions during the audit

Preliminary assessment and analysis of the experts:

All five pharmacy programmes are offered by the Faculty of Pharmacy of UGM. The Faculty of Pharmacy has four departments: Pharmaceutical Biology, Pharmaceuticals, Pharmaceutical Chemistry, and Pharmacology and Clinical Pharmacy. The Faculty Senate is the highest normative body in the Faculty whose members consist of all teaching staff consisting of Professor, Dean, Deputy Deans, Heads of Departments, and members representing the Departments, involving one representative for every 10 members of the Departments. The following diagram shows the organisational structure of the Faculty of Pharmacy:

The courses in the first two semesters convey basic knowledge of natural sciences and languages (Indonesian and English). Courses on the different pharmaceutical sciences are offered from the third to the seventh semester. During the eight semesters, students must complete the community service and the undergraduate thesis. After graduation, graduates are eligible for the pharmacist professional degree programme (1-year programme) to obtain an apothecary (pharmacist) license.

Usually during the last year of studies, students must complete the community service. The experts discuss with the programme coordinators about the content and goal of this course. The programme coordinators explain that community service is compulsory for all Indonesian students. It has a minimum length of eight weeks and often take place in villages or rural areas where students stay and live together with the local people. The course is designed “to allow students to apply their knowledge based on their field in order to empower society.” Since the community service usually takes place in remote areas, the students cannot attend any classes during this time. The students work in interdisciplinary teams during the community service in order to advance the society and bring further development about. This course was introduced at all Indonesian Universities in 1971. The assessment of the community service consists of a work plan, programme implementation, and activity report. The experts understand that students should work for the benefit of the community and the Indonesian society during the community service and support this concept.

Several of the course in the BP programme include practical work, the share is depicted in the following table:

Category	CSU	Proportion (out of 149)
Practical works in compulsory modules (laboratory works)	32	21.48%
Field study in the compulsory elective modules package	6	4.03%
Final project	6	4.03%
Community services	10	6.71%
TOTAL	54	36.24%

Table 1: Share of practical work, BP programme Source: SAR UGM

Upon completion, BP graduates are expected to possess a robust understanding of pharmaceutical sciences and the practical skills necessary to manage various aspects of pharmacy practice. This includes competencies in drug formulation, manufacturing,

distribution, patient care, and the ability to adapt to the evolving landscape of healthcare both nationally and internationally.

The Master's degree programme Clinical Pharmacy encompasses 43 CSU (104 ECTS points), consisting of lectures (25 CSU), clinical internships (10 CSU) and Master's thesis (8 CSU). The unique selling point of the MCP programme are the clinical internships, in which students are required to take part in clinical courses in internal medicine and geriatrics, as well as three other elective clinical internships.

The first semester includes lectures, the second semester lectures and clinical internships, while the third and fourth semesters cover several clinical internships and thesis writing. The students select the elective courses and clinical internships based on their interests and after consulting with their academic advisor.

The MCP programme encompasses 8 compulsory modules and 4 elective modules (including 3 elective clinical internships). Students are expected to complete the degree programme within 4 semesters. In the first semester, students will attend lectures that support clinical pharmacy practice. In the second semester, the theoretical education in advanced pharmaceutical sciences is combined with practical work in clinics. In the third semester, students will take a clinical internship in several hospitals and start their thesis, which is finished in the fourth semester. The programme includes mostly mandatory lectures but also one elective course in the second semester, a mandatory clinical internship in internal medicine, and three elective clinical internships.

The elective modules, especially the clinical internships, allow the students to define an individual focus and course of study (including student mobility, work experience etc.), Students can choose from a list of 7 different clinical internships and 12 elective courses. By choosing certain courses, students can achieve their specific intended competence profile. For example, those who want to work in a psychiatric hospital can choose the clinical internship in the psychiatric field.

The clinical internships are integrated into the curriculum and the Faculty of Pharmacy vouches for the adequate implementation in the different hospitals. Since 2018, the content and structure of the clinical internships are standardized and thus meet the requirements of the degree programme. Before 2018, there was a big disparity between the hospitals with respect to the quality and assessment process of the clinical internships. For this reason, the Faculty of Pharmacy has prepared the Clinical Internship Guideline and Assessment Form, which guides the students and preceptors in conducting the internship to ensure that the learning outcomes are achieved as expected.

Supplementing the official curriculum, there are several extracurricular activities, including the English club, which is held four times for two hours each. The activities can be journal reviews, discussions on popular topics, or other assignments from mentors.

The structure of the MCP programme is shown in the following table:

No	Components	CSU	Proportions
1	Compulsory course	16	37.2%
2	Compulsory clinical internship (Internal medicine and geriatric)	6	14.0%
3	Elective course	2	4.6%
4	Elective clinical internship	9	20.9%
5	Thesis	10	23.3%
TOTAL		43	100%

Table 2: Structure, MCP programme Source: SAR UGM

The Master's degree programme Pharmaceutical Sciences is designed for four semesters and encompasses 40 CSU (101.6 ECTS points), the maximum length of studies is eight semesters.

The focus in the first two semesters is on theoretical classes and course work, which includes the following compulsory courses: "Research Method and Statistics", "Pharmaceutical Biology", "Pharmaceutics", "Pharmaceutical Chemistry", "Pharmacology and Toxicology". These five courses (14 CSU) have to be taken by all MCP students, usually in the first semester. In the second semester, students select electives and start their thesis preparation. The focus in the third and fourth semester is on preparing and conducting the thesis, as well as writing a scientific publication.

The MPS programme offers 36 elective courses to provide students with the flexibility to choose courses that meet their individual needs, whether as free electives or concentration-specific electives. The electives belong to four different areas, namely: Drug Discovery, Drug Formulation, Quality Control of Drugs and Food, and Natural Product Drugs.

The general structure of the MPS programme is shown in the following table:

No	Components	CSU	Proportions
1	Compulsory Course (General Pharmacy)	14	35%
2	Elective Course- Thesis Related	12	30%
3	Elective Course	4	10%
4	Thesis	10	25%
Total		40	100%

Table 3: Structure, MPS programme Source: SAR UGM

In addition to the structured curriculum, the achievement of graduate competencies is also supported by guest lectures organized by the programme, featuring speakers who are practitioners or academics from both domestic and international institutions. The curriculum is designed to enable graduates to pursue higher education, such as doctoral programmes, as it aligns with the curricula of several doctoral programmes both domestically and internationally, through benchmarking with other higher education institutions.

The MPM programme is designed for four semesters and encompasses 44 CSU (100.4 ECTS points). The curriculum includes 22 CSU of compulsory courses, 10 CSU of electives, 2 CSU of internship, and 10 CSU for the Master's thesis.

In the first semester, MPM students have to take the following compulsory courses: Compulsory Courses: "Research Design and Analysis of Social Pharmacy", "Scientific Writing and Publishing", "Law – Ethics and Regulation in Pharmacy", "Management and Organizational Behavior", "Financial Management in Pharmacy", "Marketing Management in Pharmacy", "Information System of Pharmacy Management and Health", "Health Financing Management", and "Pharmacoepidemiology and Pharmacoeconomics". The second semester includes the internship, the compulsory course "Strategic Management in Pharmaceutical Organizations", and electives. The focus in the third and fourth semester is on preparing and conducting the thesis, as well as writing a scientific publication.

There is one internship course in MPM, namely "Internship/Project-based study. The results of the internship are assessed through student activities logbook, report, presentation and discussion. The findings are used for further improving the internship for students in the next semesters.

The general structure of the MPM programme is shown in the following table:

No.	Component	CSU	Proportions
1	Compulsory courses	22	50%
2	Elective course	10	22.7%
3	Internship	2	4.6%
4	Thesis	10	22.7%
Total		44	100%

Table 4: Structure, MPM programme Source: SAR UGM

Beside the mentioned workload in credits, it is mandatory for students to do community service to support social skills to educate the society about medication use and health. Moreover, it is recommended for students to participate in English Clubs to improve their speaking skills. However, this activity is not part of the official curriculum.

The latest major curriculum evaluation was done in 2021. There was a major adjustment of the curriculum in 2021 to suit the newly developed PEOs and PLOs. This was necessary, because MPM programme changed from specialisation as part of the Master's degree programme in Pharmaceutical Sciences to an independent study programme.

The Doctor in Pharmaceutical Sciences programme offers two different tracks:

The Regular Track, which is designed for six semesters and encompasses 46 CSU (179.2 ECTS points). The curriculum consist of 12 CSU for courses (general and elective), and 34 CSU for the doctoral dissertation. The Research Track is also designed for six semesters and encompasses 46 CSU (181.6 ECTS points). The curriculum consist of 6 CSU for courses (general and elective), and 40 CSU for the doctoral dissertation.

Courses cover the first semester, for the rest of 2.5 years, doctoral students must develop a research proposal, reviewed and approved by their promotor team to ensure feasibility and academic rigor. Passing these exams confirms their readiness for the research phase. During the research phase, students submit progress reports, detailing their work, methodology, and future plans, which the promotor team reviews to gauge progress and provide feedback. The DPS programme culminates in the dissertation, an original contribution to the field. The dissertation's quality and completeness are crucial for assessing the student's workload and research skills. Finally, students must defend their dissertation in an oral examination.

The structure of the DPS programme is shown in the following table:

Program	Regular track	Research Track
CSU	34 CSU	40 CSU
	6 hours per day	6 hours per day
Duration	25 days per month	25 days per month
	Conducted for 30 months	Conducted for 32 months
Calculation	$6 \times 25 \times 30 = 4500 \text{ hours}$	$6 \times 25 \times 32 = 4800 \text{ hours}$
ECTS	$4500 / 28 = 160$	$4800 / 28 = 171.4$

Table 5: Structure, DPS programme Source: SAR UGM

Doctoral students are free to take courses from other doctoral programmes at UGM or other universities. This approach enhances the flexibility and adaptability of the programme, allowing students to tailor their education to align with their research interests and career goals. It provides opportunities for students to gain in-depth knowledge in specific areas that are relevant to their dissertation research, even if those topics are not explicitly covered in the core curriculum. Moreover, the option to explore courses from other doctoral programmes encourages interdisciplinary learning and collaboration.

All courses taught in the pharmacy programmes are delivered in Bahasa Indonesia (Indonesian language), only the IUP is taught in English. However, most lecturers use English in their presentations and all study materials are also provided in English. If there are international students in the classes, the lectures are usually held in English. Furthermore, students are encouraged to attend summer courses that are held in English with international students and guest lecturers. Moreover, international guest lectures are regularly invited, who teach their courses in English, and the UGM Language Centre offers English language courses. The students confirm in the discussion with the experts that they are satisfied with the existing opportunities to improve their English proficiency and the experts cannot see any deficits in this respect.

The experts appreciate that the faculty offers the IUP programme. However, from their point of view it would be also useful to offer international classes in the Master's programmes. This would offers numerous benefits for the Faculty of Pharmacy, because, an English-taught programme attracts students worldwide and would further promote the internationalisation and reputation of UGM. It would be also attractive for international guest lecturers and researchers, which would foster international partnerships with global academic and research institutions. In addition, students would improve their English proficiency, which enhance their perspectives in an international research community and job market required to thrive in multinational settings. Finally, offering international Master's classes aligns the Faculty of Pharmacy with global standards which increases its

visibility and the research results are more accessible to the international academic community.

The members of the teaching staff explain on demand of the experts that they offer possible topics for the Bachelor's or Master's thesis according to their own research projects. All members of the teaching staff supervise theses. The main research areas of the Faculty of Pharmacy are drug synthesis, natural product exploration, macromolecular engineering, clinical pharmacy, community pharmacy, drug management, and pharmacy policy. The students have to design a research proposal with a time schedule for the project, which is discussed with the academic advisor. If they agree, the students apply formally for being allowed to work on the suggested topic.

The experts discuss during the audit with the programme coordinators and the students if it is useful to require Master's students to submit a publication. This is very unusual by international standards and is a controversial issue. Of course, writing a paper advances the students' skills and fosters their scientific profile. However, there are also several disadvantages. First of all, writing a publication can be time-consuming and may conflict with thesis deadlines, which may cause stress on the students. Secondly, not all research results are publishable. Some Master's projects may lack novelty or significance to meet journal requirements. As a result, students might resort to low-quality journals, which will not promote their or the faculty's scientific reputation. For this reason, the experts recommend to cancel the need to submit a publication as a graduation requirement for Master's students. Nevertheless, Master's students with promising research results still could publish their results after finishing the thesis, but in reputable journals and with a focus on their own research activities. Writing a review or original article solely to fulfill the official graduation requirements, may not significantly contribute to the advancement of pharmaceutical knowledge.

The curriculum review of all pharmacy programmes is conducted independently, involving internal stakeholders such as faculty leaders, program managers, course lecturers, and external stakeholders. The curriculum review is carried out at least once every five years and as needed. The individual modules are evaluated and revised as necessary each year at the beginning of the new semester to ensure that they are aligned with the PLOs mandated to each course. At the end of semester, the degree programme also conducts portfolio analysis to measure the achievement of the PLOs of each course.

After analysing the module descriptions and the study plans the experts confirm that all degree programmes under review are divided into modules and that each module is a sum of coherent teaching and learning units. All working practice intervals and internships are well integrated into the curriculum and the supervision by the Faculty of Pharmacy guarantees for their respective quality in terms of relevance, content, and structure. The

study plans are meticulously crafted to ensure a balance between theoretical knowledge and practical application, preparing graduates for various roles within the pharmaceutical industry and healthcare settings.

In addition, the experts gain the impression that the choice of modules and the structure of the curriculum ensures that the intended learning outcomes of the respective degree programme can be achieved.

The experts confirm that the graduates of the all degree programme under review are well prepared for entering the labour market and can find adequate jobs in Indonesia. During the discussion with the experts UGM's partner from the industry/public sector confirm that the graduates have a broad scientific education, are very adaptable, and have manifold competences, which enables them to secure and excel in suitable employment opportunities.

International Mobility

UGM provides some opportunities for students to conduct stays abroad and to join exchange programmes. The International Office at UGM is responsible for managing and coordinating the international activities such as organising student mobility programmes, developing and maintaining relationships with partner institutions and organisations around the world, recruiting and admitting international students, providing support and assistance to international students during their time at UGM, such as helping with housing, visa issues, and other practical matters.

Students' international academic mobility is supported by the Indonesian Government. For example, through Indonesian International Students Mobility Awards (IISMA), a scholarship programme from the Ministry of Education, Culture, Research and Technology starting from 2021. In addition, lecturers are encouraged to carry out joint research activities with international partners and to involve students in their projects. The experts notice positively that UGM is one of the top universities in terms of IISMA scholarships.

The new policy of the Indonesian government actively supports any activities outside of the university by releasing a regulation on the Merdeka Belajar-Kampus Merdeka (MBKM), which requires the university to promote undergraduate students who want to spent part of their academic education outside UGM (Minister of Education and Culture Regulation Number 3, Year 2020). UGM recognizes the courses taken by the students outside UGM, based on the comparability of the intended learning outcomes. The experts consider this regulation sufficient.

The MBKM provides flexibility for undergraduate students to explore different fields of pharmacy and interact with the wider community. This is in accordance with the experts'

feedback during the previous accreditation procedure, which emphasized that the BP programme should facilitate more opportunities for students to acquire international experience. As a result, the Faculty of Pharmacy has committed to increase the support for students' academic mobility and to expand collaboration with the higher institutions in other ASEAN countries. To this end, several new collaborations have been initiated for students' exchanges: Puthisastra University (Cambodia), Cyberjaya University (Malaysia), University of Malaya (Malaysia), Bumrungrad International Hospital (Thailand), Ng An Polytechnics (Singapore), and MSU (Malaysia).

According to the Self-Assessment Report, the Faculty of Pharmacy has several agreements with international universities in Japan, Malaysia, South Korea and Thailand. In addition, there are visiting lecturers from international universities to UGM. Since 2016, 36 students from the BP programme have spent some time abroad, but most of these stay where short time visits, e.g. for attending symposiums or conferences. Three students conducted internships in Turkey and Malaysia, one student took part at a student exchange programme with Japan, and ten students conducted a research project abroad. The experts see that some international co-operations exist, but especially the number of Indonesian Bachelor's students spending some time abroad is rather low.

Master's students are encouraged to write their thesis in English and to spend some time abroad to improve their English skills. Students' academic mobility in the MCP programme is significantly higher than in the other degree programmes, because the Faculty of Pharmacy has established several international cooperations that allow students to conduct clinical internships abroad. So far, there are collaborations with three hospitals/medical institutions in Malaysia for clinical internships in geriatrics, internal medicine, and drug administration. In addition, there is one collaboration with a hospital in Bangkok, Thailand in the area of cardiology. This activity is intended to support students' mobility not only in domestic hospitals, but also the opportunity to conduct clinical internship in foreign hospitals. Faculty of Pharmacy provides funding for students who want to go abroad and the number of MCP students who join clinical internship overseas is increasing. The MCP programme strongly supports student activities in various events, both national and international (Malaysia and Thailand). In recent years, students have participated in summer courses, winter courses, seminars, and oral or poster presentations in various events. To encourage students to speak English more actively, the MCP programme has established an English Discussion Forum as well as a model course where the class is conducted in English. Additionally, students are also asked to do 3 minutes presentation about their thesis in English which will be uploaded in MCP website

Student mobility in the MPM programme is facilitated through several activities including internships and participation in conference and short courses.

Doctoral students have several opportunities for international mobility, typically facilitated by research collaborations between academic supervisors and international research partners that actively engage doctoral students. However, not all research supervisors have established research collaborations with international partners, which limits students' access to the opportunity for overseas research experiences.

The experts see that the Faculty of Pharmacy is committed to promoting students' and teachers' academic mobility. Incoming students and lecturers are attracted by an international summer course organized annually and a biennial international conference called the International Conference on Pharmacy and Advanced Pharmaceutical Sciences (ICPAPS). Outgoing students and lecturers are supported by several programmes such as IISMA, PMDSU, the Nishimura International Scholarship Foundation (NISF), and Research Grants from DIKTI. Since 2021, several lecturers joined research groups at international universities such as Osaka University (Japan), Northeastern University (USA), Leipzig University (Germany), Chiba Cancer Center Research Institute (Japan), Nara Institute of Science and Technology (Japan), and Osaka Metropolitan University (Japan).

In 2021, the summer course and ICPAPS were organized in the same year, resulting in a high number of incoming students and lecturers. However, due to continued government restrictions related to the COVID-19 pandemic, there was a low number of outgoing lecturers. After the easing of travel restrictions in 2022, the number of incoming and outgoing lecturers increased, and the number of incoming and outgoing students was maintained at 30-45 students. In 2023, the summer course and ICPAPS were again organized in the same year, but the number of incoming and outgoing participants was still lower than in 2021. In 2024, the Faculty of Pharmacy committed to improving the number of incoming and outgoing participants. By July 2024, more than half of the previous year's mobility numbers had been achieved, suggesting a potential improvement in mobility among students and lecturers.

Another positive aspect in terms of internationalisation is the fact that every year, the Faculty of Pharmacy organises an international summer school. In 2024, 68 international students participated.

The students confirm during the discussion with the experts that several opportunities for international academic mobility exist. However, the academic mobility, especially in the Master of Pharmaceutical Sciences, the Master of Pharmacy Management, and Doctoral programme, is rather low. For this reason, the experts recommend to encourage the students to spend some time abroad during their studies.

The alumni consider completing a clinical internship in foreign country to be very beneficial. It widens the insight about clinical pharmacy practice, as they learn many new things, which

are not experienced in Indonesian hospitals. Because of the very positive feedback of the students, the Faculty of Pharmacy tries to offer more possibilities for conducting clinical internships abroad. In 2016, UGM started with only partners in Malaysia and one in Thailand. In 2018 and 2019, two more cooperations were signed with two other institutions in Malaysia. However, the number of available places is still limited and there are restrictions due to missing financial support. The Faculty of Pharmacy can only provide limited travel grants, while the demand from students is rising.

The experts discuss with UGM's management if there is a strategic concept to increase the international mobility of students and teachers. They learn that UGM has many international partners, has developed a fellowship programme, and provides scholarships for foreign students that what to study at UGM. Moreover, international guest lecturers are invited, and a cooperation with agreement with the German Academic Exchange Service (DAAD) and the similar Dutch organisation exists for senior Professors that are invited to teach for some time at UGM. Finally, summer courses are conducted with international participants and double degree and exchange programmes are established with different countries. The experts support these measures; however, they recommend increasing the effort to further internationalise UGM by establishing more international cooperations and exchange programmes and offering more and better endowed scholarships.

Rules for recognising achievements and competences acquired outside UGM exist, but only very few students attend classes at international universities.

In summary, the experts appreciate the effort to foster international mobility and support both the Faculty of Pharmacy and UGM to further pursuing this path.

Criterion 1.4 Admission Requirements

Evidence:

- Self-Assessment Report
- Academic Guidelines
- MEHRT, Regulation no. 48/2022 on the admission for Bachelor's programmes at state universities
- UGM webpage: <https://um.ugm.ac.id/ragam-seleksi-sarjana-dan-sarjana-terapan-2023/>
- Discussions during the audit

Preliminary assessment and analysis of the experts:

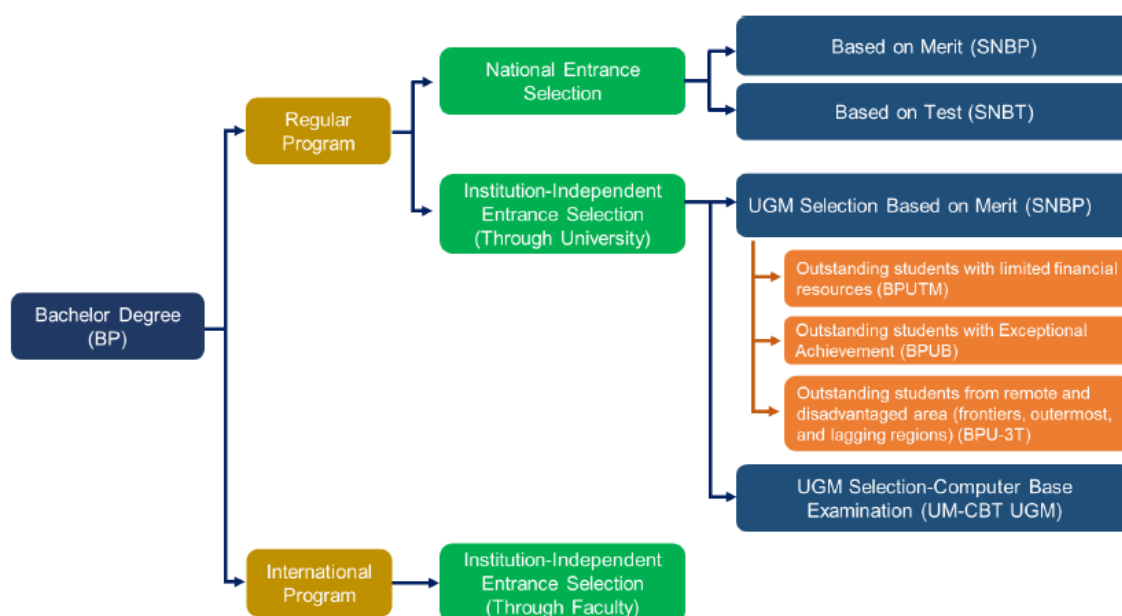
The admission and selection process for prospective students in the undergraduate and graduate programs within the Faculty of Pharmacy adheres to the university's established guidelines for new student admissions. This process is managed by the New Student Admissions Office through a specialized admission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

According to the Self-Assessment Report, the admission procedures and policies for new students follow the National Regulation 48/2022.

There are three different ways by which students can be admitted to a Bachelor's programme at UGM:

1. National Entrance Selection of State Universities (SNBP), a national admission system, which is based on the academic performance during the high school (40 % of the students at UGM are admitted through this selection system).
2. Joint Entrance Selection of State Universities (SNBT): This national selection test is held every year for university candidates. It is a nationwide written test (subjects: mathematics, Bahasa Indonesia, English, physics, chemistry, biology, economics, history, sociology, and geography). It accounts for 30 % of the admitted students at UGM.
3. Independent Entrance Selection: Students are either selected based on a computer based test (similar to SNBT) specifically held by UGM or on merits/social reasons. (30 % of the undergraduate students at UGM are admitted this way).

The details are shown in the following diagram.



The annual intake quota of the BP programme is 240 students (260 since 2021/22), with a maximum positive deviation of 10 % to outbalance possible withdrawals. The number of applicants exceeds by far the number of available places. For example, in 2022/23, there were 7441 students applying for admission to the BP programme and only 279 new students were accepted. This is equivalent to an admission rate of only 3.7 %. The numbers in former years are similar.

The admission to the International Undergraduate Programme (IUP) is solely regulated by UGM. In case of the BP programme, the admission is conducted by the Faculty of Pharmacy. The capacity is 20 students per year. To attract more international students, the Faculty of Pharmacy has signed MoUs with Merseburg University from Germany and Servico Autonomo de Medicamentos e Equipamentos de Saude (SAMES) from Timor Leste.

Table 6 shows the admission data for the Bachelor of Pharmacy programme for the last academic years.

Academic year	Capacity	Number of Regular Student Candidates	
		Join the Selection	Passed the Selection
2019/20	240	7630	272
2020/21	240	10859	277
2021/22	260	7056	281

2022/23	260	7441	279
2023/24	260	7068	280
SUM	1260	40054	1389

Table 6: Applications and Admission to BP programme Source: SAR UGM

The details of the application process at UGM and further information on admissions criteria and deadlines can be found on UGM's homepage and the Academic Guidelines, which are also published on the university's webpage.

The experts inquire of the programme coordinators, why there are so many students applying for studying at UGM. They learn that pharmacy is very popular subject because the job perspectives are very good. In addition, there are many high school graduates in Indonesia and UGM is one of the most prestigious universities in the country. Consequently, UGM is able to only accept the very best candidates. From their discussion with the students, the experts gain the impression that the admission system is very effective and only very motivated and high-performing candidates are admitted. The experts consider the highly selected and motivated students to be one of the strong points of the BP programme.

Students can apply online at UGM for admission to the Master's programmes. Candidates are required to have a pharmacist license, with a certain GPA (usually ≥ 3.00), and to go through an interview process at UGM. During the discussion with the experts, the programme coordinators explain that the applicants are asked about their commitment and motivation for applying for one of the Master's programmes, about their academic and professional background as well as their social activities. The result of the interview is documented in an official report sheet. The experts note positively, that the admission interviews are now conducted by two interviewer, which ensure that the outcome is more impartial. This adjustment was implemented in 2021 and was based on the experts' feedback during the last accreditation procedure.

In addition, applicants need to submit a verification of English proficiency (e.g. TOEFL score ≥ 450) and of sufficient academic ability (e.g. Academic Potential Test (TPA) score ≥ 500). The capacity of each Master's programme is 40 students per academic year. The schedule of admission, the requirements, and the procedures are published and can be accessed via UGM's homepage.

To ensure that Master's students have the same ability or level of knowledge, matriculation is carried out before learning activities begin by the degree programme. The matriculation programme is designed to harmonise students' competencies and align students' abilities

before entering the lecture period. This is necessary because the scientific background of new students is different as they come from various universities in Indonesia. The matriculation program is held twenty times online for two hours each. The topics are adjusted according to the needs of the new students and to the courses to be studied.

As described in the Self-Assessment Report, the number of applications and of accepted students has slightly varied within the last years. Usually, there are between 64 and 35 applications and the number of newly registered students is between 27 and 54. The official capacity of the MPS and MPM programmes is 40 new students per year and for the MCP programme 50 new students per year. The exact data for the last two academic years is summarised in the following table:

Academic Year	Number of Applicant	Number of Accepted Applicant	Ratio of admission	Number of Registered Students
Master in Clinical Pharmacy				
2022/2023	62	52	1.3 : 1	39
2023/2024	54	54	1.3 : 1	42
Master in Pharmaceutical Science				
2022/2023	35	27	1.29 : 1	27
2023/2024	51	36	1.41 : 1	36
Master in Pharmacy Management				
2022/2023	47	39	1.3 : 1	36
2023/2024	54	42	1.6 : 1	34

Table 7: Applications and Admission Master's programmes Source: SAR UGM

Detailed registration information for the DPS programme is available on the university and DPS websites. There is a single primary entrance for the programme, open to both prospective participants with and without scholarships. However, applicants with scholarships have a higher chance of acceptance. Requirements for DPS registration include a Master's degree GPA, (at least ≥ 3.25), a TOEFL score of ≥ 500 , and an Academic Potential Test score of ≥ 550 . Additionally, every prospective student must submit a tentative research proposal for their dissertation and undergo an interview to assess their commitment to the programme. The following table shows the student admission data of the DPS programme. The number of applications significantly increased from 34 in the 2021/2022 academic year to 86 in 2022/2023, followed by a slight decrease to 74 in 2023/2024. Despite fluctuations in applications, the number of admissions steadily increased from 25 to 36 and then to 40 over the three years. This resulted in an acceptance rate that decreased sharply from 73.53% in 2021/2022 to 41.86% in 2022/2023 before rising to 54.05% in 2023/2024, indicating variations in the program's selectivity.

Academic year	Applications	Admissions	Percentage (%)
2021/2022	34	25	73.53
2022/2023	86	36	41.86
2023/2024	74	40	54.05

Table 8: Applications and Admissions, DPS programme Source: SAR UGM

All academic requirements for Indonesian students also apply to foreign students, with specific regulations for TPA scores and financing.

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

The Bachelor in Pharmacy programme's regular tuition fees (145-1200 EUR) are within the national range, while the international program (2000-2900 EUR) is on the higher end, but still comparable with other IUP program in Indonesia. The tuition fees for undergraduate students depend on the parents' income. The Master's programmes in Clinical Pharmacy (1017.03 EUR), Pharmaceutical Science (909.44 EUR), and Pharmacy Management (909.06 EUR) are in the same range as the fees of similar programmes at other top Indonesian universities, where fees generally range from 900 to 1200 EUR. The Doctor in Pharmaceutical Sciences fee (1083 EUR) is also standard, comparable to the national range of 1080 to 1500 EUR per semester.

Due to the numerous scholarship opportunities offered to UGM, a significant proportion of students, particularly those in the Master's and Doctoral programmes, receive scholarships. These scholarships typically cover tuition fees and include additional funds to support living expenses.

Criterion 1.5 Workload and Credits

Evidence:

- Self-Assessment Report
- Module Handbooks
- Study Plans
- Academic Guidelines
- Discussions during the audit.

Preliminary assessment and analysis of the experts:

All degree programmes at UGM must follow the Indonesian credit system (CSU) regulations. Each Indonesian 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.

For regular classes in the Bachelor's and Master's programmes, 1 CSU of academic load for the undergraduate programme is equivalent to 3 academic hours, which equals 170 minutes. This includes:

- 50 minutes of scheduled contact with the teaching staff in learning activities,
- 60 minutes of structured activities related to lectures, such as doing the assignments, writing papers, or studying literature,
- 60 minutes of independent activities outside the classroom to obtain a better understanding of the subject matters and to prepare academic assignments such as reading references.

For lab work, final project, fieldwork, and other similar activities, 1 CSU is equivalent to 170 to minutes a week of students' activities.

Type of activity	Definition of 1 CSU/week/semester	Duration (min)	TOTAL (min)
Classroom course	Classroom meeting	50	170
	Structured task	60	
	Independent work	60	
Practical course	Practical work	170	170
Seminar	Seminar meeting	100	170
	Independent work	70	

Table 9: Work Load Calculation Source: SAR UGM

The details and the students' total workload are described in the respective module description.

According to the Self-Assessment Report, UGM uses a fixed conversion factor of 1.6 between CSU and ECTS points. The reasoning behind this calculation is that one CSU equals 170 minutes (2.83 hours). As the semester lasts for 16 weeks $2.83 \times 16 = 45.28$ hours per semester. As UGM calculates 28 hours of students' workload for one ECTS point, this total workload is then divided by 28 to get the conversion factor: $45.28 / 28 = 1.6$.

To complete the degree programme in time, Bachelor students need to take on average of 18 CSU per semester excluding co-curricular contents. However, the regular schedule usually covers 20-21 CSU per semester to give more space in the last semesters for resits, or more electives. If a student is not satisfied with his GPA, she or he can repeat the classes, but this will lead to a prolongation of the study time. The semester GPA determines the maximum number of credits students can take the following semester, with a maximum of 24 CSU 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.

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

To complete the DPS programme, both of the regular and research track students need to complete 46 CSU and the anticipated duration is six semesters, with a maximum of 10 semesters. The cumulative workload load includes research-related activities such as literature reviews, research proposals, publications, conferences, and dissertations.

The experts point out that there can be no fixed conversion rate between CSU and ECTS points. Therefore, the ECTS points need to be calculated separately for each course. This is necessary, because the time students need for self-studies is different for each course. Especially the courses with the high share of self-studies (Master's and Bachelor's thesis) show, that the students spend much more time on their final projects than is currently reflected in the awarded ECTS points. UGM should follow the ECTS Users' Guide to determine the students' total workload. As described in the ECTS Users' Guide, the estimation of students' workload should include all learning activities. This is the time students typically need to complete all learning activities (such as lectures, seminars, projects, practical work, self-study and examinations). In other words, a seminar and a lecture may require the same number of contact hours, but one may require significantly

greater workload than the other because of differing amounts of independent preparation by students.

As workload is an estimation of the average time spent by students to achieve the expected learning outcomes, the actual time spent by an individual student may differ from this estimate. Individual students differ: some progress more quickly, while others progress more slowly. Therefore, the workload estimate should be based on the time an “average student” spends on self-studies and preparation for classes and exams. The initial estimation should then be verified via students’ satisfaction questionnaires.

Since the workload of the students was only estimated by the programme coordinators and seems to be too low in comparison to the actual time needed by the students, the experts expect UGM to verify the students’ total workload and to adjust the awarded ECTS points for each course. This could e.g. be done by including a respective question in the satisfaction questionnaires. In any case, UGM must make sure that the actual workload of the students and the awarded ECTS credits correspond with each other and make that information transparent in the module descriptions and the study plans.

Criterion 1.6 Didactic and Teaching Methodology
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Evidence:

- Self-Assessment Report
- Academic Guidelines
- Discussions during the audit.

Preliminary assessment and analysis of the experts:

UGM has the goal to support the transition from a teacher-centered to a student-oriented teaching method, in order to involve all students in the learning process and to develop their thinking and analytical skills. In addition, blended learning is introduced as a modern way of teaching. The use of e-learning elements in the learning process allows for class activity without physical attendance. At UGM, it is possible to use e-learning for a maximum of 30 % of the course. To provide support and guidance to the teachers in utilizing these instruments, all members of teaching staff attended workshops on blended learning. To facilitate the use of blended learning, UGM has developed a moodle-based e-learning system (eLok) and provides online tools such as zoom and pharmaceutical knowledge channel (KPF), which can assist lecturers in preparing course materials. Blended learning can be conducted for the maximum of 30% of the course sessions.

The BP programme makes use of several different educational methods for each course such as practical laboratory work, field studies, lectures, Community Service, and Bachelor's thesis.

During the classes, active and interactive teaching methods (e.g. lectures, discussions, reports, presentations, and group work) are applied. UGM wants to encourage the students to gain knowledge from different scientific areas and wants to introduce them to research activities. This should ultimately contribute to the transition from a teacher-centred to a student-centred learning approach.

In the Master's programmes, lectures, seminars, case-based studies, small group discussions, internships and independent academic research activities are conducted. Almost all courses include student-centred/active learning in the form of case-based lectures, small group discussion and presentations, as well as practice-based learning like internships. Presentations, case-studies, and seminars involves students individually or in groups to actively communicate their ideas by explaining or describing the analysis of case studies, reports, or other specific presentation topics systematically. This method is also used for disseminating students' research proposals and theses.

Problem and project-based learning and a student-centred teaching approach are applied in most of the advanced courses. These methods comprise several steps, which requires students to gather information, solve problems, make reports, and discuss and present the results. These teaching methods focus on analysing problems and acquiring the skills to draw conclusions based on evidence. In addition, students should learn to work together in a team, to design their learning goals, and to take responsibility for their implementation.

The Doctoral programme employs a variety of teaching and didactic methods tailored to the advanced and specialized nature of the education. These methods aim to equip candidates with the knowledge, skills, and competencies necessary for independent research, critical analysis, and academic or professional excellence. This includes individualized mentorship, research seminars and workshops, coursework and advanced classes, and independent research.

In summary, the expert group judges the teaching methods and instruments to be suitable to support the students in achieving the intended learning outcomes. In addition, they confirm that the study concepts of all pharmacy programmes comprise a variety of teaching and learning forms as well as practical parts that are adapted to the respective subject culture and study format. It actively involves students in the design of teaching and learning processes (student-centred teaching and learning).

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

The experts appreciate that UGM will take their suggestion to review and revise the policy on the requirement for students to publish into consideration together with the expected update on the regulation by the Ministry of Research, Technology, and Higher Education (MRTHE).

The experts thank UGM for explaining that students' limited academic mobility is caused by two factors: (1) Limitation of the places that can be offered by the international partners, and (2) limitation of the funding available. To answer this, the faculty management has agreed to increase the funding from IDR 5,000,000 (USD 310) to a maximum of IDR 10,000,000 (USD 620) per programme per student. Furthermore, the management will expand cooperation focused on the faculty's strategic partners in south-east Asia. The experts support these plans.

With respect to students' workload and the awarded ECTS points, the experts emphasise once more, that there should not be a fixed conversion rate between CSU and ECTS points. To calculate correctly, the students need to be asked about their actual workload in each course and then the ECTS points should be awarded accordingly. Creating a questionnaire that will be distributed to the students in the upcoming semester is the first step.

The experts consider criterion 1 to be mostly fulfilled.

2. Exams: System, Concept and Organisation

Criterion 2 Exams: System, Concept and Organisation
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Evidence:

- Self-Assessment Report
- Module handbooks
- Academic Guidelines
- Academic Calendar
- Samples of student's work (projects, exams and thesis)
- Discussions during the audit.

Preliminary assessment and analysis of the experts:

According to the Self-Assessment Report, the students' academic performance is evaluated based on their attendance and participation in class, their laboratory works and reports, assignments, homework, presentations, mid-term exam, and the final exam at the end of each semester. Clinical internships in the MCP programme are assessed by practical exams and case-based presentation. The form and length of each exam is mentioned in the module descriptions that are available to the students via UGM's homepage and the digital platform SIMASTER.

The written exams can be multiple choice, quizzes, or essays. In addition, there are oral exams, especially for assessing the laboratory work. The students are informed about mid-term and final exams via the Academic Calendar. The final grade is the result of the different activities in the course (e.g. laboratory work, mid-term exam, the final exam, quizzes or other given assignments).

If a student fails, he has to repeat the entire module in the following semesters; it is not possible to retake just parts of the course or to just retake the final exam. The further details are described in the Academic Guidelines. The faculty acknowledges that the short semester is not offered, with the reasoning being that this rule is in place to maintain student quality and ensure a proper understanding of the course material. However, the concern arises at the lack of remedial support for students. The experts point out that in their opinion it would be useful to introduce a remedial system so that students can repeat a failed exam. This way, the progression of studies could be accelerated as delays caused by a failed exam are minimised. Furthermore, the pressure on students is reduced if they know that an exam retake is possible.

The experts discuss with the students how many and what kind of exams they have to take each semester. They learn that for each course there is one mid-term exam and one final exam in every semester. Usually, there are additional practical assignments or oral tests. The final grade is the sum of the sub-exams. The students appreciate that there are several short exams instead of one big exam and confirm that they are well informed about the examination schedule, the examination form, and the rules for grading.

As stipulated in the Academic Guidelines, every Bachelor's and Master's student is required to do a final thesis. Prior to the actual research work, students need to prepare a research proposal, which is submitted to the Thesis Committee. Students are asked to find a suitable topic by discussing with the lecturers, developing own ideas, or joining a lecturer's research project. The student can propose the name of the thesis supervisor and submit the thesis proposal to the Thesis Committee. The Thesis Committee will review the proposal and decide about the supervisor.

After completing the work on the thesis students have to defend the thesis in front of the Thesis Defence Committee; it consists of a minimum of 3 lecturers (1 advisor and 2 examiners) and will determine whether the thesis qualifies for graduation. In the BP programme there is only a closed oral presentation of the thesis (just in front of the Thesis Committee), whereas in the Master's programmes there is also a thesis seminar, which is open for all interested persons.

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 attendance below 75% will not be permitted to sit for the final exam. The grading follows the following table:

A : 4	C+ : 2.25
A- : 3.75	C : 2
A/B : 3.5	C- : 1.75
B+ : 3.25	C/D : 1.5
B : 3	D+ : 1.25
B- : 2.75	D : 1
B/C : 2.5	E : 0

Table 10: Grading Scheme, Source: SAR UGM

The experts also inspect a sample of examination papers and final theses and are overall satisfied with the general quality of the samples.

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 of Pharmacy will determine the time for the makeup exam, and students must provide suitable evidence to support their request.

In summary, the experts confirm that the different forms of examination used are competence-oriented and are suitable overall for verifying the achievement of the intended learning outcomes as specified in the respective module descriptions. The form of examination is determined individually for each course and published in the respective module description. The forms of examination are based on the main content of the modules and the level is appropriate for the respective degree programme.

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

The experts confirm that by issuing the Dean's Letter of Notice on January 24, 2025, UGM has improved the regulation on exam retakes and remedial support.

The experts consider criterion 2 to be fulfilled.

3. Resources

Criterion 3.1 Staff and Staff Development
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Evidence:

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

Preliminary assessment and analysis of the experts:

At UGM, the staff members have different academic positions. There are professors, associate professors, assistant professors and lecturers. The academic position of each staff member is based on research activities, publications, academic education, supervision of students, and other supporting activities. For example, a full professor needs to hold a PhD degree. In addition, the responsibilities and tasks of a staff member with respect to teaching, research, and supervision depend on the academic position.

According to the Self-Assessment Report, the teaching staff at the Faculty of Pharmacy consists of 88 full-time teachers (16 professors, 18 associate professors, 26 assistant professors, 7 lecturers, and 21 assistant lecturers). In terms of highest academic degree, 65% of teachers at the Faculty of Pharmacy hold a doctoral degree, 23% a Master's degree, while the rest (12%) holds a Bachelors' degree.

All members of the teaching staff are obliged to be involved in teaching, research, community service, and administration. As the experts learn during the audit, all teachers have a workload between 12 and 16 credits per semester (one credit equals 170 minutes of activities per week). However, the workload can be distributed differently between the three areas from teacher to teacher. In the 2021/2022 academic year, the average workload of all teachers at the Faculty of Pharmacy was 15.49 credits, with the highest contribution from teaching (9.31), followed by research (3.70), community services (1.06), and Supportive Activities (1.41).

Regarding teachers' 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 (publications), and community service activities.

The experts discuss with UGM's management, how new staff members are recruited. They learn that every year the faculties and departments announce their vacancies to UGM's management. Since UGM is semi-autonomous, they can decide themselves what staff members to hire. One way to recruit new teachers is to send promising Master's students from UGM abroad to complete their PhD and then to hire them as teachers when they are finished. In addition, part time lecturers are hired from the pharmaceutical industry to give lectures on specialised topics. UGM also hires graduates from other universities, but it is hard to attract them, because if they are young and promising, their own university will probably already have hired them. The experts notice positively that since two years, UGM only hires new teachers with a PhD degree.

In summary, the experts confirm that the composition, scientific orientation and qualification of the teaching staff are suitable for successfully implementing and sustaining the degree programmes.

The experts are impressed by the excellent and open-minded atmosphere among the students and the staff members. This atmosphere of understanding and support is one of the strong points of the degree programmes.

Staff Development

The faculty and university make many policies to develop the professionalism and teaching skills of lecturer. The faculty support the lecturer to joint scientific meeting/congress (international and domestic) by organizing International Conference on Pharmacy and Advanced Pharmaceutical Sciences every two years. The faculty also has specific collaboration with certain universities abroad, which in some part is involving collaborative research between institutions. At the university level, workshops are periodically held to increase skills, i.e. public speaking, course delivery method etc. Workshops by the university are held annually for young lecturer. The faculty support is planned every year in the form of the Annual Action Plan and Budget (RKAT), department block grant, and faculty research grant. Besides, UGM has the policy to increase the number of lecturer holding a doctoral degree by making an agreement with the newly entered lecturer bearing a master's degree to take doctorate within three years after employment. When they fail to fulfil this agreement, the university has the right to terminate the employment contract. Lecturer's performance is evaluated each semester by the faculty under the government assessment system. With this system, the performance is not only measured by the teaching activities, supervising activities, research activities but also the community service activities and other activities that are lecturers conduct to increase their competence and skills.

UGM encourages the training of its academic and technical staff, so it has developed a programme for improving the didactic abilities and teaching methods. One part of the capacity-building programme focuses on subject-specific skills (to keep up with current developments and trends in pharmaceutical sciences), whereas other training courses are intended to further improve the teachers' didactic skills and to introduce new teaching methods (e.g. blended learning). The professional and scientific development of the staff members is coordinated by the Vice Dean for Finance, Administration and Human Resources and the Vice Dean for Academic and Student Affairs.

There are financial resources available for staff members to go abroad for a limited time and to take part at conferences or other events in order to stay up to date with the scientific development in their area of expertise. In addition, the Faculty of Pharmacy wants to promote the process of internationalisation at UGM by hosting international scientific events, facilitating sabbatical leaves, and inviting international professors.

The experts discuss with the members of the teaching staff the opportunities to develop their personal skills and learn that the teachers are satisfied with the internal qualification programme at UGM, their opportunities to further improve their didactic abilities and to spend some time abroad to attend conferences, workshops or seminars; even a sabbatical leave is possible.

In summary, the experts confirm that UGM offers sufficient support mechanisms and opportunities for members of the teaching staff who wish to further develop their professional and teaching skills.

UGM encourages the training of its academic staff so it has developed a programme for improving the didactic abilities and teaching methods. According to the Self-Assessment Report, the Center for Innovation and Academic Studies (PIKA) is responsible for the development of lecturers' skills by offering courses to improve the didactic and professional skills and by assisting members of the teaching staff who are doing a PhD abroad. The academic staff development aims at providing the opportunities for the academic staff to improve their competences and updating their knowledge in their field of expertise.

Furthermore, Applied Approach (PEKERTI-AA) is a compulsory training for all staff members that focuses on advancing pedagogical knowledge. It is designed particularly for junior faculty members to introduce various teaching methods, learning strategies, preparation of assessments, class management, as well as syllabus and course content development. All teachers at UGM are obligated to attend the lecturer certification programme held by the Directorate General of Higher Education (Direktorat Jenderal Pendidikan Tinggi Ditjen, DIKTI). An official teaching certificate is issued after the faculty member has completed the

certification process. In addition, the study programmes organise trainings to upgrade lecturers' pedagogical content knowledge on a regular basis.

The departments and faculties facilitate the staff development by enabling them to participate in national and international seminars and conferences. The staff exchange programme is supported by each faculty and funded by UGM and the Indonesian Ministry of Research, Technology and Higher Education. Sabbatical leave is also possible, but the length of the stay may vary from one month to one year; there are funds from the Indonesian Ministry of Research, Technology and Higher Education and UGM available for such stays.

In addition, the Faculty of Pharmacy encourage their staff members to join national and international seminars, symposia, and conferences. Moreover, the Faculty of Pharmacy organises an International Conference on Pharmacy and Advanced Pharmaceutical Sciences every two years. UGM provides rewards for lecturers whose articles are published in highly reputable international journals and provide training and funds for book writing and publishing. To this end, there is the Directorate of Research Scientific Publication and Journal Department (BPP), which provides support for article publication.

The experts discuss with the members of the teaching staff the opportunities to develop their personal skills and learn that the teachers are satisfied with the internal qualification programme at UGM.

Overall, the experts confirm that UGM offers sufficient support mechanisms and opportunities for members of the teaching staff who wish to further develop their professional and teaching skills.

Criterion 3.2 Student Support and Student Services

Evidence:

- Self-Assessment Report
- Discussions during the audit.

Preliminary assessment and analysis of the experts:

UGM offers a comprehensive advisory system for all undergraduate students. At the start of the first semester, every student is assigned to an academic advisor. Each academic advisor is a member of the academic staff and is responsible for several students from her or his classes. She or he is a student's first port of call for advice or support on academic or personal matters.

The role of the academic advisor is to help the students with the process of orientation during the first semesters, the introduction to academic life and the university's

community, and to respond promptly to any questions. They also offer general academic advice, make suggestions regarding relevant careers and skills development and help if there are problems with other teachers. The students confirm during the discussion with the experts that they all have an academic advisor.

In general, students stress that the teachers are open minded and communicate well with them and take their opinions and suggestions into account and changes are implemented if necessary (e.g. shifting the class on scientific writing to the first semester).

All students at UGM have access to the digital academic portal (SIMASTER) which is integrated with the Registration Information System, the Academic Information System, the Library Information System, and the Scholarship Information System. The students' profiles (student history, study plan, academic transcript and grade point average/GPA, lecturer evaluation, course list) are available via SIMASTER.

There is also medical, social, and psychological support for students at UGM (Gadjah Mada Medical Center/GMC and UGM Hospital). Furthermore, there is the alumni and career center that gives advice to students how to start and run a business.

Finally, there are several student organizations at UGM; they include student's activity clubs, which are divided into arts, sports, religious and other non-curricular activities.

The experts notice the good and trustful relationship between the students and the teaching staff; there are enough resources available to provide individual assistance, advice and support for all students. The support system helps the students to achieve the intended learning outcomes and to complete their studies successfully and without delay. The students are well informed about the services available to them.

Criterion 3.3 Funds and equipment
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Evidence:

- Self-Assessment Report
- Visitation of participating institutes and laboratories
- Discussions during the audit.

Preliminary assessment and analysis of the experts:

Basic funding of the degree programmes and the facilities is provided by UGM and the Faculty of Pharmacy. The financial sources are government funding which contribute to around 25 % to the total budget and which cover the salaries of all state employees. Around 40% of UGM's budget comes from students' tuition fees, while the rest is derived from,

industry funding through cooperations, donations, and business revenues from different enterprises.

Additional funds for research activities can be provided by UGM or the Indonesian government (Bantuan Pendanaan Perguruan Tinggi Nasional, BPPTN), but the teachers have to apply for them. In addition, there are several cooperations with industrial partners.

As listed in the Self-Assessment Report, the Faculty of Pharmacy and its four Departments have the following laboratories:

Department of Pharmaceutical Biology

1. Laboratory of Phytochemical Pharmacognosy
2. Laboratory of Microbiology and Cell Biology

Department of Pharmaceuticals

1. Pharmaceutical Laboratory I
2. Pharmaceutical Laboratory II
3. Laboratory of Physical Pharmacy
4. Laboratory of Biopharmaceuticals
5. Laboratory of Technology and Formulation of Solid Dosage Form
6. Laboratory of Technology and Formulation of Liquid and Semisolid Dosage Form
7. Laboratory of Technology and Formulation of Sterile Dosage Form

Department of Pharmaceutical Chemistry

1. Laboratory of Organic Chemistry
2. Laboratory of Drug Synthesis
3. Laboratory of Biochemistry and Molecular Biology
4. Laboratory of Medicinal Chemistry
5. Laboratory of Basic Pharmaceutical Chemistry
6. Laboratory of Qualitative and Quantitative Analytical and Pharmaceutical Chemistry
7. Laboratory of Chemical Analysis for Drugs, Food and Cosmetics

8. Laboratory of Instrumental Analytical Chemistry
9. Laboratory of Macromolecular Engineering

Department of Pharmacology and Clinical Pharmacy

1. Laboratory of Pharmacology
2. Laboratory of Toxicology
3. Laboratory of Clinical Pharmacy and Pharmacotherapy

In addition, there is the Advanced Pharmaceutical Sciences Learning Center (APSLC), which is directly managed by the Faculty of Pharmacy. Opened on July 1, 2021, APSLC at the Faculty of Pharmacy serves as a pivotal facility designed to enhance both academic and non-academic activities within the faculty.

The APSLC is an eight-story building encompassing a total area of 10,000 square meters. Its multifunctional design includes: a herbal medicine café, a coffee shop, and a minimarket on the ground floor, administrative offices, smart classrooms, auditorium (with a capacity of 600 people), and three floors are dedicated to integrated research laboratories, fostering interdisciplinary studies and innovation in pharmaceutical sciences.

Finally, there is the Integrated Laboratory for Research and Testing (Laboratorium Penelitian dan Pengujian Terpadu, LPPT), which was opened in 2021 and serves as the university's central facility for research and testing by providing comprehensive support to UGM academics—including lecturers, staff, and students—as well as external researchers and industry partners.

LPPT organises and facilitates a wide range of research activities, encompassing analytical methods in materials and metabolomics, in vitro and in vivo studies, molecular biology, immunological techniques, studies of Indonesian herbal plants, and histological analysis. In addition, the laboratory offers testing and calibration services across various scientific disciplines, provides expertise and services for preclinical studies, including the development and maintenance of experimental animal models, which are crucial for pharmaceutical research.

Established in 2004 through the merger of four central laboratories, LPPT embodies UGM's commitment to a strategic, integrated, and interdisciplinary approach in research and testing. By providing state-of-the-art facilities and comprehensive services, LPPT plays a crucial role in advancing scientific research, fostering innovation, and supporting the academic community at UGM and beyond.

During the audit, the expert group also visits the laboratories, the classrooms, and the library in order to assess the quality of infrastructure and technical equipment. They notice that in the laboratories in the departments there are no severe bottlenecks due to missing equipment or a lacking infrastructure. The basic technical equipment for teaching the students is available, although it is not state of the art. Instruments for the practical courses are available in required numbers for the students. They are functional and well maintained even if they are older. The students confirm during the discussion with the experts that in general, they are satisfied with the available equipment only some instruments are outdated.

On the other hand, the Advanced Pharmaceutical Sciences Learning Center (APSLC) and the Integrated Laboratory for Research and Testing (LPPT) are very well equipped and offer the teachers and students access to modern and sophisticated instruments. The equipment of the APSLC is up to highest standards, it includes modern HPLC, LCMS/MS, flash chromatography, semi-preparative chromatography, RT-PCR, spray – and freeze drying, flow cytometer, cytotoxicity assays using plate readers to name the most important ones. All instruments are very new and well maintained.

In summary, the experts see that the Faculty of Pharmacy offers high-quality technical equipment and facilities, especially in the APSLC, which supports both education and research activities. This way, the Faculty of Pharmacy is well equipped to conduct advanced pharmaceutical research activities.

The most critical point from the experts' point of view is the fact that not all of the visited laboratories in four departments of the Faculty of Pharmacy follow international safety standards. The experts notice during the lab tour, that not all laboratories are equipped with appropriate safety cabinets for flammable liquids. Also, it must be secured that safety cabinets for toxic compounds are installed and used. To improve safety standards, sufficient room ventilation of the labs should be verified. The storage of chemicals should be reorganized and there should be no wooden surfaces in the laboratories. Additionally, UGM should provide the laboratory manuals for using the instruments not only in Bahasa Indonesia but also in English. Even though international BP students will be assisted by a supervisor for the first few weeks, providing the manuals in English is an easy improvement that will ensure that all students can have similar access to the instruments.

During the audit, the members of the teaching staff remark that the current system for maintaining and repairing the instruments could be improved. If urgently needed equipment needs to be repaired, the administrative processes takes too long and should be sped up.

The students express their satisfaction with the library and the available literature. The central library that offers direct access to international literature, scientific journals, and publications e.g. via SpringerLink. From the students' point of view, there is sufficient access to current international literature and databases and a remote access is possible.

The experts conclude that the available funds, the technical equipment, and the infrastructure (laboratories, library, seminar rooms etc.) comply with the requirements for sustaining the degree programmes.

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

The experts appreciate that UGM has already upgraded the safety equipment, including safety cabinets, in the laboratories. They expect UGM to continue with the planned improvements (proper chemical storage and ventilation, replacement wooden surfaces, translating laboratory manuals, and waste management) and to provide the verification of the implementation in the further course of the accreditation procedure.

The experts consider criterion 3 to be mostly fulfilled.

4. Transparency and Documentation

Criterion 4.1 Module Descriptions
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Evidence:

- Self-Assessment Report
- Module handbooks
- Ba Pharmacy website: <https://programsarjana.farmasi.ugm.ac.id/home/>
- Ma Pharmaceutical Sciences website:
<https://programmagister.farmasi.ugm.ac.id/en/home/>
- Ma Clinical Pharmacy website: <https://farmasi.ui.ac.id/en/program-studi-s2/herbal-s2/>
- Ma Pharmacy Management website: <https://mmf.farmasi.ugm.ac.id/en/homepage/>
- Doctor Pharmaceutical Sciences website:
<https://programdokter.farmasi.ugm.ac.id/en/>

Preliminary assessment and analysis of the experts:

The students, as all other stakeholders, have access to the module descriptions via UGM's homepage.

After studying the module descriptions of all five programmes, the experts confirm that they include all necessary information about the persons responsible for each module, the teaching methods, the intended learning outcomes, the content, the applicability, the admission and examination requirements, and the forms of assessment.

However, the experts need to point out that the information about students' workload and awarded credits is not complete and in several descriptions, details explaining how the final grade is calculated are missing. Students' total workload, including the time needed for self-studies, should be listed in hours per semester, and awarded ECTS points should be mentioned. Additionally, the experts observe that the module description for Thesis II is not included in the MPS module handbook.

For this reason, the experts expect UGM to update the module descriptions for all five programmes.

Criterion 4.2 Diploma and Diploma Supplement

Evidence:

- Self-Assessment Report
- Sample Transcript of Records
- Sample Diploma/Degree Certificate
- Sample Diploma Supplements

Preliminary assessment and analysis of the experts:

The experts confirm that students from all programmes under review receive a Degree Certificate and an Academic Transcript after graduation. However, they point out that the Academic Transcript should also list the ECTS points of each course, not only the awarded CSU.

Along with these documents, the graduates receive a Diploma Supplement, which is an official statement letter issued by the Faculty of Pharmacy. It contains almost 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. However, the Diploma Supplement should include the awarded CSU and ECTS points of the respective degree programme, the GPA, and a list to rank the individual result. Moreover, the Diploma Supplement of the Doctoral programme mentions a duration of eight semesters, correct would be six semesters.

For this reasons, the experts expect UGM to correct the awarded documents and to include all required information.

Criterion 4.3 Relevant Rules

Evidence:

Self-Assessment Report

- Self-Assessment Report
- Ba Pharmacy website: <https://programsarjana.farmasi.ugm.ac.id/home/>
- Ma Pharmaceutical Sciences website:
<https://programmagister.farmasi.ugm.ac.id/en/home/>
- Ma Clinical Pharmacy website: <https://farmasi.ui.ac.id/en/program-studi-s2/herbal-s2/>
- Ma Pharmacy Management website: <https://mmf.farmasi.ugm.ac.id/en/homepage/>
- Doctor Pharmaceutical Sciences website:
<https://programdokter.farmasi.ugm.ac.id/en/>

Preliminary assessment and analysis of the experts:

The experts confirm that the rights and duties of both UGM 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 programmes at the beginning of each semester.

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

The experts confirm that UGM has updated the module handbook with respect to students' total workload in hours per semester, including self-study time. Information on the awarded ECTS points are now clearly stated and details on how the final grades are calculated have been included. Additionally, missing module descriptions have been added and all updated information has been made available on each study programme's website.

The experts appreciate that UGM has included the ECTS credits for each course, along with the total ECTS calculation in the academic transcript. Additionally, UGM has included the GPA, CSU, ECTS calculation, and students' statistical data. Moreover, UGM has corrected the stated duration of study for the Doctoral programme in the Diploma Supplement.

The experts are satisfied with these improvements and 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
- Academic Guidelines
- Sample students' questionnaire
- Results from tracer studies
- Discussions during the audit

Preliminary assessment and analysis of the experts:

The experts discuss the quality management system at UGM with the programme coordinators and the students. They learn that there is a continuous process in order to improve the quality of the degree programmes and it is carried out through internal and external evaluation. The quality assurance system at UGM is conducted by the Quality Assurance Office (KJM), which is supported by the Quality Assurance Unit (UJM) at faculty level and the Semester Coordination Team (TKS) at department level.

Internal evaluation of the quality of the degree programmes is mainly provided through student and alumni surveys (annual tracer studies conducted by the university). The students give their feedback on the courses by filling out the questionnaire online (EDOM). Giving feedback on the classes is compulsory for the students; otherwise, they cannot access their account on the digital platform SIMASTER. There are 12 categories in the questionnaire (e.g. schedule, course materials, workload, and motivation). The course surveys are held during the final exam week. A compilation of the students' feedback is sent to the respective lecturers. As the students point out during the discussion with the experts, there is also the possibility to give a direct and informal feedback to the teacher.

In addition to the surveys, there is an annual Internal Quality Audit (AMI) in order to evaluate whether the general learning objectives have been achieved. AMI is held annually, assessing all aspects of the educational process conducted by the degree programme. The assessment is carried out by two auditors selected from outside the audited study programme and which are appointed by KJM. In the course of the AMI, lecturers, students, administrative staff, and degree programme management are interviewed by the auditors.

Students are also involved in the quality assurance system. Besides the EDOM questionnaires and informal feedback, there is a students' coordinator for each entrance

year in both programmes; the coordinator is appointed by the Faculty of Pharmacy. Moreover, each TKS has a student member and students receive a questionnaire from each laboratory to evaluate the performance and technical equipment.

The results of internal quality assessments are evaluated on faculty level during the Management Review Meetings (RTM), attended by the dean, vice deans, heads of departments, heads of laboratories, degree programme managements and the Quality Assurance Unit. The RTM takes the final decision on all audit findings and initiates corrective actions if necessary.

During the audit, the experts learn that the results of the surveys are accessible by the students and the members of the teaching staff. If there is negative feedback, the Dean talks to the respective teacher, analyses the problem, and offers guidance. Furthermore, there is a complain box for the students that can be used for suggestions or criticism. The auditors gain the impression that the students' feedback is taken seriously by the faculties and changes are made if there is negative feedback.

External quality assessment of the degree programmes is provided by the Board of National Accreditation (BAN-PT) and LAMPT-Kes (Independent Accreditation Institute for Health Sciences Higher Education of Indonesia).). The accreditation results of the six degree programmes offered by the Faculty of Pharmacy are shown below (Unggul = excellent):

No.	Study Program	Accreditation	Accreditation Body	Year of Establishment Accreditation
1	Bachelor in Pharmacy	Unggul	LAM PT- Kes	2024
2	Pharmacist Education	Unggul	LAM PT- Kes	2024
3	Master of Pharmaceutical Sciences	A	LAM PT- Kes	2020
4	Master of Clinical Pharmacy	A	LAM PT- Kes	2021
5	Master of Pharmacy Management	A	LAM PT- Kes	2021
6	Doctoral of Pharmaceutical Sciences	A	LAM PT- Kes	2020

Table 11: Accreditation Results, Source: SAR UGM

In 2014, the Faculty of Pharmacy established a unit called Alumni & Career Development Center (ACDC) to support alumni after graduation. To keep the communication with the alumni, the Faculty of Pharmacy provides several social media platforms to inform about job opportunities, continuous development through offline or online seminars, and information on scholarships for on Master's and Doctoral programmes at UGM or overseas.

The experts discuss with the representatives of UGM's partners from public institutions and private companies if there are regular meetings with the partners on faculty level and how they are involved in further developing the degree programmes. They learn that some employers are invited to give their feedback on the content of the degree programme and are members of the curriculum committee. In addition, partners from the industry are invited to give lectures and to donate money for grants. As the experts consider the input of the employers to be very important for the further improvement of the degree programmes, they appreciate the existing culture of quality assurance with the involvement of employers in the quality assurance process. Nevertheless, they recommend establishing an official advisory board with several external stakeholders at the Faculty of Pharmacy. They should meet regularly, at least once a year, with the Department Heads and programme coordinators to discuss with them new developments in the area of pharmacy and the needs of the job market. The results of these meetings should be formally recorded and used for further advancing the quality of the degree programmes. The advisory board should be designed to function as an advisory capacity to the management level of the Faculty of Pharmacy in order to improve and support their scientific profile and study programmes.

In summary, the expert group confirms that the quality management system is suitable to identify weaknesses and to improve the degree programmes. All stakeholders are involved in the process.

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

The experts appreciate that UGM has formally concluded the regulations regarding the Advisory Board, encompassing its composition, the qualifications and expertise of its members, as well as their respective duties.

The experts consider criterion 5 to be fulfilled.

D Additional Criteria for Structured Doctoral Programmes

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 research topics raised can come from students, lecturers, and stakeholders such as from hospital partners, industry, and government agencies such as the Ministry of Health and BPOM. In addition to cooperation with domestic partners, research at the Faculty of Pharmacy is also carried out through collaboration with various institutions abroad. For example, the Cancer and Chemoprevention Research Center (CCRC) unit conducts the latest research in the field of cancer and chemoprevention in collaboration with domestic institutions e.g. the National Nuclear Energy Agency (Badan Tenaga Nuklir Nasional, BATAN) and abroad (NAIST, Japan). Several lecturers and Doctoral students at the Faculty of Pharmacy are also involved in the latest research in the field of nanotechnology in collaboration with Indonesian Institute of Sciences (Lembaga Ilmu Pengetahuan Indonesia, LIPI), BATAN, and Universität Innsbruck, Austria. In addition, there is also antimicrobial research with the latest methods in collaboration with Leiden University, the Netherlands. The Faculty of Pharmacy also bridges active cooperation with various foreign institutions through cooperation agreements with Leiden University, Universiti Sains Malaysia, Cyberjaya University, Universiti Kebangsaan Malaysia, Universität Leipzig, Burapha University, Management & Science University (MSU) Malaysia, Taipei Medical University, China Medical University, Ajou University, Mahidol University, and Chulalongkorn University.

Additionally, research in the field of clinical and community pharmacy is conducted at the Faculty of Pharmacy. For example, various researches have been developed by the academic community of the Faculty of Pharmacy UGM related to the evaluation of the use of management information systems (SIM) in drug management; evaluation of the implementation of the National Health Insurance (JKN) in various institutions such as network pharmacies, health centers and hospitals; policy study and management of drugs and human resources in Health Service Centers; detection of genetic polymorphism in cases of drug resistance; the study of pharmacoepidemiology, pharmacovigilance and

pharmacoeconomics in an effort to improve therapeutic outcomes and disease control; the development of education and counselling methods for patients with chronic diseases; and the strengthening of the role of pharmacists in preventing drug-related problems through the development of clinical information systems.

The research map of the Faculty of Pharmacy is published on the webpage of the Doctoral programme.

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

The experts consider criterion D 1 to be fulfilled.

Criterion D 2 Duration and Credits

Evidence:

- Self-Assessment Report
- Academic Guideline
- 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, CSU). The expected study duration is six semesters (3 years) with student intake each semester. In regard to the maximum duration, UGM implements a limit of six years (10 semesters) in line with government regulations. An extension of the study period may be granted only under special circumstances.

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

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

The Doctoral programme in Pharmaceutical Sciences is divided into two tracks: regular and research track. According to the regulations outlined in the Ministry of Education, Culture, Research and Technology's directive number 53 of 2023 regarding the Quality Assurance of Higher Education, each credit corresponds to 45 hours of learning time per semester. To

complete the study, both of the regular and research track students need to complete 46 CSU. The curriculum of both tracks includes:

Coursework: 12 CSU (regular track) or 6 CSU (research track). In the first semester of the programme, students are required to complete a set of core and elective courses.

Research : 34 CSU (regular track) or 40 CSU (research track). For the last five semesters, Doctoral students must develop a research proposal, reviewed and approved by their promotor team to ensure feasibility and academic rigor. Passing these exams confirms their readiness for the research phase. During the research phase, students submit progress reports, detailing their work, methodology, and future plans, which the promotor team reviews to gauge progress and provide feedback. The programme culminates in the dissertation, which should be an original contribution to the field. The dissertation's quality and completeness are crucial for assessing the student's research skills. Finally, students must defend their dissertation in an oral examination.

Publication and Presentation: The publication of research findings in peer-reviewed journals and the presentation of research at conferences are also required for graduation.

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

The experts see that the workload and duration are in accordance with the feasibility of a doctoral study programme, namely 46 credits over 3 years. However, there are many Doctoral students, who cannot finish the programme in time. The average length of study is almost 4 years.

Most doctoral students are working as lecturers and have to carry out their teaching duties at their institutions, so they are not solely focused on their doctoral studies. Doctoral students also tend to conduct their research activities off campus, which makes direct monitoring more difficult for their supervisors.

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

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

The experts consider criterion D 2 to be fulfilled.

Criterion D 3 Soft Skills and Mobility

Evidence:

- Self-Assessment Report
- List of cooperations
- Discussions during the audit.

Preliminary assessment and analysis of the experts:

Most of the Doctoral students already work as lecturers or practitioners at an institution. Therefore, the study programme does not focus on providing career development training or professional development. Instead, the study programme places greater emphasis on improving the quality of research activities by providing opportunities for joint projects with competent international researchers. However, only a few Doctoral students have the opportunity to carry out academic or research activities abroad as part of students' academic mobility. Since 2021, only two Doctoral students went abroad. They spent 6 respectively 22 month at Nara Institute of Science and Technology in Japan. The low academic mobility is due to lack of funding because most Doctoral students work besides studying and cannot afford to pause their job for going abroad. In addition, some research groups do not actively seek international partners for research collaboration.

In April 2024, UGM signed a MoU with Leiden University (Netherlands) to establish a joint doctoral degree programme. The joint programme has the goal to foster the international mobility of Doctoral students, to enable Doctoral students to work in an international setting, and to offer the opportunity to receive a degree from both universities.

As detailed in the MoU, the Doctoral students will spend at least two years at each specific Party in order to be eligible for a doctoral degree from that institution.

The examination committee for each doctoral examination (doctoral dissertation and defense of the dissertation) shall be composed by mutual consent between UGM and Leiden University. At least one of the members of the committee is not appointed/employed at UGM or Leiden University. The public defense of the doctoral dissertation shall take place at Leiden University in English by a joint committee with UGM programme board by online and offline means. Immediately after the successful defense, both universities will issue their own certificates with an additional phrase stating the joint supervision under this joint doctoral programme. Both certificates are only jointly valid.

The experts explicitly support the establishment of this joint doctoral programme and hope that many students from UGM take this opportunity and join the programme.

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

The experts consider criterion D 3 to be fulfilled.

Criterion D 4 Supervision and Assessment

Evidence:

- Self-Assessment Report
- Academic Guideline
- Discussions during the audit.

Preliminary assessment and analysis of the experts:

Every Doctoral student has two advisors (promoter and co-promoter). The promoter is a lecturer at the Faculty of Pharmacy who holds a Doctorate degree and has at least two publications in international scientific journals. Co-promoters can come from institutions outside UGM. As mentioned in the Self-Assessment Report, there is unevenness in the number of supervised students for each teacher in the Doctoral programme. Some teachers have a very large number of supervised students, while others do not have any supervised students. The limit is 15 students per advisor.

The final scientific work in the Doctoral programme is a dissertation. This work is based on research results and needs to follow scientific methods and principles.

The 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 research proposal seminar, scientific article writing, research results seminar, dissertation manuscript study, and promotion exam. On the scoring range of 0 – 100, the passing threshold is 70.

First, Doctoral students have to pass the proposal exam, which includes mastery of research methodology in the field of science, mastery of material in the field of science both basic and specific, reasoning ability including abstraction ability, systematization ability, and formulation of thought results. Students who are declared passed with revisions are required to revise their proposals within a maximum of three months after the first examination. Students, who do not pass, must repeat the proposal examination within six months after the first examination.

Afterwards, students are required to participate in the Seminar on Dissertation Research Results, which is conducted four times, namely at the end of each semester and starting at

the end of the second semester. In the course of the seminar, students must present the results of their research in front of other doctoral students, the promoter team, and the Head of the Study Programme.

Students, who have completed their research projects, need to participate at the Dissertation Research Result Examination. The Dean, on the input of the Dissertation Committee, determines the Examiner Team consisting of a Chair of the Examining Team, the Promoter Team and three experts in the relevant field of science, with academic qualifications of Doctoral or equivalent.

Additionally, all Doctoral students, both regular and by research, are required to publish the results of their research activities. The publications can be in the form of review articles or in the form of articles originating from research results related to the dissertation topic and as the first author.

Next, the written thesis (dissertation manuscript) is assessed. The basis for assessing the feasibility of a dissertation includes: material, reasoning ability, methodology, writing, and consistency of description. Finally, the Doctoral students need to take the Dissertation Closed Defense, which is part of the dissertation implementation. The examiners are called the Dissertation Closed Defense Team, which consists of nine people (Chairperson, the Promoter Team, the Dissertation Feasibility Assessment Team, and examiners outside the Assessment Team, one of which is from outside UGM).

The experts point out that it would be necessary to establish a Thesis Advisory Committee with external experts at the Faculty of Pharmacy. This is international standard for Doctoral programmes and offers several benefits that enrich the academic and research process for both the student and UGM. Members of the Thesis Advisory Committee are usually the supervisor and at least one, preferable two experts from outside the faculty, which meets at least once a year. The doctoral students will report about their results and future research plans, which will be discussed in the presence of all members. In addition, the students and the external experts meet without the supervisors in order to discuss potential sensitive issues. Similarly, the supervisor meets with the experts in the absence of the students. At the end members of the Thesis Advisory Committee give advice to the students how to pursue their studies. External experts bring diverse knowledge, skills, and perspectives that may not be available within the Faculty of Pharmacy. In addition, they can provide specialized advice and guidance from an external perspective, which enhances the quality of the research. Moreover, external experts can provide impartial feedback and evaluations, ensuring that the research is critically assessed without internal biases. They may also introduce alternative methodologies or viewpoints, stimulating creativity and innovation in the research process. Finally, collaborating with external experts allows

students to build relationships with professionals in their field, which can be valuable for future academic and career opportunities. In summary, a Thesis Advisory Committee with external experts fosters a richer, more rigorous, and globally relevant research experience while providing the student with valuable mentorship, networking, and professional growth opportunities.

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

The experts thank UGM for explaining that there is a regulation for dissertation exams that must involve various experts from different departments or institutions. In addition, the DPS study programme already has a Thesis Advisory Committee in the form of a promoter team and a thesis evaluation team (examiners), starting from the dissertation proposal examination/seminar. The promoter team may consist of a member from outside the faculty lecturers, while it is compulsory for the opponents to consist of at least one member from outside the faculty lecturers (a.k.a. external examiner). Monitoring and evaluation of dissertation research progress have been carried out every semester starting from the second semester. UGM will establish the TAC regulation based on this practice, as suggested by the experts.

The experts expect UGM to provide verification of the implementation in the further course of the accreditation procedure.

The experts consider criterion D 4 to be mostly fulfilled.

Criterion D 5 Infrastructure

Evidence:

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

Preliminary assessment and analysis of the experts:

As highlighted by UGM 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 experts visit the facilities provided for Doctoral students at the Faculty of Pharmacy to evaluate the infrastructure and technical equipment. As indicated under criterion 3.2, the

experts judge the available equipment and facilities as sufficient to support research activities. Moreover, the Advanced Pharmaceutical Sciences Learning Center (APSLC) and the Integrated Laboratory for Research and Testing (LPPT) are very well equipped and offer the Doctoral students access to modern and sophisticated instruments. This way, the Doctoral students can conduct advanced pharmaceutical research activities.

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

The experts consider criterion D 5 to be fulfilled.

Criterion D 6 Funding

Evidence:

- Self-Assessment Report
- 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 UGM's network of industry partners. Further relevant aspects are discussed under criterion 3.2.

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

The experts consider criterion D 6 to be fulfilled.

Criterion D 7 Quality Assurance
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Evidence:

- Self-Assessment Report
- Statistical data for the Doctoral programme
- 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 UGM 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. 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:

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 UGM on the previous chapters of this report:

- none

F Comment of the Higher Education Institution (24.02.2025)

UGM provides the following documents:

- 1 Regulation from Ministry of Higher Education
- 2 Regulation for Student Mobility Support
- 3 Letter of Scholarship Offer to Timor Leste Institutions
- 4 Decree Conversion Guide Credit Semester Units (CSU) to The European Credit Transfer System (ECTS))
- 5 Student Satisfaction Survey on Academic Workload
- 6 Dean Letter of Notice Additional Assessment
- 7 Laboratory Safety Standards and Accessibility
- 8 Module Handbook
- 9 Academic Transcript and Diploma Supplement
- 10 Decree about Advisory Board and Minutes
- 11 Dissertation Exam DPS

UGM provides the following statement:

No	Page/ Criteria	Point of Improvement	Response
1	p.24 Criterion 1.3	The experts recommend to cancel the need to submit a publication as a graduation requirement for Master's students.	(Annex: 1 Regulation from Ministry of Higher Education) The requirement for MPS, MPM, and MCP students to publish their research is in accordance with the regulations set forth by the Ministry of Research, Technology, and Higher Education (MRTHE), Regulation No. 3 of 2020, which outlines the National Standards for Higher Education. This regulation has been replaced by Regulation No. 53 of 2023 about the Quality System of Higher Education with addition of the Letter of Notice

No	Page/ Criteria	Point of Improvement	Response
			No. 15 of 2024 notifying the expression that this latest regulation is currently under review. We will take the experts' suggestion to review and revise the policy on the requirement for students to publish into consideration together with the expected update on the regulation by the MRTHE. Whenever possible to comply, the relaxation of a student's obligation to publish can be materialized into the study program's academic regulation.
2	p.28 Criterion 1.3 curriculum student mobility	The experts recommend increasing the effort to further internationalise UGM by establishing more international cooperations and exchange programmes and offering more and better endowed scholarships	(Annex: 2 Regulation for Student Mobility Support) Since 2021, the faculty has been offering financial support for students to conduct international mobility, as regulated by a Dean's Decree, where the maximum amount of IDR 5,000,000 (USD 310) per student per program can be provided. This support has been translated into programs differently within study programs. MCP has been facilitating student mobility using the support, for the students to conduct international internship in Bumrungrad Hospital in Thailand and University of Malaya Hospital in Malaysia since 2022. This program has been adopted by the MPM to send the students to conduct international internships at the University of Malaya since 2023. The implementation of the programs has been evaluated by the management, and it was found that the high interest of students in participating in this program cannot all be facilitated, due to the limitation of the available activities to be offered. The limitation is caused by two factors: (1) Limitation of the seats that can be offered by the partners, and (2) limitation of the funding available. To answer this, the faculty management has agreed to increase the funding from IDR 5,000,000 (USD 310) to a maximum of IDR 10,000,000 (USD 620) per program per student, followed by the faculty annual budget adjustment. Furthermore, the management will expand

No	Page/ Criteria	Point of Improvement	Response
			cooperation focused on the faculty's strategic partners in South-east Asia, especially Chulalongkorn University Thailand, Mahidol University Thailand, and Universiti Teknologi MARA Malaysia (UITM). The management of MPS and DPS have seen the potential for students' international mobility to be integrated into their research activities. To do this, the managements will do four steps to increase international mobility: (1) To create and offer international mobility funding to students based on the recent financial support policy by the faculty, to be used for attending international conference abroad, (2) to approach strategic partners to broaden the options for research visit for students, (3) to materialize collaboration between institutions for research visit implementation for students into agreements, and (4) to create and offer international research visit programs to students based on the agreements with the partners. Step (1) has been done, while a pilot project for steps (2) to (3) will be introduced no later than January 2026.
3	p. 28 Criterion 1.3	The experts recommend increasing the effort to further internationalise UGM by establishing more international cooperations and exchange programmes and offering more and better endowed scholarships.	(Annex: 3 Letter of Scholarship Offer to Timor Leste Institutions) We have been offering a new scholarship scheme for students from Timor Leste as the strategic partner country of Indonesia for two seats per study program, and this offer has been promoted by a faculty visit to Timor Leste in November 2024. This scheme will be expanded to the other strategic partners in the Southeast Asia region.
3	p. 28 Criterion 1.3	The experts recommend attracting more international students in master programs by	The management of the master's programs agree that having more international students is beneficial for the institution. Currently, we have three international students enrolled in the master's program. With the number of international students that we currently

No	Page/ Criteria	Point of Improvement	Response
		established international classes.	have, providing international support in the regular classes has been chosen as the most efficient and reasonable approach. Further development to open international class has been taken into consideration given the reasonable amount of interest from international candidates.
4	p.35 Criterion 1.5 Workload and Credits	The experts point out that there can be no fixed conversion rate between CSU and ECTS points. Therefore, the ECTS points need to be calculated separately for each course. This is necessary, because the time students need for self-studies is different for each course. The courses with the high share of self-studies (Master's and Bachelor's thesis) show, that the students spend much more time on their final projects than is currently reflected in the awarded ECTS points.	(Annex: 4 Decree Conversion Guide Credit Semester Units (CSU) to The European Credit Transfer System (ECTS)) We have recalculated the ECTS of the thesis for each study programme. The details of the ECTS calculation could be found in the attachment (Dean Decree of student study load conversion) and have been provided in the course modules available in the websites. BP: Thesis (6 CSU) Duration: 21 hours/week = 336 hours/4 months 1 ECTS = 25 - 30 hours, we use 28 hours for 1 ECTS as the standard = 336 hours/28 hours = 12 ECTS Therefore: 1 CSU = 2 ECTS MPS: Thesis (10 CSU) 1 CSU consists of: 6 hours/day 10 CSU thesis is conducted in 10 months 1 month consists of: 25 workday 10 CSU thesis = 6 x 25 x 10 = 1500 hours 1 ECTS = 25 - 30 hours, we use 28 hours for 1 ECTS as the standard Conversion hours to ECTS: 1500 hours / 28 hours = 53.6 ECTS for 10 credits Therefore: 1 CSU = 5.36 ECTS MCP: Thesis (10 CSU) Duration: 6 hours x 25 days x 6 months = 900 hours 1 ECTS = 25 - 30 hours, we use 28 hours for 1 ECTS as the standard Conversion hours to ECTS: 900 hours / 28 hours

No	Page/ Criteria	Point of Improvement	Response
			= 32 ECTS for 10 credits Therefore: 1 CSU = 3.2 ECTS MPM: Thesis (10 CSU) Duration: 6 hours x 25 days x 8 months = 1,200 hours 1 ECTS = 25 - 30 hours, we use 28 hours for 1 ECTS as the standard Conversion hours to ECTS: 1,200 hours / 28 hours = 42.9 ECTS for 10 credits Therefore: 1 CSU = 4.3 ECTS DP: Dissertation research (40 CSU) Duration: 6 hours x 25 days x 32 months = 4800 hours Conversion hours = 4800 hours / 28 hours = 172 ECTS Therefore: 1 CSU = 4.3 ECTS
5	p.36 Criterion 1.5 Workload and Credits	The experts noticed that the workload of the students was only estimated by the programme coordinators and seems to be too low in comparison to the actual time needed by the students, the experts expect UGM to verify the students' total workload and to adjust the awarded ECTS points for each course. This could e.g. be done by including a respective question in the	<u>(Annex: 5a, 5b, 5c:</u> a. Rector's Decree number 23 of 2024 b. Minutes of the Academic Evaluation Workshop c. Student Satisfaction Survey on Academic Workload) The workloads of all study programs were evaluated in December 2024 in accordance with MRTHE Regulation No. 53 of 2023 about the Quality System of Higher Education (<u>Annex: Minutes of the Academic Evaluation Workshop</u>) and UGM Rector's Decree number 23 of 2024 about the Education, particularly stated in Article 13. The previous total CSU as the measure of workloads to complete a degree has been rationalized to accommodate the activities that had been missed by the previous workload parameter. The master's and doctoral degrees total CSU have been rationalized from 40 to 54 CSU to be completed within 4 and 6 semesters respectively. For evaluation on a student's study workload, we have created a questionnaire that will be distributed in the upcoming semester (https://farmasi.ugm.ac.id/survey-

No	Page/ Criteria	Point of Improvement	Response
		satisfaction questionnaires.	kepuasan-mahasiswa-en/). The questionnaire will collect data on lecture duration, number of assignments per lecturer, total assignments, assignment deadlines, and the alignment of workload with grading proportions. Any inputs will be considered, brought by the study program management into semester academic meetings with the lecturers, and the feedback will be provided on the website of the respective study program with notification to students for any updates provided.
6	p.39 Criterion 2	The experts noticed the need to improve the regulation of repeat failed exams and the remedial system.	(Annex: 6 Dean Letter of Notice Additional Assessment) The Dean's Letter of Notice on January 24, 2025, has been issued to reinforce the implementation of the regulation on exam retakes and remedial support. This letter regulates the technicality and administrations of the implementation of remedials.
7	p.48 Criterion 3.3	The experts notice during the lab tour, that not all laboratories are equipped with appropriate safety cabinets for flammable liquids. Also, it must be ensured that safety cabinets for toxic compounds are installed and used. To improve safety standards, sufficient room ventilation of the labs should be verified. The storage of chemicals should be reorganized and there should be no wooden surfaces in the	(Annex: 7 Laboratory Safety Standards and Accessibility) The faculty management has been actively upgrading safety equipment, including safety cabinets in laboratories. While most laboratories are now equipped with upgraded safety cabinets, some laboratories still utilize older cabinets for teaching purposes. These items will be progressively replaced through a scheduled upgrading process. Recognizing the need for proper chemical storage and ventilation, the faculty has coordinated with all laboratory units to assess and enhance storage conditions. Efforts are being made to reorganize chemical storage to meet safety regulations, ensure adequate room ventilation, and replace wooden surfaces where necessary to improve compliance with international safety standards.

No	Page/ Criteria	Point of Improvement	Response
		laboratories. Additionally, UGM should provide the laboratory manuals for using the instruments not only in Bahasa Indonesia but also in English. Even though international BP students will be assisted by a supervisor for the first few weeks, providing the manuals in English is an easy improvement that will ensure that all students can have similar access to the instruments.	The faculty has also been working on translating laboratory manuals for instrument usage into English. Additionally, we have attached documents outlining the waste management procedures currently implemented at both the Faculty and University levels.
8	p.50 Criterion 4.1	The experts need to point out that the information about students' workload and awarded credits is not complete and in several descriptions, details explaining how the final grade is calculated are missing. Students' total workload, including the time needed for self-studies, should be listed in hours per semester, and awarded ECTS points should be mentioned. Additionally, the experts observe that	(Annex: 8 Module Handbook) We have updated the module handbook to specify total workload in hours per semester, including self-study time, and have ensured that awarded ECTS points are clearly stated. Additionally, details on how final grades are calculated have been included to improve transparency. In response to the experts' observation, we have also added the module description for Thesis II in the MPS module handbook. These updates reflect our commitment to maintaining clear and comprehensive academic documentation in alignment with international standards. All updated information has been made available on each study program's website: BP: https://programsarjana.farmasi.ugm.ac.id/module/

No	Page/ Criteria	Point of Improvement	Response
		the module description for Thesis II is not included in the MPS module handbook.	MCP: https://mfk.farmasi.ugm.ac.id/en/module-handbook.html MPS: https://programmagister.farmasi.ugm.ac.id/module-handbook/ MPM: https://mmf.farmasi.ugm.ac.id/module-handbook/ DPS: https://programdokter.farmasi.ugm.ac.id/module-handbook/
9	p.50 Criterion 4.2	The expert point out : Academic Transcript should include ECTS the Diploma Supplement should include the awarded CSU and ECTS points of the respective degree programme, the GPA, and a list to rank the individual result the Diploma Supplement of the Doctoral programme mentions a duration of eight semesters, correct would be six semesters	(Annex: 9 Academic Transcript and Diploma Supplement) We have included the ECTS credits for each course, along with the total ECTS calculation in the academic transcript, as suggested by the experts. Additionally, we have revised to include the GPA, CSU, ECTS calculation, and student statistical data. The updated document has been attached in the folder. Additionally, we have now corrected the stated duration of study for the Doctoral program in the Diploma Supplement, ensuring that it accurately reflects the correct duration of six semesters instead of eight.
10	p.54 Criterion 5	The experts recommend establishing an official advisory board with several external stakeholders at the Faculty of Pharmacy.	(Annex: 10a and B a. Decree about Advisory Board b. Minutes of academic workshop inviting Advisory Boards as speakers)

No	Page/ Criteria	Point of Improvement	Response
		They should meet regularly, at least once a year, with the faculty to discuss new developments in the area of pharmacy and the needs of the job market. The results of these meetings should be formally recorded and used for further advancing the quality of the degree programs.	We have formally concluded the regulations regarding the Advisory Board, encompassing its composition, the qualifications and expertise of its members, as well as their respective duties. The members of the Advisory Board have been constantly involved in the development and evaluation of the curriculum. For example in the latest occasion, during the evaluation of the curriculums in 2024 in response to the MRTHE Regulation Number 23 of 2023, seminars and workshops were conducted, and in one of the sessions, we invited the members of the Academic Advisory Board, among the invited experts (<u>annex: Minutes of the Curriculum Evaluation Workshop</u>). Furthermore, per the latest Dean's Decree of the curriculum committee issued on 1 January 2025, it has been stated that the experts of the Advisory Board need to conduct a coordination meeting to evaluate the implementation of the curriculum at least once a year (<u>annex: Dean Decree Curriculum Committee</u>).
11	p. 60 Criterion D4	The experts point out that it would be necessary to establish a Thesis Advisory Committee with external experts at the Faculty of Pharmacy	(Annex: 11 Dissertation Exam DPS) We have implemented the regulation for dissertation exams that must involve various experts from different departments or institutions as mentioned in academic guidelines on page 27 and 147. In addition, the DPS study program has already had the function of the TAC (Thesis Advisory Committee) in the form of a promoter team and a thesis evaluation team (examiners), starting from the dissertation proposal examination/seminar. The promoter team may consist of a member from outside the faculty lecturers, while it is compulsory for the opponents to consist of at least one member from outside the faculty lecturers (a.k.a. external examiner). Monitoring and evaluation of dissertation research progress have been carried out every semester starting

No	Page/ Criteria	Point of Improvement	Response
			from the second semester. We will establish the TAC regulation based on this practice, as suggested by the experts.

G Summary: Expert recommendations (03.03.2025)

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

Degree Programme	ASIIN Seal	Maximum duration of accreditation
Bachelor Pharmacy	With requirements for one year	30.09.2032
Master Pharmaceutical Sciences	With requirements for one year	30.09.2030
Master Clinical Pharmacy	With requirements for one year	30.09.2032
Master Pharmacy Management	With requirements for one year	30.09.2030
Doctor Pharmaceutical Science	With requirements for one year	30.09.2030

Requirements

For all degree programmes

- A 1. (ASIIN 1.5) Verify the students' total workload for each course and award the ECTS points accordingly.
- A 2. (ASIIN3.2) Improve the safety measures in the laboratories in the departments.

For the Doctoral programme

- A 3. (D 4) Establish a thesis advisory committee for the Doctoral programme with experts from outside the respective Department of the Faculty of Pharmacy.

Recommendations

For all degree programmes

- E 1. (ASIIN 1.3) It is recommended to attract more international students.
- E 2. (ASIIN 3.2) It is recommended to provide the laboratory manuals for using the instruments not only in Bahasa Indonesia but also in English.

For the Master of Pharmaceutical Sciences, the Master of Pharmacy Management, and the Doctoral programme

E 3. (ASIIN 1.3) It is recommended to increase the academic mobility and to encourage students to spend some time during their studies abroad.

For the Master's programmes

E 4. (ASIIN 1.3) It is recommended to cancel the compulsory publication as a graduation requirement.

E 5. (ASIIN 1.3) It is recommended to establish an international class in each Master's programme.

H Comment of the Technical Committee 09 – Chemistry, Pharmacy (10.03.2025)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee confirms the experts' proposal to impose three requirements. These relate to the safety standards in the laboratories, the students' workload and the ECTS points awarded, as well as a thesis advisory committee for the PhD programme. In addition, five recommendations are to be made. The Technical Committee agrees with the experts' assessment and emphasises that the mandatory publication for Master's students is not expedient and should be cancelled.

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

Degree Programme	ASIIN Seal	Maximum duration of accreditation
Bachelor Pharmacy	With requirements for one year	30.09.2032
Master Pharmaceutical Sciences	With requirements for one year	30.09.2030
Master Clinical Pharmacy	With requirements for one year	30.09.2032
Master Pharmacy Management	With requirements for one year	30.09.2030
Doctor Pharmaceutical Science	With requirements for one year	30.09.2030

I Decision of the Accreditation Commission (25.03.2025)

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

The Accreditation Commission discusses the procedure, especially the requirement A3, which concerns the PhD programme. The AC agrees that a thesis advisory committee with experts from outside the involved Department of the Faculty of Pharmacy is very useful, even if it is not standard in all PhD programmes. In summary, the AC confirms the proposed requirements and recommendations.

The Accreditation Commission decides to award the following seals:

Degree Programme	ASIIN Seal	Maximum duration of accreditation
Bachelor Pharmacy	With requirements for one year	30.09.2032
Master Pharmaceutical Sciences	With requirements for one year	30.09.2030
Master Clinical Pharmacy	With requirements for one year	30.09.2032
Master Pharmacy Management	With requirements for one year	30.09.2030
Doctor Pharmaceutical Science	With requirements for one year	30.09.2030

Requirements

For all degree programmes

- A 1. (ASIIN 1.5) Verify the students' total workload for each course and award the ECTS points accordingly.
- A 2. (ASIIN3.2) Improve the safety measures in the laboratories in the departments.

For the Doctoral programme

- A 3. (D 4) Establish a thesis advisory committee for the Doctoral programme with experts from outside the respective Department of the Faculty of Pharmacy.

Recommendations

For all degree programmes

- E 1. (ASIIN 1.3) It is recommended to attract more international students.
- E 2. (ASIIN 3.2) It is recommended to provide the laboratory manuals for using the instruments not only in Bahasa Indonesia but also in English.

For the Master of Pharmaceutical Sciences, the Master of Pharmacy Management, and the Doctoral programme

- E 3. (ASIIN 1.3) It is recommended to increase the academic mobility and to encourage students to spend some time during their studies abroad.

For the Master's programmes

- E 4. (ASIIN 1.3) It is recommended to cancel the compulsory publication as a graduation requirement.
- E 5. (ASIIN 1.3) It is recommended to establish an international class in each Master's programme.

J Fulfilment of Requirements (27.03.2026)

Analysis of the experts and the Technical Committee 09 – Chemistry, Pharmacy (16.03.2026)

Requirements

For all degree programmes

- A 1. (ASIIN 1.5) Verify the students' total workload for each course and award the ECTS points accordingly.

Initial Treatment	
Experts	Fulfilled Vote: unanimous/per majority Justification: The students' workload and the corresponding allocation of ECTS credits have been thoroughly explained and are justified based on the curriculum and the university's legal framework.
TC 09	Fulfilled Vote: unanimous Justification: The TC agrees with the experts' assessment.

- A 2. (ASIIN3.2) Improve the safety measures in the laboratories in the departments.

Initial Treatment	
Experts	Fulfilled Vote: unanimous Justification: UGM demonstrates commitment to the continuous improvement of laboratory safety measures through both the implementation of updated safety regulations and the enhancement of physical infrastructure, including the replacement of wooden equipment, installation of fire detection systems, and provision of safety cabinets for flammable liquids
TC 09	Fulfilled Vote: unanimous Justification: The TC agrees with the experts' assessment.

For the Doctoral programme

- A 3. (D 4) Establish a thesis advisory committee for the Doctoral programme with experts from outside the respective Department of the Faculty of Pharmacy.

Initial Treatment	
Experts	Fulfilled Vote: unanimous Justification: For the supervision of PhD students, a thesis advisory committee is now implemented. Co-supervision from experts even outside of the respective department or even outside of UGM is possible and encouraged, which resembles a TAC implemented as a standard in PhD programmes of many international Universities. For the final thesis defence, a fair and broad evaluation is ensured by a committee consisting of 9 members. These requirements include the obligation that at least one member of the advisory committee comes from outside UGM.
TC 09	Fulfilled Vote: unanimous Justification: The TC agrees with the experts' assessment.

Decision of the Accreditation Commission (27.03.2026)

Degree programme	ASIIN-label	Subject-specific label	Accreditation until max.
Bachelor Pharmacy	All requirements fulfilled	-	30.09.2032
Master Pharmaceutical Sciences	All requirements fulfilled	-	30.09.2030
Master Clinical Pharmacy	All requirements fulfilled	-	30.09.2032
Master Pharmacy Management	All requirements fulfilled	-	30.09.2030
Doctor Pharmaceutical Science	All requirements fulfilled	-	30.09.2030

Appendix: Program Learning Outcomes and Curricula

According to the Self-Assessment Report, the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor's degree programme Pharmacy:

Programme Learning Outcomes (PLO) - BP Program

1. ATTITUDE (A)

The graduates are expected to be able to:

- 1.1. Demonstrate Pancasila's values and awareness of the interest of the nation and the state
- 1.2. Demonstrate honesty, responsibility, confidence, emotional maturity, ethics, and awareness of being a lifelong learner

2. MASTERY OF KNOWLEDGE (K)

- 2.1. Master the concept of academic integrity in the field of pharmacy in general and the concept of plagiarism, in terms of the type of plagiarism, the consequences of the offence and its prevention efforts
- 2.2. Master the communication principles and techniques, adapting to new environments and cutting-edge technology, and building interpersonal and interprofessional relationships
- 2.3. Master the principles of leadership and management, which are effective and efficient in performing tasks
- 2.4. Seek, evaluate, and provide information about pharmaceutical products, additives and medical devices, and their rational use
- 2.5. Be able to perform professionally and responsibly in accordance with statutory provisions, pharmaceutical norms, and ethics

3. GENERAL SKILLS (G)

- 3.1. Be able to apply logical, critical, systematic, and innovative thinking by utilising information technology to produce solutions realised in scientific documents and implementation of areas of expertise with integrity
- 3.2. Be able to develop networks, be adaptive, creative, and contributive, provide supervision, evaluate, and make decisions to show independent and group performance to apply knowledge to community life

4. SPECIFIC SKILLS (S)

- 4.1. Be able to identify and resolve problems related to the efficacy and safety of pharmaceutical products based on the latest scientific principles to optimise therapy
- 4.2. Be able to implement the latest scientific and pharmaceutical technologies in the design, manufacture, quality assurance, and distribution of pharmaceutical products
- 4.3. Be able to perform services (preparing, compounding, dispensing, and providing information and education) on pharmaceutical products according to the procedure (according to the patient's needs along with pharmaceutical products' quality assurance)
- 4.4. Master the science and technology for development and research in the field of pharmacy, especially those based on Indonesian natural wealth and local wisdom in resolving global health issues and developing themselves sustainably

0 Appendix: Program Learning Outcomes and Curricula

The following curriculum is presented:

Semester 1				
1	Human Anatomy and Physiology	FAF221101	2	3.2
2	Pharmaceutical Biochemistry	FAF221103	2	3.2
3	Cell Biology-Microbiology	FAF221105	3	4.8
4	Pharmaceutics I	FAF221107	2	3.2
5	Physical Pharmacy I	FAF221108	2	3.2
6	Basic Pharmaceutical Chemistry	FAF221109	2	3.2
7	Organic Chemistry I	FAF221111	3	4.8
8	Lab Work of Human Anatomy and Physiology	FAF221102	1	1.6
9	Lab Work of Pharmaceutical Biochemistry	FAF221104	1	1.6
10	Lab Work of Cell Biology-Microbiology	FAF221106	1	1.6
11	Lab Work of Basic Pharmaceutical Chemistry	FAF221110	1	1.6
	Introduction to Global Competency: Character Building		(1)	(1.6)
Semester 2				
12	Molecular Biology	FAF221201	2	3.2
13	Pharmacology I	FAF221203	2	3.2
14	Pharmaceutics II	FAF221204	1	1.6
15	Physical Pharmacy II	FAF221206	1	1.6
16	Social Behavioural Sciences for Pharmacy	FAF221208	2	3.2
17	Analytical Chemistry I	FAF221209	1	1.6
18	Organic Chemistry II	FAF221211	2	3.2
19	Pharmacy Management	FAF221213	2	3.2
20	Lab Work of Molecular Biology	FAF221202	1	1.6
21	Lab Work of Pharmaceutics II	FAF221205	1	1.6
22	Lab Work of Physical Pharmacy II	FAF221207	1	1.6
23	Lab Work of Analytical Chemistry I	FAF221210	1	1.6
24	Lab Work of Organic Chemistry II	FAF221212	1	1.6
	Interdisciplinary elective course		2	3.2
	Introduction to Global Competency: English Communication Skills		(1)	(1.6)

0 Appendix: Program Learning Outcomes and Curricula

Semester 3				
25	Pharmacokinetics	FAF221301	2	3.2
26	Experimental Pharmacology and Toxicology I	FAF221302	1	1.6
27	Pharmacology II	FAF221303	2	3.2
28	Formulation and Technology: Solid Dosage Form	FAF221304	2	3.2
29	Analytical Chemistry II	FAF221306	2	3.2
30	Medicinal Chemistry	FAF221309	2	3.2
31	Research Methodology and Pharmaceutical Statistics	FAF221310	3	4.8
32	Lab Work of Formulation and Technology: Solid Dosage Form	FAF221305	1	1.6
33	Lab Work of Analytical Chemistry II	FAF221307	1	1.6
	Interdisciplinary elective course		2	3.2
	Pharmacy elective course non package		2	3.2
	Introduction to Global Competency: English for Pharmacy		(1)	(1.6)
Semester 4				
34	Therapeutic Drug Monitoring/Clinical Pharmacokinetic	FAF221401	2	3.2
35	Experimental Pharmacology and Toxicology II	FAF221402	1	1.6
36	Pharmacotherapy I	FAF221403	2	3.2
37	Formulation and Technology: Liquid and Semisolid Dosage Form	FAF221404	2	3.2
38	Chromatography	FAF221406	2	3.2
39	Lab Work of Formulation and Technology: Liquid and Semisolid Dosage Form	FAF221405	1	1.6
40	Lab Work of Chromatography	FAF221407	1	1.6
41	Pharmaceutical Product Stability	FAF221408	2	3.2
42	Toxicology	FAF221409	2	3.2
43	Bahasa Indonesia and Academic Writing		2	3.2
44	Pancasila		2	3.2
45	Civics		2	3.2
46	Religion		2	3.2
	Introduction to Global Competency: Ethics and Leadership		(1)	(1.6)

0 Appendix: Program Learning Outcomes and Curricula

Semester 5				
47	Biopharmaceutics	FAF221501	2	3.2
48	Drug Education and Information	FAF221503	2	3.2
49	Pharmacoepidemiology	FAF221504	2	3.2
50	Pharmacognosy-Phytochemistry	FAF221505	2	3.2
51	Pharmacotherapy II	FAF221507	2	3.2
52	Pharmaceutical Compounding and Dispensing	FAF221508	2	3.2
53	Pharmaceutical Immunology	FAF221510	2	3.2
54	Pharmaceutical Care	FAF221512	2	3.2
55	Medical Devices and Cosmetics Quality Control	FAF221513	1	1.6
56	Lab Work of Biopharmaceutics	FAF221502	1	1.6
57	Lab Work of Pharmacognosy-Phytochemistry	FAF221506	1	1.6
58	Lab Work of Pharmacotherapy II	FAF221509	1	1.6
59	Lab Work of Pharmaceutical Immunology	FAF221511	1	1.6
60	Lab Work of Medical Devices and Cosmetics Quality Control	FAF221514	1	1.6
61	Radiopharmaceutical and Chemotherapy	FAF221515	2	3.2
	Introduction to Global Competency: Professionalism		(1)	(1.6)
Semester 6				
62	Pharmaceutical Analysis	FAF221601	1	1.6
63	Pharmaceutical Biotechnology	FAF221603	2	3.2
64	current Good Manufacturing Practice (cGMP)	FAF221604	2	3.2
65	Pharmacoeconomics	FAF221605	2	3.2
66	Pharmacotherapy III	FAF221606	2	3.2
67	Clinical Pharmacy I	FAF221607	1	1.6
68	Phytotherapy	FAF221608	2	3.2
69	Formulation and Technology: Sterile Dosage Form	FAF221609	1	1.6
70	Lab Work of Pharmaceutical Analysis	FAF221602	1	1.6
71	Lab Work of Formulation and Technology: Sterile Dosage Form	FAF221610	1	1.6
72	Lab Work of Technology of Natural Resources Extraction	FAF221613	1	1.6
73	Drug Delivery System	FAF221611	2	3.2
74	Technology of Natural Resources Extraction	FAF221612	2	3.2
	Introduction to Global Competency: Public Speaking		(1)	(1.6)
Semester 7				
75	National Health System	FAF221701	2	3.2
76	Clinical Pharmacy II	FAF221702	1	1.6
	Pharmacy elective course package		6	9.6
	Introduction to Global Competency: Social-Entrepreneurship		(1)	(1.6)
Semester 8				
77	Thesis Writing	FAF221801	4	6.4
78	Community Service Project	FAF221802	8	12.8
79	Soft skill	FAF221803	4	6.4

According to the Self-Assessment Report, the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Master's degree programme Clinical Pharmacy:

Program Learning Outcomes

1. Attitude

- 1.1. Demonstrate Pancasila values and awareness of the nation and state interest
- 1.2. Demonstrate honesty, responsibility, confidence, emotional maturity, ethics, and awareness of being a lifelong learner

2. Mastery of Knowledge

- 2.1. Able to synthesize the theories of pathophysiology, pharmacokinetics and pharmacodynamics of drugs, pharmacotherapy and evidence -based medicine as well as the principles of preparing parenteral nutrition formulas and mixing intravenous drugs to solve drug-related problems.
- 2.2. Mastering the theory and application of research in the field of clinical pharmacy, the concept of plagiarism, the principle of legality, social aspects, science and technology that underlie the application of research results for pharmaceutical services to the community.

3. General Skills

- 3.1. Able to apply logical, critical, systematic, and innovative thinking by utilizing information technology to produce solutions according to the field of expertise with integrity that are realized in scientific documents.
- 3.2. Able to develop networks, adapt, create, contribute, supervise, evaluate and make decisions in order to demonstrate independent and group performance to apply science to community life.

4. Specific Skills

- 4.1. Able to solve problems related to drugs in advanced clinical pharmacy services based on scientific evidence and/or the latest scientific developments through effective communication and inter or multidisciplinary approaches.
- 4.2. Able to deepen or expand advanced clinical pharmaceutical sciences for the development and application of research for the advancement of pharmaceutical science and clinical pharmaceutical services to the community.

0 Appendix: Program Learning Outcomes and Curricula

The following curriculum is presented:

SEMESTER I				
1	Advanced Pharmacy Practice	FAFK211101	4	6.4
2	Advanced Pharmacotherapy in Central Nervous System, Respiratory and Gastrointestinal	FAFK211102	4	6.4
3	Advanced Pharmacotherapy in System of Cardiovascular, Renal, and Endocrine	FAFK211103	4	6.4
4	Advanced Pharmacotherapy in Immunological System, Cancer, and Infectious Disease	FAFK211104	4	6.4
SEMESTER II				
5	Thesis I	FAFK211201	2	7.2
6	Elective Course		2	3.6
7	Clinical Internship in Internal Medicine	FAFK211202	3	9.6
9	Elective Clinical Internship I		3	9.6
SEMESTER III and IV				
10	Clinical Internship in Geriatric	FAFK211301	3	9.6
11	Elective Clinical Internship II		3	9.6
12	Elective Clinical Internship III		3	9.6
13	Thesis II	FAFK211302	8	28.8
TOTAL			43	104
ELECTIVE COURSES				
1	Pharmacogenetics and Pharmacogenomics	FAFK211203	2	3.6
2	Complementary and Alternative Medicine	FAFK211204	2	3.6
3	Clinical Toxicology	FAFK211205	2	3.6
4	Pharmacoeconomics	FAFK211206	2	3.6
5	Emergency and Critical Care Medicine	FAFK211207	2	3.6
6	Oncology Therapy	FAFK211208	2	3.6
7	Pharmacology of Inflammatory and Infectious Drugs	FAFK211209	2	3.6
8	Pharmacology of Renal and Cardiovascular Drugs	FAFK211210	2	3.6
9	Tropical Medicine	FAFK211211	2	3.6
10	Paediatric Pharmaceutical Care	FAFK211212	2	3.6
11	Pharmaceutical Care in Psychiatric	FAFK211213	2	3.6
12	Interprofessional Education	FAFK211214	2	3.6
ELECTIVE CLINICAL INTERNSHIP				
1	Clinical Internship in Paediatric	FAFK211215	3	9.6
2	Clinical Internship in Neurology	FAFK211216	3	9.6
3	Clinical Internship in Oncology	FAFK211217	3	9.6
4	Clinical Internship in Cardiology	FAFK211218	3	9.6
5	Clinical Internship in ICU	FAFK211219	3	9.6
6	Clinical Internship in Drug Information Services	FAFK211220	3	9.6
7	Clinical Internship in Psychiatric	FAFK211221	3	9.6

According to the Self-Assessment Report, the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Master's degree programme Pharmaceutical Sciences:

Program Learning Outcomes

1. ATTITUDE

The graduates are expected to be able to:

- 1.1. Have the spirit of Pancasila and have an awareness of the interests of the nation
- 1.2. Have responsibility, self-confidence, emotional maturity, ethics, and awareness of being a lifelong learner.

2. MASTERY OF KNOWLEDGE

The graduates are expected to be able to:

- 2.1. Mastering theory and application theory in advanced pharmaceutical sciences in depth to develop research and apply research results for development pharmaceutical sciences ;
- 2.2. Mastering the latest technological theoretical concepts related to pharmaceutical sciences ;
- 2.3. Master the concept of academic integrity in general and the concept of plagiarism specifically, in terms of types of plagiarism, consequences of violations and prevention efforts ; And
- 2.4. Mastering the principles of legality, social aspects, science and technology that underlies its application of pharmaceutical research results to society.

3. GENERAL SKILLS

- 3.1. Able to apply logical, critical, systematic, and innovative thinking with leveraging information technology to produce embodied solutions in scientific documents and implementation of areas of expertise with integrity
- 3.2. Able to develop work networks, adapt, create, contribute, supervise, evaluate and make decisions in order to demonstrate independent and group performance to apply knowledge to social life

4. SPECIFIC SKILLS

- 4.1. Carry out further deepening or expansion of pharmaceutical knowledge for research development and application of research for scientific development pharmacy ;
- 4.2. Able to formulate new solutions, cutting-edge methods and their use in pharmaceutical sciences ;
- 4.3. Able to deepen the skills of navigating current issues in science pharmacy based on local wisdom ; And
- 4.4. Able to solve problems through effective communication and creating an effective network through an inter or approach multidisciplinary.

0 Appendix: Program Learning Outcomes and Curricula

The following curriculum is presented:

No.	Course Name	Course code	CSU	ECTS
1	Research Method and Statistics	FAF 719	2	3.2
2	Pharmaceutical Biology	FAF 720	3	4.8
3	Pharmaceutics	FAF 721	3	4.8
4	Pharmaceutical Chemistry	FAF 722	3	4.8
5	Pharmacology and Toxicology	FAF 723	3	4.8
6	Thesis I	FAF 724	2	10.72
7	Thesis-related Courses		12	19.2
8	Elective Courses		4	6.4
9	Thesis II	FAF 761	8	42.88
Total			40	101.6

Elective courses; Thesis-related Courses

No.	Course Name	Course Code	CSU	ECTS
1.	Ethnomedicine and Phytotherapy	FAF 725	2	3.2
2.	Extraction Technology	FAF 726	2	3.2
3.	Natural Product Analysis	FAF 727	2	3.2
4.	Standardization of Natural Products	FAF 728	2	3.2
5.	Pharmacology and Experimental Toxicology	FAF 729	2	3.2
6.	Pharmaceutical Technology	FAF 741	2	3.2
7.	Biosimilar Product Engineering	FAF 731	2	3.2
8.	Immunomolecular Product Engineering and Immunology Techniques	FAF 732	2	3.2
9.	Analysis of Pharmaceutical Dosage Form and Biotechnology Products	FAF 733	2	3.2
10.	Industrial Microbiology	FAF 734	2	3.2
11.	Plant Cell and Tissue Culture	FAF 735	2	3.2
12.	Metabolic	FAF 736	2	3.2
13.	Physical Pharmacy	FAF 737	2	3.2
14.	Drug Stability	FAF 738	2	3.2
15.	Biopharmaceutical	FAF 739	2	3.2
16.	Drug Delivery System	FAF 740	2	3.2
17.	Pharmaceutical Technology	FAF 741	2	3.2
18.	Analysis of Pharmaceutical Dosage Form and Biotechnology Products	FAF 733	2	3.2
19.	Drug Synthesis	FAF 742	2	3.2
20.	Structure Elucidation	FAF 743	2	3.2
21.	Isolation and Purification of Natural Products	FAF 744	2	3.2
22.	Pharmacology and Experimental Toxicology	FAF 729	2	3.2
23.	Molecular Pharmacology and Toxicology	FAF 745	2	3.2
24.	Drug Design	FAF 746	2	3.2
25.	Quality Assurance (+GMP, GLG, GDP)	FAF 747	2	3.2
26.	Process Validation	FAF 748	2	3.2
27.	Validation and Quality Assurance of Analysis	FAF 749	2	3.2
28.	Analysis of Pharmaceutical Dosage Form and Biotechnology Products	FAF 733	2	3.2
29.	Experimental Design and Chemometrics	FAF 750	2	3.2
30.	Analysis of Natural Materials	FAF 727	2	3.2
31.	Molecular Pharmacology and Toxicology	FAF 745	2	3.2
32.	Pharmacology and Experimental Toxicology	FAF 729	2	3.2
33.	Pharmacogenetics-Genomics	FAF 751	2	3.2
34.	Drug Interactions	FAF 752	2	3.2
35.	Biomedical Analysis	FAF 753	2	3.2
36.	Secondary Metabolites	FAF 730	2	3.2

According to the Self-Assessment Report, the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Master's degree programme Pharmacy Management:

Program Learning Outcome

1. Attitude

- 1.1. Demonstrating the attitude of Pancasila and awareness of the interests of the nation and state.
- 1.2. Demonstrating honesty, responsibility, confidence, emotional maturity, ethics, and awareness of being a lifelong learner.

2. Mastery of Knowledge

- 2.1. Mastering the application theory of pharmacy management and social pharmacy in depth to develop research and implement the research results for scientific development;
- 2.2. Mastering the practical methods of pharmacy management and social pharmacy to solve pharmaceutical/health problems

3. General Skills

- 3.1. Applying logical, critical, systematic, and innovative thinking by utilizing information technology to obtain solutions according to areas of expertise with integrity embodied in scientific documents;
- 3.2. Developing work networks, adapting, creating, contributing, supervising, evaluating, and making decisions to demonstrate independent and group performance to apply knowledge to social life.

4. Specific Skills

- 4.1. Synthesizing and integrating the knowledge of pharmacy management and social pharmacy in a multidisciplinary and interdisciplinary manner;
- 4.2. Formulating new ideas for the application of management in the pharmacy and social pharmacy;
- 4.3. Criticizing and providing input for improvement in the point of view of pharmacy management and social pharmacy on pharmaceutical/health problem-solving policies;
- 4.4. Solving pharmaceutical/health problems by utilizing the knowledge of pharmacy management and social pharmacy through an interdisciplinary/multidisciplinary approach.

0 Appendix: Program Learning Outcomes and Curricula

The following curriculum is presented:

Semester I				
1	Research Design and Analysis of Social Pharmacy	FAMF211101	2	3.2
2	Scientific Writing and Publishing	FAMF211102	2	3.2
3	Law – Ethics and Regulation in Pharmacy	FAMF211103	2	3.2
4	Management and Organizational Behavior	FAMF211104	3	6.4
5	Financial Management in Pharmacy	FAMF211105	2	3.2
6	Marketing Management in Pharmacy	FAMF211106	2	3.2
7	Information System of Pharmacy Management and Health	FAMF211107	2	3.2
8	Health Financing Management	FAMF211108	2	3.2
9	Pharmacoepidemiology and Pharmacoeconomics	FAMF211109	3	6.4
Semester II				
10	Organizational Strategic Management in Pharmacy	FAMF211201	2	3.2
11	Internship/Project-based Learning	FAMF211202	2	3.2
12	Thesis I	FAMF211203	2	3.2
13	Thesis-Related Courses		8	12.8
14	Elective Courses		2	3.2
Semester III dan IV				
15	Thesis II	FAMF211301	8	12.8

Elective courses, Thesis related courses

No	Course Name	Course Code	CSU	ECTS
1	Pharmaceutical Care System in Health Facilities	FAMF211204	2	3.2
2	Pharmaceutical Control and Development Management in Hospital	FAMF211205	2	3.2
3	Management System of Drug Supply in Hospital	FAMF211206	2	3.2
4	Drug Use Study	FAMF211207	2	3.2
5	Drug Distribution Management	FAMF211208	2	3.2
6	Social Aspect - Drug Use Behavior	FAMF211209	2	3.2
7	Pharmacy and Health Policy	FAMF211210	2	3.2
8	Health Promotion in Public Health Pharmacy	FAMF211211	2	3.2
9	Operation Management	FAMF211212	2	3.2
10	Production Management and Quality Assurance	FAMF211213	2	3.2
11	Development of Pharmaceutical Industry Management	FAMF211214	2	3.2
12	Production Planning and Inventory Control	FAMF211215	2	3.2

Elective Course

No	Course Name	Course Code	CSU	ECTS
1	Microeconomics	FAMF211216	2	3.2
2	Pharmacoeconomics Modeling	FAMF211217	2	3.2
3	Evidence-Based Medicine	FAMF211218	2	3.2
4	Drug Safety for Public Health	FAMF211219	2	3.2
5	Systematic Review and Meta-Analysis	FAMF211220	2	3.2
6	Big Data in Healthcare	FAMF211221	2	3.2
7	Global Regulatory Affairs	FAMF211222	2	3.2
8	Human Resources Management	FAMF211223	2	3.2

According to the Self-Assessment Report, the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the PhD programme Pharmaceutical Sciences:

Program Learning Outcomes

1. ATTITUDE

The graduates are expected to be able to:

- 1.1. Demonstrate Pancasila values and awareness of the nation and state interest
- 1.2. Demonstrate honesty, responsibility, confidence, emotional maturity, ethics, and awareness of being a lifelong learner

2. MASTERY OF KNOWLEDGE

- 2.1. Master the philosophy of pharmaceutical science
- 2.2. Master the theories and general concepts of advanced science in pharmaceutical science
- 2.3. Master the principles of cutting-edge technology related to pharmaceutical science
- 2.4. Master the application theory related to pharmaceutical sciences
- 2.5. Master the research principles in the development and application of pharmaceutical sciences
- 2.6. Master the concept of academic integrity in general, and the concept of plagiarism in particular in terms of the types of plagiarism, the consequences of violations and efforts to prevent them

3. GENERAL SKILLS

- 3.1. Apply logical, critical, systematic, and innovative way of thinking by utilizing information technology to create solutions according to their expertise area with integrity and manifest them in scientific documents;
- 3.2. Able to develop a network, adapt, create, contribute, supervise, evaluate, and make decisions to demonstrate independent and group performance to apply science to social life;

4. SPECIFIC SKILLS

- 4.1. Deepen and expand their understanding of pharmaceutical sciences
- 4.2. Deepen and expand their knowledge in the application of advanced science in pharmaceutical sciences
- 4.3. Propose new solutions of cutting-edge methods and their use in pharmaceutical sciences
- 4.4. Possess skills in navigating the latest issues in pharmaceutical science

0 Appendix: Program Learning Outcomes and Curricula

The following curriculum is presented:

Compulsory courses

No.	Field of Study	Course Name	Course code	CSU	ECTS
1.	General	Research Methodology for PhD	FAS3220101	2	3.2
2.	General	Scientific writing	FAS3220102	2	3.2

Elective courses; Dissertation supporting courses

No.	Field of Study	Course Name	Course Code	CSU	ECTS
1.	Pharmaceutics and Pharmaceutical Technology	Pharmaceutics and Pharmaceutical Technology I	FAS3220103	2	3.2
2.	Pharmaceutics and Pharmaceutical Technology	Pharmaceutics and Pharmaceutical Technology II	FAS3220104	2	3.2
3.	Pharmaceutical Biology	Pharmaceutical Biology	FAS3220105	2	3.2
4.	Pharmaceutical Biology	Advanced Natural Product Pharmaceuticals	FAS3220106	2	3.2
5.	Macromolecular Engineering	Pharmaceutical Bioinformatics	FAS3220107	2	3.2
6.	Macromolecular Engineering	Methods in Molecular Biology	FAS3220108	2	3.2
7.	Pharmaceutical Chemistry Analysis	Pharmaceutical Analysis	FAS3220109	2	3.2
8.	Medicinal Chemistry	Structure Elucidation	FAS3220110	2	3.2
9.	Medicinal Chemistry	Cheminformatics and Molecular Modeling	FAS3220111	2	3.2
10.	Medicinal Chemistry	Organic Chemistry Synthesis and Green Chemistry	FAS3220112	2	3.2
11.	Pharmacology and Toxicology	Pharmacology and Toxicology I	FAS3220113	2	3.2
12.	Pharmacology and Toxicology	Pharmacology and Toxicology II	FAS3220114	2	3.2
13.	Pharmacology and Toxicology	Experimental Pharmacology and Toxicology	FAS3220115	2	3.2
14.	Clinical Pharmacy	Clinical Trial	FAS3220116	2	3.2
15.	Clinical Pharmacy	Pharmacovigilance	FAS3220117	2	3.2
16.	Clinical Pharmacy	Geriatric Care	FAS3220118	2	3.2
17.	Clinical Pharmacy	Advanced Pharmacoeconomy	FAS3220119	2	3.2
18.	Farmasi Klinik Clinical Pharmacy	Model Intervensi Farmasi Klinik Intervention Model in Clinical Pharmacy	FAS3220120	2	3.2
19.	Community Pharmacy	Community Pharmacy	FAS3220121	2	3.2
20.	Pharmaceutical Management	Pharmaceutical Management I	FAS3220122	2	3.2
21.	Pharmaceutical Management	Pharmaceutical Management II	FAS3220123	2	3.2
22.	According to Dissertation Topic	Other courses provided in other PhD program in or outside of UGM.	The course code and credits are adjusted to the applicable curriculum.		
23.	According to Dissertation Topic	Capita Selecta in Pharmaceutical Science	FAS3220124	2	3.2

0 Appendix: Program Learning Outcomes and Curricula

2. DISSERTATION (160 ECTS)

No.	Course Name	Description	Course Code	CSU	ECTS
1.	Research Proposal and Comprehensive Basic Skills	Proposal writing based on basic comprehensive skills	FAS3220201	4	18.8
2.	Dissertation Research Progress I	Monitoring and evaluation of dissertation research progress	FAS3220202	1	4.7
3.	Dissertation Research Progress II	Monitoring and evaluation of dissertation research progress	FAS3220301	2	9.4
4.	Dissertation Research Progress III	Monitoring and evaluation of dissertation research progress	FAS3220401	2	9.4
5.	Dissertation Research Progress IV	Monitoring and evaluation of dissertation research progress	FAS3220501	2	9.4
6.	Presentation of Dissertation Result	Presentation of Dissertation Result	FAS3220502	4	18.8
7.	Dissertation Eligibility	Assessment of Dissertation Script eligibility	FAS3220601	4	18.8
8.	Dissertation Examination	Dissertation Examination	FAS3220602	15	70.5