

**Academic Guideline
Of
Pharmacist Professional Study Program**



**Faculty of Pharmacy
Universitas Padjadjaran
2019**

FOREWORD

Praise the presence of Allah SWT, because with His grace and favor, we were able to complete the preparation of the Guidelines for the Implementation of Education for the Pharmacist Professional Study Program of the Faculty of Pharmacy, Padjadjaran University, Academic Year 2019/2020.

This guideline contains a variety of information about the Pharmacist Professional Study Program that is presented systematically, starting from the history of the faculty, vision, mission and objectives of the faculty and study programs, implementation of study programs, assessment systems and reports, academic sanctions, infrastructure, research, service to community and, cooperation and student affairs and alumni.

This guideline is expected to be a guideline for academicians in carrying out academic and student activities in the Pharmacist Profession Study Program, Faculty of Pharmacy, Padjadjaran University.

Jatinangor, June 2019
The Dean of the Faculty of Pharmacy

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CHAPTER I

THE HISTORY OF FACULTY, VISION, MISSION, EDUCATIONAL OBJECTIVES, AND GRADUATES COMPETENCIES

1.1 History of The Faculty of Pharmacy

The Faculty of Pharmacy was established on February 19, 1959, as the fifth of the seven departments under the Faculty of Exact and Natural Sciences (FIPPA), Universitas Padjadjaran. At that time, the Pharmacy Department's academic activities took place on Jl. Ir. H. Juanda No. 4 Bandung and the Institute of Natural Sciences (LIPA) Jl. Singaperbangsa No. 1 Bandung. In 1978, the location moved to Jl. Maulana Yusuf No. 12 Bandung, which was previously occupied by the Faculty of Dentistry. After the new campus of the Faculty of Mathematics and Natural Sciences (FMIPA) in Jatinangor-Sumedang was completed, the Department of Pharmacy, together with other departments at FMIPA, moved to the Jatinangor campus in September 1986. On 17 October 2006, the Department of Pharmacy changed its status to become the Faculty of Pharmacy.

Currently, the Faculty of Pharmacy has 5 study programs, namely the Undergraduate Pharmacy Study Program, the Pharmacist Professional Study Program, the Pharmacy Masters Study Program, the Clinical Pharmacy Masters Study Program, and the Pharmacy Doctoral Study Program.

The Bachelor of Pharmacy Study Program (BPSP) was started in 1959. This study program has been accredited A from the National Accreditation Board for Higher Education Indonesia (BAN-PT) and has been recognized for its qualifications by Jawatan Pengkhidmatan Lay (JPA) from Malaysia. Since 2006, BPSP has accepted students from Malaysia.

The Pharmacist Professio Study Programme (PPSP) was started in 1959 and has been accredited by BAN-PT with accreditation A.

The Master of Pharmacy Study Program was held since obtaining permission from the Ministry of National Education on January 10, 2011. This study program began accepting new students in the Odd Semester of the 2011/2012 Academic Year and obtained accreditation B from BAN-PT in November 2014.

The Master of Clinical Pharmacy Study Program and Doctor of Pharmacy Study Program have been held since the Odd Semester of the 2016/2017 Academic Year.

1.2 Vision and Mission

1.2.1 Vision and Mission of The Faculty of Pharmacy

The vision of the Faculty of Pharmacy is to become a superior faculty in the implementation of research-based pharmaceutical education that is internationally competitive by 2024.

The mission of the Faculty of Pharmacy is:

1. Organizing research-based pharmaceutical education that can meet the demands of the user community and has international competitiveness.

2. Organizing professional and accountable management of higher education pharmacy to improve public image.
3. Carrying out pharmaceutical research with local excellence oriented towards scientific publications, patents, and commercial products.
4. Organizing community service by utilizing the results of research in the field of pharmacy.
5. Organizing cooperation in the pharmaceutical sector with the concept of Penta helix.

1.2.2 Vision and Mission of Pharmacist Profession Study Programme

The vision of the Pharmacist Professional Education Study Program (PPSP) is to become an excellent study program in research-based pharmacist education that is internationally competitive by 2024.

The mission of the PPSP of the Faculty of Pharmacy is:

1. Organizing research-based pharmacist education that can meet the demands of the user community and has international competitiveness.
2. Organizing professional and accountable pharmacist education management to improve the image of higher education.
3. Carrying out pharmaceutical research with local excellence oriented to scientific publications.
4. Organizing community service by utilizing the results of research in the field of pharmacy.
5. Organizing cooperation in the pharmaceutical sector with the concept of Penta helix.

1.3 Educational Objectives

1.3.1 The Objectives of the Faculty of Pharmacy

The objectives of the Faculty of Pharmacy are:

1. Producing graduates from higher education in pharmacy who can meet the demands of the user community and have international competitiveness.
2. Realizing professional and accountable education management to improve public image.
3. Produce scientific publications, patents, and commercial products from pharmaceutical research based on local excellence.
4. Increase the use of research results in the pharmaceutical sector that are appropriate for the benefit of the community.
5. Realizing mutual benefit in the pharmaceutical sector through the concept of Penta helix.

1.3.2 The Objectives of the Pharmacist Professional Study Program

The objectives of the PPSP are:

1. Producing pharmacists who can meet the demands of the user community and have international competitiveness.
2. Realizing professional and accountable management of education at the professional level, to improve public image.
3. Produce scientific publications from pharmaceutical research based on local excellence.
4. Increase the use of research results in the pharmaceutical sector that are appropriate for the benefit of the community.
5. Realizing mutual benefit in the pharmaceutical sector through the concept of Penta helix

The specific objectives of the study program which are the implementation of the graduate profile can be described as follows:

1. Produce graduates who are capable of becoming professionals and in charge of production in the pharmaceutical industry by applying cGMP.
2. Produce graduates who are able to become professionals and those in charge of quality control in the pharmaceutical industry by applying cGMP.
3. Produce graduates who are able to become professionals and those who are responsible for quality assurance in the pharmaceutical industry by applying cGMP.
4. Produce graduates who are capable of becoming professional staff and in charge of distribution in PBF raw materials and pharmaceutical preparations by implementing CDOB.
5. Produce graduates who are able to carry out pharmaceutical practices and services based on patient-oriented principles according to service standards in pharmacies, and are able to become managers / leaders and manage pharmacies in accordance with management and business principles.
6. Produce graduates who are able to practice and provide pharmaceutical services (care giver) based on patient-oriented principles according to hospital service standards, and are able to lead and manage according to the hospital's vision and mission.
7. Produce graduates who are able to work as health professionals / state apparatus in government (BPOM / Ministry of Health or Health Service).
8. Produce graduates capable of working in the field of Research and Development in the pharmaceutical industry, research institutes, testing laboratory and educational institutions.
9. Produce graduates who are able to interact and communicate with other health professionals in a professional manner in providing health services.

1.4 Graduates Competencies

1.4.1 Main Competence

The main competencies of the PPSP of Faculty of Pharmacy UNPAD graduates are following the learning outcomes (CP) of the Indonesian Pharmacy Higher Education Association (APTFI) and the Indonesian Pharmacists' Competency Standards from the Indonesian Pharmacists Association (IAI) as stated in the IAI-

APTFI Decree No. PO.004 / PP.IAI / 1418 / IX / 2016. The main competencies consist of:

- Field of Work Ability
 1. Able to identify and solve drug-related problems using an evidence-based approach in the design, manufacture/preparation, including quality control, security, procurement, storage and distribution, management of raw materials, pharmaceutical preparations and medical devices, and / or clinical pharmacy services to optimize success. therapy.
 2. Able to search, analyze critically, and organize information about pharmaceutical preparations, communicate and disseminate them effectively to ensure the efficient use of pharmaceutical preparations to individuals, the general public, and health professionals.
 3. Able to carry out professional and responsible pharmacy practices following statutory provisions and pharmacist code of ethics.
 4. Able to carry out counseling services, compile information/ideas/thoughts, and communicate effectively in various forms of media to other health professionals and/or the general public.
 5. Able to self-evaluate and manage self-learning to improve the pharmacist's professional practice skills.
- Managerial Ability
 1. Able to make decisions in strategic matters in the field of pharmacy in professional work independently, to lead and manage group work, and to be responsible for the achievement of group work.
 2. Able to identify, understand, analyze, and find solutions to conflicts with appropriate methods.
 3. Able to communicate, develop networks, and work together with teams, other health workers, and clients to provide optimal patient care.
 4. Able to critically evaluate pharmaceutical work problems and be able to provide appropriate solutions.
 5. Able to self-evaluate and manage self-learning to improve the pharmacist's professional practice skills.
- Mastery of Science
 1. Able to implement pharmaceutical science, pharmaceutical methods, and technology, including the ability to design, manufacture, and guarantee the quality of pharmaceutical preparations by observing statutory regulations.
 2. Able to apply the concepts of pharmacotherapy, pharmaceutical care, pharmacy practice, as well as the principles of epidemiology, evidence-based medicine, pharmacovigilance, and pharmacoconomics, to ensure service quality and patient safety.
 3. Able to apply knowledge of pharmaceutical management, socio-pharmacy, pharmaceutical law and ethics, communication techniques, and occupational safety comprehensively.

1.4.2 Supporting Competencies

The attitudes supporting competencies of graduates of the Faculty of Pharmacy Unpad are following the General Professional Attitudes and Skills listed in Permenristekdikti No. 44 of 2015 concerning National Standards for Higher Education. Supporting competencies consist of:

1. Being devoted to God Almighty and able to show a religious attitude.
2. Upholding human values in carrying out duties based on religion, morals, and pharmaceutical ethics.
3. Contribute to improving the quality of life in society, nation, state, and civilization based on *Pancasila*.
4. Acting as citizens who are proud and love the country, have nationalism and a sense of responsibility to the state and nation.
6. Respect the diversity of cultures, views, religions, and beliefs, as well as the original opinions or findings of others, especially in the pharmaceutical sector.
7. Cooperate and have social sensitivity and concern for the community and the environment.
8. Obeying the law and discipline in social and state life.
9. Internalizing academic values, norms, and ethics.
10. Demonstrate an attitude of responsibility for pharmaceutical work independently;
11. Internalizing the spirit of independence, struggle, and entrepreneurship
12. Able to work in the pharmaceutical field and have a minimum work competency equivalent to the Indonesian Pharmacist Competency Standard (SKAI).
13. Able to make independent decisions in carrying out professional work based on logical, critical, systematic, and creative thinking.
14. Able to compile reports or working papers based on design rules and standard procedures, as well as pharmacist professional code of ethics, which can be accessed by the academic community.
15. Able to communicate ideas/arguments or innovative works that are beneficial to the professional development of pharmacists and entrepreneurship, which can be accounted for scientifically and professionally ethics, to the public, especially the pharmacist profession.
16. Able to improve pharmacist professional skills through training and work experience.
17. Able to be responsible for their professional work following the professional code of ethics for pharmacists.
18. Able to do a critical evaluation of work results and decisions made in carrying out pharmaceutical work by himself and by colleagues.
19. Able to lead a work team to solve problems in the pharmaceutical field.
20. Able to cooperate with other health professionals in solving work problems of the pharmacist profession.
21. Able to develop and maintain a network of professional pharmacists and clients.

22. Able to document, store, audit, secure, and retrieve data and information to develop the work of the pharmacist profession.
23. Able to increase learning capacity independently.

1.4.3 Other Competences

Other competencies of the PPSP Faculty of Pharmacy Unpad graduates have been adjusted to the vision, mission, goals, and objectives of the PPSP Faculty of Pharmacy Unpad. Other competencies consist of:

1. Able to carry out lifelong learning (long-life learner) and serve the community based on research (Transformative Learning) based on Unpad Principal Scientific Pattern (PIP), namely Bina Mulia Law and Environment in National Development.
2. Responsible, Excellent, Scientific Rigor, Professional, Encouraging, Creative, and Trust (RESPECT).
3. Able to uphold the values of local culture and national culture in the diversity of world cultures.

CHAPTER II

THE MANAGEMENT GUIDELINE OF PHARMACIST PROFESSIONAL STUDY PROGRAMME

2.1 Graduate Profiles

PPSP graduates from the Faculty of Pharmacy Unpad are absorbed in various jobs according to the job field / professional role of pharmacists, namely seven-star plus two. The pharmacist's role is concluded through a concept formulated by WHO and FIP (International Pharmaceutical Federation) called the "Seven-Star Pharmacist" in which a pharmacist is described as a caregiver, communicator, decision-maker, teacher, lifelong learner, leader, and manager, as well as researcher and Teamwork abilities, personal/professional responsibilities. The concept is described in the Handbook on Developing pharmacy practice - A focus on patient care, first edition. For this manual, a researcher's function has been added.

1. **Caregiver:** Pharmacists provide care services. They must assume that their practice is continuously integrated with the health care system and other health professionals. The service must be of the highest quality. This role is performed by pharmacists in the hospital
2. **Communicator:** Pharmacists are in an ideal position to explain prescriptions to patients, and to communicate information about health and medicines to the public. He or she must be knowledgeable and confident when interacting with other health professionals and the public. Communication involves verbal, non-verbal, listening, and writing skills. This role needs to be mastered by pharmacists who work in pharmacies and hospitals.
3. **Decision-maker:** The use of appropriate, efficacious, safe, and cost-effective resources (for example, labor, drugs, chemicals, equipment, procedures, practices) should form the basis of pharmacist work. At the local and national levels, pharmacists play a role in setting drug policies. Achieving this goal requires the ability to evaluate, collate data and information and decide on the most appropriate course of action.
4. **Teacher/Educator:** Pharmacists have a responsibility to assist in the education and training of future generations of pharmacists and the general public. Participating as a teacher not only imparts knowledge to others but also offers practitioners the opportunity to acquire new knowledge and to prepare existing skills.
5. **Live long learner:** In pharmacy school, it is not possible to acquire all the knowledge and experience necessary to pursue a lifetime career as a pharmacist. Concepts, principles, and a commitment to life-long learning must begin in pharmacy and should be supported throughout the pharmacist's career. Pharmacists must learn how to keep their knowledge and skills up to date.
6. **Leader:** In a multidisciplinary, caring area where healthcare providers are minimal or non-existent, pharmacists are required to position themselves as leaders in the well-being of all patients and society. This leadership includes compassion and empathy as well as the vision and ability to make decisions, communicate, and

organize effectively. This profile can be applied in various fields where the pharmaceutical profession is carried out, such as government, pharmacies, hospitals, the pharmaceutical industry, distribution, and others.

7. **Manager:** Pharmacists must be able to manage resources (human, physical, and financial) and information effectively. They must also be willing to be managed by others, whether by an employer, a manager, or a health care team leader. More information and related technology will present challenges as pharmacists, taking greater responsibility to share information about medicines and related products and ensure their quality. This is done in all places of work of the pharmaceutical profession.

And as an addition:

8. **Researcher/Scientific comprehension & research abilities:** Pharmacists must be able to use evidence base (eg, science, pharmaceutical practice, health system) effectively to advise about the rational use of drugs. Pharmacists can also contribute to the evidence base to optimize patient care and outcomes. As researchers, pharmacists can improve health accessibility and provide drug information to the public and other health professionals.
9. **Teamwork abilities, personal/professional responsibilities.**

2.2 Learning Outcomes

The main learning outcomes of pharmacist graduates are following the learning outcomes (CP) of the Indonesian Pharmacy Higher Education Association (APTFI) and the Indonesian Pharmacists' Competency Standards from the Indonesian Pharmacists Association (IAI) as stated in the IAI-APTFI Decree No. PO.004 / PP.IAI / 1418 / IX / 2016 consists of:

A. Main Competence

The main competencies of the Unpad Faculty of Pharmacy Apothecary graduates are following the learning outcomes (CP) of the Indonesian Pharmacy Higher Education Association (APTFI) and the Indonesian Pharmacists' Competency Standards from the Indonesian Pharmacists Association (IAI) as stated in the IAI-APTFI Decree No. PO.004 / PP.IAI / 1418 / IX / 2016. The main competencies consist of:

- Field of Work Ability
 1. Able to identify and solve drug-related problems using an evidence-based approach in the design, manufacture/preparation, including quality control, security, procurement, storage and distribution, management of raw materials, pharmaceutical preparations and medical devices, and / or clinical pharmacy services to optimize success. therapy.
 2. Able to search, analyze critically, and organize information about pharmaceutical preparations, communicate and disseminate them effectively to ensure the efficient use of pharmaceutical preparations to individuals, the general public, and health professionals.

3. Able to carry out professional and responsible pharmacy practices following statutory provisions and pharmacist code of ethics.
 4. Able to carry out counseling services, compile information/ideas/thoughts, and communicate effectively in various forms of media to other health professionals and/or the general public.
 5. Able to self-evaluate and manage self-learning to improve the pharmacist's professional practice skills.
- Managerial Ability
 6. Able to make decisions in strategic matters in the field of pharmacy in professional work independently, to lead and manage group work, and to be responsible for the achievement of group work.
 7. Able to identify, understand, analyze, and find solutions to conflicts with appropriate methods.
 8. Able to communicate, develop networks, and work together with teams, other health workers, and clients to provide optimal patient care.
 9. Able to critically evaluate pharmaceutical work problems and be able to provide appropriate solutions.
 10. Able to self-evaluate and manage self-learning to improve the pharmacist's professional practice skills.
 - Mastery of Science
 11. Able to implement pharmaceutical science, pharmaceutical methods, and technology, including the ability to design, manufacture, and guarantee the quality of pharmaceutical preparations by observing statutory regulations.
 12. Able to apply the concepts of pharmacotherapy, pharmaceutical care, pharmacy practice, as well as the principles of epidemiology, evidence-based medicine, pharmacovigilance, and pharmacoconomics, to ensure service quality and patient safety.
 13. Able to apply knowledge of pharmaceutical management, socio-pharmacy, pharmaceutical law and ethics, communication techniques, and occupational safety comprehensively.

B. Supporting Competencies

The attitudes supporting competencies of graduates of the Faculty of Pharmacy Unpad are following the General Professional Attitudes and Skills listed in Permenristekdikti No. 44 of 2015 concerning National Standards for Higher Education. Supporting competencies consist of:

14. Being devoted to God Almighty and able to show a religious attitude.
15. Upholding human values in carrying out duties based on religion, morals, and pharmaceutical ethics.
16. Contribute to improving the quality of life in society, nation, state, and civilization based on Pancasila.
17. Acting as citizens who are proud and love the country, have nationalism and a sense of responsibility to the state and nation.

18. Respect the diversity of cultures, views, religions, and beliefs, as well as the original opinions or findings of others, especially in the pharmaceutical sector.
19. Cooperate and have social sensitivity and concern for the community and the environment.
20. Obeying the law and discipline in social and state life.
21. Internalizing academic values, norms, and ethics.
22. Demonstrate an attitude of responsibility for pharmaceutical work independently;
23. Internalizing the spirit of independence, struggle, and entrepreneurship
24. Able to work in the pharmaceutical field and have a minimum work competency equivalent to the Indonesian Pharmacist Competency Standard (SKAI).
25. Able to make independent decisions in carrying out professional work based on logical, critical, systematic, and creative thinking.
26. Able to compile reports or working papers based on design rules and standard procedures, as well as pharmacist professional code of ethics, which can be accessed by the academic community.
27. Able to communicate ideas/arguments or innovative works that are beneficial to the professional development of pharmacists and entrepreneurship, which can be accounted for scientifically and professionally ethics, to the public, especially the pharmacist profession.
28. Able to improve pharmacist professional skills through training and work experience.
29. Able to be responsible for their professional work following the professional code of ethics for pharmacists.
30. Able to do a critical evaluation of work results and decisions made in carrying out pharmaceutical work by himself and by colleagues.
31. Able to lead a work team to solve problems in the pharmaceutical field.
32. Able to cooperate with other health professionals in solving work problems of the pharmacist profession.
33. Able to develop and maintain a network of professional pharmacists and clients.
34. Able to document, store, audit, secure, and retrieve data and information to develop the work of the pharmacist profession.
35. Able to increase learning capacity independently.

C. Other Competences

Other competencies of the PPSP Faculty of Pharmacy Unpad graduates have been adjusted to the vision, mission, goals, and objectives of the PPSP Faculty of Pharmacy Unpad. Other competencies consist of:

1. Able to carry out lifelong learning (long-life learner) and serve the community based on research (Transformative Learning) based on Unpad Principal Scientific Pattern (PIP), namely Bina Mulia Law and Environment in National Development.
2. Responsible, Excellent, Scientific Rigor, Professional, Encouraging, Creative, and Trust (RESPECT).

3. Able to uphold the values of local culture and national culture in the diversity of world cultures.

2.2.1 Learning Materials

The study materials in the Pharmacist Professional Study Program are adjusted to the type of pharmaceutical work of the graduate, namely: Able to uphold the values of local culture and national culture in the diversity of world cultures.

A. Internship: Pharmaceutical Services in Community Pharmacy

1. Managerial Aspects

- Administration (i.e. bookkeeping, reports, recipe management)
- Management of pharmaceutical supplies (planning for procurement, how to order storage/warehousing, sales, management of damaged and expired drugs).
- Human Resources Management.

2. Aspects of Pharmaceutical Work

- Purchasing, receiving and storing administration
- Prescription services (administrative / pharmaceutical / clinical screening, calculation of dosages and prices and informing patients)
- Compounding, drug preparation and ethics / rules of use (prescription preparation, OTR services, OWA, hard drugs, psychotropic drugs, narcotics and other pharmaceutical supplies)
- Pharmaceutical care, delivery and IEC services
- Archiving and documentation (coffee recipes, FIFO system, FEFO, etc.)
- Drug use monitoring.

3. Business Aspects

- Capital
- Financial Analysis
- Taxation
- Development strategy

B. Internship: Pharmaceutical Care and Services at Hospital Pharmacy

1. Management of Pharmacy Supplies in Hospitals

- Planning and selection (drug budget, planning system, supplier selection)
- Procurement (priority procurement, procurement method)
- Storage (RS warehousing system layout, storage system)
- Distribution (distribution systems and controls)
- Drug use (the study of drug use, rational drug use)

2. Control System in Hospital Pharmacy Installation

- Control system model
- The implementation of controls in IFRS

3. Pharmacist Functional Role

- Drug information and counseling services
- TDM (Therapeutic Drug Monitoring)

- Handling of cytotoxic drugs
 - TPN (Total Parenteral Nutrition) and i.v.-admixture
 - DUE (Drug Utility Evaluation)
 - Rational Drug Use
4. Medical Equipment Sterilization Center (PSPM / CSSD)
 - Scope of PSPM / CSSD (Central Sterilization Supply Department)
 - Types and kinds of sterilization
 - Microbial resistance
 - Nosocomial infection
 5. Hospital Waste Management
 - Handling of cytotoxic waste
 - Another handling of IFRS waste
- C. Internship: Pharmaceutical Industry
1. Organization
 2. Registration
 3. Personnel
 4. Buildings
 5. Validation
 6. Water for the pharmaceutical industry
 7. Material management
 8. Manufacturing
 9. Quality control of raw materials, PIC, and finished drugs
 10. Quality assurance
 11. Warehousing
 12. PPIC (Production Planning and Inventory Control)
 13. Research and development
 14. Handling of waste
 15. Supporting facilities (AHU, HVAC, etc.)
- D. Internship: Pharmaceutical Services in Governmental Facilities
1. Regulations/regulations related to the field of pharmaceutical supplies and health facilities
 2. Professional code of ethics and its application
 3. Drug and Food Control System (SISPOM)
- E. Internship: Pharmaceutical Services in Distribution Facilities
1. Pharmaceutical Management
 2. Drug Distribution

2.3 Course Structure

The curriculum applied in the Pharmacist Professional Study Program follows the curriculum standards for Higher Education and Pharmacy Higher Education Associations (APTFI), plus several local content courses. This curriculum is periodically changed every 5 (five) years in a curriculum change workshop and is evaluated annually. Education in the Pharmacist Professional Study Program consists of 2 semesters with a minimum study load of 36 Credits.

Table 2.1 Structure of the Pharmacist Professional Study Program Courses

1 st SEMESTER		
Code	Course	Credits
Mandatory Courses		
P12A.0101	Applied Pharmacotherapy	2
P12A.0102	Hospital Pharmacy	2
P12A.0103	Compounding and Dispensing	2
P12A.0104	Pharmaceutical Management	2
P12A.0105	Applied BioPharmaceutics and Clinical Pharmacokinetics	2
P12A.0106	Communication and Counseling	2
P12A.0107	Industrial Pharmacy	2
P12A.0108	Quality Assurance	2
P12A.0109	Public Health Science	2
P12A.0110	Applied Phytotherapy	2
P12A.0111	Pharmaceutical Services	2
Total		22
2 nd SEMESTER		
Mandatory Courses		
P12A.0201	Internship: (Pharmaceutical Services) in Dispensary/Pharmacy	4
P12A.0206	Pharmacist Comprehensif Examination	1
P12A.0207	Objective Structure Clinical Examination (OSCE)	1
Elective Courses (2 Courses)		
P12A.0108	Internship: Pharmacy Industry	4
P12A.0109	Internship: (Pharmaceutical Care and Services) in Hospital	4
P12A.0110	Internship: Government Institution	4
P12A.0111	Internship: in Distribution	4
Total		14
Indonesian Pharmacist Competency Test - Computer Based Test (UKAI-CBT)		Exit Exam
Indonesian pharmacist competency test -Objective Structured Clinical Examination (UKAI-OSCE)		Foramtiv e

2.3.1 Method, Form, and Learning Programme

Code	Course	Learning Program	Method	Form	Lecturer Name
P12A.0101	Applied Pharmacotherapy	The concept of disorders of cardiovascular, respiratory, neurological-psychiatric / gastrointestinal disorders, urinary tract and gynecology, endocrine, eye, nose, ear and throat, blood-, immunology, bones and joints, skin, infectious diseases,	Case study and self-directed learning; Case study and discovery learning	Lecture	1. Prof. Dr. Anas Subarnas, MSc, Apt. 2. Prof. Dr. Ahmad Muhtadi, MS, Apt. 3. dr. Budi Prihartanto, SpPd.

		oncology, kidney, nutrition and Emergency and its treatment, The discussion of Pharmacology treatment starts from the introduction of drugs related to chemical properties, pharmacokinetic aspects, pharmacodynamic aspects (mechanism of action, pharmacological effects, side effects or toxic effects), contraindications, and drug interactions, to its therapeutic use.			
P12A.010 2	Hospital Pharmacy	Service systems in hospitals, the standard of pharmacy service practices in hospitals, logistics management, patient safety, quality of FRS, operational management, roles and functions of pharmacists, cytotoxic handling, Production and repackaging	Learning is carried out by lecturing / face to face and discussion / question and answer Forum Group Discussion	Lecture	1. Angga Prawira Kautsar, MARS, Apt. 2. Dra. Emma Surahman, M.Si., Apt. 3. Dra. Pratiwi, M.Famr, Apt.
P12A.010 3	Compounding and Dispensing	Aspects of aspects in the preparation/compounding of Pharmacy preparations according to quality standards. The materials provided consist of provisions, quality requirements and qualifications for non-sterile and sterile Pharmacy preparations, compounding for non-sterile, sterile and cytotoxic preparations.	Lecture, cooperative learning and case study, Small group discussion and Case study, simulation	Lecture	1. Dr. Marline Abdassah B.,MS., Apt. 2. Norisca Aliza, M. Farm., Apt 3. Dr. Dolih Gozali, MS., Apt.
P12A.010 4	Pharmaceutical Management	Introduction, Management Functions, Management Structure, Management Requirements, Blue and Red Ocean Principles, Value Management, Management Skills for Pharmacists, Preparation	Lecture and cooperative learning, small group discussion,	Lecture	1. Auliya A. Suwantika, Ph.D, Apt. 2. Dr. Mas Rahman Rustan, MBA, Apt

		of a Cash Flow Budget, Use of Cash Flow and Case Studies, Financial Accounting from a Managerial Point of View. Use of Ratios in Financial Statement Analysis, Inventory Management and Case Studies, Feasibility Studies for Pharmacy Establishment,			3. Yogi Testiana, MM., Apt. 4. Muhardiman, S.Si., Apt.
P12A.010 5	Applied BioPharmaceutics and Clinical Pharmacokinetics	The biopharmaceutical phase of the drug (Release, Dissolution and Absorption) is one of the phases of the drug's journey in the body to its place of action. administration and physiological factors that play a role in drug bioavailability. It will also examine drug classifications in terms of their biopharmaceutical properties (BCS system), In Vitro Cholesteroling In Vivo and Bioavailability-Bioequivalence Test. Practitioners will convey aspects related to drug development efforts with problems in solubility and bioavailability. Practitioner clinicians will convey aspects related to TDM, Dose Adjustment related to pediatric, geriatric, liver disease, kidney and other diseases.	Collaborative learning, small group discussion, Case Study	Lecture	1. Taofik Rusdiana, PhD, M.Sc., Apt. 2. Dr. Iyan Sopyan, M.Si., Apt. 3. Eva Sumiyarni, S.Si., Apt. 4. Rovina, dr., SpPD., PhD.
P12A.010 6	Communication and Counseling	Interpersonal communication/counseling to individuals, families and communities with the following subjects: basic communication, effective communication, principles of human relations, interpersonal communication, pharmacist counseling core skills, application of	Lecturing / face to face and discussion / question and answer/Presentation / Discussion/ Role play, Case Study	Lecture	1. Prof. Dr. Keri Lestari, M.Si, Apt. 2. Dr.Sriwidodo, M.Si., Apt. 3. Aulia Iskandarsyah, M.Psi., M.Si., Ph.D.

		interpersonal communication/pharmacist counseling, and communication skills in group activities			
P12A.0107	Industrial Pharmacy	Product development / Product development, Quality Control (QC), Scale-up, Processing / Machinery and Equipment, Procurement and Inventory Control (PPIC), Product Registration, cGMP, Indonesian CPOB, other related regulations & laws, Safety, Health, Environmental Management and waste treatment.	Case study and self-directed learning, Lecture and Role Play Simulation, Collaborative learning and cooperative learning	Lecture	<ol style="list-style-type: none"> 1. Dr. rer.nat Anis Yohana Ch., M.Si., Apt.. 2. Dr. Ida Musfiroh, M.Si., Apt. 3. Damaris Hutapea, M.Si., Apt. 4. Drs. Basuki Hadi, MM, Apt.
P12A.0108	Quality Assurance	Concept of Quality, Quality Assurance, Quality Management, Personnel Training, Documentation, Sampling, Validation, Batch Failure / Deviation Investigation, Self-Inspection, Complaint Handling, Withdrawal of Finished Drugs and Refunds, Vendor Evaluation), Risk Management, Change Control, Proper Storage and Delivery Method, Management Review, Globalization and health, Indonesian Health System	Lecture Cooperative Learning, Role Play, Case study, Simulation, Collaborative learning	Lecture	<ol style="list-style-type: none"> 1. Prof. Muchtaridi, Ph.D, M.Si., Apt. 2. Drs. Basuki Hadi, MM, Apt. 3. Drs. Ariyono, MM., Apt.
P12A.0109	Public Health	Introduction to public health science, Public Health Pharmacy, concepts and theories of health and illness, degrees of public health, research in public health, epidemiology of infectious and non-communicable diseases, environmental health, occupational health, the concept of disease	Lecture and cooperative learning, Discovery learning, Small group discussion	Lecture	<ol style="list-style-type: none"> 1. Dra. Rr. Sulistianingsih, M.Kes., Apt. 2. Rizky Abdulah, Ph.D., Apt. 3. Irma Melyani, Ph.D., Apt. 4. dr. Dani Ferdian, MKM.

		prevention, concepts and theories of health behavior change, effects culture in health promotion, The concept of public health promotion,			
P12A.0110	Applied Phytotherapy	The difference between phytotherapy and pharmacotherapy, the herbal therapeutic system which includes the Hippocrates concept, the Galenus concept, the Ibn Sina concept, the Yin-Yang concept, and the Ayurvedic concept, the phytotherapy dosage form, the phytotherapy therapeutic action philosophy, the herbal pharmacology concept, the phytotherapy dosage form, the fancy medicine concept, interactions in phytotherapy, anti-inflammatory phytotherapy, antioxidant phytotherapy, immune system phytotherapy, digestive system phytotherapy, circulatory system phytotherapy, anti-infective phytotherapy, and metabolic disorder phytotherapy CPOTB Guest Lecture	Case study and cooperative learning; Self directed learning and collaborative learning	Lecture	<ol style="list-style-type: none"> 1. Prof. Dr. Moelyono Muktiwardojo, MS, Apt. 2. Dr. Yoppi Iskandar, M.Sc., Apt.. 3. Dr. Yasmiwar S, M.Si., Apt.
P12A.0111	Pharmaceutical Care and Services	Pharmacist practice with a new paradigm, definition and scope, new paradigm of pharmacist practice competence, definition and scope of Pharmacy services, competence of practicing pharmacist. Steps for implementing Pharmaceutical services, key patient needs for drug therapy, categories of drug therapy problems and their causes, methods for systematically	Lecturing / face to face and discussion / question and answer/Role play, case study	Lecture	<ol style="list-style-type: none"> 1. Porf. Dr. Sri Adi Sumiwi, MS., Apt. 2. Dika Pramita Destiani, M.Pharm., Apt. 3. Rina Winarni, M.Pharm., Apt. 4. Cherry Rahayu, M.KM., Apt

		<p>managing drug therapy problems, regulations on services pharmacy, service standards in pharmacies and hospitals, service guidelines at health centers, good Pharmacy practice practices, evidence-based medicine, rational drug use, self-medicated services, prescription services based on pharmaceutical care principles, monitoring drug therapy, evaluation of drug use, cases- clinical cases with the SOAP approach. PWDT is handled systematically.</p>			
P12A.0201	Intern: in Pharmacy/Dispensary	<p>Administrative Aspects and Legislation: legal aspects of the establishment of pharmacies and pharmacy practices</p> <p>Feasibility study of establishing a pharmacy</p> <p>Service aspects: flow, model, service control system.</p> <p>Pharmaceutical care: IEC and health promotion, self-medication and residential services.</p> <p>Managerial Aspects</p> <p>a. Pharmacy Supplies: planning, selection, ordering, receiving, storing, distributing, controlling and reporting.</p> <p>b. Management of damaged drugs, destroying narcotic and psychotropic drugs and expired.</p> <p>c. Resource management.</p> <p>Aspects of Pharmaceutical Work</p> <p>a. Prescription drugs: screening (administrative,</p>	Cooperative Learning/role play/Experiential Based Learning	Intern	Lecturers from the Faculty of Pharmacy who are pharmacists and have certificates of competence and preceptors at the Pharmacy

		<p>pharmaceutical, and clinical), compounding, drug preparation, and etiquette/rules of use, and delivery accompanied by drug information.</p> <p>b. Non-prescription drugs: extracting information, preparing OTR, OWA, submitting accompanied by drug information.</p> <p>c. Archiving and documentation (e.g. recipes, recording PMR (Patient Medication Record), reports, etc.).</p> <p>d. Monitoring the use of PMR drugs (Patient Medication Record)</p> <p>Business Aspects</p> <p>. Capital</p> <p>b. Financial analysis</p> <p>c. Taxation</p>			
P12A.020 2	Intern: Pharmacy Industry	<p>1. Organization: Effective and efficient industrial organizational structure.</p> <p>2. GMP All aspects of production and quality control, especially qualification and personnel development.</p> <p>3. Facilities and infrastructure Includes buildings, machinery and equipment and other production facilities including air control systems (AHU), water treatment, and solid and liquid waste (BOD, COD, TSS, pH).</p> <p>4. Research and Development Product research and development, development of analytical methods,</p>	Cooperative Learning/role play/Experiential Based Learning	Intern	Lecturers from the Faculty of Pharmacy who are pharmacists and have certificates of competence and preceptors at the Pharmacy Industry

		<p>stability testing, validation, analytical methods, process validation, and packaging development (packaging composition and design).</p> <p>5. PPIC (Production Planning and Inventory Control) = Production Planning and Inventory Control) Production planning, purchasing requests, inventory control and Production process evaluation.</p> <p>6. Procurement Procurement of raw materials, packaging materials, production equipment and other industrial needs.</p> <p>7. Quality Control Testing the quality of raw materials, packaging materials, intermediate products, bulk products and finished products, including IPC (in process control).</p> <p>8. Production The process of receiving starting materials, processing (weighing, milling, sieving, mixing, drying, granulating, molding, filling), packaging (primary, secondary and tertiary packaging) and in-process supervision (IPC).</p> <p>9. Warehousing Types of warehouses include division of areas / spaces (warehouse: raw materials, packaging materials, intricate products, finished</p>			
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		<p>products, solvents, psychotropics, labels for rejects and returned products; quarantine areas, sampling rooms, cold rooms, receiving, storing, releasing, with the FEFO / FIFO system, distribution and counting of goods.</p> <p>10. Occupational Health and Safety (K3) Fire extinguishing systems, noise protection equipment, work facilities.</p> <p>11. Continuous quality improvement</p>			
P12A.0203	Intern: IN Hospital	<p>1. Hospital Organization and Hospital Pharmacy: Hospital Classification, Hospital organizational structure, Pharmacy and Therapy Committee / Pharmacy and Therapy Commission, Hospital Pharmacy Organization Structure, FRS Service Standards, Hospital Accreditation.</p> <p>2. Management of Pharmacy Supplies in Hospitals:</p> <p>a. Planning and selection: drug budget, planning system, supplier selection</p> <p>b. Procurement: priorities and methods of procurement</p> <p>c. Storage: layout of warehousing systems and storage systems</p> <p>d. Distribution: distribution systems and controls</p> <p>3. Quality control system (internal audit) at the Hospital Pharmacy installation</p>	Cooperative Learning/role play/Experiential Based Learning	Intern	Lecturers from the Faculty of Pharmacy who are pharmacists and have certificates of competence and preceptors at the Pharmacy in Hospital

		<p>4. Control system model and control implementation in IFRS</p> <p>5. Pharmacist Functional Role:</p> <p>a. Drug information and counseling services</p> <p>b. Formulary and Therapy Committee</p> <p>c. TDM (Therapeutic Drug Monitoring) MESO, drug interactions and patient safety (medication error)</p> <p>d. Handling of cytotoxic drugs</p> <p>e. TPN (Total Parenteral Nutrition) and IV-admixture</p> <p>f. DUE (Drug Utility Evaluation) and RDU (Rational Drug Use)</p> <p>g. Production and quality control</p> <p>h. Pharmacoeconomics</p> <p>i. Inpatient and Outpatient Pharmacy services</p> <p>j. Infection control (for example, nosocomial infections)</p> <p>k. Other clinic Pharmacy services</p> <p>l. CSSD (Medical Equipment Sterilization Center = PSPM): scope of CSSD and type of sterilization</p> <p>m Hospital Waste Management: handling of cytotoxic waste and other IFRS wastes</p>			
P12A.0204	Intern: Government Facilities	<p>1. Puskesmas organization</p> <p>2. Management of Pharmacy Supplies at Puskesmas</p> <p>3. The functional role of the pharmacist:</p>	Cooperative Learning/role play/Experiential Based Learning	Intern	Lecturers from the Faculty of Pharmacy who are pharmacists and have certificates of competence and

		<p>a. Drug information and counseling services</p> <p>b. Pharmacoeconomics</p> <p>c. Outpatient and inpatient Pharmacy services</p> <p>d. Education to the surrounding community through counseling and posters</p>			preceptors at the Pharmacy
P12A.020 5	Intern: Pharmaceutical Distribution Facilities	<p>1. Selection of drugs/drug raw materials that meet the requirements of Quality, Cost, Delivery (QCD).</p> <p>2. Selection of suppliers in ensuring the safety and efficacy of drugs / medicinal substances received.</p> <p>3. Selection of purchasing procedures and administration following applicable laws and regulations.</p> <p>4. Selection of purchasing personnel who meet the 3B requirements.</p> <p>5. Making needs planning based on various approaches to the Disease Pattern / Pareto / Consumer Preference.</p> <p>6. Competency in Storage</p> <p>7. Carry out the FIFO and FEFO principles in warehousing.,</p> <p>8. Warehouse administration that allows speed and accuracy of recall execution.</p> <p>9. Develop drug administration / drug raw materials that ensure safety and quality.</p> <p>10. Safe stock of medicine / raw material for drugs by observing lead time and consumption.</p> <p>11. Competence in Distribution</p> <p>12. Delivery Order, invoice and tax invoice.</p>	Cooperative Learning/ role play/ Experientia l Based Learning	Intern	Lecturers from the Faculty of Pharmacy who are pharmacists and have certificates of competence and preceptors at the Pharmacy Distribution

		13. Megadministrate receivables and implement collection effectiveness. 14. Planning drug distribution to service units taking into account the needs of the service unit			
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2.3.2 List of Lecturer

No.	Lecture Name	NIDN** (Lecturer ID)	Academic Rank	Academic Degree	Educational Background	Major
1.	Prof. Dr. Apt. Moelyono M.W., MS.	0011015003	Professor	Drs., Apt. MS Prof. Dr.	S1 Unpad S2 ITB S3 Unpad	Pharmacy Phytochemistry Phytochemistry
2.	Prof. Dr. Apt. Resmi Mustarichie, M.Sc.	0013125002	Professor	Drs., Apt. M.Sc. Prof. Dr.	S1 Unpad, S2 Murdock Univ. Australia S3 Murdock Univ. Australia	Pharmacy Environmental Pharmacy Environmental Pharmacy
3.	Prof. Dr. Apt. Anas Subarnas, M.Sc.	0019075202	Professor	Drs., Apt. M.Sc. Prof. Dr.	S1 Unpad S2 Tohoku Univ. Japan S3 Tohoku Univ. Japan	Pharmacy Phytochemistry Pharmacology
4.	Prof. Dr. Apt. Ahmad Muhtadi, MS.	0003055502	Professor	Drs., Apt. MS Prof. Dr.	S1 Unpad S2 ITB S3 Unpad	Pharmacy Pharmacology Pharmacology
5.	Prof. Dr. Apt. Jutti Levita, M.Sc.	0009046303	Professor	Dra., Apt. M.Sc. Prof. Dr.	S1 Unpad S2 ITB S3 ITB	Pharmacy Pharmaceutical Chemistry Medicinal Chemistry
6.	Prof. Dr. Apt. Ajeng Diantini, M.Sc.	0012036402	Professor	Dra. M.Sc. Prof. Dr.	S1 Unpad S2 ITB S3 Unpad	Pharmacy Pharmacology Pharmacology
7.	Prof. Dr. Marline Abdassah, MS.*	0019055203	Professor	Dra. MS Dr.	S1 Unpad S2 ITB S3 ITB	Pharmacy Pharmaceutics Pharmaceutics
8.	Prof. Dr. Apt. Sri Adi Sumiwi, MS.*	0010115704	Professor	Dra. MS Dr.	S1 Unpad S2 ITB S3 Unpad	Pharmacy Pharmacology Pharmacology
9.	Dr. Apt. Dolih Gozali, MS.*	0019125904	Assoc. Prof	Drs. MS Dr.	S1 Unpad S2 ITB S3 Unpad	Pharmacy Pharmaceutics Pharmaceutics
10.	Dr. Apt. Eli Halimah, MS.*	0027126302	Assoc. Prof	Dra. MS Dr.	S1 Unpad S2 ITB S3 Unpad	Pharmacy Pharmacology Pharmacology

11.	Prof. Dr. Apt. Keri Lestari, M.Sc.*	0027046906	Professor	B.Sc. M.Sc. Dr.	S1 Unpad S2 ITB S3 Unpad	Pharmacy Pharmacology Clinical Pharmacy
12.	Apt. Taofik Rusdiana, M.Sc., Ph.D.*	0030037301	Assoc. Prof	B.Sc. M.Sc. Ph.D.	S1 Unpad S2 ITB S3 Gunma Univ., Japan	Pharmacy Pharmaceutics Pharmaceutics
13.	Prof. Apt. Muchtaridi, M.Sc., Ph.D.*	0002067401	Assoc. Prof	B.Sc. M.Sc. Ph.D.	S1 Unpad S2 IPB S3 USM, Malaysia	Pharmacy Pharmaceutical Chemistry Medicinal Chemistry
14.	Apt. Dr. Ida Musfiroh, M.Sc.*	0027117503	Assoc. Prof	B.Sc. M.Sc. Dr.	S1 Unpad S2 ITB S3 ITB	Pharmacy Pharmaceutical chemistry Pharmacochemistry
15.	Apt. Rizky Abdulah, Ph.D.*	0026017903	Assoc. Prof	B.Sc. Ph.D.	S1 Unpad S3 Gunma Univ Japan	Pharmacy Clinical Pharmacy
16.	Dr. Apt. Sriwidodo, M.Sc.*	0030037401	Assoc. Prof	B.Sc. M.Sc.	S1 Unpad S2 Unpad	Pharmacy Biochemistry
17.	Dr. Apt. Yoppi Iskandar, M.Sc.*	0016016807	Assist. Prof	B.Sc. M.Sc. Dr.	S1 ITB S2 ITB S3 Unpad	Pharmacy Phytochemistry Phytochemistry
18.	Dr. Apt. Yasmiwar Susilawati, M.Sc.*	0018056903	Assist. Prof	B.Sc. M.Sc. Dr.	S1 Unpad S2 ITB S3 Unpad	Pharmacy Phytochemistry Phytochemistry
19.	Dr. Apt. Tiana Milanda, M.Sc.*	0012126903	Assist. Prof	B.Sc. M.Sc. Dr.	S1 Unpad S2 ITB S3 ITB	Pharmacy Pharmaceutical Chemistry Medicinal Chemistry
20.	Dr. rer. nat. Apt. Anis Yohana Ch., M.Sc.*	0020127001	Assist. Prof	B.Sc. M.Sc. Dr. rer. nat	S1 Unpad S2 ITB S3 Freie Univ, Germany	Pharmacy Pharmaceutics Pharmaceutics
21.	Dr. Apt. Rini Hendriani, M.Sc.*	0001027106	Assist. Prof	B.Sc. M.Sc. Dr.	S1 ITB S2 ITB S3 ITB	Pharmacy Pharmacology Pharmacology
22.	Dr. Apt. Tina Rostinawati, M.Sc., Apt.*	0003017308	Assist. Prof	B.Sc. M.Sc. Dr.	S1 ITB S2 ITB S3 ITB	Pharmacy Pharmaceutical Microbiology Pharmaceutical Microbiology
23.	Apt. Mutakin, M.Sc., Ph.D.*	0024057302	Assist. Prof	B.Sc. M.Sc. Ph.D.	S1 Unpad S2 ITB S3 Gunma Univ, Japan	Pharmacy Pharmaceutical Chemistry Pharmaceutical Chemistry

24.	Dr. Apt. Aliya Nurhasanah, M.Sc., Apt.*	0012027906	Assist. Prof	B.Sc. M.Sc. Dr.	S1 ITB S2 ITB S3 ITB	Pharmacy Chemistry Pharmacochemistry
25.	Apt. Melisa Intan Barliana, Dr. Med. Sc., Apt*	0019097909	Assoc. Prof	Dr.Med.Sc.	S1 Unpad S3 Gunma Univ Japan	Pharmacy Immunology
26.	Apt. Irma Meylani P., MT., Ph.D.*	0001057911	Assoc. Prof	B.Sc. MT Ph.D.	S1 Unpad S2 ITB S3 Gunma Univ, Japan	Pharmacy Electrical Engineering Clinical Pharmacy
27.	Apt. Auliya A. Suwantika, MBA., Ph.D., Apt .		Assoc. Prof	B.Sc. MM Ph.D.	S1 Unpad S2 ITB S3 Groningen Univ, The Netherlands	Pharmacy Management Pharmacoeconomics
28.	Dr. Apt. Ade Zuhrotun, M.Sc.*	0010108106	Assist. Prof	B.Sc. M.Sc. Dr.	S1 Unpad S2 ITB S3 ITB	Pharmacy Phytochemistry Phytochemistry
29.	Apt. Nasrul Wathoni, M.Sc., Ph.D.*	0004058202	Assoc. Prof	B.Sc. M.Sc.	S1 Unpad S2 ITB S3 Kumamoto Univ., Japan	Pharmacy Pharmaceutics Pharmaceutics
30.	Dra. Apt. Wiwiek Indriyati, M.Sc.*	0026045302	Assist. Prof	Dra. M.Sc.	S1 Unpad S2 IPB	Pharmacy Food Chemistry
31.	Dra. Apt. Rr. Sulistiyaningsih M.Kes.*	0005085504	Assist. Prof	Dra. M.Kes.	S1 Unpad S2 Unpad	Pharmacy Public Health
32.	Apt. Ami Tjitraresmi, M.Sc.	0015127101	Assist. Prof	B.Sc. M.Sc.	S1 Unpad S2 ITB	Pharmacy Phytochemistry
33.	Dr. Apt. Yoga Windu Wardhana, M.Sc.*	0015107406	Assist. Prof	B.Sc. M.Sc.	S1 Unpad S2 ITB	Pharmacy Pharmaceutics
34.	Apt. Soraya Ratnawulan M., M.Sc.*	0001017523	Assist. Prof	B.Sc. M.Sc.	S1 Unpad S2 ITB	Pharmacy Pharmaceutics
35.	Apt. Insan Sunan K., M.KM., Apt*	0009107506	Assist. Prof	B.Sc. M.KM	S1 Unpad S2 Unpad	Pharmacy Hospital Pharmacy
36.	Apt. Ellin Febrina, M.Sc.*	0024037603	Assist. Prof	B.Sc. M.Sc.	S1 Unpad S2 ITB	Pharmacy Pharmacology
37.	Apt. Driyanti Rahayu, M.Eng.*	0005047605	Assist. Prof	B.Sc M.Eng	S1 UI S2 ITB	Chemistry Chemical Engineering
38.	Apt. Dudi Runadi, M.Sc.*	0016067607	Assist. Prof	B.Sc. M.Sc.	S1 Unpad S2 ITB	Pharmacy Phytochemistry

39.	Dr. Apt. Nyi Mekar Saptarini, M.Sc.*	0016107608	Assist. Prof	B.Sc. M.Sc.	S1 ITB S2 ITB	Pharmacy Chemistry
40.	Apt. Yedi Herdiana, M.Sc.*	0012067706	Assist. Prof	B.Sc. M.Sc.	S1 Unpad S2 ITB	Pharmacy Pharmaceutics
41.	Dr. Apt. Iyan Sopyan, M.Sc.*	0012017802	Assist. Prof	B.Sc. M.Sc.	S1 Unpad S2 UGM	Pharmacy Pharmacochemistry
42.	Apt. Sri Agung Fitri K., M.Sc.*	0004097803	Assist. Prof	B.Sc. M.Sc.	S1 Unpad S2 ITB	Pharmacy Pharmaceutical Microbiology
43.	Apt. Holis Abdul Holik, M.Sc., Ph.D*	0401028103	Assist. Prof	B.Sc. M.Sc.	S1 Unpad S2 ITB	Pharmacy Pharmacochemistry
44.	Apt. Ferry Ferdiansyah, M.Sc.*	0018058107	Assist. Prof	B.Sc. M.Sc.	S1 Unpad S2 ITB	Pharmacy Pharmacognosy
45.	Apt. Gofarana Wilar, M.Sc., Ph.D*	0016108107	Assist. Prof	B.Sc. M.Sc.	S1 Unpad S2 ITB	Pharmacy Pharmacology
46.	Apt. Angga Prawira K, B.Sc., MARS.*	0418028202	Assist. Prof	B.Sc. MARS.	S1 Unpad S2 UI	Pharmacy Hospital Administration
47.	Apt. Arif Budiman, M.Sc.*	0012098205	Assist. Prof	B.Sc. M.Sc.	S1 Unpad S2 ITB	Pharmacy Pharmaceutics
48.	Apt. Ivan Surya Pradipta, M.Sc., Ph.D*	0520068301	Assist. Prof	B.Sc. M.Sc.	S1 Unpad S2 UGM	Pharmacy Pharmacy Klinik
49.	dr. Budhi Prihartanto, Sp.PD.	0025106602	Instructor	dr. SpPD	S1 Unpad Sp1 Unpad	Medicine Internist
50.	Apt. Danni Ramdhani, M.Sc.*	0021078005	Instructor	B.Sc. M.Sc.	S1 Unpad S2 ITB	Pharmacy Pharmacochemistry
51.	Apt. R. Maya Febriyanti, M.Pharm.*	0015028606	Instructor	B.Sc. M.Sc.	S1 Unpad S2 ITB	Pharmacy Phytochemistry
52.	Dika Pramita Destiani, M.Pharm.	0001128701	Instructor	B.Sc. M.Pharm.	S1 Unpad S2 Unpad	Pharmacy Clinical Pharmacy
53.	Dr. Apt. Sandra Megantara, M.Pharm.	-	Instructor	B.Sc. M.Sc.	S1 Unpad S2 Unpad	Pharmacy Pharmaceutical Chemistry
54.	Apt. Arif Satria Wira Kusuma, M.Sc.	-	Instructor	B.Sc. M.Sc.	S1 Unpad S2 ITB	Pharmacy Pharmaceutical Microbiology

CHAPTER III

ACADEMIC ASSESSMENT AND REPORTING SYSTEM

The Pharmacist Professional Study Program at the Faculty of Pharmacy, Padjadjaran University uses the Semester Credit System in the implementation of its education. Implementation of education based on this semester credit system can provide opportunities for:

1. Students can take courses according to their abilities, talents and interests.
2. Implementation of the best possible student evaluation system.

3.1 General Definitions

Some of the basic definitions used in the semester credit system are described below. The semester is the smallest unit of time used to express the length/duration of the process of teaching and learning activities of a program at an educational level. The implementation of a complete level of education program from start to finish will be divided into semester activities so that at the beginning of each semester students must plan the learning activities that will be undertaken in that semester.

One semester is equivalent to learning activities for about 16 (sixteen) working weeks, ended by the final semester exam. One academic year consists of two regular semesters, namely the odd semester and the even semester (on the period of August until February) and even semester (on the period of February until August).

The Semester Credit System is an educational system to state:

1. Student learning load.
2. Lecturer workload.
3. Learning experience.
4. Cost of administering the program.

Semester Credit Units (Satuan Kredit Semester (SKS)) is a measure of workload towards the learning experience taken for one semester through scheduled activities per week.

Workload per Semester is the number of Credits taken by students in a semester, while the Cumulative Study Load is the minimum number of Credits that students must take in completing the learning process in a particular study program.

Cumulative Study Time is the maximum time which has to be taken by a student to complete his/her studies in study program. For the Pharmacist Professional Study Program, the number of Credits that must be taken is 36 Credits which are scheduled for a two-semester study period and a maximum of six semesters.

One Credit units (SKS) for college activities is set to be equivalent to the study load each week for one semester, which consists of the following three activities:

1. 1 hour (50 minutes) of scheduled lectures.
2. 1 hour (60 minutes) of structured activities outside the classroom.
3. 1 hour (60 minutes) of independent activities.

One credit unit for seminar activity is set to be equivalent with 100 minutes scheduled lecturer and 70 minutes independent studies. The minimum number of literature which is

used as a reference and summarized for presentation in front of the forum is 3 (three) titles, depending on the weight of the literature.

One credit for laboratory/practicum activities in the laboratory is set to be equivalent to a study load of about 170 minutes scheduled laboratory work, accompanied by structured activities outside the laboratory, but planned by the teaching staff concerned, including discussions and writing reports every week for one semester and independent activities, including reading reference books, deepening the material and completing assignments.

One credit unit for fieldwork, clinical work and similar activities is set to be equivalent to a workload of 170 minutes scheduled activities per week for one semester. One credit unit for thesis writing, research activities, and similar activities basically refers to fieldwork.

One credit for internship report writing activities refers to fieldwork, is set to be equivalent to a workload of 170 minutes scheduled activities per week for one semester.

The learning process is carried out using the student-centered learning (SCL) method. The implementation of this method is adjusted to the policies of each study program, including problem-based learning, role play, simulation, mini-lectures and group discussions.

3.2 Admission

At the beginning of each semester, students are required to make two types of registration, namely administrative registration and academic registration.

3.2.1 Applications

- a. Application is carried out to fulfill stipulated administrative requirements and to obtain a student card;
- b. For new students, the following registration requirements apply:
 1. Pass the test/selection set.
 2. Bring an exam/selection card.
 3. Show original or required undergraduate diploma and submit a certified copy.
 4. Fill out and submit the registration form again.
 5. Pay the semester fee for the applicable semester.
- c. For existing students, the following registration requirements apply:
 1. Pay the semester fee for the applicable semester according to the registration schedule.
 2. Show the last / still valid student card.
- d. Students who do not carry out semester fee (her registration) are not allowed to carry out Study Plan Card (SPC/KRS) and are not entitled to academic services at the faculties and study programs.

3.2.2 Academic Registration

Academic registration is carried out to obtain permission to participate in academic activities. The academic registration rules are as follows:

1. Registration is carried out at the Sub Division of Education (SDE) of the Faculty of Pharmacy by submitting proof of semester fee payment or semester fee Deferral Approval Letter;
2. Students are required to take a Study Plan Card (SPC/KRS), fill it out with the guardian lecturer.
3. After being signed by the student and lecturer guardian, SPC is submitted to the SDE according to the predetermined schedule.
4. Students will not receive any academic services as long as they do not register in the current semester.

3.3 Academic Cards

In the administration of academic administration, several cards and lists are used, including:

3.3.1 Study Plan Card (SPC/KRS)

1. SPC contains a list of courses the student will take in the semester concerned.
2. SPC is filled in by the joint student and approved by the lecturer guardian by signing his / her signature.
3. SPC is taken at SDE no later than three days before lectures start at the beginning of each semester.
2. SPC is submitted to the SDE.

3.3.2 Proposing to Change Study Plan Card (CSPC/PKRS)

With the approval of the guardian lecturer, students can change the SPC (replace, add, or subtract) up to 10 (ten) lecture working days (2 weeks). After this limit, changes to the SPC are no longer allowed. The revised SPC must be submitted back to SDE no later than the end of the 2nd week of lecture workdays.

3.3.3 Attendance List of Students and Lecturers Card (DHMD)

ALSLC contains the name and student identification number participating in the relevant course;

1. ALSLC is signed by the student during the teaching and learning activities, as well as by the lecturer who teaches courses or assistants at the end of the activity;
2. ALSLC is stored in SDE or lecturer who teaches courses.
3. ALSLC which is kept by the lecturer who teaches the course on the last day of the lecture, must be submitted to the SDE as an evaluation material for student attendance to be made DPNA.

3.3.4 List of Student and Final Score Card (DPNA)

1. LSDSC contains a list of names and NPMs of all students who take a course following ALSLC;

2. LSDSC is given by SDE to a lecturer who teaches the course during the final exam of the semester and must be submitted back to SDE no later than one week after the implementation of the course exam;
3. The original LSDSC is kept in the SDE, the first copy is posted on the announcement board, and the second copy is kept by the lecturer who teaches the course.

3.3.5 Semester Academic Record Card (SARC/KKS)

1. SARC contains the final score of all courses that the student has taken in the semester concerned and includes the maximum credit load that can be taken in the following semester;
2. SARC issued by SDE Faculty of Pharmacy;
3. SARC is used as material for consideration in filling the SPC for the following semester;
4. SARC is made in 4 copies, namely for students, SDE guardian lecturers, and study programs.

3.3.6 Student Achievement Card (SAC/DPM)

1. SAC contains the Grade Point Average (GPA) of students for each batch in one study program, the number of semesters and the study load that has been taken, as well as the name and code number of the guardian lecturer. This SAC was made by SDE Faculty of Pharmacy.
2. SAC is approved and signed by the Vice Dean I.
3. SAC is announced to students at the end of each semester.

3.3.7 Exam Participant Card (KPU)

Exam Participant Card is a card used as student identity when taking the Final Semester Examination, the card is obtained by students if it meets the academic administration prerequisites to take the Final Semester Examination. The card issuance is tailored to the needs of the Faculty of Pharmacy.

3.3.8 Student Learning Card (KSM)

Student Study Card is a card used as proof/contract for taking courses by students in each semester, issued by the SDE Faculty of Pharmacy after passing through the academic guidance/guardianship process. KSM issuance is adjusted to the needs of the Faculty of Pharmacy.

3.3.9 Academic Record/Achievement Card (KPA)

Academic Achievement Card is a card that contains the entire list of courses along with the value of courses that students have taken/contracted during their studies, which can also be referred to as temporary academic transcripts or a collection of Study Progress Cards (SARC).

3.4 Learning Activities

1. Students are allowed to take part in learning activities if students have:
 - a. Have a Student Identity Card that is valid in the semester concerned.
 - b. Fill in the SPC for the semester concerned and it has been signed by the student, lecturer guardian and SDE.
 - c. Registered in the ALSLC of the semester.
2. When participating in learning activities, students must sign ALSLC which must be checked by the lecturer who teaches the course.

3.5 Prerequisites of Examination

Students are allowed to take the exam if they meet the requirements below:

1. Registered as a student in the semester concerned.
2. Meet all administrative requirements set by the Faculty of Pharmacy.
3. Participating in at least 80% of lecture activities in real terms held in the semester concerned and/or participating in all activities (100%) of laboratory practicum, fieldwork, clinical work, seminars, or similar activities.
4. To take a comprehensive exam, students must meet the following requirements:
 - a. Pass all courses in the study program taken (meet the required cumulative study load).
 - b. Has compiled and written daily reports and Internship reports (which have been declared "fit for the test" by the supervisor).
 - c. Has completed the administrative requirements set by the University and the Faculty of Pharmacy.

3.6 Examinations

3.6.1 Institutional Examination

1. Comprehensive Examination

Pharmacist Comprehensive Profession Examination is a trial examination held by the Pharmacist Professional Study Program (PPSP) as a measuring tool to evaluate pharmacist competence, especially competence in pharmacist workplaces. Pharmacist Comprehensive Examination is included in the pharmacist profession curriculum of Padjadjaran University with a weight of 1 credit. In the PPESP comprehensive trial, there is no remedial / retrial, so those who do not pass are required to register for the next semester schedule.

Participants:

Students who are allowed to take the Comprehensive Pharmacist Professional Examination are students who have completed and passed courses in Semester I and have completed the Pharmacist Professional Work Practice in at least 3 of the 6 places offered, namely Pharmacy, Hospital, Industry, Government and Community Health Center and PBF.

Examiner:

There are 6 examiners for the pharmacist professional trial consisting of:

Academic Examiners:

Academic examiners are lecturers of the Faculty of Pharmacy Unpad who meet the requirements following applicable regulations as lecturers of the Faculty of Pharmacy Unpad, namely having a pharmacist professional competency certificate. There are 2 academic examiners, each of which tests the competence of pharmacists at the Pharmacy and Hospitals (Pharmaceutical Services) and tests the competence of pharmacists in the fields of Industry and Government / Regulation. One of the academic examiners as well as the chairperson of the trial.

Practitioner Examiners:

Practitioner examiners are practitioner lecturers who teach in the pharmacist professional class and or practitioners in the pharmacist professional work practice as a preceptor according to their field of expertise. There are 4 practitioner examiners, each of whom tests the competence of pharmacists in internship places, namely in pharmacies / PBF, hospitals, industry and government.

2. Objective Structured Clinical Examination (OSCE)

This exam is carried out to evaluate student skills competencies according to the pharmacist profession in the service, pharmaceutical and distribution industry. Technical implementation: questions are given in the form of cases in 9 stations that must be done by students. The assessment is carried out by an assessor at each station using a checklist sheet and an assessment rubric.

Requirements for passing institutional examinations in the pharmacist professional study program:

1. Pass all courses in the assigned cumulative study load;
2. Have a GPA of at least 3
3. There are no quality letters E and D;
4. Letter C quality does not exceed 20% (twenty percent) of the cumulative study load of Pharmacist Professional;
5. Has completed the preparation and writing of the internship report.
6. Passed the Comprehensive Session Examination as the final exam for Pharmacist Professional Education with the passing limit value of each examiner is 65.
7. Pass the Comprehensive Session Score of at least Quality Letter C (quality score 2.0);
8. Pass the Institutional OSCE Exam with a value of at least Quality Letter C (quality score 2.0).

3.6.2 National Examination

The national exam that must be taken by prospective pharmacists is the Indonesian Pharmacist Competency Test (UKAI) which is held by the National Committee for the Indonesian Pharmacist Competency Test. Since January 2017 UKAI has been implemented using the Computer Based Test (CBT) method, which is a

summative exam meaning that prospective pharmacists have not passed if they have not passed the UKAI CBT. UKAI exams for the CBT method are carried out simultaneously in all CBT Centers in Indonesia that meet the requirements with central supervisors from other universities assigned by the committee and local supervisors from other PPSP in the same city as the test takers.

Meanwhile, in July 2019 the OSCE exam was held as a National Formative exam (meaning that students are required to take it but do not determine their graduation), then the OSCE method UKAI exam will be a Summative exam (meaning that prospective pharmacists have not passed if they have not passed UKAI OSCE) the implementation time will be determined by the National UKAI Committee. The National OSCE method UKAI examination is held at the OSCE Center facilities of each Institution with National standards.

Requirements for UKAI Participants for the CBT Method for PPESP FFUP students, namely:

1. Has completed all academic obligations or Credits stated in the curriculum and has passed.
2. Minimum GPA 3.
3. Participating in a series of Institutional Try Out activities with a minimum pass value of 65, and or having a minimum national tryout value, namely the latest national NBL + 10% of the latest National NBL.

For example, if the national NBL last semester was 52.5 then the internal NBL this semester would be: $52.50 + 5.25 = 57.75$

- 1) has gone through the entire learning load that has been determined;
- 2) have targeted graduate learning outcomes by Prodi; and
- 3) has a GPA greater than or equal to 3.00;

3.6.3 The Predicate of Institutional Examination

1. Pharmacist Professional Education students are declared to pass if:
 - a. has gone through the entire learning load that has been determined;
 - b. have targeted graduate learning outcomes by Prodi; and
 - c. has a GPA greater than or equal to 3.00;
2. The graduation predicate / *judicium* is based on the final GPA, which is the combined average of the quality score (AM) of the course sets with the quality score (AM). The predicate for graduation from the Pharmacist Professional Study Program is:
 - a. GPA 3.00-3.50 is categorized as "satisfactory";
 - b. GPA of 3.51-3.75 is categorized as "very satisfying";
 - c. GPA 3.76-4.00 is categorized as "praise", provided that:
 - i. the study period does not exceed the learning period scheduled plus 0.5 (half) years;
 - ii. not repeating courses;

- iii. does not have a C value; and
 - iv. have works published in reputable international journals or at least have an ISSN or have national/international seminar proceedings or have Unpad scientific literature;
3. Pharmacist Professional Education students, the predicate of graduation is "very satisfying" if the student gets a GPA of 3.76 to 4.00 but the study period exceeds the scheduled study period plus 0.5 (half) years; and / or do not have works published in reputable international journals or accredited national journals. Publication criteria that can be used as cum laude requirements for pharmacist professional study program students are:
- a. Student cum laude candidate as the first author;
 - b. Includes affiliations of the "Pharmacist Professional Study Program, Faculty of Pharmacy, Padjadjaran University" or the Faculty of Pharmacy, Padjadjaran University published during their education at PPESP;
 - c. Published articles are the result of scientific papers carried out while carrying out education at PPESP;
 - d. Published articles have not been used for the requirements for course scores and judiciary in other study programs.

3.7 Evaluation of Learning Outcomes

The final grade of a course obtained by students is stated in two forms, namely the letter quality and the quality number according to the UNPAD assessment guidelines, which are divided into the following rankings:

Score	Huruf Mutu (HM)	Angka Mutu (AM)
$80 \leq NA \leq 100$	A	4
$68 \leq NA \leq 80$	B	3
$56 \leq NA \leq 68$	C	2
$45 \leq NA \leq 56$	D	1
$NA < 45$	E	0

A student is deemed to have obtained the letter T if:

1. Have not participated in the final evaluation of the semester;
2. After the evaluation in item (1) is fulfilled by the student within 2 weeks of the final exam for the subject, the letter T must be replaced with grades A, B, C, D, or E;
3. If the evaluation in item (1) is not fulfilled within the time limit of 2 weeks, then the letter of quality becomes E, or the lecturer who leads the course can process it

according to the weight of each assigned evaluation section, to produce another quality letter;

- The letter T cannot be changed to the letter K, unless the student is unable to take the final exam for the following semester based on justifiable reasons (illness, accident, or an accident requiring long treatment).

A course can be started with the letter K if:

- Students resign from lectures after the SPC change deadline (2 weeks after the academic activity runs) with reasons that can be justified and proven by a Dean's Certificate.
- Students cannot take the final semester exams.
- Students cannot complete the final project in one semester.
- Students do not participate in learning activities for a long time because of illness, or have an accident accompanied by a certificate from the authorities.
- Subjects that have the letter K are not used for calculating GPA or GPA.
- For students who get the letter K for the entire study load in the semester concerned, this is counted towards the study time limit and is not considered a temporary termination of the study.
- The K value can change to A, B, C, D, or E after attending school again.

Assessment of the mastery of student material in all programs, both cognitive, psychomotor, and affective, uses PAP (Benchmark Assessment) with the following criteria:

Rentang	Huruf mutu	Angka mutu
$NA \geq 80$	A	4
$68 \leq NA < 80$	B	3
$56 \leq NA < 68$	C	2
$45 \leq NA < 56$	D	1
$NA < 45$	E	0

3.7.1 Grade Point (GP)

- Achievement index (IP) is a number that shows the achievement or progress of student learning in one semester.
- IP is calculated at the end of each semester.
- The calculation formula is as follows (rounding down if less than 0.05, rounding up if equal / more than 0.05).

$$IP = \frac{\text{Jumlah (AM x CREDITS)}}{\text{Jumlah CREDITS}}$$

3.7.2 Grade Point Average (GPA)

1. The Grade Point Average (GPA) is a number that shows a student's cumulative learning achievement or progress from the first semester to the last semester that has been taken.
2. GPA is calculated at the end of each semester.
3. The calculation formula is as follows (rounding down if less than 0.05, rounding up if equal / more than 0.05):
GPA =
4. GPA is used to determine the study load of the following semester.
5. The range of GPA and the maximum number of credits that students can take in the following semester (according to the Unpad assessment guidelines).

GPA Range	Max Taken Credit
3,00 – 4,00	24
2,5 - 2,99	21
2,00 – 2,49	18
1,50 – 1,99	15
< 1,50	< 12

6. GPA and GPA are used as criteria for giving academic sanctions and evaluation of studies at the end of the program.
7. Students are allowed to take a semester study load that is less than the minimum allowable amount but are not allowed to take a semester study load that is greater than the maximum allowable amount.
8. If students improve letters of quality E, D, or C, in calculating the GPA used are letters of higher quality, for example D is fixed to E, which is used is D.
9. The letters T and K are not used in calculating the GPA. The letter T must be changed to A, B, C, D, or E within two weeks after the letter T is announced.

3.7.3 Outcome Improvement

Improvement of quality letters can be carried out in the regular semester (odd semester and even semester).

1. Quality letter E must be corrected by taking the relevant course again in the following semester or at the first opportunity
2. The quality letter used for the calculation of GPA is the last.

3.7.4 Maximum “D” score

Students in the Pharmacist Professional Study Program are not allowed to have quality letter D. To be eligible for the Comprehensive Session, the minimum score for the Pharmacist Professional Study Program in C

3.8 Guidance and Counseling

Guidance and Counseling aim to provide guidance and counseling assistance to Padjadjaran University students who have problems, both academic and non-academic to be able to overcome the problems they face and to develop their abilities and self-understanding to complete their studies.

Guidance and Counseling service procedures are as follows:

1. Students can come to the faculty counselor lecturer on their own or at the advice of the guardian lecturer. The guardian lecturer will give a cover letter to the counselor lecturer.
2. Student services at the University Counseling Care Unit (CCU) are only permitted based on the consideration of the Faculty Leaders who will provide a cover letter, except in certain circumstances deemed an emergency.
3. Services for students who are recommended to transfer study programs, the following procedures apply:
 - a. submit a letter of application from students/parents / guardians to get guidance and counseling services.
 - b. Include the academic transcript of the student concerned.
 - c. Submitting a cover letter for the application for the "Psychological Test" on behalf of the student concerned by the Faculty Leader (Dean / Vice Dean I) / University Leaders (Rector /Vice I) to CCU
 - d. The findings and the results of the "Psychological Test" on behalf of the student concerned are from the University TPBK

To help students learn, the Faculty of Pharmacy assigns a lecturer guardian who will guide students while studying in the Pharmacist Professional Study Program. The number of students supervised by certain guardian lecturers is adjusted to the ability of the Faculty of Pharmacy with the following conditions:

1. Basically, each teacher can be a guardian lecturer who guides students for the entire program.
2. Guardian lecturers are required to keep in touch with students periodically to monitor the progress of their studies, at least at the beginning, middle and end of the semester; Guardian lecturers are required to have, fill in, and keep a Student Information File (BIM) book, both for academic guidance and personal guidance.

In summary, the duties of guardian lecturers are:

1. Helping students prepare a study plan, either a full study program or a semester program.
2. Consider the student's guidance in determining the study load and types of courses to be taken, according to the GPA obtained in the previous semester.
3. Monitoring the progress of the student's studies under his supervision.

At the beginning of the semester, the guardian lecturer holds a meeting with students to discuss the study plan of the entire program being taken. The things discussed are:

1. The estimated number of semesters a student will take to complete the entire program.
2. Direction of student studies.

The things that need to be considered in determining course taking are:

1. A course that is a prerequisite for the next course.
2. Courses that are only presented in one semester (odd semester or even semester only) or presented each semester.
3. Credits weight for courses, with the understanding that the bigger the Credits weight, the heavier it will be.
4. Different forms of subjects (lectures, laboratory labs, seminars, clinical practicums, etc.) with a different number of hours of learning activities.
5. Minimum attendance requirement is 100% in laboratory practicum and 80% in lecture (20% absence must be accompanied by a justifiable reason).
6. Semester study load, because too much can cause a low GPA which can lower GPA. This will determine the semester study load that can be taken in the following semester.
7. Elective courses available in the study program.

After discussing the study plan for the whole program, it is followed by the semester I study plan. Basically, for the first semester, each student is given the same opportunity, namely 18-21 Credits.

1. Students fill in SPC with the approval of the guardian lecturer. The guardian lecturer gives considerations and suggestions for taking the semester's study load based on the end-of-semester GPA as a guide, in addition to improving the overall study plan of the program by signing and stating the agreement with the students;
2. The semester study load does not have to be the maximum number of Credits allowed based on the end of semester GPA, especially if the courses to be taken include research activities and thesis writing or clinical and field activities (1 credit = 4-5 hours), because of the number of hours learning activities will be greater than lecture activities (1 credit = 50 minutes face to face and 60 minutes unscheduled structured activities, 60 minutes for independent activities).
3. Guardian lecturers must pay attention to the number of quality letters D obtained by students so as not to exceed the applicable provisions at the end of the entire program (not to exceed 20% of the cumulative study load).
4. To a certain extent personal difficulty can be accommodated by guardian lecturers, but if they cannot be resolved, it is advisable to be referred to the counselor lecturer at the Faculty of Pharmacy.
5. If the guardian lecturer is unable to carry out their duties for a long enough time, the Head of the Faculty of Pharmacy is obliged to appoint a replacement.

3.9 Temporary Discontinuation of Study

Students can temporarily stop their studies with the Dean's Permission by referring to the following conditions:

1. For the Pharmacist Professional Study Program, study suspension is only allowed for one semester
2. The mechanism for applying for a study suspension permit

- a. Students submit a letter of application to the Head of the Study Program, which is known by the Lecturer Guardian / Academic Advisor by affixing a signature.
 - b. Application letters are submitted no later than 2 (two) weeks after lecture activities.
 - c. After considering the academic aspect (GPA and the amount of credit savings), the Head of the Study Program forwards the application to the Dean.
 - d. If you get the Dean's permission, then during the study suspension period, students are exempt from the semester fee.
 - e. Study suspension is not taken into account within the maximum time limit for a student's study period.
 - f. Students who have permission to suspend their studies are not entitled to academic services.
3. Temporary study suspension without the permission of the Dean will be subject to the following sanctions:
 - a. To re-register must submit a written application to the Rector, through the Dean.
 - b. The study suspension period without the Dean's permission is calculated within the maximum time limit for the study program.
 - c. Pay tuition fees and practicum fees payable, and for the next semester, payments are charged according to new student rates.
 4. Stopping studies for two semesters consecutively or separately, for reasons as mentioned in point 3 (2) after the previous semester received the letter K for all semester expenses, it is deemed to temporarily suspend studies with the permission of the Dean for two semesters; thus the student concerned is no longer allowed to temporarily stop his studies.

3.10 Graduation and Academic Degrees

1. To be eligible for graduation, students of the Pharmacist Professional Study Program must have passed.
2. Students are required to submit the internship report that has been published in the journal (for judicial requirements with honors).
3. Graduates of the Pharmacist Professional Study Program are given the right to use the Pharmacist academic degree (Apt)
4. Graduates must follow the pronunciation of the pharmacist oath held by the PPSP by the National Pharmacy Committee which is an extension of the Minister of Health of the Republic of Indonesia, witnessed by Faculty Leaders, University Leaders, and the Indonesian Pharmacists Association (IAI).

CHAPTER IV ACADEMIC SANCTIONS

Academic sanctions can be in the form of academic warnings and/or termination of studies. The study termination sanction is proposed by the study program/faculty and decided by the Rector.

4.1 Academic Warning

Academic warning is in the form of a letter from the Vice Dean addressed to parents/guardians or funding institutions to inform student's lack of academic achievement or violations of other provisions. Academic warning is carried out to warn the student in order to not to experience the termination of study.

Academic warning is imposed on students who at the end of the second semester and the semesters thereafter have a GPA below 2.00 and / or the amount of credit savings is less than 50% of the total Credits that should be taken.

4.1.1 Academic Warning Due to Administrative Negligence

Academic warning is imposed on students of the Master of Pharmacy Study Program who neglect administrative obligations (not registering / re-registration, etc.) for one semester.

4.2 Study Termination

With the stipulation of termination of study, it means that students are expelled from Universitas Padjadjaran because their performance does not comply with applicable regulations, administrative negligence, and/or negligence in participating in learning activities. Reports on student conditions who must be given an academic warning as a result of negligence, attached with the proof of academic achievement and/or evidence of negligence.

1. A warning letter to the student concerned from the Faculty Leader (Dean/Vice Dean)
2. A letter requesting consideration of students who have violated the law from the Faculty Leader (Dean /Vice Dean) to the Faculty Senate.
3. The decree violate /does not violate the law on behalf of the student concerned from the Faculty Senate
4. A letter of application for termination of study on behalf of the student concerned from the Faculty Leader (Dean / Vice Dean) to the University Leaders (Rector / Vice Rector I)
5. Letter of approval / rejection of the study termination of the student concerned from the University Leadership (Rector / Vice Rector I)
6. Academic transcripts that have been taken by the student while studying at Universitas Padjadjaran, signed by the Head of the Faculty (Dean/Vice Dean)

Study termination is imposed on students who experience one of the conditions that exceeds the set cumulative study time limit.

4.2.1 Termination of Study Due to Administrative Negligence

Termination of study is imposed on students of the Pharmacy Masters Study Program who stop their studies for two consecutive semesters or at different times without the permission of the Rector.

4.2.2 Termination of Study due to Failure to Participate in Teaching and Learning Activities

Termination of study is imposed on the Master of Pharmacy Study Program that has registered or re-registered administratively, but:

1. at the end of semester II (two) obtains a GPA below 3.00;
2. at the end of semester I (one) and semester II (two) obtain a letter of quality below C;
3. at the end of semester III (three) has not conducted a Seminar of Research Proposal or has not passed a Seminar of Research Proposal for the second time;
4. at the end of semester VIII (eight) cannot complete the study;
5. at the end of semester VIII (eight) does not or does not have scientific articles according to the graduation requirements;
6. for 2 (two) consecutive semesters or at different times do not register;
7. doing things that defame the good name of the alma mater (Unpad), commit plagiarism, and / or violate scientific ethics.

4.3 Other Academic Sanctions

1. Academic sanctions are imposed on students who commit disrespectful actions in the teaching-learning process, both academic and non-academic, or violate the law, and / or commit immoral acts.
2. The determination of academic sanctions for certain cases (data plagiarism, discussion plagiarism, not mentioning sources, norms and ethics) is determined based on a recommendation from the Faculty / Graduate School Team.
3. The handling of plagiarism cases refers to the applicable regulations in Unpad and the prevailing laws and regulations.
4. The types of academic sanctions are determined based on the prevailing laws and regulations by the Advisory Commission, which consists of:
 - a. University representatives (Rector / Vice Rector for Academic and Student Affairs / Director of Education and Student Affairs); and
 - b. Representatives of Masters Education administering institutions (Dean of the Faculty / Postgraduate School, Deputy Dean, Chairperson / Secretary of the Masters Study Program, and Chief Advisor).
5. The results of the Advisory Commission agreement are then followed up by signing the Minutes as the basis for determining the decision.

4.3.1 Not completing SPC and not participating in Teaching and Learning Activities in Semester I and / or Semester II

Students who have registered administratively in semester I and / or semester II, either filling in SPC but not participating in teaching-learning activities or not completing SPC at all, without justifiable reasons, are considered resigned and subject to study termination sanctions.

4.3.2 Not Filling SPC/KRS

Students who have registered or re-registered administratively, but do not complete SPC (do not participate in teaching and learning activities) without justifiable reasons, are subject to the following sanctions:

1. Given a stern written warning by WD I not to repeat;
2. The semester left is calculated within the maximum time limit for completion of the study;
3. If this action is repeated, either in the following semester or in another semester, students will be subject to study termination sanctions.

4.3.3 Resign After the Change of SPC/KRS

Students who withdraw from one or more courses after the SPC change deadline without a justifiable reason (for example, illness, accident, or accident) are subject to the following academic sanctions:

1. The courses that are abandoned are declared not passing (given the letter quality E);
2. The letter E quality is used in calculating the Grade Point Average (GPA);
3. Got a warning letter from Vice Dean to not repeat.
4. The abandoned semester is calculated within the maximum time limit for completion of the study;
5. If this action is repeated, either in the following semester or in another semester, students will be subject to termination of their studies

4.4 Sanctions for Non Academic Violations

If a student commits a violation, after discussing it with the Faculty Senate, he will be subject to special sanctions, while the handling of criminal matters will be left to the authorities. The types of violations are like:

1. Violation of Law

Students who violate the law are subject to special sanctions in the form of academic suspension during the legal process, after being discussed with the Faculty Senate, while criminal matters are handed over to the authorities. Students who violate the law and have been legally found guilty by a court that has permanent legal force, will be subject to sanctions in the form of termination of study by the Rector. in accordance with applicable regulations.

2. Violation of Moral Ethics and Professional Ethics

Students who violate moral, professional ethics (examining patients / clients without supervision, making prescriptions, conducting consultations without supervision, etc.),

falsifying signatures and the like, will be subject to sanctions in the form of suspension by the Dean until termination of studies by the Rector.

3. **Violation of Academic Ethics**

Students who violate academic ethics, including cheating, plagiarizing (papers, reports, Final Project Reports, Thesis, etc.), plagiarism, leaking questions or similar, will be subject to sanctions in the form of academic suspension by the Dean until termination of studies by the Rector.

4.5 Other Sanctions

All activities that disturb public order and immoral acts in the campus environment are subject to sanctions in the form of warnings up to termination of studies.

Basically every student has the right to carry out various activities as part of the academic community, however, as in human life in general, it must be avoided from committing actions that can be categorized as crimes. These actions include:

1. Brawls between students, whether carried out inside or outside the campus environment that cause damage to other people's property and / or injured victims. The perpetrator of an act that causes damage or a victim of injury may be subject to the provisions of Article 406 of the Criminal Code concerning the destruction of property and Article 351 of the Criminal Code concerning persecution. The provisions in Article 406 and Article 351 of the Criminal Code can also be imposed on demonstrations that are disorderly and cause riots resulting in damage to other people's property and / or injured victims.
2. Drinking alcohol, both inside and outside the campus environment that disturbs public security. The provision that can be imposed is Article 492 regarding public security breaches.
3. Using narcotics, either for yourself or giving narcotics to others both inside and outside the campus environment. The provisions that can be imposed are Article 84 and Article 85 of Law no. 22 of 1997 on Narcotics.

In certain cases, the faculty may issue its own decisions that do not conflict with the legal or regulatory provisions above.

CHAPTER V INFRASTRUCTURE

5.1 Facilities

The Faculty of Pharmacy Unpad provides complete, self-owned and adequate facilities to ensure the smooth running of the Tridharma of Higher Education, in order to produce graduates who meet the specified competencies.

The facilities available at the Faculty of Pharmacy Unpad consist of a collection of books, scientific journals (physical and electronic), internet access, computer facilities, notebooks, tablets, LCD projectors, printers, digital cameras, scanners and complete laboratory instruments. Internet network already uses optical fiber with a bandwidth of 84 Mbps. All academicians can easily access the internet, due to the availability of adequate access points in all areas in the Faculty of Pharmacy Unpad.

Several courses in the Pharmacy Masters Program have taken advantage of the e-learning program at Universitas Padjadjaran. This program uses Moodle open source and can be accessed at <http://elearning.unpad.ac.id/kuliahonline/>

PS Masters students can access library facilities on the Unpad campus at Jalan Dipati Ukur Bandung which since 2017 has moved to the Jatinangor campus. This library is known as CISRAL-Unpad or Center of Information Scientific Resources and Library of Universitas Padjadjaran. CISRAL has implemented a digital library since 2003 and to date has a collection of 200,000 (two hundred thousand) books. Another advantage of CISRAL UNPAD is the search for books using the Online Public Access Catalog (OPAC), namely the automated CISRAL book collection tracking system subscribing to electronic journals (e-journals) related to PPESP UNPAD. CISRAL also has facilities such as a Multi Media room to be able to use the internet and access e-journals and e-books, which consists of: Sampoerna Corner room which provides reading books, internet facilities, TV, DVD and CD-Rom. There is a reading room (readingroom) and there is a computer and WiFi that can be used by users. Online access to the collections of the Universitas Padjadjaran library can be done through: Electronic Library (<http://lib.unpad.ac.id/>), Electronic Journal (<http://jurnal.unpad.ac.id/>), Knowledge Management (<http://repository.unpad.ac.id/>) and Online Public Access Catalog (OPAC) (Opac.unpad.ac.id). The central library of Universitas Padjadjaran has various facilities provided to make it easier for the academic community to access the library collections online. Apart from the university website as a vehicle for information, faculty websites were also developed. Until now, it has a book collection of around 200,000 (two hundred thousand) copies. There are various references available in the pharmacy faculty library which can be accessed online by the PSMF academic community including e-books and e-journals..

Another advantage of CISRAL Unpad is book search using the Online Public Access Catalog (OPAC), a book collection tracking system. CISRAL subscribes to an electronic journal (e-journal) which can be accessed by students of the Faculty of Pharmacy Unpad. In addition, CISRAL also subscribes to electronic books (e-books) in various fields of science. CISRAL also has facilities such as a multi-media room to access e-journals and e-books in the

form of the Sampoerna Corner, which also provides books, TV, DVD and CD-Rom. At CISRAL, there is a reading room that provides computers and WiFi.

In addition to the facilities at the Faculty of Pharmacy, students also can access various facilities in the classroom, administration room, laboratory, laboratory center, meeting room, sports facilities (badminton indoor sports hall, futsal field, soccer field, and basketball court), art activity room, activity room student affairs, health facilities, ATM platforms, bookstores, canteens, central library, mosque, Technical Implementation Unit (UPT) Medical & Health Center, Unpad Teaching Home (RSP), arboretum, on-campus transportation facilities and other facilities located on three campuses Unpad located in Bandung, Jatinangor and Arjasari.

Students can also access various facilities owned by other parties, such as the facilities at the Hospital dr. Hasan Sadikin Bandung, PT. Prodia Widya Husada and BATAN as well as facilities in various pharmacies, pharmaceutical industries, hospitals and government agencies (Balai POM and Puskesmas).

In the next five years, the Faculty of Pharmacy plans to increase the availability of various facilities, including the addition of laboratory instruments (HPLC, FTIR, UV spectrophotometer, densitometer, PCR, refrigerator, freeze dryer, dissolution device, SPE-vacuum and CO2 incubator), additional equipment. at the Unpad Educational Pharmacy-Kimia Farma, adding office equipment (electronics and furniture), teaching equipment, adding library collections and increasing internet bandwidth.

The management information system and ICT (Information and Communication Technology) facilities used by the Faculty of Pharmacy Unpad are in the form of:

1. Hardware in the form of a computer connected via an intranet and the internet.
 - a. Cable network & hot spots covering all areas of the Faculty of Pharmacy, both inside and outside the building.
 - b. 3 servers
 - c. 143 personal computers, 39 notebooks, 9 tablets and 12 Hubs.
 - d. The use of PABX as many as 16 points for direct communication services between divisions and between administrative rooms.
2. A sufficient number of licensed software
 - a. Licensed Windows Operating System and *Office Applications (Microsoft Certificate Agrrement)*, plus *Open source* applications such as Linux
 - b. Otomigen X automation *software* and GDL 4.2 *Digital Library software* which are connected to the IDLN (*Indonesia Digital Library Network*) used in the Unpad Faculty of Pharmacy Library and can be accessed through <http://farmasi.unpad.ac.id/perpustakaan>
 - c. *Moodle E-learning* Universitas Padjadjaran for *e-learning* applications, can be accessed at <http://elearning.unpad.ac.id/kuliahonline/>
 - d. *Plagiaricek software*, is a student's thesis antiplagiarism *software*, which can be accessed via a LAN network.

SIAT (Integrated Academic Information System) <https://siat.unpad.ac.id/> was built to facilitate and integrate all systems related to academic information both in the fields of education and teaching, research, community service and other support. SIAT can be accessed via

<https://siat.unpad.ac.id/index.php/login> (for operator login), <https://students.unpad.ac.id/> (for student login) and <https://staffs.unpad.ac.id/login> (for lecturer login).

SIAT contains:

1. PACIS (Padjadjaran Academics Information System) <http://pacis.unpad.ac.id>
Application for processing academic data which includes data for new students and old students, the finance department and BAA (Academic Administration Bureau).
The facilities there are:
 - a. Student registration and registration.
 - b. Up date student status.
 - c. Student bio and profile.
 - d. Payment process (e-payment).
 - e. Online Graduation.
2. PADI (Padjadjaran Admission) <http://padi.unpad.ac.id>
Applications for data processing of Unpad Entrance Examination (SMUP) participants include:
 - a. Purchase number and PIN for online registration.
 - b. Division of the exam room.
 - c. Exam attendance.
 - d. Pass participant report.
3. Registration (<http://pendaftaran.unpad.ac.id>)
Application for online registration processing, which includes:
 - a. Fill in participant biodata.
 - b. Checklist of required documents.
 - c. Announcement portal.
 - d. Download proof of registration.
4. Students (<http://students.unpad.ac.id/>)
This application was built as an information portal for Unpad students. The facilities contained in it are:
 - a. Filling in student biodata (for up date).
 - b. Registration information and billing form.
 - c. Academic information.
 - d. SPC Online.
 - e. Academic calendar
 - f. Test scores
 - g. Class schedule and lecture
 - h. Evaluation of learning outcomes (questionnaire)

This application was originally called the student portal with the address <http://mahasiswa.unpad.ac.id>, which has now changed to become student students.
5. e-Office (Padjadjaran Linked Mail) <http://siat.unpad.ac.id/eoffice>)
Application / system provided to process incoming and outgoing mail workflow in the Universitas Padjadjaran environment. The facilities provided include:
 - a. Incoming Mail System.
 - b. Outgoing Mail System.
 - c. Mail Tracking.

- d. Document Management.
6. *SIMAK BMN (State Property Accounting Management Information System) is an off line reporting system for the use of state property.*
 7. Online Alumni Database, is an online alumni database system that can be accessed through <http://farmasi.unpad.ac.id/data-alumni>.

SIAT has also been integrated with PDPT-DIKTI data (Higher Education Database) or <http://forlap.dikti.go.id> through a web service that is connected between Universitas Padjadjaran and Kemenristekdikti, to function as evaluation reporting on study programs each semester.

5.2 Infrastructure

The Faculty of Pharmacy Unpad provides complete, self-owned and adequate facilities to ensure the smooth running of the Tridharma of Higher Education, so as to produce graduates who meet the specified competencies.

In 2015, the infrastructure for the Faculty of Pharmacy Unpad was more complete with a grant from the IDB (Islamic Development Bank) in the form of 2 new buildings, complete with the facilities. This new 3-story building, which is named Laboratory Building 2, contains classrooms and laboratories, which are integrated with research rooms, discussion rooms and lecturers' workrooms. A new 2-story Dean building, contains rooms for faculty and study programs management, academic and administrative service rooms, small meeting rooms, plenary meeting rooms and other rooms needed to support the learning process, including an auditorium room for larger events. The two buildings complement the Laboratory 1 Building, which consists of classrooms, tutorial rooms, CBT Center and laboratories, which are integrated with research rooms, discussion rooms and lecturers' workrooms.

Classrooms, tutorial rooms and discussion rooms are used for lecture activities. The tutorial room is used for lectures using the SCL learning method and student comprehensive sessions. The auditorium room is used for guest lectures, guest visits or as a paper-based examination room (Paper Based Test). The Computer Based Test (CBT) method was conducted at the CBT Center.

Various laboratories and dry laboratories (Teaching Dispensatory), student research workspaces are available for use by students. The spacious library room is equipped with an adequate reading room. Comfortable open space for study and discussion, canteen, BEM Kemafar room, music room with band and angklung equipment and sports field. A large vehicle parking lot can meet the parking needs of lecturers, students and guests. Unpad Faculty of Pharmacy has Unpad-Kimia Farma Educational Pharmacy, medicinal plant garden and Padjadjaran 3 Dormitory for first year students. The Faculty of Pharmacy Unpad also has a fostered village, namely in Cilayung Village, Jatinangor District, Sumedang Regency, as a place for routine community service implementation.

In addition to infrastructure at the Faculty of Pharmacy Unpad, students can also access various academic and administrative infrastructure, laboratories, laboratory centers, meeting rooms, sports infrastructure (badminton indoor sports hall, futsal field, football field, and basketball court), art activity room, student activity room. Health facilities, ATM platforms, bookstores, canteens, central libraries, mosques and the Technical Implementation Unit (UPT)

of the Medical & Health Center which provides health services in the form of Emergency Unit (UGD), doctoral practice, outpatient care, inpatient care and referral to a more complete hospital (generally the Hasan Sadikin Hospital). Universitas Padjadjaran also has Unpad Teaching Hospital (RSP), arboretum and other infrastructure located on three Unpad campuses located in Bandung, Jatinangor and Arjasari.

Unpad Faculty of Pharmacy students can also access various infrastructures owned by other parties, such as the facilities of dr. Hasan Sadikin Bandung, PT. Prodia Widya Husada and BATAN. In the next five years, there will be expansion of the CBT space.

CHAPTER VI

RESEARCH, COMMUNITY SERVICE AND COOPERATION

6.1 Researches

Various researches by lecturers of the Pharmacy Masters Study Program at the Faculty of Pharmacy Unpad are funded from various sources. At the university level, there is ALG (Academic Leadership Program) research funding for professors and PUPT (Higher Education Excellence Research) funds. National scale research, such as Competitive Grants according to National Priorities, Foreign Cooperation Grants and International Publications, National Strategic Competitive Grants and Incentive Programs are funded by the Ministry of Research, Technology and Higher Education, the Ministry of Health and several private institutions. The amount of the grant varies depending on the qualifications of the researcher, the scale of the research and the final product produced. Research is generally carried out in groups involving lecturers, students and educational staff, which produce scientific publications, patents and commercial products.

All research activities in the Pharmacy Masters Study Program at the Faculty of Pharmacy Unpad are carried out in an integrated manner and in coordination with the Directorate of Research, Community Service and Innovation (DRPMI), Universitas Padjadjaran. Monitoring and evaluation of activities and reporting is carried out regularly by faculties, universities and funders to ensure the quality, relevance and productivity of activities.

Most of the research results from the academic community of the Pharmacy Masters Study Program at the Faculty of Pharmacy Unpad are used as materials for learning / education and are applied in the community in the form of community service activities. The results of this research are also published in the form of scientific presentations or scientific articles in accredited national journals and reputable international journals. This is in accordance with the vision of the Master of Pharmacy Study Program at the Faculty of Pharmacy Unpad, namely "Becoming a Superior Study Program in the Implementation of Research-Based and International Competitive Masters in Pharmacy Education in 2024" and one of the points on its mission is "Organizing research-based master of pharmacy demands of the user community and international competitiveness". Research-based education and community service (Transformative Learning) are the hallmarks of Universitas Padjadjaran in organizing higher education tridharma activities.

Currently, the Faculty of Pharmacy Unpad has 4 scientific journals that are published regularly, namely "Farmaka" as a forum for publication of Unpad Faculty of Pharmacy students, "Indonesian Journal of Clinical Pharmacy I" as an accredited national scientific journal, "Indonesian Journal of Pharmaceutical, Science and Technology" as a publication. National scientific journals have not been accredited as well as international journals "Pharmacology and Clinical Pharmacy Research". Each journal has special personnel (lecturers and education staff) who are trained in professional journal management.

6.2 Community service

Service / community service activities for lecturers of the Pharmacy Masters Study Program at the Faculty of Pharmacy Unpad are funded by various sources, including from Unpad DIPA funds in the form of priority PPM (Community Service) funds and integrated KKNM-PPMD funds. Other sources of funds come from the Ministry of Research and Technology in the form of grants (IbM Grants) and other institutions such as PT. Prodia, PT Kimia Farma and the West Java Provincial Health Office in the form of a cooperation fund.

The amount of funds from DIPA Unpad can fund outreach activities, training or simple demonstrations, while other sources of funds are able to fund entrepreneurship programs or application of research results for the community.

Various service / community service activities are applications of the research results of the Unpad Faculty of Pharmacy academic community, in accordance with the vision of the Unpad Faculty of Pharmacy Master of Pharmacy Study Program, namely "Becoming a Superior Study Program in Organizing International Competitive Research-Based Master of Pharmacy Education in 2024". This is also in accordance with one of the points on its mission, namely "To carry out community service by taking advantage of research results in the field of pharmacy". Research-based education and community service (Transformative Learning) are the hallmarks of Universitas Padjadjaran in organizing higher education tridharma activities.

The Faculty of Pharmacy Unpad has a fostered village, namely Cilayung Village, Jatinangor District, Sumedang Regency as a routine location for the implementation of services / community service from the academic community of the Faculty of Pharmacy Unpad.

All service / community service activities at the Faculty of Pharmacy Unpad are carried out in an integrated manner and in coordination with the Directorate of Research, Community Service and Innovation (DRPMI), Universitas Padjadjaran. Monitoring and evaluation of activities as well as reporting are carried out periodically by faculties, universities and funders to ensure the quality, relevance and productivity of activities.

6.3 Cooperation

To increase the quantity and quality of higher education tridharma activities, the Master of Pharmacy Study Program at the Faculty of Pharmacy, Universitas Padjadjaran has collaborated with various agencies, both at home and abroad. This collaboration is coordinated by the Research Manager, PPM, Innovation and Cooperation, Faculty of Pharmacy Unpad.

6.3.1 Cooperation in the Education Sector

In the field of education, the Pharmacy Masters Study Program at the Faculty of Pharmacy, Universitas Padjadjaran has collaborated with various universities that provide pharmacy education throughout Indonesia, which are members of the Indonesian Pharmacy Higher Education Association (APTFI). APTFI regularly holds meetings to improve the quality and standardization of pharmaceutical master's education in Indonesia.

The Pharmacy Masters Study Program, the Faculty of Pharmacy, collaborates with various universities abroad in the form of guest lectures, workshops and bench marking. The guest lectures and workshops that have been held involve teaching staff from Gunma

University (Japan), Yonsei University (Korea) and Universiti Sains Malaysia (USM), Chiba University (Japan), National University of Singapore (Singapore).

Bench marking activities for several staff of the Pharmacy Faculty Master of Pharmacy Study Program have been carried out to various universities in Indonesia and abroad, such as the College of Pharmacy, Monash University (Australia).

Educational collaboration with institutions abroad has provided opportunities for further study for lecturers and alumni of the Faculty of Pharmacy Unpad at universities where cooperation, lecturers in collaborating institutions become resource persons for public lectures, guest lectures, international workshops or seminars, organizing joint international seminars and student exchanges and lecturers.

To improve the competence of graduates, the Pharmacy Faculty Master of Pharmacy Study Program has collaborated with the pharmaceutical industry, pharmaceutical wholesalers, government agencies and various pharmaceutical service facilities, such as pharmacies, hospitals and health centers, especially as presenters in public lectures, guest lectures, workshops and national / international seminars. The collaborating parties also provide feedback used for improvement and evaluation of curriculum and graduate competencies.

6.3.2 Research Cooperation

In the field of research, the Master of Pharmacy Study Program at the Faculty of Pharmacy Unpad has collaborated with various institutions at home and abroad. Research collaborations that have been established with various domestic agencies include LIPI, BPPT, BATAN, PT. Kimia Farma, PT. Prodia, PT. Jamu Borobudur, Darya Padma Enoes, PT Inertia Utama, PT Midix Graha Farma, PT Martina Berto, and various pharmaceutical service facilities, such as pharmacies, hospitals and health centers, especially as a place for student and lecturer research.

Research collaborations that have been established with various foreign agencies include:

1. *Post Doctoral Research* at Toyama Medical and Pharmaceutical University (Japan).
2. *Joint Research* with Hohenheim Universitat (Stuttgart, Germany).
3. *Joint Research* with University of the Phillipine (Manila, the Philipines).
4. *Post Doctoral Research* at Department of Pharmacy and Biology Munich University (Germany).
5. *Training Course* at Faculty of Agriculture Kyoto University (Japan).
6. *Joint Research* with Osaka Prefecture University (Japan).
7. *Post Doctoral Research* at Institut of Pharmacy – Ludwig Maximilliam (Munich, Germany).
8. *Post Doctoral Research* at Department of Chemistry, University of Braunschweig (Germany).
9. *Post Doctoral Research* at Freie Universitat Berlin – Germany.
10. *Sandwich Research* with Yonsei University (Korea).
11. *Joint Research* with Graduate School of Medicine, Gunma University (Japan).
12. *Sandwich Research* with INSA, Toulouse (France).
13. *Joint Research* with Monash University, Australia.
14. *Joint Research* with Universiteit Twente

15. *Joint Research* with Vrije University
16. *Joint Research with* Universitas Pompeu Fabra Barcelona
17. *Joint Research* with Faculty of Science Leiden University
18. *Joint Research* with Chiang Mai University
19. *Joint Research* with China Pharmaceutical University
20. *Joint Research* with Vienna University
21. *Joint Research and double degree program* with Rutgers University the state of new jersey
22. *Joint Research* with Tsukuba University
23. *Joint Research* with Chiba University
24. *Joint Research* with Groningen University
25. *Joint Research with* Glouchestershire University

6.3.3 Cooperation in the Field of Community Service

In the field of community service, the Master of Pharmacy Study Program at the Faculty of Pharmacy Unpad provides services in the form of self-medication training, pap smear examinations and free medical examinations, in collaboration with PT. Prodia and PT. Kimia Farma. In addition, various health education activities were carried out in collaboration with BPJS and the Indonesian Ministry of Health.

To improve the quality of pharmaceutical care, the Pharmacy Master Study Program of the Faculty of Pharmacy has collaborated with the West Java Provincial Health Office in the form of clinical pharmacy training for health workers at health centers.

In 2005, the academic community of the Pharmacy Masters Study Program at the Faculty of Pharmacy participated in building the image of herbal medicine as a traditional Indonesian medicine, through the Traveling Exhibition on Jamu in 4 countries, namely Indonesia, the Netherlands, Singapore and Greece. This activity was held in collaboration with the National University of Singapore (Singapore), Leiden University (Netherlands), Maich University (Greece), Martha Tilaar Foundation and Bapak Anak Agung Gde Agung.

In 2010 and 2017, the Unpad Faculty of Pharmacy Master's Study Program held international seminars, expos and workshops on herbal medicine. In this activity, the community was introduced to the existence of herbal medicine as a traditional Indonesian medicine which has gone global.

Faculty of Pharmacy Unpad also has an Education Pharmacy, which collaborates with PT. Kimia Farma Apotek, as a place for implementing education, research and community service for lecturers and students of the Faculty of Pharmacy.

The satisfaction statement of the collaborating parties was obtained from the feedback form and questionnaire provided by the Faculty of Pharmacy Unpad, either by email or given during direct visits.

CHAPTER VII STUDENT AND ALUMNI

7.1 Student

7.1.1 Student Development System

The main objective of student development in the Master of Pharmacy Study Program at the Faculty of Pharmacy Unpad is to support and endeavor to complement intracurricular activities with co-curricular activities, so that graduates have added value in the form of organizational experience, actualization and self-development, sensitivity to the surrounding environment and upholding the value of togetherness.

Since 2015, Students of the Pharmacy Masters Study Program have a forum to carry out student activities together with students of the Clinical Pharmacy Masters Study Program and the Doctoral Study Program in the Postgraduate Student Association of the Faculty of Pharmacy, Universitas Padjadjaran. Some of the activities that have been carried out in 2016 and 2017 are the provision of workshops "How to Publish in Accredited National Journals and Reputable International Journals" in collaboration with the Indonesian Clinical Pharmacy Journal and seminars and HPLC training for research. Apart from academic activities, postgraduate associations also regularly carry out sports and arts activities together with Kemafar.

7.2 Alumni

Universitas Padjadjaran Postgraduate Program alumni are gathered in the Unpad Postgraduate alumni association. One of the goals of the establishment of this alumni association is to provide input to the study programs, especially in the curriculum, in order to be more applicable and in accordance with the actual situation in the field.

Consequently, alumni of the master of pharmacy study program is member of the Faculty of Pharmacy Unpad alumni association, which are not separated from the postgraduate alumni association. To date, there are 4000 alumni registered at the Faculty, who are spread across the nation. The Alumni Association, embodied in the **Alumni Association of the Faculty of Pharmacy** as part of the **Alumni Association (IKA) Universitas Padjadjaran**. This association is a forum for all alumni, both undergraduate, pharmacists and masters who have organizational charter, vision - mission and work programs that are in line with both academic and non-academic educational goals at the Faculty of Pharmacy, Universitas Padjadjaran. Alumni association is seen as one of the important pillars in the progress and development of the institution. The name of the Faculty of Pharmacy Alumni Association is the **Ikatan Alumni Universitas Padjadjaran Komisariat Fakultas Farmasi (KOMFAK Farmasi)**.

The active role of alumni in collecting and providing financial assistance has been demonstrated both in the form of individuals and on behalf of the Faculty of Pharmacy Unpad. Since 2011, formal fundraising has been carried out with the Decree of the IKA Pharmacy Unpad Management which reforms the membership by carrying out her-registration and is required to pay member fees. 50% of the fundraising results are allocated to be donated to the Faculty in the form of scholarships and assistance for faculty activities. Almost every year IKA

Pharmacy conducts major activities in the form of national seminars and alumni gatherings. In the big event, a number of funds were collected which were used to assist the faculty according to agreed needs. In addition, there are also scholarships for student study assistance from various generations.

The Alumni Association donates educational facilities in the form of books, equipments and research materials that are donated/lent as well as provides places for simulation of drug counseling for students who will work in the service sector in order to help implement education in the faculty of pharmacy. In addition, the alumni workplace can also be used as a research place for master students of the Faculty of Pharmacy.

Alumni have formed a wide and strong network through the institutions where they work to provide information such as job vacancies, training activities and seminars. In addition, social networks such as Facebook and the mailing lists on the *yahoo group* and WhatsApp (instant messaging application) have also strengthened friendship, communication and information between alumni with their alma mater. This network is also often used as a means of information on job vacancies for new alumni.

Alumni also play an active role in providing input on learning activities such as being involved in the curriculum evaluation process, therefore the material provided can meet the needs of stakeholders. As one example, in the alumni forum there is a community of alumni who work in industry who provide input related to the curriculum in order to be in synergy with the field of work.

Appendix 1

Matriks of Learning Outcomes Vs Courses

Pharmacist Study Program

No	Learning Outcomes	Courses											Internship				
		Applied Pharmacotherapy	Hospital Pharmacy	Compounding and Dispensing	Pharmaceutical Management	Applied BioPharmaceutics and Clinical Pharmacokinetics	Communication and Counseling	Industrial Pharmacy	Quality Assurance	Public Health Science	Applied Phytotherapy	Pharmaceutical Services	(Pharmaceutical Services) in Dispensary/ Pharmacy	Pharmaceutical Industry	(Pharmaceutical Care and Services) in Hospital	Government Institution	Pharmacy Distribution
1	Able to identify and solve drug-related problems using an evidence-based approach in the design, manufacture/preparation, including quality control, security, procurement, storage and	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

	distribution, management of raw materials, pharmaceutical preparations and medical devices, and / or clinical pharmacy services to optimize success. therapy.															
2	Able to search, analyze critically, and organize information about pharmaceutical preparations, communicate and disseminate them effectively to ensure the efficient	✓	✓	✓	✓	✓	✓	✓				✓	✓	✓	✓	✓

	use of pharmaceutical preparations to individuals, the general public, and health professionals.																	
3	Able to carry out professional and responsible pharmacy practices following statutory provisions and pharmacist code of ethics.			✓	✓				✓				✓	✓	✓	✓	✓	✓
4	Able to carry out counseling services, compile information/ideas/thoughts, and communicate effectively	✓	✓	✓			✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

	y in various forms of media to other health professionals and/or the general public.																
5	Able to self-evaluate and manage self-learning to improve the pharmacist's professional practice skills.			✓								✓	✓	✓	✓	✓	
6	Able to make decisions in strategic matters in the field of pharmacy in professional work			✓	✓			✓	✓			✓	✓	✓	✓	✓	

	independently, to lead and manage group work, and to be responsible for the achievement of group work.															
7	Able to identify, understand, analyze, and find solutions to conflicts with appropriate methods.			✓				✓			✓					
8	Able to communicate, develop networks, and work together with teams, other health workers, and	✓		✓			✓				✓	✓	✓	✓	✓	✓

	clients to provide optimal patient care.																
9	Able to critically evaluate pharmaceutical work problems and be able to provide appropriate solutions.		✓		✓		✓				✓	✓	✓	✓	✓	✓	✓
10	Able to self-evaluate and manage self-learning to improve the pharmacist's professional practice skills.			✓				✓				✓	✓	✓	✓	✓	✓

11	Able to implement pharmaceutical science, pharmaceutical methods, and technology, including the ability to design, manufacture, and guarantee the quality of pharmaceutical preparations by observing statutory regulations.		✓		✓		✓	✓		✓				✓			
12	Able to apply the concepts of pharmacotherapy, pharmaceutical care, pharmacy practice,	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓			

	as well as the principles of epidemiology, evidence-based medicine, pharmacovigilance, and pharmaco economics, to ensure service quality and patient safety.															
13	Able to apply knowledge of pharmaceutical management, socio-pharmacy, pharmaceutical law and ethics, communication techniques, and	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

	occupational safety comprehensively.																
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