Table 14. ILO's of Undergraduate Programs with Regard to IQF and EQF

EQF	KKNI	Biology	Physics	Geophysics	Pharmacy
Knowledge and understanding					
The advanced knowledge in the field of work or study, involving a critical understanding of theories and principles	Mastering the theoretical concepts of certain fields of knowledge in a general and specific area and being able to solve problems procedurally.	1. Being able to use the basic knowledge and technology related to biology and owning a conceptual framework that can identify the connection between unifying principles in biology. 2. Mastering the principles of ethics and safety in the utilisation of biological research results and managing and conserving natural resources. 3. Being able to master the basic principles of data analysis and software applications to	1. The ability to apply basic science, mathematics, statistics, information systems, and technology that are useful in the world of work. 2. The ability to develop technology in various fields such as remote sensing, disaster, climate change, natural resource exploration, renewable energy, and medical instrumentation.	1. The ability to apply basic science, mathematics, statistics, information systems, and technology that are useful in the world of work. 2. The ability to develop technology in various fields such as remote sensing, disaster, climate change, natural resource exploration, renewable energy, and medical instrumentation.	1. Mastering the theories, methods, knowledge applications, and pharmaceutical technology (pharmaceuticals, pharmaceutical chemistry, pharmacognosy, pharmacology); concepts and applications of biomedical sciences (biology, human anatomy, microbiology, physiology, pathophysiology, biomedical ethics, biostatistics); pharmacotherapy concepts; pharmaceutical care; pharmacy practice, the principles of pharmaceutical calculation,

EQF	KKNI	Biology	Physics	Geophysics	Pharmacy
		support the assessment and presentation of biological research data/information.			epidemiology, evidence-based medicine, and pharmacoeconomics. 2. Mastering the knowledge of pharmaceutical management, socio-pharmaceutical, pharmacy law and ethics, communication techniques, and basic principles of work safety.
Skills					
The advanced skills, demonstrating mastery and innovation, are required to solve complex and unpredictable problems in a specialised field of work or study.	Being able to make strategic decisions based on the information and data analysis and provide instruction in choosing various alternative solutions. Being able to utilise science and technology in their field of expertise and adapt to situations encountered in	1. Being able to ap ply logical, critical, systematic, and innovative thinking in the development or implementation of science and technology in accordance with the field of expertise. 2. Assessing the	1. Being able to apply logical, critical, systematic, and innovative thinking in the development or implementation of science and technology in accordance with the field of expertise. 2. Assessing the	1. Being able to apply logical, critical, systematic, and innovative thinking in the context of the development or implementation of science and technology that pays attention to and applies humanities	1. Being able to identify and resolve drug-related problems based on information and data analysis using an evidence-based approach in the design, manufacture/preparation, distribution, management, and service of pharmaceutical preparations to

EQF	KKNI	Biology	Physics	Geophysics	Pharmacy
	solving problems.	implications of the development or implementation of science, technology, or art in accordance with their expertise based on scientific principles, procedures, and ethics to produce solutions, ideas, designs, or art criticism, and compiling a scientific description of the results of the study in the form of a thesis or final project report. 3. Making the right decisions in solving problems in the field of biological expertise based on the results of	implications of the development or implementation of science, technology, or art in accordance with their expertise based on scientific principles, procedures, and ethics to produce solutions, ideas, designs, or art criticism, and compiling a scientific description of the results of the study in the form of a thesis or final project report. 3. Making the right decisions in solving the problems in biological expertise based on the analysis	values in accordance with the field of physics independently and in groups. 2. Being able to as sess the implications of the development or implementation of science and technology in accordance with their expertise based on scientific principles, procedures, and ethics in producing solutions, ideas, and scientific descriptions of the results of the study in the form of thesis, scientific articles, patents, and intellectual	optimise therapeutic success. 2. Being able to carry out the pharmaceutical practice, supervised by pharmacists responsibly in accordance with the laws and regulations and the applicable code of ethics 3. Carrying out research, identifying and solving problems to contribute to improvements in pharmaceutical science. 4. Good leadership characteristics in an organisation.

EQF	KKNI	Biology	Physics	Geophysics	Pharmacy
		the analysis of information and data. 4. Managing the learning independently; developing and maintaining a network with supervisors, colleagues, and peers inside and outside the institution. 5. Being able to demonstrate the ability to communicate verbal and in writing scientifically and able to work independently or cooperate in groups in accordance with the norms prevailing in society. 6. Being able to identify and solve	of information and data. 4. Managing the learning independently; developing and maintaining a network with supervisors, colleagues, and peers inside and outside the institution. 5. Being able to demonstrate the ability to communicate verbally and write scientifically, and being able to work independently or cooperate in groups in accordance with the norms prevailing in society. 6. Being able to identify and	property rights that avoid plagiarism practices. 3. Being able to understand the need for lifelong learning with data, technology, and human literacy. 4. The ability to understand basic science, mathematics, their interrelationship, and their fundamental principles thoroughly. 5. The ability to understand and apply basic science, mathematics, information, and computerisation thoroughly in solving various physical	

EQF	KKNI	Biology	Physics	Geophysics	Pharmacy
		problems around them by applying biological concepts in an integrated manner using the basics of scientific methodology focusing on function of bioflora, environmental biology, and food and health biology 7. Being able to carry out research and make strategic decisions in the field of biology with full accountability and responsibility for all aspects that are under the responsibility of the field of expertise that focuses on	solve problems around them by applying biological concepts in an integrated manner using the basics of scientific methodology focusing on function of bioflora, environmental biology, and food and health biology 7. Being able to carry out research and make strategic decisions in the field of biology with full accountability and responsibility for all aspects that are under the responsibility of the field of	problems related to the application of geophysics in tropical and coastal areas by operating various geophysical equipment for disaster mitigation and natural resource exploration. 6. The ability to communicate oral and written and transfer knowledge gained from lectures and learning experiences off campus.	

EQF	KKNI	Biology	Physics	Geophysics	Pharmacy
		function of bioflora, environmental biology, and food and health biology.	expertise that focuses on function of bioflora, environmental biology, and food and health biology		
1. Autonomy and Responsibility					
• Organising complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts • Taking responsibility for managing professional development of individuals and groups		1. Being able to act responsibly and with integrity in carrying out work in the field of biology 2. Being able to develop a way of thinking as a Biology graduate who works professionally in the field of biology that focuses on bio-functions of flora, environmental biology, and food and health biology and has principles in	1. Being able to show religious, nationalist, honest, disciplined, and responsible character, and following *Pancasila*'s values in carrying out their duties. 2. Being able to work together, respect the opinions or original findings of others, and uphold academic ethics.	1. Being able to show religious, nationalist, honest, disciplined, and responsible character, and follow *Pancasila*'s values in carrying out their duties. 2. Being able to work together, respect the opinions or original findings of others, and upholding academic ethics.	1. Being able to manage pharmaceutical practice independently supervised by a pharmacist, lead and manage group work, and be responsible for achieving group work results. 2. Being able to communicate and collaborate interpersonally and interprofessionally related to pharmaceutical practice. 3. Being able to self-evaluate to improve the ability to practice

EQF	KKNI	Biology	Physics	Geophysics	Pharmacy
		managing the biological resources			pharmacy. 4. Understanding the laws and regulations and their meanings for pharmaceutical practice, pharmaceutical affairs, and public health, particularly regulating the preparation and delivery of pharmaceutical preparations and related products (for example, drugs, cosmetics, medical devices, and drugs for regenerative).

Table 15. ILO's of Undergraduate Programs with Regard to IQF and EQF

The Correlation between ILO of BPharm Study Programme with EQF and IQF

The ILO of the Bachelor in Pharmacy Study Programme is designed to achieve the designated vision. The ILO of the Bachelor in Pharmacy Study Programme is customised based on the IQF and EQF standards. The targeted achievement of the BPharm Study Programme from EQF is at level 6, while IQF is at level 7. The correlation of ILO to EQF in the Bachelor in Pharmacy Study Programme is related to the knowledge, understanding, and ability to master the theories, methods, and the application of discipline and technology in pharmacy, for instance, the health promotion, medication information and advice, assessment of medicines, compounding medicines, dispensing medicines, medicines, and monitoring of medicines. The expertise or skills required for the students are patient consultations, improvement service, supply chain and management, workplace management, and communication skills. The Bachelor in Pharmacy Study Programme works professionally while following the ethic and legal practice.

List of B.Pharm study programme's ILO

CPL	CPL grade
Graduates are able to show responsibility and integrity attitudes in conducting work based on their expertise.	9.35
Graduates master the theory, method, and concept within the scope of pharmaceutical technology.	9.55
Graduates master the theory, method, and concept within the scope of pharmaceutical chemistry.	9.06
Graduates master the theory, method, and concept within the scope of clinical pharmacy and pharmacology.	9.24
Graduates master the theory, method, and concept within the scope of pharmaceutical biology.	8.27
Graduates master the law and regulations related to pharmacy.	9.34
Graduates master the theory and application of drugs and medical instrument management related to the Drug Management Cycle concept.	9.14
Graduates are able to design and conduct scientific research that supports the application and development of pharmaceutical science.	9.77
Graduates master the theory and application related to natural ingredient pharmacy.	9.73
Graduates are able to apply effective communication principles in giving drug services to increase the effectiveness of therapy and promote healthiness in pharmaceutical scopes to improve community health.	9.97

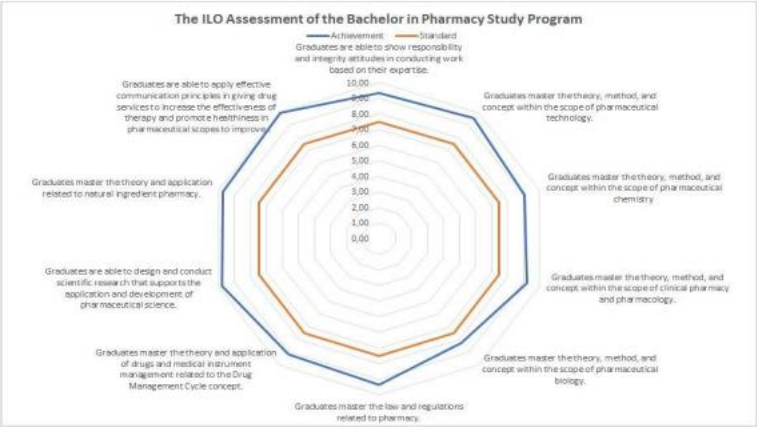
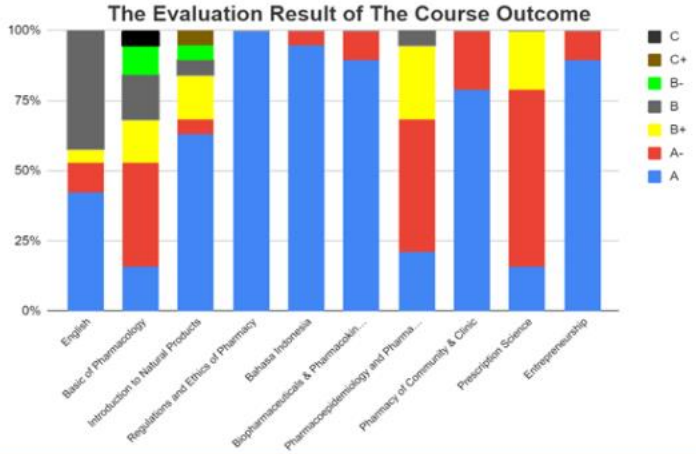


Figure 3. The ILO Assessment of the Bachelor in Pharmacy Study Programme

Graduates learning outcomes of the BPharm Study Programme have exceeded the standard grade of more than 7.5. The results indicate that all learning outcomes have been achieved. The ability of students to understand and apply each course's learning outcomes exceeded the standard, so the BPharm Study Programme can produce graduates that complied the expected graduate profile.



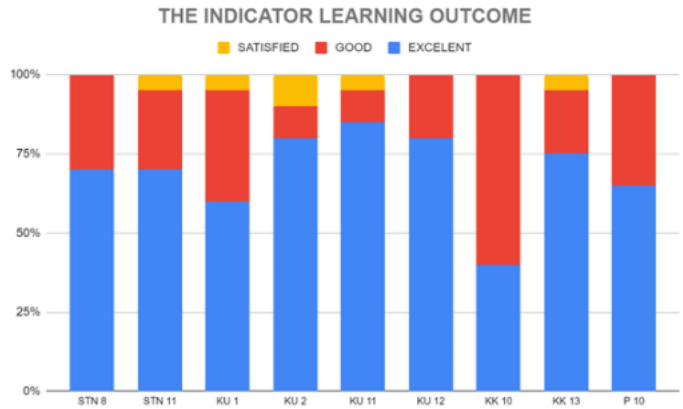


Figure 5. The Indicator Learning Outcome in BPharm Study Programme