GUIDELINES
CURRICULUM DEVELOPMENT

Universitas PGRI Semarang
2025

UNIVERSITAS PGRI SEMARANG

GUIDELINES

CURRICULUM DEVELOPMENT

UNIVERSITAS PERSATUAN GURU REPUBLIK INDONESIA
SEMARANG
2025

CURRICULUM CENTRE, CENTRE OF EXCELLENCE, AND MBKM
PROFESSIONAL DEVELOPMENT INSTITUTE
UNIVERSITAS PERSATUAN GURU REPUBLIK INDONESIA SEMARANG
2024

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KEPUTUSAN REKTOR UNIVERSITAS PERSATUAN GURU REPUBLIK INDONESIA SEMARANG
DECISION OF THE RECTOR OF UNIVERSITAS PERSATUAN GURU REPUBLIK INDONESIA SEMARANG
Number : 097/SK/UPGRIS/IX/2024

Tentang
Regarding

PEDOMAN PENYUSUNAN KURIKULUM TAHUN 2025
GUIDELINES FOR THE 2025 CURRICULUM DEVELOPMENT
UNIVERSITAS PERSATUAN GURU REPUBLIK INDONESIA SEMARANG

REKTOR UNIVERSITAS PERSATUAN GURU REPUBLIK INDONESIA SEMARANG
THE RECTOR OF UNIVERSITAS PERSATUAN GURU REPUBLIK INDONESIA SEMARANG,

Menimbang / *Considering* :

a. bahwa kurikulum yang berlaku di lingkungan Universitas Persatuan Guru Republik Indonesia Semarang merupakan rambu-rambu akademik yang menjamin tercapainya *learning outcomes* (capaian pembelajaran);
that the curriculum implemented within Universitas Persatuan Guru Republik Indonesia Semarang constitutes an academic framework which ensures the attainment of learning outcomes;

b. bahwa Pedoman Penyusunan Kurikulum yang ada perlu disesuaikan dengan perkembangan dan kemajuan ilmu pengetahuan, kebutuhan masyarakat dan peraturan pemerintah yang berlaku;
that the existing Curriculum Development Guidelines must be adapted in accordance with the development and advancement of science, societal needs, and prevailing government regulations;

c. bahwa sehubungan dengan butir (a) dan (b) perlu ditetapkan Pedoman Penyusunan Kurikulum Tahun 2025 dengan Keputusan Rektor;
that in view of points (a) and (b), it is necessary to establish the 2025 Curriculum Development Guidelines by way of a Decision of the Rector;

Mengingat / *Having regard to* :

1. Undang-Undang Republik Indonesia Nomor 14 Tahun 2005 tentang Guru dan Dosen;
Law of the Republic of Indonesia Number 14 of 2005 concerning Teachers and Lecturers;
2. Undang-Undang Republik Indonesia Nomor 12 Tahun 2012 tentang Pendidikan Tinggi;
Law of the Republic of Indonesia Number 12 of 2012 concerning Higher Education;
3. Peraturan Presiden No. 8 Tahun 2012 tentang Kerangka Kualifikasi Nasional Indonesia;
Presidential Regulation of the Republic of Indonesia Number 8 of 2012 concerning the Indonesian National Qualifications Framework;
4. Peraturan Pemerintah Republik Indonesia Nomor 4 Tahun 2014 tentang Penyelenggaraan Pendidikan Tinggi dan Pengelolaan Perguruan Tinggi;
Government Regulation Number 4 of 2014 concerning the Implementation of Higher Education and Management of Higher Education Institutions;
5. Peraturan Menteri Pendidikan dan Kebudayaan Republik Indonesia Nomor 53 Tahun 2023 Tentang Standar Nasional Pendidikan Tinggi;
Minister of Education, Culture, Research and Technology Regulation Number 53 of 2023 concerning Quality Assurance of Higher Education;
6. Surat Keputusan Menteri Pendidikan dan Kebudayaan RI Nomor 143/P/2014 tanggal 17 April 2014 tentang Penggabungan IKIP PGRI Semarang dan Akademi Teknologi Semarang yang diselenggarakan oleh YPLP PT PGRI Semarang di kota Semarang, provinsi Jawa Tengah menjadi Universitas PGRI Semarang yang diselenggarakan oleh YPLP PT PGRI Semarang di kota Semarang, provinsi Jawa Tengah;
Decree of the Minister of Education and Culture of the Republic of Indonesia Number 143/P/2014 dated April 17, 2014, concerning the merger of IKIP PGRI

Semarang and the Semarang Technology Academy organized by YPLP PT PGRI Semarang into Universitas PGRI Semarang;

7. Panduan Kebijakan Kurikulum Pendidikan Tinggi 2024 (KPT 2024);
   2024 Higher Education Curriculum Policy Guidelines (KPT 2024);
8. Surat Keputusan YPLP PT PGRI Semarang Nomor 075/P.Y/Kpts/3.1/YPLP PT PGRI /V/2019 tentang Statuta Universitas PGRI Semarang;
   Decision of the YPLP PT PGRI Semarang Number 075/P.Y/U/Kpts/3.1/YPLP PT PGRI/V/2019 dated May 10, 2019, concerning the Statute of Universitas PGRI Semarang;
9. Surat Keputusan Pengurus YPLP PT PGRI Semarang Nomor 095/PY/U/Kpts/3.1/YPLP PT PGRI/V/2022 tanggal 20 Mei 2022 tentang Pengangkatan Rektor Universitas PGRI Semarang masa jabatan 2022-2026.
   Decision of the YPLP PT PGRI Semarang Board Number 095/PY/U/Kpts/3.1/YPLP PT PGRI/V/2022 dated May 20, 2022, concerning the Appointment of the Rector of Universitas PGRI Semarang for the 2022-2026 term.

MEMUTUSKAN :
DECIDES

Menetapkan : **KEPUTUSAN REKTOR UNIVERSITAS PERSATUAN GURU REPUBLIK INDONESIA SEMARANG TENTANG PEDOMAN PENYUSUNAN KURIKULUM TAHUN 2025 UNIVERSITAS PERSATUAN GURU REPUBLIK INDONESIA SEMARANG**
To enact *DECISION OF THE RECTOR OF UNIVERSITAS PERSATUAN GURU REPUBLIK INDONESIA SEMARANG GUIDELINES FOR THE 2025 CURRICULUM DEVELOPMENT UNIVERSITAS PERSATUAN GURU REPUBLIK INDONESIA SEMARANG*

Kesatu : Menetapkan Pedoman Penyusunan Kurikulum Tahun 2025 Universitas Persatuan Guru Republik Indonesia Semarang adalah sebagaimana tercantum dalam Lampiran yang merupakan bagian tidak terpisahkan dari Keputusan ini;
First *Decision of The Rector of Universitas Persatuan Guru Republik Indonesia Semarang Concerning The 2025 Curriculum Development Guidelines of Universitas Persatuan Guru Republik Indonesia Semarang;*

Kedua : Pedoman Penyusunan Kurikulum sebagaimana dimaksud dalam Diktum Kesatu digunakan sebagai acuan dalam penyusunan kurikulum pada seluruh program studi studi di lingkungan Universitas Persatuan Guru Republik Indonesia Semarang;
Second *The Curriculum Development Guidelines as referred to in the First Dictum shall serve as a reference for curriculum development across all study programmes within Universitas Persatuan Guru Republik Indonesia Semarang;*

Ketiga : Keputusan Rektor ini mulai berlaku pada tanggal ditetapkan dengan ketentuan apabila terdapat kekeliruan ataupun penyesuaian dalam penetapan keputusan ini, akan diadakan perubahan dan perbaikan seperlunya.
Third *This Decision of the Rector shall come into force on the date of its enactment, provided that should any errors or necessary adjustments be identified within this Decision, the required amendments and rectifications shall be made accordingly.*

Ditetapkan di : Semarang
Issued in Semarang
Pada tanggal : 02 September 2024
on September 02, 2024

Rektor,
Rector,

Dr. Sri Suciati, M.Hum.
NIP. 196503161990032002

FOREWORD

Praise and thanks be to God Almighty for His abundant grace and blessings, which have enabled the compilation of this UPGRIS Curriculum Development Guide to serve as a reference in designing, developing, and revising study programme curricula within the UPGRIS.

This guide has been compiled to align with national policy dynamics through the 2024 Higher Education Curriculum Policy (KPT 2024), as well as Ministry of Education, Culture, Research and Technology Regulation No. 53 of 2023 on Quality Assurance in Higher Education. Furthermore, this guide preserves the distinctive character UPGRIS as a higher education institution that upholds the values of scholarship, nationalism, and the PGRI ethos.

We recognise that curriculum development is a strategic and dynamic process in enhancing graduate quality and institutional competitiveness. Therefore, this guide is intended to serve as both a practical and inspirational guide for programme coordinators, lecturers, and stakeholders within the UPGRIS community.

Finally, we would like to express our gratitude to all parties who have contributed to the preparation of this document. We hope that this guide will be of benefit and help to realise the vision of UPGRIS as a leading and distinctive higher education institution.

Semarang, 10 September 2024
Head of the Centre for Curriculum,
Centre of Excellence, and MBKM

Nurina Happy, M.Pd.

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CHAPTER I
INTRODUCTION

A. BACKGROUND

Higher education is required to continuously adapt to global changes, advances in science and technology, and the increasingly complex demands of the workplace. The tide of globalisation, massive developments in science and technology, and socio-economic challenges are driving a shift in the orientation of education, from the idealism of character building towards a more pragmatic approach. In this context, the development of study programme curricula must be directed towards producing graduates who are not only academically excellent, but also adaptable, collaborative, of strong character, and capable of competing at both national and international levels.

The Ministry of Education, Culture, Research, and Technology has responded to these dynamics by setting a new direction for curriculum development through the 2024 Higher Education Curriculum Policy (KPT), which emphasises the principles of Outcome-Based Education (OBE), curriculum flexibility, student-centred learning, and the strengthening of learning activities outside the degree programme. The introduction of Ministry of Education, Culture, Research and Technology Regulation No. 53 of 2023 further underscores the urgency of ensuring quality in higher education through the formulation of Graduate Learning Outcomes (GLOs), graduate profiles, and curriculum maps aligned with the National Qualifications Framework (KKNI) and the Higher Education Standards (SN-Dikti).

In line with this, higher education in Indonesia needs to integrate strategic 21st-century issues, such as sustainability, global citizenship, inclusivity and personalised education. The curriculum must not only meet the needs of the labour market, but also instil humanistic values, global ethics and a commitment to sustainable development. In this context, a more innovative, adaptive, collaborative, and flexible approach to the curriculum has become an unavoidable necessity.

Curriculum development must be based on the National Standards for Higher Education (SN-Dikti), particularly the Graduate Competency Standards (SKL), and designed in accordance with the KKNI descriptors, which cover attitudes, work skills, mastery of academic knowledge, and professional responsibility. The curriculum must be developed collaboratively, involving various stakeholders, to produce graduates who are academically competent, socially ethical, and prepared to face the future in a sustainable manner.

UPGRIS, as an institution committed to the quality and relevance of higher education, has responded to this national policy through the establishment of internal policies, including the formulation of graduate learning outcomes and course structures for the Bachelor's (S1) and Master's (S2) levels. This process also draws upon the educational philosophy of Ki Hadjar Dewantara, which emphasises the Trikon principles (Continuous, Convergent, Concentric), as the foundation for the development of holistic, contextual education rooted in national culture. Consequently, the curriculum designed must reflect these noble values

and address the challenges of the 21st century through an approach that is personalised, contextual, and based on the uniqueness of students.

Through these guidelines, it is hoped that the formulation and development of the curriculum within UPGRIS can proceed in a focused, integrated, and sustainable manner, in line with developments in science and technology, national policies, and the institution's vision to become a university of excellence with a distinct identity.

B. LEGAL BASIS

1. Law of the Republic of Indonesia No. 14 of 2005 on Teachers and Lecturers.
2. Law of the Republic of Indonesia Number 12 of 2012 concerning Higher Education.
3. Presidential Regulation No. 8 of 2012 on the Indonesian National Qualifications Framework.
4. Regulation of the Minister of Education and Culture of the Republic of Indonesia No. 73 of 2013 on the Implementation of the National Qualifications Framework in the Higher Education Sector.
5. Regulation of the Minister of Education and Culture No. 7 of 2020 concerning the Establishment, Amendment and Dissolution of State Higher Education Institutions, and the Establishment, Amendment and Revocation of Licences for Private Higher Education Institutions.
6. Regulation of the Minister of Education, Culture, Research, and Technology No. 13 of 2022 on Amendments to Regulation of the Minister of Education and Culture No. 22 of 2020 on the Strategic Plan of the Ministry of Education and Culture for the Years 2020–2024.
7. Regulation of the Minister of Education, Culture, Research and Technology No. 13 of 2022 concerning Amendments to Regulation of the Minister of Education and Culture No. 22 of 2020 concerning the Strategic Plan of the Ministry of Education and Culture for 2020–2024.
8. Regulation of the Minister of Education, Culture, Research and Technology No. 6 of 2022 concerning Diplomas, Competency Certificates, Professional Certificates, Degrees, and the Equivalence of Higher Education Diplomas from Other Countries.
9. Regulation of the Minister of Education, Culture, Research, and Technology No. 53 of 2023 concerning Quality Assurance in Higher Education.
10. Decree of the Minister of Research, Technology, and Higher Education No. 123 of 2019 on Internships and the Recognition of Semester Credit Units for Industrial Internships for Bachelor's and Applied Bachelor's Programmes.
11. Higher Education Curriculum Policy Guidelines 2024 (KPT 2024).
12. Student-Centred Learning Guidelines.
13. Guidelines on the Use of Generative AI in Higher Education.
14. Statutes of UPGRIS.
15. Vision, Mission, and Strategic Plan of UPGRIS.

C. PURPOSE

This guide has been compiled with the following objectives:

1. To provide a reference for study programmes in designing and developing OBE-based curricula whilst accommodating forms of learning outside the study programme.
2. Aligning the curriculum with the 2024 Higher Education Policy (KPT) as well as the needs of industry and society.
3. Developing a curriculum that supports the achievement of graduate profiles that are outstanding, of good character, and competitive.
4. Enhancing the quality and competitiveness of UPGRIS in the delivery of higher education.

CHAPTER II
CURRICULUM DOCUMENTATION

According to Law No. 12 of 2012 on the Higher Education System, the Higher Education Curriculum is a set of plans and regulations concerning the objectives, content, and teaching materials, as well as the methods used as guidelines for the delivery of learning activities to achieve the objectives of Higher Education. The curriculum is developed by each higher education institution with reference to the National Standards for Higher Education for each study programme, covering the development of intellectual intelligence, noble character, and skills.

The planning and organisation of the curriculum, as a curriculum cycle, involves several stages, beginning with needs analysis, design, development, implementation, evaluation, and follow-up improvements carried out by the study programme. This curriculum cycle operates with the aim of producing graduates in line with the Study Programme's Graduate Learning Outcomes that have been established. The study programme curriculum is developed through the cycle shown in Figure 1.

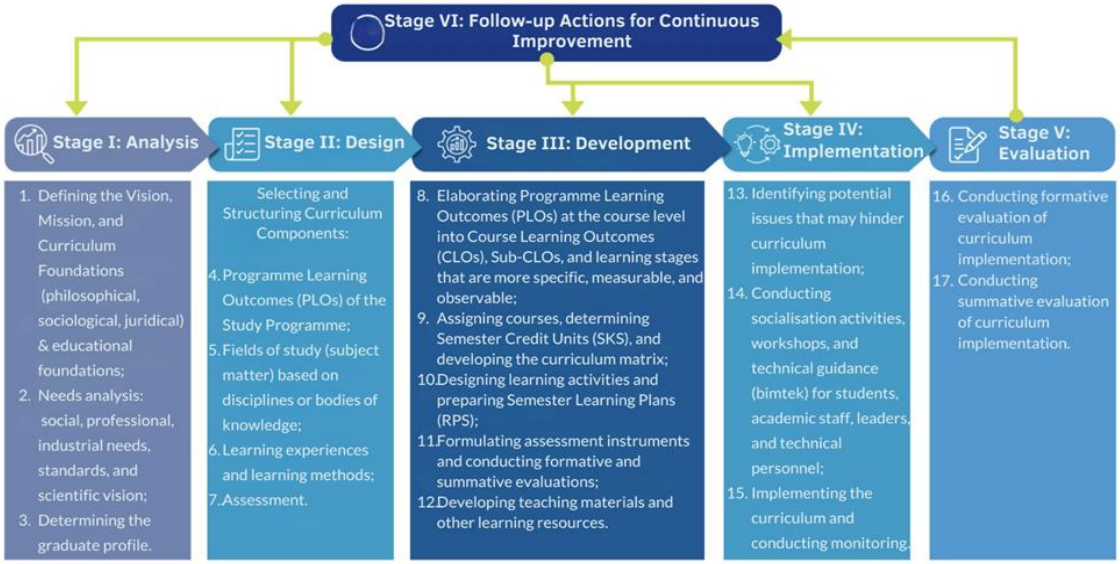


Figure 1. Curriculum Cycle

Each stage of this curriculum cycle is carried out in accordance with the SN-Dikti (National Education Standards) as set out in Ministry of Education, Culture, Research and Technology Regulation No. 53 of 2023. The National Education Standards in SN-Dikti, which serve as the reference for the curriculum cycle, consist of three (3) standards, namely the Educational Outcome Standards, Educational Process Standards, and Educational Input Standards. These three standards are then broken down into the following standards:

a. Educational Outcome Standards, which constitute the Graduate Competency Standards.
b. Educational Process Standards
    1. Educational Process Standards
    2. Assessment Standards.

3. Management Standards.

c. Educational Input Standards
   1. Content Standards.
   2. Standards for Lecturers and Educational Staff.
   3. Facilities and Infrastructure Standards.
   4. Funding Standards

The relationship between the eight standards and curriculum development and implementation is illustrated in Figure 2. The link between higher education curriculum development and implementation and the SN-Dikti is examined through an analysis of each element of curriculum implementation, as well as the importance of continuous improvement through the Internal Quality Assurance System (SPMI) and the External Quality Assurance System (SPME) across all areas of the SN-Dikti standards.

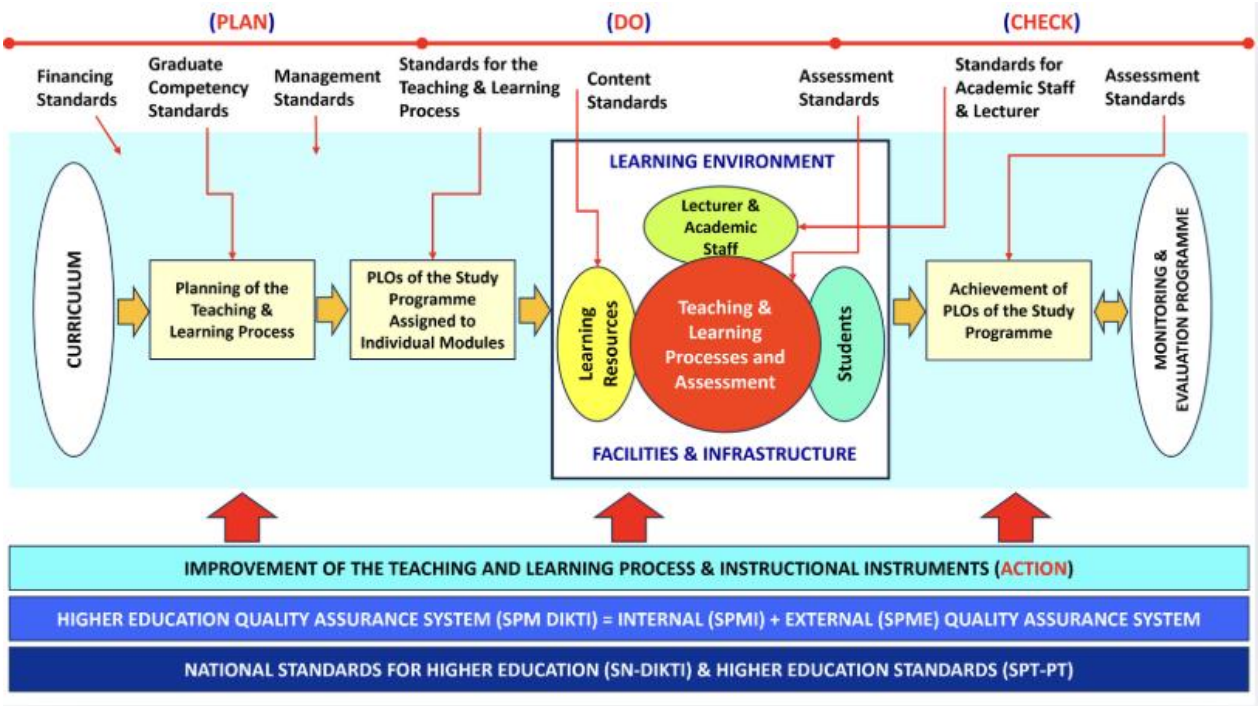


Figure 3. Illustration of the Relationship between SN-Dikti Standards and Curriculum Development and Implementation Curriculum.

The curriculum of UPGRIS is designed using an Outcome-Based Education (OBE) approach, which emphasises the achievement of concrete and measurable outcomes as the primary focus of learning. With this approach, each educational programme ensures it produces graduates possessing the attitudes, skills, and knowledge aligned with the demands of the workplace and the needs of society. An important point to note in the development, implementation and evaluation of the curriculum is that the Graduate Competency Standards or Graduate Learning Outcomes serve as the primary reference or foundation. The principle of the curriculum cycle using the OBE approach is illustrated simply in Figure 4.

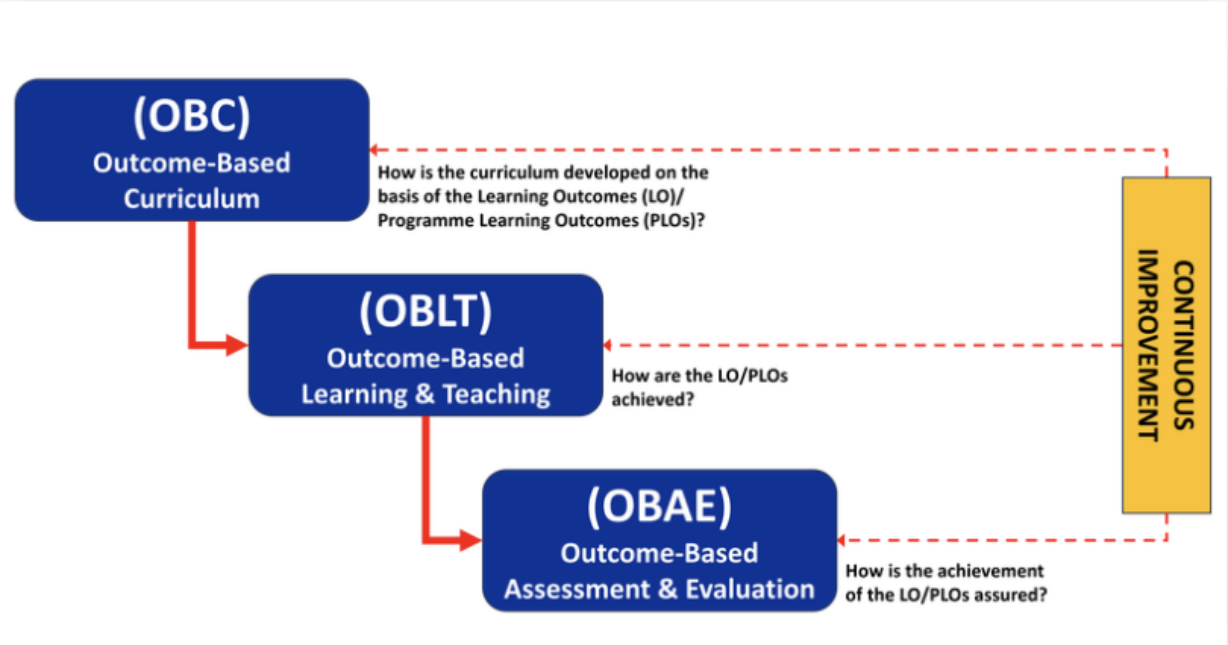


Figure 4. Curriculum with an OBE Approach

Various models or paradigms of the OBE approach are used in curriculum development and implementation; the simplest of these consists of three interrelated stages.

a. Outcome-Based Curriculum (OBC), a curriculum development approach based on graduate profiles and learning outcomes (PLO). Based on these GLO, the body of knowledge is then derived, along with the formation of courses and their credit weightings, the curriculum map, and the learning design expressed in the form of a Semester Learning Plan (SLP), the development of teaching materials, and the development of assessment and evaluation instruments. A key question is: how is the curriculum developed in alignment with the GLO under the OBC approach?
b. Outcome-Based Learning and Teaching (OBLT) refers to the implementation of learning activities defined as interactions in learning between lecturers, students, and learning resources. One of the key principles of OBLT is the appropriate selection of learning formats and methods to be undertaken by students, which must be based on and aligned with the PLO. Learning formats include those outside the study programme or campus. An important question is: how can PLOs be achieved through OBLT?
c. Outcome-Based Assessment and Evaluation (OBAE) is an assessment and evaluation approach designed and implemented to measure the achievement of PLO, with the aim of ensuring continuous improvement in the quality of learning. Assessment is carried out on the learning process and on the achievement of PLO. Consequently, curriculum evaluation is also conducted on the learning process and the achievement of PLO. This evaluation helps determine the extent to which PLO has been achieved and how closely learning outcomes align with established standards.
d. Continuous Improvement (CI): evaluation results based on evidence of learning outcomes are used to improve quality through iterative and continuous refinement. This may include

revising the curriculum, learning methods and strategies, teaching materials, or forms of assessment to ensure better achievement of PLOs in the future.

The OBE paradigm or approach can be summarised as follows: 1) it is highly aligned with SN-Dikti; 2) the planning, implementation, evaluation, and continuous improvement of the curriculum focus on the achievement of PLO; and 3) in its implementation for the purposes of national and international accreditation, the implementation of OBE requires the support of valid documents or data as evidence.

A study programme curriculum using the OBE approach can deliver outcomes that are more relevant and beneficial for graduates, higher education institutions, industry and business, and society as a whole, as graduates possess the attitudes, skills, and knowledge aligned with the demands of the workplace and societal needs. Study programmes must apply the principles that must be fulfilled, including:

a. Mapping of Learning Outcomes
   The initial process in developing an OBE curriculum is the mapping of clear and measurable graduate learning outcomes. This involves identifying the attitudes, skills, and knowledge expected of graduates of a specific study programme. These learning objectives must be relevant to industry needs, labour market demands, and societal expectations. They must be objectively measurable, both in terms of student performance and observable outcomes.
b. Outcome-focused learning design
   Once the learning outcomes have been established, the next step is to design learning experiences that directly lead to the achievement of these objectives. Learning materials, forms and methods of learning, and assessment must be carefully selected and arranged in a constructive alignment to ensure that every element of the curriculum contributes to the development of the defined competencies and skills.
c. Development of relevant skills and competencies.
   OBE emphasises the importance of developing practical skills and competencies relevant to societal needs. This includes technical skills, interpersonal skills, critical, analytical and creative thinking, problem-solving, digital skills, and the ability to adapt to change. Furthermore, the curriculum must provide opportunities for learners to gain practical experience (experiential learning) through student exchanges, work placements, research projects, entrepreneurship or other forms of learning activities.
d. Curriculum evaluation
   The evaluation process in OBE is not merely about assessing the final learning outcomes, but also about providing ongoing feedback to learners to help them achieve their learning objectives. Furthermore, evaluation must enable lecturers to monitor learners' progress—both individually and in groups—and provide additional support where necessary.
e. Flexibility and adaptability
   An OBE curriculum must be designed with sufficient flexibility to respond to changes in industry demands, technology, or societal needs. This may involve

adapting to the latest developments in a particular field of study to ensure relevance, effectiveness, and the fulfilment of the diverse needs of learners, as well as developments in the external context.

f. Stakeholder engagement

   The successful implementation of OBE in higher education curricula often depends on the involvement of stakeholders, including the business sector, industry, alumni, and the community. This involvement can help ensure that the curriculum reflects real-world needs and produces graduates who are better prepared for life after university.

The stages of curriculum document development are divided into three phases: curriculum design, learning design, and evaluation of the learning programme.

a. The curriculum design phase begins with a needs analysis (market signal), which produces a graduate profile, and studies conducted by the study programme in accordance with its academic discipline (scientific vision), which generates study materials. Subsequently, based on these two outcomes, the PLOs, courses, and their credit weightings are formulated, along with the organisation of courses in the form of a matrix.
b. Systematic instructional design stages must be carried out to produce the Semester Learning Plan (SLP) along with other instructional materials, including assessment instruments, assignment plans, teaching materials, and others that can be implemented efficiently and effectively in the learning process. Planning of the learning process in accordance with Ministry of Education, Culture, Research and Technology Regulation No. 53 of 2023 must at a minimum include: a) learning outcomes as the learning objectives, b) methods of achieving learning objectives through learning strategies and methods, and c) methods of assessing the achievement of learning outcomes.
c. The stages of curriculum programme evaluation constitute a process or a series of processes for collecting data and information, which may be used for more optimal and effective purposes (formative evaluation), or as a basis for drawing conclusions and making decisions (summative evaluation).

In accordance with Article 44 of Ministry of Education, Culture, Research and Technology Regulation No. 53 of 2023, the study programme curriculum must at least include:

a. Graduate Learning Outcomes;
b. Duration of the Curriculum;
c. Teaching methods;
d. Learning modalities;
e. Competency and/or qualification requirements for prospective students;
f. Assessment of learning outcomes;
g. Course content to be covered; and
h. Procedures for student admission at various stages of the curriculum.

Based on these provisions, the curriculum document that will serve as a reference for the implementation of study programmes at UPGRIS shall be composed of at least the following sections:

A. Study Programme Identity

In this section, the Study Programme sets out the identity of the Study Programme, comprising components as shown in Table 1.

Table 1. Study Programme Identity

No	Name of Higher Education Institution (HEI)	UPGRIS
1	Faculty/Postgraduate	
2	Study Programme	
3	Accreditation Status	
4	Level of Education	
5	Graduate Qualification	
6	Academic Vision	
7	Number of Students	
8	Number of Lecturers	
9	Programme Address	
10	Telp	
11	Programme Website	

The number of students and lecturers reflects the figures at the time of curriculum development (TS), where TS applies from 1 September TS-1 to 31 August TS.

B. Foundations for Curriculum Design and Development

UPGRIS has the rights and obligations to develop the curriculum in accordance with the 1945 Constitution, Law No. 12 of 2012, the National Standards for Higher Education as set out in Ministry of Education, Culture, Research and Technology Regulation No. 53 of 2023, and other applicable regulations. The curriculum should enable students to master specific knowledge and skills, as well as foster noble character, so that they can contribute to upholding national values and diversity, fostering a spirit of care for fellow citizens and humanity to enhance equitable social welfare and the prosperity of the Indonesian nation.

The development of the curriculum is based on a strong foundation, including:

1. University Values

Values as the noble principles that define the character of the expected graduates, underpinning the credibility of the university and its study programmes. The core values of UPGRIS in the 2015–2034 Master Development Plan are to be *'the meaning university'*, as a provider, creator, and guardian of the meaning of life. Furthermore, UPGRIS Rector's Decision No. 013.a/SK/UPGRIS/II/2025 establishes the university's value system (University Value) as the learning outcome for UPGRIS graduates: "Demonstrating character and conduct that reflect adaptability, enthusiasm, and integrity as an expression of devotion to God Almighty". In addition to the University Value, study programmes may add expected values tailored to the profile attributes.

2. Philosophical Foundation

The philosophical foundation serves as the conceptual basis for curriculum development at UPGRIS, encompassing the design, implementation, and evaluation stages. This approach emphasises that education is not merely a process of knowledge transfer, but also a process of humanising learners so that they are able to understand the essence of life, the purpose of existence, and their role in society.

In practical terms, the curriculum is designed to help students perceive the learning process as an endeavour to discover their true selves and improve the quality of life; to foster an awareness of the importance of human values, justice, truth, and social responsibility; to encourage students to develop reflective and ethical thinking when making decisions, both in their personal and professional lives; provide learning experiences that encourage students to ask questions, explore meaning, and participate actively in community development.

With this philosophical foundation, the curriculum at UPGRIS is expected to produce graduates who are not only academically competent but also possess a wise outlook on life, rooted in noble values, and capable of making meaningful contributions to communal life.

Educational philosophy is a statement agreed upon by the team within the study programme by applying several foundations, including: educational objectives, academic disciplines/professional disciplines, approaches to the learning methods used, and approaches to assessment/evaluation and the strategies employed. The philosophical foundations, which have been discussed and negotiated with stakeholders, are set out in a concise paragraph (6–8 sentences and 1–2 paragraphs) and are easily accessible (placed at the beginning of the document and on the programme's website), written in clear language for the primary audience, including prospective and current students, staff, and stakeholders; it is dynamic and can be modified and adapted to the context.

3. Sociological Foundation

The development of the curriculum at UPGRIS is based on the view that higher education should serve as a means of personal and social development for students, relevant to the dynamics of modern society. The curriculum not only encompasses objectives, subject matter and learning activities, but is also designed within a learning environment that supports the active engagement of students as part of a diverse community.

The UPGRIS curriculum must be capable of preserving and passing on local cultural values that form the nation's identity, providing a contextual learning space that fosters multicultural awareness and a spirit of tolerance, and equipping students with the skills to confront the influences of globalisation that may erode cultural values and national identity.

In this context, students need to be developed into individuals possessing cultural agility, namely the ability to manage

themselves and aligning with global work standards (cultural minimisation), adapting positively to other cultures (cultural adaptation), and integrating cultural diversity into professional life (cultural integration).

UPGRIS believes that strengthening local cultural values and understanding diversity are integral to achieving graduate competencies. This aligns with Ki Hadjar Dewantara's "Tri-Kon" concept, which emphasises the importance of continuity, convergence, and concentricity in the development of culture and education. Consequently, every study programme within UPGRIS is expected to design a curriculum that fosters graduates who are not only academically excellent but also sensitive to social and cultural issues, capable of working in cross-cultural teams, contributing to community development, and ready to face global challenges without losing their national roots.

4. Psychological Foundation

The psychological foundation for curriculum development at UPGRIS is based on an understanding of the development of students' personalities, interests, potential, and motivation as unique individuals. The curriculum is designed to encourage students to become active, reflective, and responsible lifelong learners who take ownership of their learning process.

In practical terms, the curriculum is expected to foster a strong sense of curiosity and a passion for exploring knowledge; to help students recognise their roles and contributions within social, academic, and professional environments; to develop critical thinking and higher-order thinking skills, such as analysing, evaluating, and devising solutions to real-world problems; and provide space for the optimal development of academic, emotional, social, and moral potential through active, collaborative, and contextual learning.

Furthermore, the curriculum at UPGRIS aims to produce well-rounded learners, namely graduates who think freely and act responsibly, possess self-confidence and moral integrity, have noble character, are capable of working in teams, respect diversity, and contribute to the welfare of society.

These values support the development of a graduate profile that is in line with the national vision and noble ideals as set out in the Preamble to the 1945 Constitution. Consequently, each degree programme must design a curriculum that effectively fosters the development of students' character and capabilities as outstanding citizens and professionals.

5. Historical Foundation

The historical foundation for curriculum development emphasises the importance of the relationship between education in the present, the past, and the future. The curriculum must be designed to: be relevant to the context of the times, reflecting the needs, challenges, and opportunities faced by students today; value and pass on the nation's historical and

the nation's noble culture, as the identity and foundation of students' national character; integrate lessons from the nation's golden age and world civilisations into the learning process, to enrich students' perspectives and foster historical awareness; and prepare students to face the dynamics of the 21st century, including mastery of digital technology, critical thinking, creativity, adaptability, and social responsibility.

Furthermore, the curriculum must also be designed to equip students with the competencies required in the era of Industry 4.0 and Society 5.0, such as data literacy, technological literacy, and human literacy; and to encourage students to be able to interpret the direction of societal development, think visionarily, and be prepared to contribute in an ever-changing future. Several skills required in the 21st century, comprising three main aspects, are presented in Table 2.

Table 2. 21st-Century Skills

Aspect	Indicators	Skills
Cognitive Skills	a. Processing and cognitive strategies	a. Critical thinking b. Problem solving c. Analysis d. Logical reasoning e. Interpretation f. Decision-making g. Executive Functioning
	b. Knowledge	a. Literacy and communication skills b. Active listening skills c. Knowledge of the disciplines d. Ability to use evidence and make judgements based on information e. Digital literacy
	c. Creativity	a. Creativity b. Innovation
Interpersonal skills	a. Group collaboration skills	a. Communication b. Collaboration c. Teamwork d. Cooperation e. Coordination f. Empathy, perspective-taking g. Trust h. Service-oriented i. Conflict resolution j. Negotiation
	b. Leadership	a. Leadership b. Responsibility c. Assertive communication d. Self-presentation e. Social influence

Aspect	Indicator	Skills
Intrapersonal Skills	*a.* Intellectual openness	*a.* Flexibility *b.* Adaptability *c.* Appreciation of art and culture *d.* Personal and social responsibility *e.* Intercultural competence *f.* Appreciation of diversity *g.* Capacity for lifelong learning *h.* Intellectual interest and curiosity
	b. Work Ethics, Responsibility	a. Initiative b. Self-direction c. Responsibility d. Perseverance e. Productivity f. Persistence g. Self-regulation h. Metacognitive skills, anticipate future, reflective skills i. Professionalism j. Ethics k. Integrity l. Citizenship m. Work orientation
	c. Self-efficacy	a. Self-regulation (self-monitoring and self-assessment) b. Physical and mental health

Thus, the curriculum at UPGRIS is not only oriented towards the present, but also connects historical values with the future, so that students can learn from the past, understand current challenges, and play an active role in shaping the civilisation of the future.

6. Legal Basis

This legal framework serves as the basis or reference for the stages of design, development, implementation, and evaluation, as well as the quality assurance system of the University of PGRI Semarang, which will ensure the curriculum and the achievement of its objectives. The legal frameworks referred to include:

a. Law of the Republic of Indonesia Number 14 of 2005 concerning Teachers and Lecturers (State Gazette of the Republic of Indonesia Year 2005 Number 157, Supplement to the State Gazette of the Republic of Indonesia Number 4586);
b. Law of the Republic of Indonesia Number 12 of 2012 concerning Higher Education (State Gazette of the Republic of Indonesia Year 2012 Number 158, Supplement to the State Gazette of the Republic of Indonesia Number 5336);
c. Government Regulation of the Republic of Indonesia No. 4 of 2014 concerning the Organisation of Higher Education and the Management of Higher Education

Institutions;

d. Presidential Regulation of the Republic of Indonesia No. 8 of 2012 on the Indonesian National Qualifications Framework (KKNI);
e. Regulation of the Minister of Education and Culture of the Republic of Indonesia No. 73 of 2013, concerning the Implementation of the National Qualifications Framework (KKNI) in Higher Education;
f. Regulation of the Minister of Education and Culture No. 7 of 2020 concerning the Establishment, Amendment and Dissolution of State Higher Education Institutions, and the Establishment, Amendment and Revocation of Licences for Private Higher Education Institutions;
g. Regulation of the Minister of Education, Culture, Research, and Technology No. 13 of 2022 on Amendments to Regulation of the Minister of Education and Culture No. 22 of 2020 on the Strategic Plan of the Ministry of Education and Culture for 2020–2024;
h. Regulation of the Minister of Education, Culture, Research and Technology No. 6 of 2022 concerning Diplomas, Competency Certificates, Professional Certificates, Degrees, and the Equivalence of Diplomas from Higher Education Institutions in Other Countries;
i. Regulation of the Minister of Education, Culture, Research, and Technology No. 53 of 2023 on Quality Assurance in Higher Education;
j. Decision of the Minister of Research, Technology, and Higher Education No. 123 of 2019 on Internships and the Recognition of Semester Credit Units for Industrial Internships for Bachelor's and Applied Bachelor's Degree Programmes;
k. Decision of the YPLP PT PGRI Semarang No. 075/P.Y/U/Kpts/3.1/YPLP PT PGRI/V/2019 dated 10 May 2019 on the Statutes of the UPGRIS;
l. Decision of the Rector of the University of the Indonesian Teachers' Union, Semarang, No. 056/SK/UPGRIS/IX/2024 regarding the Establishment of the Vision, Mission, and Objectives of the UPGRIS;
m. Decision of the Rector of the University of the Indonesian Teachers' Union, Semarang, No. 013.a/SK/UPGRIS/II/2025 regarding the Learning Outcomes of Graduates from Study Programmes at UPGRIS;
n. Decision of the Rector of the University of the Indonesian Teachers' Association, Semarang, Number 012/SK/UPGRIS/II/2025 regarding the Establishment of the Structure and Distribution of Courses for Undergraduate Students at the UPGRIS;
o. Decision of the Rector of UPGRIS, Number 014/SK/UPGRIS/II/2025 concerning the Determination of Course Credits for Master's Degree Students at UPGRIS.
p. Decision of the Rector of UPGRIS, No. 034.a/SK/UPGRIS/IV/2025 regarding the Determination of the Distribution of General Courses/Compulsory Curriculum Courses and Distinctive Courses of UPGRIS within UPGRIS.
q. Rector's Decision on the Vision, Mission, Objectives, and Targets of the Faculty/ Postgraduate Programme.

r. Rector's Decision on the Academic Vision of Study Programmes.

C. Curriculum Evaluation and Tracer Study

This section explains the results of the evaluation of the implementation of the curriculum that has been and is currently underway, presenting the mechanisms of the curriculum evaluation results. Needs analysis based on the needs of all stakeholders from the results of the tracer study.

1. Curriculum Evaluation

Study programmes need to evaluate the implementation of existing or legacy curricula, as well as those to be developed. Several theories in curriculum evaluation include:

a. Ex-ante, interim and ex-post evaluation (Petra Pistor and Karl-Heinz Stammen, 2017). This evaluation is carried out before the planned action begins.
b. Formative and Summative Evaluation (Rossi, Lipsey, and Freeman 2004, p. 65). This evaluation is carried out to monitor progress during the programme in order to make improvements or refinements. Evaluation after the programme has been completed is carried out to determine the level of success.
c. "Provus" Non-conformity Evaluation (Higher Education Curriculum Book, 2020). The evaluation is carried out at each stage by comparing the quality performance achievements of the evaluated elements against the established standards. The gap between quality performance and standards serves as a basis for making modifications. A decision is made regarding improvements to either the quality performance or the standards, or both.

Study programmes may conduct curriculum evaluation using formative and summative models, namely:

a. Formative Evaluation
   Formative evaluation does not always result in curriculum changes, but it can alter strategies within curriculum implementation; for example: in teaching methods, or the addition or modification of sub-sections, sub-topics, or subject matter within a course, in line with current developments in science and technology.
b. Summative Evaluation
   Summative evaluation is an evaluation that leads to the revision or development of the curriculum and impacts the implementation of the new curriculum, taking into account the principles of curriculum development outlined in the previous chapter.

Curriculum evaluation explains

a. Evaluation mechanisms
b. The elements of the curriculum being evaluated from the existing curriculum.
c. The results of the evaluation and what needs to be improved.

Regarding the curriculum components evaluated from the existing curriculum and what needs to be improved, the study programme uses Table 3.

Table 3. Evaluation of the 2022 Curriculum and its follow-up in the 2025 Curriculum

Evaluation Components	Review	Action Plan
Academic Vision – Educational Objectives – and Strategies for Achieving Educational Objectives		
a. Relevance of the Academic Vision, Educational Objectives, and Strategies for Achieving Educational Objectives to the Faculty's VMTS		
b. Relevance of the Academic Vision, Educational Objectives, and Strategies for Achieving Educational Objectives to learning outcomes		
c. Relevance of the Academic Vision, Educational Objectives, and Strategies for Achieving Educational Objectives to the graduate profile		
d. Relevance of the Curriculum to the KKNI (according to the level)		
e. Relevance of the Curriculum to Ministerial Regulation No. 53 of 2023		
f. Relevance of the curriculum to the world of work		
g. Scope of competencies/skills (the of the study programme and the needs/demands of the world of work)		
h. Clarity of the content of competencies/skills		
Study Programme's Graduate Profile		
Alignment of the Graduate Profile with the world of work		
Programme Learning Outcomes		
a. Scope of Competencies		
b. Clarity of references for formulating learning outcomes		
c. Coherence of the formulation of learning outcomes		
d. Quality of formulation (specific, measurable, and observable)		
e. Alignment of learning outcomes with graduate profile formulations		
Curriculum Structure		
a. Overall scope of courses at one level (learning outcomes, profile, and courses)		
b. Linkages between levels (Bachelor's and Master's, where applicable)		
c. Organisation of courses (university-level, faculty-level, and programme-level courses (compulsory and optional))		
d. The relevance of the course structure to the policy on fulfilling the study load outside the degree programme (for Bachelor's degree programmes)		
Course Description		
a. Depth of learning material		

b. Breadth of learning material		
c. Relevance of CLO to PLO		
d. Course format (lectures/theory, seminars, practicals, fieldwork, etc.)		
Distribution of Courses		
a. Academic sequence of courses		
b. Proportion of compulsory courses, elective courses, and general education courses		
c. Credit load per semester		
Human Resources (HR)		
a. Academic relevance		
b. Expertise and Experience		
a. Qualifications and adequacy of teaching staff based on c. Type of work (administration, librarians, technicians, laboratory assistants, etc.)		
d. Academic relevance		
Facilities and Infrastructure		
a. Laboratories (workshops/studios/fields/etc.		
b. Equipment and laboratory (workshop/workshop/studio/field/etc.)		
c. Library		
d. Classroom facilities		
Curriculum flexibility		
Learning Resources		
a. Semester Lesson Plans		
b. Teaching Materials		
c. Media (ICT)		
d. Resources supporting efforts to achieve PLO		
Learning Process		
a. Transformation of teaching and learning experiences		
b. Use of the case-based method or team-based project learning, with such methods accounting for more than 50% of the assessment		
c. Alignment of the learning process with the RPS		
d. Compliance in conducting learning through SPADA UPGRIS		
e. The learning process is collaborative, involving interaction between individual learners		
f. Implementation of character values (university values) in and outside the classroom		
g. Lecturer attendance		
h. Student attendance		
Assessment of learning		

a. Assessment planning contract		
b. Assessment procedures		
c. Scope of assessment (attitudes, knowledge, general and specific skills)		
d. Suitability of assessment techniques to assessment aspects		
e. Verification of assessment instruments		
f. Processing of marks in accordance with applicable regulations		
g. Follow-up on assessment results (inputting marks, enrichment, remedial work)		
Graduates		
a. Cumulative Grade Point Average (CGPA)		
b. Duration of Study		
c. Graduate employment rate		
d. Graduates' waiting period		
e. Job relevance to field of expertise		
f. Starting Salary		
g. Distribution of Graduates		
h. User satisfaction		
i. Academic achievements		
j. Professional Certification		

2. Tracer Study

In this section, the study programme must explain the evaluation of the impact on graduates regarding the skills they possess as a result of the implementation of the previous curriculum. Through a data-driven tracer study, the study programme can assess whether the programme's educational objectives have been achieved, and whether the Graduate Learning Outcomes require development, modification, simplification, or expansion, among other considerations. Based on the results of the tracer study, the study programme will obtain the following data.

a. Employment Status
b. Average monthly income
c. Field of work
d. Type of job
e. Relationship between field of study and occupation
f. Feedback on the curriculum
g. Input for programme development
h. Follow-up on the study programme

Table 4. Curriculum feedback from alumni and the Curriculum Action Plan

Curriculum Input	Action Plan

Table 5. Programme Input from Alumni and Programme Action Plan

Programme Input	Action Plan

3. SWOT Analysis

Based on the results of the tracer study and the analysis of stakeholder feedback, the programme conducted a SWOT analysis, which was used as a basis for formulating strategies to achieve its objectives. Subsequently, criteria and indicators of programme success were established to facilitate the monitoring and evaluation of the success of the programmes that have been set. The SWOT analysis identified four elements: strengths, weaknesses, opportunities, and threats. Based on the SWOT analysis of these four elements, the following four strategies were established:

a. SO Strategy (Strength-Opportunity), namely a strategy of using strengths to capitalise on opportunities.
b. Strategy WO (Weakness-Opportunity), namelya strategy to address constraints/weaknesses by capitalising on opportunities.
c. ST Strategy (Strength-Threat), which is a strategy for using strengths to address threats.
d. The WT (Weakness-Threat) strategy, which is a strategy for addressing constraints or weaknesses to overcome threats.

These four strategies are illustrated in a SWOT matrix, as shown in Table 6.

Table 6. SWOT Matrix

SWOT Elements		Internal	
		Strengths / Potential	**Weaknesses**
External		**SO Strategy**	**WO Strategy**
		a) Enhancing understanding and internalisation of VMTS achievements by the academic community and all stakeholders. b) Optimising lecturers' public leadership as an expression of their public duty in supporting the Faculty's vision and mission. c) Increasing the number of students participating in competitions, both at national and international levels. d) Utilising the alumni network to help graduates secure employment more quickly.	a. Strengthening synergies in the implementation of the UPGRIS VMTS within integrated work programmes. Strengthening international networks to support the strategic performance of study programmes (IKS), particularly international IKS. b. Involving students in all lecturers' research activities. c. Recruiting students for the Student Innovation Competition to participate in PKM. d. Publishing students' final projects in seminars or journals. e. Improving students' English language proficiency through English bridging courses through English bridging programmes.
		ST Strategy	**WT Strategy**
		a. Strengthening the understanding of VMTS implemented in academic and non-academic activities of the academic community, as well as all programme stakeholders. b. Expansion of networks and implementation of cooperation at both national and international levels to accelerate the realisation of the Faculty's excellence. c. Establishment of external advisory bodies at national and international levels. d. Increasing the use of online media to enhance understanding of lectures. e. Involvement of the industry in the curriculum or learning processes, research and community engagement. f. Improving the quality of laboratory facilities to meet current technological needs. g. Continuous improvement of learning materials to ensure they align with industry needs. h. Consider involving from leading ASEAN universities to evaluate all aspects of the study programme	a. Development of outreach methods and VMTS tracer studies for the entire academic community and all stakeholders. b. Utilising the alumni network to assist recent graduates in securing employment, securing work placement locations, internships, and final project materials. c. Enhancing lecturers' English language skills. d. Workshops (cyber pedagogy) or enhancing lecturers' skills in teaching via online systems in line with Education 4.0 teaching and learning.

D. The Scientific Vision and Educational Objectives of the Study Programme, as formulated by the Study Programme

1. University Vision
   To become an outstanding and distinctive university
2. University Mission
   a. To provide education that produces outstanding and self-reliant intellectuals;
   b. To conduct research as the foundation for the advancement of knowledge and the enhancement of the quality of learning;
   c. To carry out community service for the betterment of life and living;
   d. To set an example in the delivery of education, research, and community service.
3. University Objectives
   a. The realisation of outstanding and self-reliant intellectuals;
   b. To achieve academic excellence and research-based learning;
   c. To realise community service that benefits life and living; and
   d. The implementation of exemplary leadership in the delivery of education, research, and community service.
4. University Strategic Objectives

   UPGRIS, in contributing to and making an impact on national development, has grouped the strategic objectives of the UPGRIS 2025–2029 Strategic Plan into six areas, outlined as follows.

   a. Education
      1) Improving the quality of graduates.
      2) Enhancing training services, competence development, and competence certification in line with advancements in science, technology, and the labour market.
      3) Enhancing student achievement development based on excellence in the fields of reasoning, arts, sports, welfare, and special interests.
      4) Increased mentoring, services, empowerment, and participation of alumni in the development of student organisations based on excellence in the fields of reasoning, arts, sports, welfare, and special interests.
   b. Research
      1) Increased high-quality, high-value research capable of addressing local, national, and global issues.
      2) Increased capacity and role of competent, productive researchers capable of playing a part at national, regional, and global levels through study centres, research groups, and research clusters.
      3) Increased centres of innovation excellence.
   c. Community Engagement
      1) Increased focus and distinctiveness of community-based service by exploring the characteristics and uniqueness of the target areas.

2) Increased implementation of research-based and empowerment-oriented community service to enhance community productivity and well-being.

d. Governance
   1) The development of an organisational structure that is adaptive, effective and responsive to academic and managerial development needs.
   2) Improvements in governance towards a 'good university, clean government' model.
   3) Improvements in facilities and infrastructure to foster an academic and scientific environment, excellence, innovation, and humanistic, religious, and national values.
   4) Improved financial management that is effective, systematic, transparent, sound, and accountable, supported by sufficient revenue sources to underpin the operational delivery of education.
   5) Improving the qualifications, competencies and capacity of teaching and non-teaching staff who are competent in their fields of expertise, possess strong character and are productive, thereby enabling them to provide excellent and comprehensive services in accordance with their respective duties and functions.
   6) Improvements in the new student admission system.
   7) Improved accreditation of study programmes and higher education institutions at both national and international levels.

e. Areas of Cooperation

   Expanding networks involving multinational companies; high-standard national companies, state-owned enterprises (SOEs), and/or regional-owned enterprises (ROEs); global technology companies; technology start-ups; world-class non-profit organisations; multilateral institutions/organisations; universities ranked in the QS200 by subject, both domestic and international; government agencies; hospitals; government, private, national, and international research institutions; and nationally recognised cultural institutions with a reputation in the fields of education, research, and community engagement.

f. Fields of Role Modelling

   An increase in emulation activities used as a basis for the development of scientific knowledge.

Strategies for achieving the targets are as follows:

a. Improving the quality of graduates.
b. Improving training services, enhancing competencies, and providing competency certification in line with developments in science, technology, and the labour market.
c. Enhancing student achievement support based on excellence in the fields of reasoning, arts, sports, welfare, and special interests.
d. Enhancing the mentoring, services, empowerment, and participation of alumni in the development of student organisations based on excellence in the fields of reasoning, arts, sports, welfare, and special interests.

e. Enhancing high-quality, high-value research capable of addressing local, national, and global issues.
f. Enhancing the capacity and role of competent, productive researchers capable of playing a part at national, regional, and global levels through study centres, research groups, and research clusters.
g. Enhancing centres of innovation excellence.
h. Enhancing the focus and distinctive character of community-based community service by exploring the distinctive features and uniqueness of the target areas.
i. Enhancing the implementation of research-based and empowerment-oriented community service to improve community productivity and well-being.
j. Improving an organisational structure that is adaptive, effective, and responsive to academic and managerial development needs.
k. Improving governance towards a 'good university, clean government'.
l. Enhancing facilities and infrastructure to foster an academic/scientific climate, excellence, innovation, and humanistic, religious, and national values.
m. Improving financial management to be effective, systematic, transparent, sound, and accountable, supported by sufficient revenue sources to underpin the operational delivery of education.
n. Enhancing the qualifications, competencies and capacity of teaching and non-teaching staff so that they are competent in their fields of expertise, possess strong character and are productive, thereby enabling them to provide excellent and comprehensive services in accordance with their respective roles and responsibilities.
o. Improving the new student admission system.
p. Strengthening networks involving multinational companies; high-standard national companies, state-owned enterprises (SOEs), and/or regional-owned enterprises (ROEs); global technology companies; technology start-ups; world-class non-profit organisations; multilateral institutions/organisations; universities ranked in the QS200 by subject, both domestic and international; government agencies; hospitals; government, private, national, and international research institutions; and nationally recognised cultural institutions with a reputation in the fields of education, research, and community engagement.
q. Improvement of programme and university accreditation at both national and international levels.
r. Enhancement of exemplary activities used as a basis for the development of scientific knowledge.

5. Faculty Vision
6. Faculty Mission
7. Faculty Strategy
8. Scientific Vision of the Study Programme

The academic vision of the study programme must be formulated to provide

direction for the development of the *Tri Dharma* of Higher Education and to demonstrate its strengths and distinctive features compared to similar study programmes. The formulation of the academic vision of the study programme must take into account the university's vision and the faculty's vision, but places greater emphasis on the academic disciplines developed as the defining characteristics and strengths of the study programme. Therefore, the academic vision must consider developments in science and technology within its field, the resources available, and the research or community service experiences undertaken by lecturers and students. The academic vision will also guide learning outcomes and subject matter in curriculum development and the determination of course modules. The research and community service roadmap developed by the programme management unit also serves as a guide for the gradual realisation of the academic vision.

The academic vision for the Undergraduate Programmes at UPGRIS refers to the respective Centre of Excellence (CoE) for each programme, as these Centres of Excellence are accredited under the BNSP certification scheme and represent a distinctive strength of graduates compared to similar programmes. The academic vision for the Master's and Professional Programmes at UPGRIS highlights the academic strengths claimed by each programme as their distinctive features.

9. Programme Educational Objectives (PEO)

The formulation of a study programme's educational objectives must involve the primary users of the programme's graduates and/or the business sector, industry and the world of work, to ensure they align with the required attitudes, skills and knowledge in the workplace. The formulation of study programme objectives also takes into account the National Qualifications Framework (KKNI) and applicable policies at both national level and within the respective higher education institutions, as well as the views of lecturers, graduates and other stakeholders. The educational objectives of a study programme describe the fields of work in which graduates may pursue careers, the professional careers that may be achieved through graduates' personal development, and the attitudes, skills and knowledge developed in students to achieve these.

According to ABET, the educational objectives of a study programme are broad in scope, serving as a statement describing what graduates are expected to achieve within a few years (3–5 years) of graduation. According to ASIIN, educational objectives are articulated through a description of the learning outcomes required by graduates to practise their profession or to pursue postgraduate studies. The programme's educational objectives are broad statements describing the career and professional achievements that the programme prepares graduates to attain (within a few years of graduation).

The study programme may set out the programme's educational objectives, with no more than 3–4 objectives, in Table 7.

Table 7. Programme Educational Objectives

No	Programme Educational Objective Code	Description of Programme Educational Objectives
1	PEO-1	
2	PEO-2	
3	…	

E. Graduate Profile Statement

The programme objectives describe the roles graduates are expected to fulfil after several years of pursuing a professional career in the workplace. To achieve these objectives, a clear outline and description of the roles graduates can undertake upon completing their studies is required; this is known as the graduate profile. The graduate profile outlines the roles graduates can undertake within a specific field of expertise or area of work after completing their studies, and constitutes the programme's educational objectives (PEO). The graduate profile is formulated by the study programme based on graduate tracking results, input from stakeholders, professional associations, academic consortia, future trends in academic/professional development, and the results of curriculum evaluation. The profile may be established based on an analysis of labour market needs required by the government and the business and industrial sectors, as well as the need to advance science and technology. Ideally, the graduate profile of a study programme should be developed by a group of similar study programmes, so that a consensus is reached that is acceptable and can serve as a national reference. Graduates of a study programme require the competencies stated in the PLO framework to fulfil the roles outlined in the profile.

After formulating the graduate profile, the study programme needs to formulate the competencies derived from the graduate profile. At this stage, it is necessary to involve stakeholders who can contribute to achieving convergence and connectivity between educational institutions and the stakeholders who will utilise the graduates, and this can ensure graduate quality. Graduate competencies, as Graduate Competency Standards, are formulated in the PLO. The programme's PLO must also align with the programme's vision and mission, namely the academic vision and mission underpinning the development and implementation of the programme's curriculum.

The study programme outlines graduate profiles, with no more than 4–5 graduate profiles in Table 8.

Table 8. Graduate Profiles and Descriptions

No	Graduate Profile (GP)	Description of Graduate Profile
1	GP-1	Describe the roles performed (within the scope of their work) by graduates in a specific field of expertise or area of work after completing their studies (in some literature – associated with a period of 3–5 years following graduation) For example: Profile 1: Engineer Profile 2: Consultant Profile …
2	GP-2	
3	GP-3	

The Graduate Profile (GP) established by the study programme must be aligned with the Study Programme's Educational Objectives (PEO). Therefore, the study programme must outline the alignment between the Graduate Profile and the Study Programme's Educational Objectives in Table 9.

Table 9. Correlation between the Graduate Profile and the Programme's Educational Objectives

No	Graduate Profile (GP)	Programme Educational Objectives (PEO)			
		PEO-1	PEO-2	…	
1	GP-1				
2	GP-2				
3	…				

F. Formulation of Programme Learning Outcomes (PLO) (Learning Outcome/ LO)

The formulation of Graduate Competency Standards (SKL) expressed in Programme Learning Outcomes (PLO) constitutes a set of competencies comprising attitudes, skills and knowledge that demonstrate students' achievements from their learning outcomes at the end of a higher education programme, formulated in accordance with KKNI descriptors and SN Dikti in line with the relevant level of education. PLOs may also include capabilities that reflect the uniqueness of each higher education institution in line with its vision and mission, the distinctiveness of the region in which the institution is located, and even the uniqueness of Indonesia. Study programmes undertaking international quality assurance through international accreditation also take into account the PLO standards set by the accrediting body. The formulation of PLOs is adapted and mapped for consistency with existing PLOs. An illustration of the formulation of PLOs is presented in Figure 5.

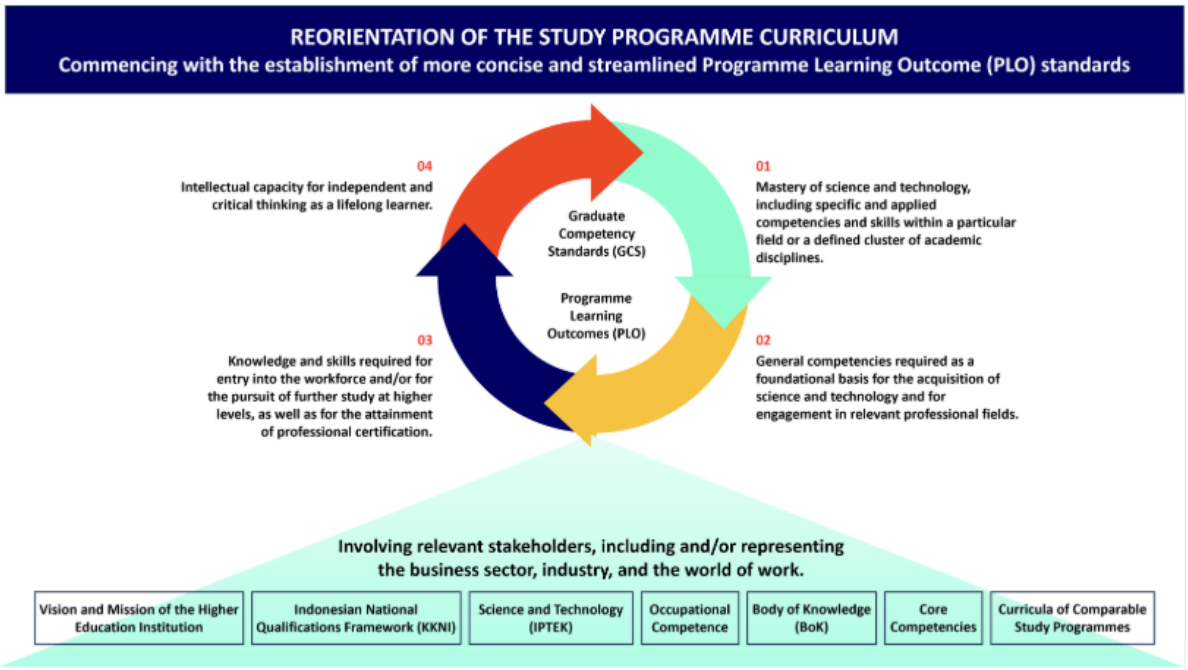


Figure 5. The formulation of Graduate Learning Outcomes for Study Programmes at KKNI Qualification Levels is presented in Table 10.

Table 10. KKNI Qualification Levels of Study Programmes

KKNI Level of Study Programme Qualification 6 (Equivalent to Bachelor's Degree)	
Code	**Attitudes and Values (same for all levels)**
S-a	Fear of God.
S-b	Possessing good morals, ethics and character in carrying out one's duties.
S-c	Acting as a proud citizen who loves their homeland and supports world peace.
S-d	Able to work well with others and demonstrate a high level of social awareness and concern for the community and the environment.
S-e	Respects cultural diversity, perspectives, beliefs, and religions, as well as the original opinions and findings of others.
S-f	Upholds the rule of law and is committed to prioritising the interests of the nation and the wider community.
Code	**Work Skills**
KK	Able to apply their field of expertise and utilise science and technology within their field to solve problems, and able to adapt to the situations faced.
Code	**Mastery of Knowledge**
PP	Has a general grasp of the theoretical concepts of a specific field of knowledge and a deep understanding of the theoretical concepts of a specific sub-field within that field, and is able to formulate procedural solutions to problems.

Code	Authority and Responsibility
KTJ-1	Able to make appropriate decisions based on the analysis of information and data, and able to provide guidance in selecting various alternative solutions, both independently and in a group.
KTJ-2	Accountable for one's own work and capable of being entrusted with responsibility for the organisation's performance outcomes.

Code	Professional Competency
P-KK	Able to plan and manage resources under their responsibility, and comprehensively evaluate their work by utilising knowledge, technology, and/or skills to generate strategic organisational development measures.

Code	Professional Knowledge Mastery
P-PP	Able to solve problems in science, technology and/or the arts within their field of study through a monodisciplinary approach

Code	Professional Powers and Responsibilities
P-KTJ	Capable of conducting research and making strategic decisions with full accountability and responsibility for all aspects falling within the scope of their area of expertise.

Code	Master's Degree Work Competencies
S2-KK	Able to develop knowledge, technology, and/or art within their field of study or professional practice through research, resulting in innovative and proven work.

Code	Mastery of Knowledge (S2)
M.Sc. - PP	Able to solve problems in science, technology, and/or the arts within their field of study through an interdisciplinary or multidisciplinary approach

Code	Authority and Responsibility s2
S2-KTJ	Able to manage research and development that benefits society and the academic community, and able to gain national and international recognition

The core competencies of programme graduates must meet the requirements set out in Ministerial Regulation No. 53 of 2023, as presented in Table 11.

Table 11. Provisions on the Core Competencies of Programme Graduates

Program	Key Graduate Competencies
Bachelor	Minimum: 1. Mastery of theoretical concepts in specific fields of knowledge and skills in a general and specific manner to solve problems procedurally in accordance with the scope of their work, and 2. Able to adapt to changing situations faced.
Profession	Minimum: 1. Mastery of the theoretical application of specific fields of knowledge and skills by utilising science and technology within a specific professional field, and 2. Able to manage resources, apply professional standards, evaluate, and develop organisational strategies.
Master	Minimum Mastery of theory in the of specific in order to advancing science and technology through research or the creation of innovative works.

The first stage of PLO development is illustrated in the diagram in Figure 6.

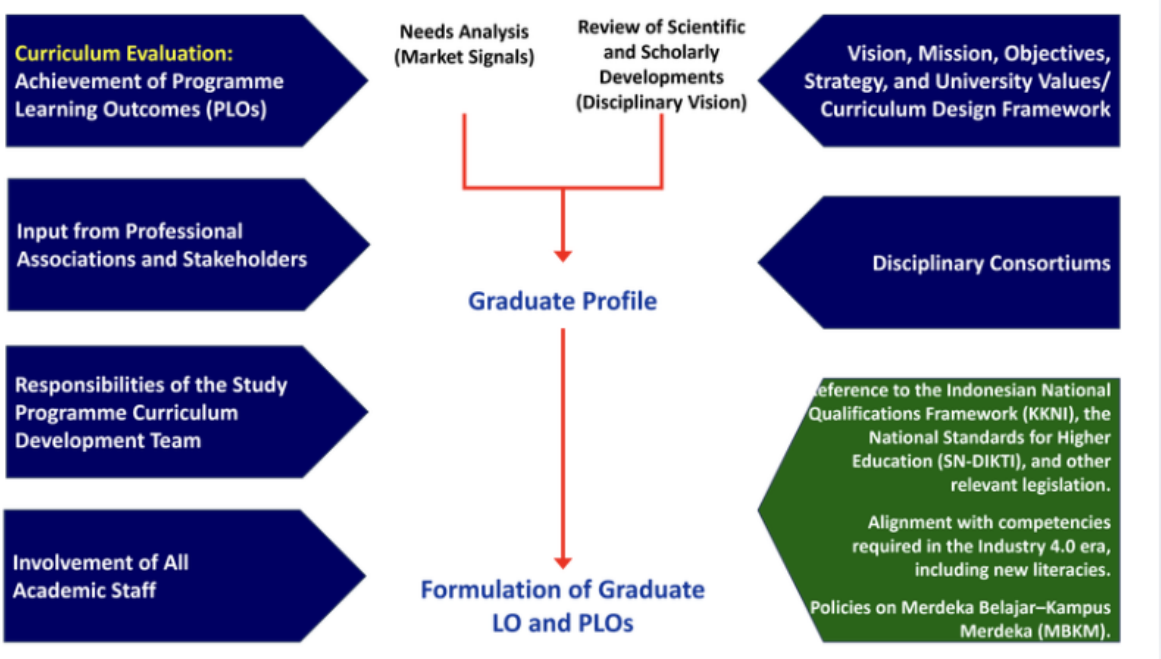


Figure 6. First Stage – Formulation of Graduate Learning Outcomes

Each item in the PLO formulation must contain, at a minimum, the competencies that students must possess and the subject matter they must study. Therefore, in formulating PLOs, a needs analysis must be conducted to identify the competencies required by stakeholders, and studies of the body of knowledge within the discipline of the study programme are required to determine the subject matter to be studied by students.

It is recommended that the formulation of PLOs includes the competencies required in the era of Industry 4.0 towards Society 5.0 and 21st-century skills, including competencies regarding:

1. Data literacy: the ability to understand, read, analyse and use data and information (big data) in the digital world;
2. Technological literacy: the ability to understand how machines and technological applications work, including coding, artificial intelligence, and engineering principles;
3. Humanities literacy: the ability to understand the humanities, communication, and design;
4. Other 21st-century skills that foster higher-order thinking skills (HOTS), which include communication, collaboration, critical thinking, creative thinking, computational logic, compassion, and civic responsibility.
5. Understanding the Industry 4.0 era leading towards Society 5.0 and understanding its development.
6. Understanding of knowledge: applying knowledge for the common good at local, national, and global levels.
7. Other issues relating to sustainability, global citizenship, and an educational approach that is more inclusive, adaptive and personalised.
8. Additional learning outcomes and competencies that can be achieved outside the degree programme.

PLO formulations must refer to the KKNI qualification levels and be in accordance with the four points of competency scope set out in Permendikbudristek No. 53 of 2023, Articles 7 to 9. The formulated PLOs must be clear, observable, measurable and achievable within the learning process, and their attainment must be demonstrable and assessable. Each PLO item comprises a behaviour (behaviour/cognitive process) and subject matter, and may also include a context (Tyler, 2013; Anderson & Krathwohl, 2001). The anatomy of a PLO is illustrated in Figure 7.

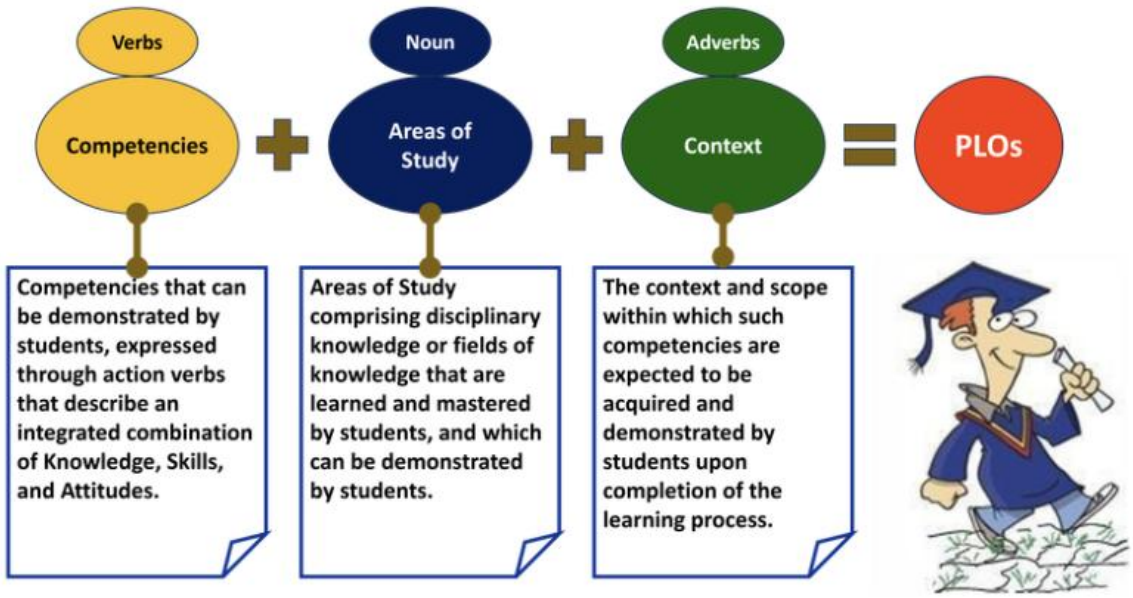


Figure 7. Anatomy of a CPO

Table 12 shows several examples of CPOs containing the three components mentioned above.

Table 12. Examples of PLO Items with Their Components

No	Competency (behaviour/cognitive process)	Subject Matter	Context
1	able to apply logical, critical, systematic and innovative thinking in the context of the development or implementation	science and/or technology	in accordance with their field of expertise.
2	Develop	comprehensive lesson plans	that is comprehensive for learning activities in the classroom, laboratory, and fieldwork.
3	mastering theoretical concepts	of engineering sciences, engineering principles, and engineering design	required for the analysis and design of electrical power systems, control systems, or electronic systems.

When formulating the PLO, the following points should be considered:

1. The PLO must adequately reflect the context, level, scope and content of the programme.
2. PLO statements must be concise, yet not overly detailed.
3. The PLOs must be mutually consistent.
4. The PLO must be easily understood and verifiable in relation to what students have actually achieved by the end of the programme.
5. PLOs must be achievable within the specified learning workload.
6. PLOs must be linked to appropriate learning activities, assessment methods, and assessment criteria.
7. The widely accepted method for formulating PLOs is based on three key elements, namely:
   a. Use active verbs to express what is expected of students and what they are able to do, for example: graduates can 'describe', 'apply', 'draw conclusions', 'evaluate', 'plan'.
   b. Specify what is meant by the outcomes in terms of objects or skills, for example: can explain 'the function of hardware components', or can present 'the function of hardware components', or can present 'a living room design by hand'.
   c. Determine how to demonstrate the achievement of PLOs, for example, 'providing an overview of the materials most frequently used in electrical engineering', 'developing a research design by applying the latest scientific methods';

Based on UPGRIS Rector's Decision No. 013.a/SK/UPGRIS/II/2025 regarding the Determination of Graduate Learning Outcomes for Study Programmes within UPGRIS, the PLOs for a study programme are set at a maximum of 15 items, and the first PLO established by the university is "Demonstrating character and conduct that reflect adaptability, enthusiasm and integrity as a manifestation of devotion to God Almighty". Furthermore, study programmes may formulate their PLOs using the format in Table 13.

Table 13. Programme Learning Outcomes

Code	Description of Graduate Learning Outcomes (PLO)
PLO-1	Demonstrates character and AdAb that reflects the ability adaptability, enthusiasm and integrity as a manifestation of devotion to God Almighty
PLO-2	
PLO-3	
PLO-4	
PLO-	

The PLOs formulated by the study programme must be clear, observable, measurable and achievable within the learning process, and their attainment must be demonstrable and

assessable. The formulation of good PLOs can be guided by the answers to the diagnostic questions in Table 14.

Table 14. PLO Diagnostic Questions

No	Diagnostic Question	Answer
1	Does the formulated PLO cover the following aspects: a. Mastery of science and technology, specific skills and their application to one or a set of specific scientific fields b. General competencies required as a foundation for the mastery of science and technology and relevant fields of work c. The knowledge and skills required for the world of work and/or for pursuing further study at a higher level or for obtaining a professional certificate; and d. The intellectual capacity to think independently and critically as a lifelong learner?	
2	Is the formulated PLO based on the KKNI levels?	
3	Does the formulated PLO incorporate the vision, mission of the , the faculty, and the academic vision of the study programme?	
4	Is the PLO formulated based on the graduate profile?	
5	Is the graduate profile aligned with the needs of the workplace or stakeholders?	
6	Can the PLO be achieved and measured in student learning, how can they be achieved and measured?	
7	Can PLO be reviewed and evaluated on a regular basis?	
8	How can PLO be translated into the 'actual competencies' of graduates, encompassing attitudes, knowledge and skills that measurable and achievable within the course?	
9	Does the PLO that has been formulated take into account the programme curriculum? similar studies and/or associations or study programme societies?	
10	Has the PLO been developed with due regard to the international accreditation bodies targeted by the study programme?	

Furthermore, the Programme must ensure that the established PLOs support the Graduate Profile. The Programme must create a matrix of the relationship between the Graduate Profile and the Programme's PLOs in Table 15.

Table 15. Matrix of Relationships between the Graduate Profile and the Programme's PLO

Code	Description of Programme PLO	GP1	GP2	…	GPn
PLO-1		√			
PLO-2		√			√

…					

Furthermore, the PLOs established by the Study Programme must support the Study Programme's Educational Objectives; therefore, the Study Programme needs to map the relationship between the Study Programme's PLOs and its Educational Objectives in Table 16.

Table 16. Matrix of Relationships between the Programme's PLOs and Educational Objectives Study

Code	Description of Programme PLO	PEO-1	PEO-2	…
PLO-1		√		
PLO-2		√		
…			√	

G. Determination of Study Materials and Learning Resources

The determination of study materials is based on PLOs and/or utilises the Body of Knowledge of a Study Programme, which is subsequently used for the development of new courses, and the evaluation and restructuring of existing or ongoing courses.

The study programme selects several relevant PLO items as the basis for course development, ensuring that each course incorporates a unity of attitude, knowledge and skills. Simultaneously, the study materials contained within these PLO items are identified and subsequently elaborated upon in the course learning materials.

Each PLO item within the study programme contains study materials to be used for course development. These materials may consist of one or more branches of science and their sub-disciplines, or a body of knowledge that has been integrated into a new body of knowledge agreed upon by forums of similar study programmes as a characteristic of the programme's field of study. These study materials are subsequently elaborated in greater detail to form the course content.

The breadth and depth of the learning materials refer to the PLOs listed in Article 9 of the Education Quality Standards (Ministry of Education, Culture, Research and Technology Regulation No. 53 of 2023).

Table 17. Level of Depth and Breadth of Learning Materials

Programme	Key Graduate Competencies
Bachelor	Minimum: 1. Mastery of theoretical concepts in specific fields of knowledge and skills in a general and specific manner to solve problems procedurally in accordance with the scope of their work, and 2. Able to adapt to changing situations faced.

Profession	Minimum: 1. Mastery of the theoretical application of specific fields of knowledge and skills by utilising science and technology within a specific professional field, and 2. Able to manage resources, apply professional standards, evaluate, and develop organisational strategies.
Master's	Minimum Mastery of theory in the of specific in order to advancing science and technology through research or the creation of innovative works.

Study materials and learning resources may be updated or developed in line with advancements in science, technology, engineering and mathematics (STEM) and the programme's academic development direction. The process of determining study materials must involve the relevant academic disciplines or laboratories within the programme. The development of a course based on selected study materials may begin by creating a matrix linking the PLO statements with the study materials, to ensure their relevance.

Study materials derived from benchmarking with similar study programmes at recognised overseas universities, scientific associations, associations of similar study programmes, and professional associations in Indonesia, or formulated on the basis of PLO descriptors, are listed in Table 18.

Table 18. Study Materials Based on Programme PLOs

PLO	Description of Programme PLO	Study Materials
PLO-1	What to learn and in what context	The element "What to Learn" is the subject matter SM11 SM12 …
PLO-2		SM21

The Study Materials listed in Table 18 are further detailed in the description of the study materials, which sets out the minimum content to be studied within those materials. This description is presented in Table 19.

Table 19. Study Materials (BK)

Code	Subject Matter (SM)	Description of Study Materials/Elements Study Materials/Learning Materials
SM-11		1.1.1. 1.1.2.

SM-12		1.2.1. 1.2.2.
SM-21		2.1.1

Next, for the PLO of the study programme that has been compiled, each item is checked to ensure it contains the competencies and subject matter, along with their context, in accordance with the relevant level, using Table 20. The PLO matrix and study materials can be organised by placing the programme's PLO items in the rows, whilst the study materials covered by those PLO items are placed in the columns of the matrix. Subsequently, a check is carried out to ensure the alignment of these study materials with the academic disciplines developed within the study programme, as well as the learning needs of students in accordance with their programme level. These PLO items can then be used as the basis for the development of course modules.

Table 20. Matrix of the Relationship between PLO and Study Content

No	PLO	Course1	Course2		Course3			.....		Course-n		
		SM1	SM2	SM3	SM4		.....	.....	.....	.....	.....	SM-n
1	PLO1							.....			✓	
2	PLO2	✓	✓		✓			.....				
3	PLO3										✓	
4	PLO4		✓		✓							
5	PLO5	✓			✓			.....			✓	
	.....											
	.....											
n	PLOn				✓			.....			✓	

H. Course Development

The mechanism for course development based on PLOs (and their derivatives at the course level) and study materials is presented in Figure 8.

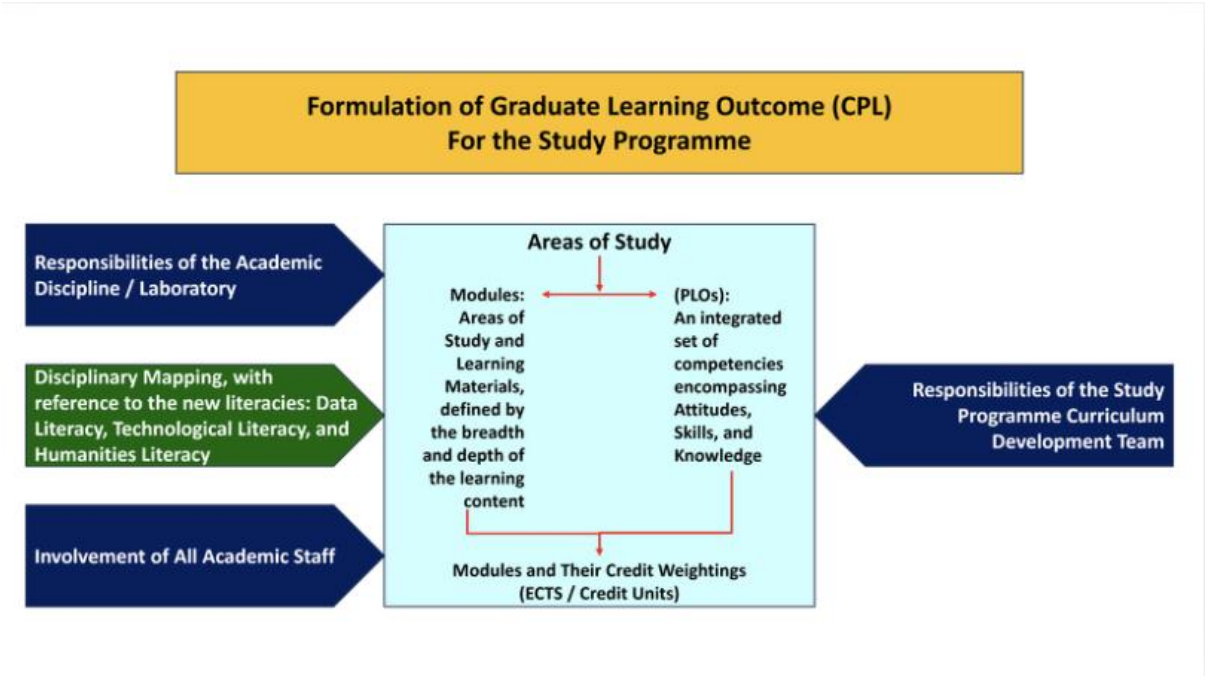


Figure 8. Course Development Stages

1. Course Selection Based on Curriculum Evaluation Results

The determination of courses for the current curriculum is carried out by evaluating each course against the programme's pre-established PLOs. The evaluation involves assessing the extent to which each course (learning materials, assignment formats, examination questions, and assessment) aligns with the formulated PLOs. This review is carried out by compiling a matrix between the PLO items and existing courses, as shown in Table 21.

Table 21. Matrix for Course Evaluation within the Curriculum

No.	PLOs of the Study Programme	MODULES											
		M1	M2	M3	M4	M5	...	...	...	...	...	Mn	Total
1	PLOs-1												4
2	PLOs-2												3
3	PLOs-3												
4	PLOs-4												3
5	PLOs-5												4
6	PLOs-6												
7	PLOs-7												4
8	PLOs-8												5
9	PLOs-9												1
10	PLOs-10												4
...	...												3
Estimated Time Allocation (Hours)		90	136	138	95	182							
Module Credit Weighting (Credit Units / Credits)		2	3	3	2	4							

COURSE MODULE RECONSTRUCTION

(based on several Programme Learning Outcomes (PLO) assigned to the module)

The module is eligible to RECONSTRUCTION

The module is eligible for DISCONTINUATION

The matrix consists of a column section containing existing courses (currently running courses) and a row section containing the programme's PLOs that have been established in advance. The evaluation of existing courses is carried out by assessing their

alignment with these PLO items. PLO items that correspond to a specific course are marked.

The matrix above can clarify the following points:

a. Courses that correspond to several of the specified PLOs may be ticked in the box, and those courses may be designated as part of the new curriculum. Ticking the box indicates that there is course content that is studied or must be mastered to equip students with the competencies specified in those PLOs.
b. If there are courses that are not related to or do not contribute to the fulfilment of the PLO, then those courses may be removed or integrated with other courses. Conversely, if there are PLO items not yet covered by existing courses, new courses may be proposed.

2. Development of Courses Based on PLO

The curriculum for a new study programme requires a process for developing new courses. The development of new courses is based on the specific PLO items assigned to them. The mechanism for developing new courses can be facilitated using the matrix in Table 22.

Table 22. Matrix for the Development of New Courses Based on Several PLO Elements Assigned to the Course

No.	PLOs of the Study Programme	MODULES											
		M1	M2	M3	M4	M5	...	...	...	...	...	Mn	Total
1	PLOs-1												4
2	PLOs-2												3
3	PLOs-3												
4	PLOs-4												3
5	PLOs-5												4
6	PLOs-6												
7	PLOs-7												4
8	PLOs-8												5
9	PLOs-9												1
10	PLOs-10												4
...	...												3
Estimated Time Allocation (Hours)		90	136	138	95	182							
Module Credit Weighting (Credit Units / Credits)		2	3	3	2	4							

COURSE MODULE ESTABLISHMENT

(based on several Programme Learning Outcomes (PLO) assigned to the module)

The method for developing new courses, as presented in Table 22, is as follows:

a. Select several PLO items and mark the table cells, as the basis for course development;
b. The subject matter contained within the PLOs assigned to the course is then elaborated as learning material with a scope and depth appropriate to the requirements of the programme level;
c. Ensure that every PLO item for the study programme has been fully allocated to all courses; in the far-right column (Total), the number/distribution of PLO items across each course can be seen;
d. Meanwhile, the last two rows can be used to estimate the time required to achieve the PLO assigned to the course, which is then converted into credit hours (1 credit hour is

equivalent to 45 hours).

When creating new courses, the Study Programme may map the course content or elements of the course content as outlined in Table 18 and Table 19.

a. Establishment of courses from Study Materials

Courses may be formed from a single study module or several study modules. The Study Programme may form courses using Table 23.

Table 23. Determination of Courses through Study Materials

Code	Description of Programme Study PLO	SM1	SM2	SM3	…	SMn
PLO-1						
PLO-2						
…						
		Course 1	**Course2**			

b. Determination of courses from the components of the study material

If the study material contains the same elements, the course can be determined by breaking it down as shown in Table 24.

Table 24. Determination of Course Units through Elements in the Study Material

Study Material	Elements in Study Material	Formation Course	Course Name Course
BK11	1.1.1 1.1.2	1.1.1 1.2.1 …	MK1
BK12	1.2.1		

After establishing a new course, the Study Programme maps the course to the Study Programme's PLOs, referring to Table 25.

Table 25. Mapping of Courses and Programme Learning Outcomes

No	Course Name Course	PLO 1	PLO 2	PLO 3	…	PLO n
1						
2						
3						
…						

I. Breakdown of PLOs for Courses

The PLOs assigned to a course are still general in nature; therefore, the PLOs assigned to a course need to be broken down into course learning outcomes (CLOs), often referred to as courses learning outcomes. CLOs are further broken down into several sub-course learning

outcomes (Sub-CLOs), often referred to as lesson learning outcomes (AUN-QA, 2022). Sub-CLOs represent the planned final competencies at each stage of learning to fulfil the PLO. Both CLOs and Sub-CLOs are observable, measurable and assessable; they are more specific to the course; and they can be demonstrated by students at each stage of learning, cumulatively illustrating the achievement of the PLO assigned to the course.

The breakdown of the PLO assigned to a course into CLOs, and then further into Sub-CLOs, must be constructively aligned. A visual representation of the above explanation can be seen in Figure 9.

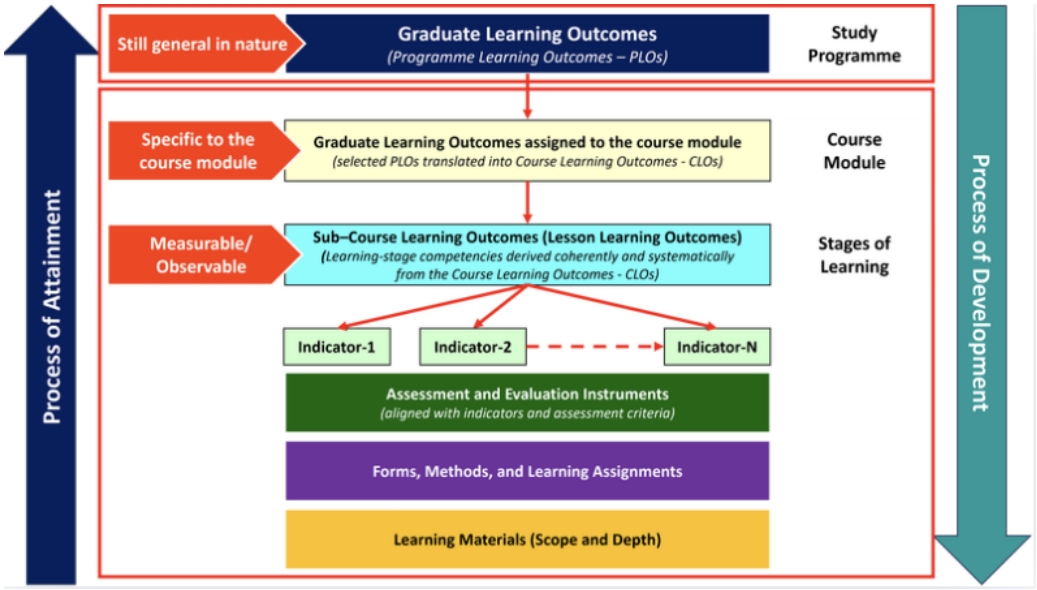


Figure 9. Stages of Aligning PLOs with Course Content (Constructive Alignment)

To clarify the stages of PLO implementation assigned to courses, as illustrated in the diagram in Figure 9, an example of PLO implementation in the Research Methodology course for the undergraduate programme is generally shown in Table 26.

Table 26. PLO for the Study Programme Assigned to the Research Methodology Course

No	Programme PLOs Assigned to Courses
1	Demonstrating a responsible attitude towards work in their field of expertise independently
2	Mastering theoretical concepts in science and technology, as well as mastering the formulation of solutions problems
3	Able carry out research using methodology that correct to solve problems in their field

When drafting CLOs and Sub-CLOs, attention must be paid to the use of action verbs, as these relate to the qualification level of graduates, the measurement and achievement of PLOs. Action verbs used in formulating CLO and Sub-CLO may include capability verbs, namely: intellectual skills; cognitive strategies; verbal information; motor skills; and attitudes.

Action verbs may also utilise the cognitive domains as defined by Bloom and Anderson,

comprising the abilities to: recall, understand, apply, analyse, evaluate and create. The affective domain comprises the abilities to: receive, respond, value, organise and characterise. The psychomotor domain comprises the abilities to: imitate movement, manipulate movement, demonstrate precision, articulate and naturalisation. The following is an example of a CLO/Sub-CLO formulation matrix with the knowledge dimensions that must be mastered.

Table 27. Example of a CLO and Sub-CLO Formulation Table

		COGNITIVE PROCESS DIMENSION					
KNOWLEDGE DIMENSION	Bloom's Taxonomy	Remembering (C1)	Understanding (C2)	Applying (C3)	Analysing (C4)	Evaluating (C5)	Creating (C6)
	Factual Knowledge	Listing 1.1	Summarising 1.2	Classifying 1.3	Analysing 1.4	Comparing 1.5	Combining 1.6
	Conceptual Knowledge	Describing 2.1	Interpreting 2.2	Conducting experiments 2.3	Explaining 2.4	Evaluating 2.5	Designing 2.6
	Procedural Knowledge	Tabulating 3.1	Predicting 3.2	Calculating 3.3	Differentiating 3.4	Drawing conclusions 3.5	Producing 3.6
	Metacognitive Knowledge	Using accurately 4.1	Executing 4.2	Constructing 4.3	Achieving 4.4	Taking action 4.5	Actualising 4.6

Examples of Sub–Course Learning Outcomes (Sub-CLOs)
2.4 Able to explain various qualitative and quantitative research methods *(C2, A3).*
3.6 Able to develop research data collection instruments with independent, high-quality, and measurable performance *(C3, A3).*
4.5 Able to select and determine research samples using systematic, high-quality, and measurable procedures *(C3, A3).*
4.4 Able to process data and interpret the results with accountable attitudes *(C3, A3, P3).*
3.6 Able to formulate research problems and develop research hypotheses using reliable, measurable, and valid reference sources *(C3, A3).*
4.3 Able to design research in the form of a research proposal and present it with independent, high-quality, and measurable performance *(C6, A3, P3).*
Structure of Sub–Course Learning Outcomes (Sub-CLOs) = Competency + Learning Materials + Context
Example of Sub-CLO 3.6: *Developing* → competency; *research data collection instruments* → learning materials; *with independent, high-quality performance* → context.

Returning to Table 27, there is the term 'indicator'. The indicator in question is an indication that students have achieved the competencies formulated in the form of CLO or Sub-CLO. This indicator is used to determine the measurement or assessment instruments appropriate to the CLO or Sub-CLO.

1. Formulating CLO

Table 26 shows that the PLO remains general in nature with regard to the example of the Research Methodology course; therefore, it is necessary to formulate a CLO that is more specific to that particular Research Methodology course. The formulation of the CLO must contain elements of competence and learning content, the depth and breadth of which are selected and determined in accordance with the PLO assigned to that course. Table 28 is an example of a CLO formulated based on the PLO assigned to the Research Methodology course.

Table 28. CLO Formulated Based on the PLO in Table 26

Code		Operationalisation of PLO into CLO
PLO 1	Demonstrates a responsible attitude towards work in the field expertise	
	CLO 1	Applying scientific principles and ethics in formulating research proposals

Code		Operationalisation of PLO into CLO
PLO 2	Mastering theoretical concepts in science and technology, as well as mastering the formulation of solutions problems in a procedural manner	
	CLO 2	Able to explain and apply research design, data collection techniques data collection and data analysis techniques in developing research designs in their field
PLO 3	Able to conduct research using the correct methodology to solve problems in their field	
	CLO 3	Able to design research using the correct methodology to solve problems in their field
	CLO 4	Able to present a research design

Note:

- Each CLO is designated by the code CLO1, CLO2, CLO3, etc.
- The CLO must ensure that the PLO elements assigned are aligned with the PLO of each study programme and their equivalence with available courses or new competencies that can be acquired. Table 29 may be used as a guide for this purpose.

Table 29. Frequently Asked Questions and Answers regarding CLO

No	Question	Response
1.	Is the CLO formulation the same as the PLO?	The PLO is general in nature, whereas the CLO is an operationalisation of the PLO to enable measurement within the relevant course; consequently, the wording formulation of CLO will differ from that of PLO.
2.	How many CLO items are there in a course?	The number of CLO items for a course may vary as required, provided they fully describe the PLO assigned to the relevant course.
3.	What are the guidelines for formulating CLO?	a. CLO statements encompass knowledge, skills, and attitudes that can be observed, measured, and demonstrated at the end of the learning process. b. The CLO statements cumulatively describe the achievement of the PLOs assigned to the relevant course.
4.	Do new PLOs need to be created for MBKM activities?	No. Existing PLO and CLO formulations can be used. Some may need to be supplemented and adapted to the activities. However, they are essentially the same.

No	Question	Response
5.	For MBKM programmes implemented outside of lectures, is it necessary to prepare a Course Syllabus?	Yes. According to the SN-Dikti, it is stated that the learning process plan must be drawn up for each course and presented in a RPS or under another term. This plan serves as the basis for implementation and assessment. (An example of a RPS is in the Appendix).

2. Formulating Lesson Learning Outcomes (LLO)

LLOs are specific, measurable statements of the final learning outcomes planned for each stage of the learning process, which are demonstrated at the end of the learning process. LLOs are derived from CLOs, which are expected to contribute cumulatively to the achievement of the PLO.

A well-formulated LLO has the following characteristics:

a. **Specific** – the statement must be clear, using specific terms to describe the desired competencies: attitudes, knowledge and skills, using concrete verbs;
b. **Measurable** – the formulation must have measurable learning outcome targets for students, so that it can be determined when these can be achieved by students;
c. **Achievable** – the formulation states abilities that can be achieved by students;
d. **Realistic** – the formulation states abilities that are realistic for students to achieve;
e. **Time-bound** – the formulation states abilities that students can achieve within a reasonable timeframe commensurate with the credit weighting.

Table 30. Sub-CLOs Formulated Based on the CLOs in Table 28

Code	Lesson Learning Outcome (LLO)
LLO 1	able to explain the theory used as the basis for problem formulation and analysis (CLO-1)
LLO 2	able to explain various qualitative and/or quantitative research methodologies (CLO-4)
LLO 3	able to formulate research problems and research hypotheses using high-quality, measurable and valid reference sources (CLO-2)
LLO 4	Able to develop research data collection instruments that are independent, high-quality and measurable (CLO-4)
LLO 5	able to select and determine research samples in a systematic, high-quality and measurable manner. (CLO-4)
LLO 6	Able to design research in the form of a final-year project proposal and present it independently with responsibility and ethical standards (CLO-3)

The LLOs formulated in Table 29 will subsequently be used as a basis for determining indicators and criteria, creating assessment instruments, selecting forms and

methods of learning, and developing materials learning. These items are then organised into a Course Syllabus for the relevant module. Before the Course Syllabus is drawn up, a learning analysis must be prepared. A learning analysis is a systematic and logical arrangement of LLOs. It outlines the stages through which students achieve the final learning outcomes that contribute to the fulfilment of the PLOs assigned to the module.

J. Determination of Course Credit Weight

The credit weight of a course is defined as the time required for students to acquire the competencies outlined in that course. In accordance with the provisions of Higher Education Quality Assurance, a credit unit represents the measure of learning time assigned to students per week per semester in the learning process through various forms of learning, and the extent to which students' efforts in participating in curricular activities within a study programme are recognised. The study load for 1 (one) semester credit unit is equivalent to 45 (forty-five) hours per semester. The credit weight of a course is determined based on:

a. The level of competence to be achieved (PLO assigned to the course), as represented in the Course Learning Outcomes (CLO);
b. The depth and breadth of the learning material, which can be equated with the time required for learning activities to achieve each PLO assigned to the course;
c. The form and methods of learning selected in accordance with the PLO items assigned to the course.

When calculating the credit weight for each course, the Study Programme may follow Table 31. The Study Programme calculates the duration of each LLO undertaken by students, taking into account the forms of learning and assessment that must be completed by students. Subsequently, the Study Programme sums the duration of each PLO. The total duration undertaken for each PLO within that course is then divided by 45 hours to obtain the credit weight of that course.

Table 31. Calculation of Credit Weight for Each Course

Course No.	Course Code	PLOs assigned to the Course	PLO Achievement Indicators	Time Required to Achieve PLO (in hours/credit hours)	Total (in hours/credit points)	Conversion to Credit Points
1	Course-1	PLO-1	Ind. PLO-1.1 Ind. PLO-1.2 / Sub CLO	T.1.1 T.1.2	∑ T1	N credits = (∑ T1 + ∑ T2)/ 45 hours
2		PLO-3	Ind. PLO-3.1 Ind. PLO-3.2 Ind. PLO-3.3 / Sub CLO	T.3.1 T.3.2 T.3.3	∑ T2	rounded

K. Matrix, Curriculum Map, and Duration

The Study Programme must be able to describe the organisation of courses or the curriculum map in a logical and systematic structure in accordance with the Programme's Graduate Learning Outcomes. The distribution of courses is arranged in a sequence of semesters in accordance with the Programme's curriculum duration.

The stages of developing the curriculum structure in the form of a course matrix organisation per semester must take the following into account:

1. The planned stages of course learning in an effort to meet graduate learning outcomes;
2. The appropriate placement of courses, aligned with the progression of skill levels and the integration between courses, both vertically and horizontally;
3. The maximum student workload is 20 credits in the first and second semesters, whilst in the third semester and beyond it is a maximum of 24 credits;
4. The drafting process involves all programme lecturers and is subsequently agreed upon by the programme.

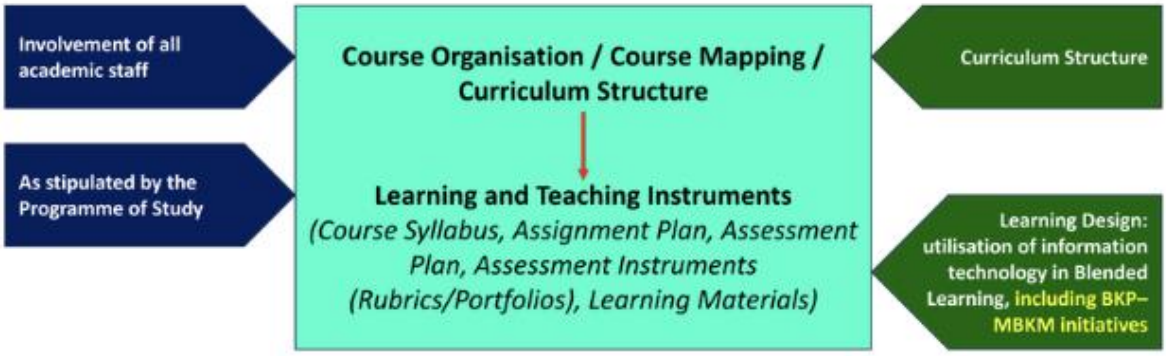


Figure 10. Organisation of Courses within the Curriculum Structure The organisation of courses within the curriculum structure must be carried out carefully and

systematically to ensure that students' learning stages are appropriate, guaranteeing that learning is conducted efficiently and effectively to achieve the programme's PLOs. The organisation of courses within the curriculum structure comprises horizontal and vertical organisation (Ornstein & Hunkins, 2014, p. 157). The horizontal organisation of courses within a semester is intended to broaden students' knowledge and skills within a wider context. For example, in the same semester, students study science and the humanities within a context designed to achieve the competence outlined in one of the PLO criteria, namely "the ability to apply logical, critical, systematic, and innovative thinking in the context of the development or implementation of science and technology, whilst considering and applying humanistic values appropriate to their field of expertise". Meanwhile, the vertical organisation of courses within a semester is intended to provide depth of mastery of competencies in line with the level of learning difficulty to achieve the programme's established PLOs.

The course organisation implemented by the study programme is detailed in Table 32.

Table 32. Course Organisation

No	Credit	Course Code	Course Name	Course Group				Course Group					
				Course Compulsory	MK Elective	Compulsory MK Curriculum	MK Characteristics	MPK	MKK	MKB	MPB	MBB	MKDK

In completing Table 32, the Study Programme shall adhere to the following provisions.

1. Course codes are created in accordance with the AABBCDEFGG format, namely:
   a. The AA code represents the study programme code
   b. Code BB represents the year of curriculum approval
   c. Code C represents the course group, where
      1. Code 1 for MKWK courses
      2. Code 2 denotes University-specific courses
      3. Code 3 refers to Programme-specific Compulsory Courses
      4. Code 4 for Programme Elective Courses
      5. Code 5 for Compulsory Specialisation Courses (if applicable)
      6. Code 6 for Programme Specialisation Elective Courses (if applicable)
      7. Code 7 for Final Project Course
   d. Code D denotes the number of credit points
   e. Code E denotes the delivery method of the course, which includes
      1. Code 1 for Theory courses (including lectures, tutorials, and seminars)
      2. Code 2 for Practical courses (including practicals, workshops, studio work, design, and development)
      3. Code 3 for Seminar courses
      4. Code 4 for Field courses (including national defence training, work placements, entrepreneurship, community service, teaching assistance, and/or other forms of learning)
      5. Code 5 for Final Project courses
   f. Code F represents the KKNI level where

1. For undergraduate programmes, enter 6
2. For professional programmes, it is written as 7
3. For master's programmes, enter 8

g. Code GG is the course number in the curriculum

2. Course Groups
   a. Compulsory courses in the S1 curriculum are Religious Education (Islam, Christianity, Catholicism, Hinduism, Buddhism, Confucianism), Pancasila Education, Citizenship Education, and Indonesian Language.
   b. UPGRIS Bachelor's Degree Distinctive Courses, namely: English, PGRI Studies, Technology-Based Entrepreneurship, Community Service (KKN), and Final Project.
   c. UPGRIS Professional and Master's Degree Distinctive Courses, namely: PGRI Studies and Final Project.
3. Course Groups
   a. Personal Development Courses (MPK): competencies in the personal development of students (to be)

      The teaching methods used primarily involve students in social interactions through group or pair work, fieldwork, discussions, and role-playing. Lecture and question-and-answer sessions are also used in face-to-face classes.
   b. Skills and Competence Courses (MKK): students' academic competencies and skills (to know what, to know how and to know why)

      The learning methods used to enhance skills (to know how) primarily involve actively engaging students' physical and mental capacities through practical activities, reading, searching for data and information, calculating, and creating graphs; whilst to enhance knowledge and expertise, students' cognitive processes and critical thinking are engaged through listening, observing, interpreting, analysing, and drawing conclusions, which are manifested in the form of practical reports, problem-solving/exercises, and essay writing. Lecture and question-and-answer methods are also used in face-to-face classes.
   c. Practical Skills Course (MKB): the competence to transform concepts, ideas, and thoughts into concrete and tangible works (to do)

      Learning methods that engage students' mental and cognitive abilities through, and by formulating problems, researching, problem-solving, formulating conceptual frameworks, formulating hypotheses, and so on, which are manifested in the form of writing papers for seminars and dissertations
   d. Course in Creative Behaviour (MPB): developing the attitudes required to enhance students' creativity, innovation and exploratory skills (to be)

      The learning methods used involve students in generating ideas, evaluating ideas, creating alternative solutions to problems, observing reality, and formulating topics for writing or research

e. Course in Social Life (MBB): competencies to engage and interact actively and proactively with the general public, the world of work, and the service user market (to live together)
   The learning methods employed involve engaging students in social interactions within the campus community and beyond through inter-programme and inter-faculty group work, work placements, company visits, participation in research or community service, participation in field exercises, community service activities, and others
f. Core Subject Courses (MKDK): building the fundamental academic foundation required to understand a specific field of expertise, as a prerequisite for mastering more advanced subject and skills courses. MKDK equips students with the conceptual and methodological abilities that form the basis of a discipline (to know what, to understand) Teaching methods used include lectures, discussions, case studies, problem-solving exercises, and quizzes to reinforce understanding; analytical tasks and the development of logical thinking through the writing of short papers or concept summaries; the use of learning technologies and educational media; and may be accompanied by small-scale practical sessions where relevant. MKDK provides a strong academic foundation for specific fields of study and serves as a prerequisite for advanced courses, particularly MKK and MKB. It is generally offered in the early semesters as a foundation course.

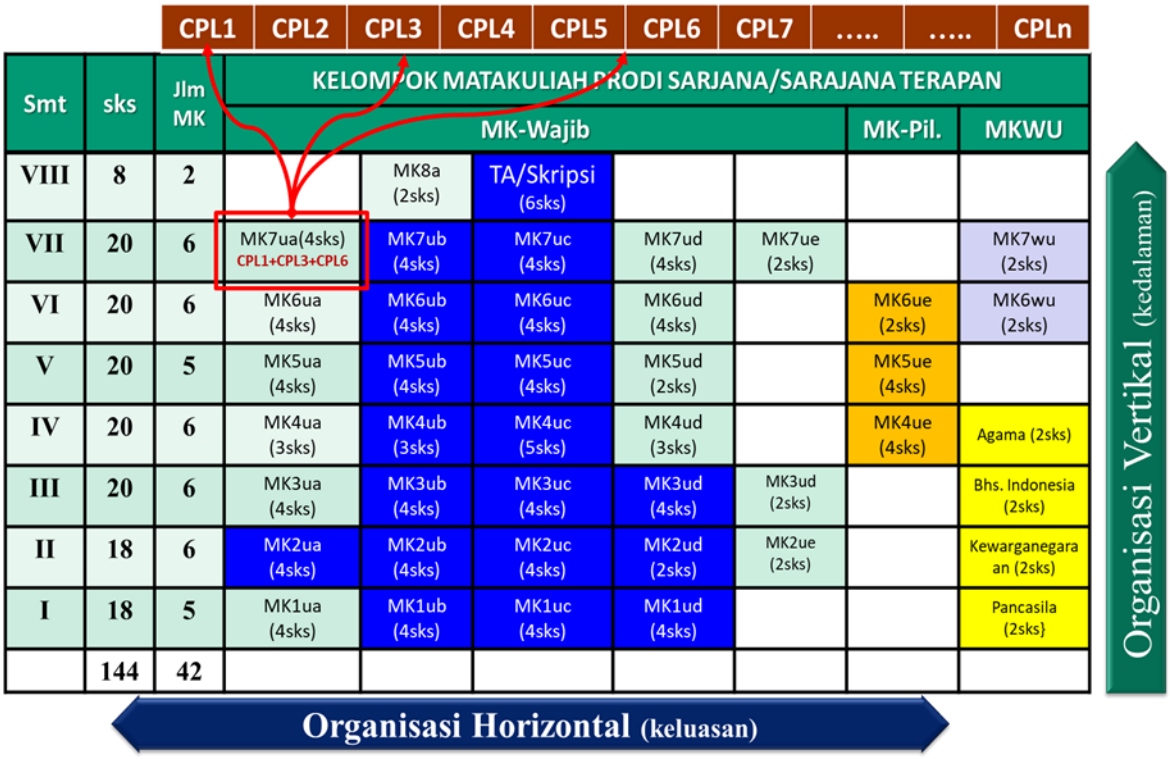
Furthermore, the organisation of courses is presented in the form of a course organisation matrix in Table 33. In compiling the matrix, the Study Programme considers the depth and breadth of the courses. Courses are organised horizontally if they share breadth with other courses, whilst they are organised vertically if they possess greater depth than other courses.

Table 33. Course Organisation Matrix

Semester	**Credit Hours**	**No. of Courses**	**Course Group**						
			Compulsory Courses				**Course Elective**	**MKWK**	**Course Characteristic**
VIII									
VII									
VI									
V									
IV									
III									
II									
I									

An example of the organisation of courses within the curriculum structure for an undergraduate degree programme with a total of 144 credits is generally shown in Table 34.

Table 34. Example of a Course Organisation Matrix within the Curriculum Structure



Based on the considerations of depth and breadth of courses set out in Table 33, the programme can determine the distribution of courses per semester in Table 35.

Table 35. Distribution of Courses per Semester

Semester I									
No	**Course Code**	**Course**	**T**	**P**	**S**	**L**	**TA**	**Credit**	**Course Name Prerequisites**
Semester 2									
No	**Course Code**	**Course**	**T**	**P**	**S**	**L**	**TA**	**Credit**	**Course Name Prerequisites**
….									

Semester VIII									
No	**Course Code**	**Course**	**T**	**P**	**S**	**L**	**TA**	**Credit**	**Course Name Prerequisites**

From the course organisation matrix in Table 34, the Study Programme can identify the fulfilment of PLOs within the course. The Study Programme can map the fulfilment of PLOs within the course using Table 36. In creating this PLO fulfilment matrix for the course, the Study Programme takes into account Table 25 and the depth and breadth of the course.

Table 36. PLO Fulfilment in Courses

Learning Outcomes	**Course Name/Course Block/Semi-Block**							
	Year 1		**Year 2**		**Year 3**		**Year 4**	
	Smt 1	**Smt 2**	**Smt 1**	**Smt 2**	**Smt 1**	**Smt 2**	**Smt 1**	**Smt 2**
PLO 1								
PLO 2								
…								

An example of PLO fulfilment in a course is shown in Figure 11.

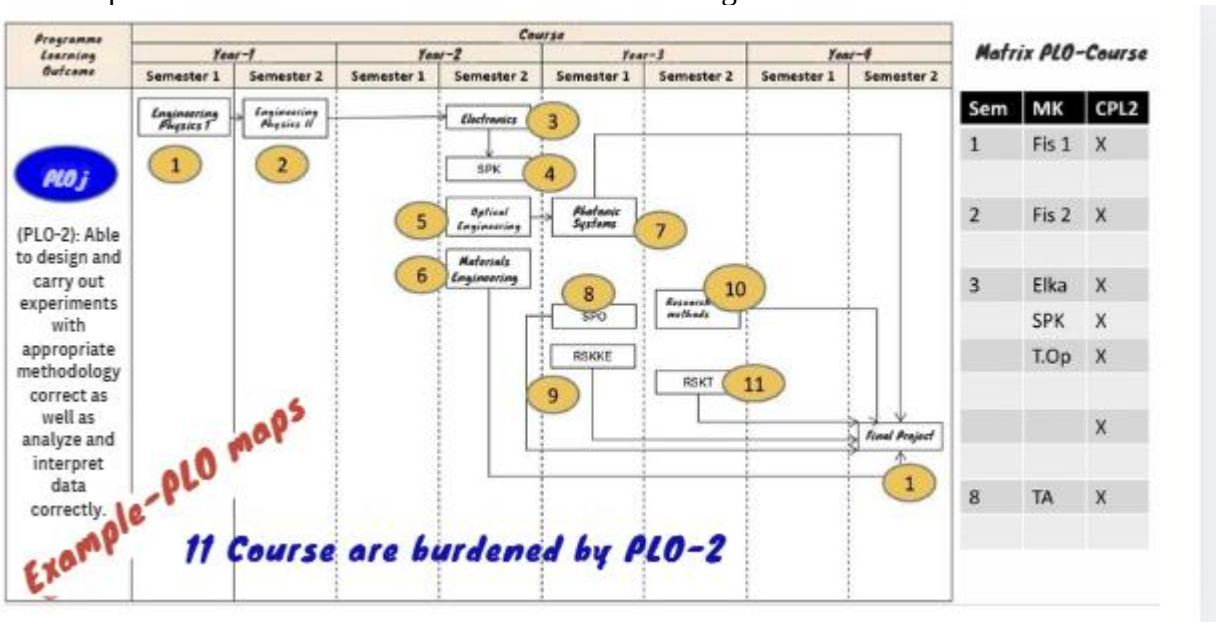


Figure 11. Example of PLO Fulfilment Mapping within a Course

From the mapping of PLO fulfilment within the course, the Study Programme can determine the assessment schedule for each PLO.

a. Non-Engineering Study Programmes

The Study Programme may specify the semester for PLO assessment for each course in Table 37.

Table 37. PLO Assessment Schedule for Non-Engineering Study Programmes

No	Course Code	Course	PLO-1	PLO-2	PLO-3	…	PLO-n
1		MKA	3		3		

b. Engineering Programme

There is a difference in the presentation of the PLO assessment schedule for the Engineering programme in accordance with IABEE standards, as shown in Table 38.

Table 38. PLO Assessment Schedule for the Engineering Study Programme

Learning Outcomes	Sub-Learning Outcomes	Performance Indicators Learning	Smt 1	Smt 2	…	Smt 8
PLO-1	PLO-1.1	I-1.1.1 I-1.1.2 I-1.1.3 Etc	Course Code	Course Code Course Code		
	PLO-1.2	I-1.2.1 I-1.2.2 I-1.2.3 Etc.				
PLO-2	PLO-2.1	I-2.1.1 I-2.1.2 I-2.1.3 Etc				

L. Learning Modalities in the Planning of the Learning Process or the Semester Learning Plan (SLP)

The Semester Learning Plan is compiled from the results of the learning design. The planning of the learning process must comprehensively consider learning modalities so that it has a foundation, function, and purpose that will help students learn to achieve the graduate competency standards effectively. The learning modalities that need to be included are, amongst others, students' learning styles – visual, auditory, kinesthetic, and others – as well

as student-centred learning methods that engage students in participatory and collaborative learning, as well as the use of technology in learning that facilitates blended learning. The Learning Process Plan is written in full for all courses within the Study Programme, accompanied by other learning resources including: assignment plans, assessment and evaluation plans, assessment instruments in the form of rubrics and/or portfolios, teaching materials, and other necessary items.

Systematic learning design must be carried out to produce a Semester Learning Plan (RPS) or equivalent, along with other learning resources, including assessment instruments, assignment plans, teaching materials, and other elements that can be implemented efficiently and effectively within the learning process. Learning process planning, in accordance with Ministry of Education, Culture, Research and Technology Regulation No. 53 of 2023, must at a minimum include:

1. learning outcomes that constitute the learning objectives;
2. methods for achieving learning objectives through learning strategies and methods; and
3. methods for assessing the achievement of learning outcomes.

Various instructional design models are available in the literature, including the ADDIE model, Dick & Carey, Kemp, ASSURE, and others. In principle, each lecturer or each study programme may determine which model to use in instructional design. This book presents instructional design models such as the Dick & Carey model, as this model is very easy to understand and implement, operates within a highly systematic framework, and its alignment with SN-Dikti can be measured. The stages of instructional design can be seen in Figure 8.

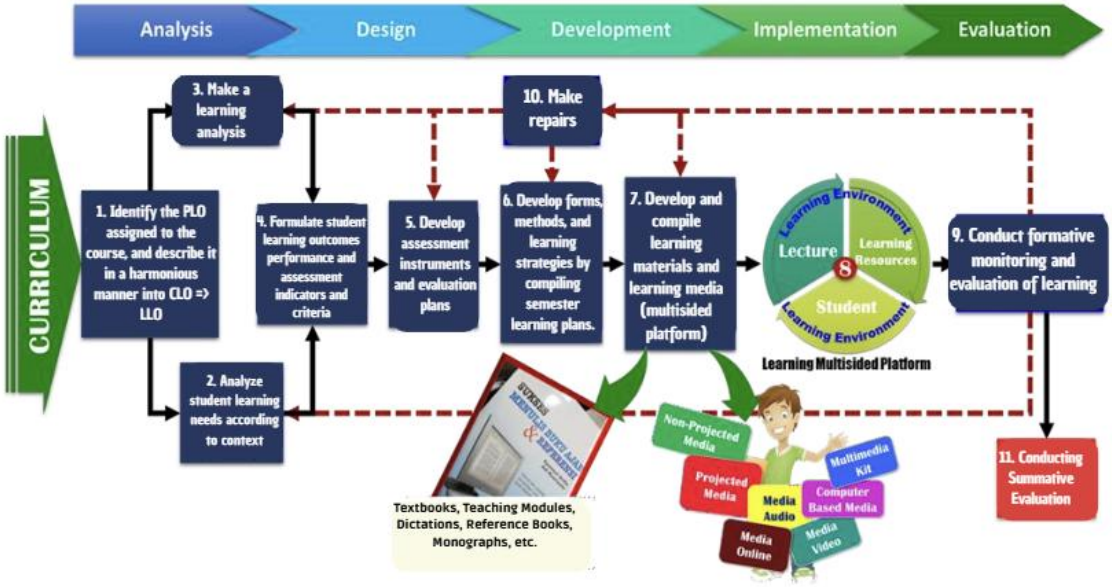


Figure 12. Stages of Instructional Design

The stages of instructional design are carried out in a systematic, logical and structured manner, as shown in Figure 12. These stages aim to ensure that the delivery of instruction

to proceed in a structured, efficient, and effective manner, and to ensure the achievement of PLO. The instructional design stages are carried out in at least the following steps:

1. Identifying the PLOs assigned to the course;
2. Formulating course-specific learning outcomes (CLOs) based on the PLOs assigned to the course;
3. Furthermore, if necessary, formulate LLOs which are elaborations of the CLOs;
4. Conducting a learning analysis to provide students with an overview of the learning stages they will undergo;
5. Conducting a learning needs analysis to determine the breadth and depth of learning materials required, as well as the necessary learning resources;
6. Determine the LLO achievement indicators as the planned final competencies at each learning stage to fulfil the PLO;
7. Establish assessment criteria and develop learning assessment instruments based on the LLO achievement indicators;
8. Selecting and developing forms of learning, learning methods, and student assignments as learning experiences;
9. Developing learning materials in the form of teaching materials and appropriate learning resources;
10. Developing and conducting learning evaluations. Learning evaluations consist of, firstly, formative evaluation aimed at making improvements to the learning process. Secondly, summative evaluation aimed at determining students' learning outcomes;

The study programme has implemented stages 1–3 when determining the credit weight of courses. Furthermore, the study programme needs to conduct learning analysis, develop learning process planning, implement the learning process, and carry out learning assessment.

1. Learning Analysis

Learning analysis provides students with an overview of the learning stages they will undergo. Learning analysis is based on the premise that learning within a course occurs through distinct learning stages designed to achieve measurable, systematic, and planned student competencies. Learning analysis is conducted to identify the final competencies at each learning stage as a breakdown of the CLO or LLO.

There are four types of CLO or LLO structures that define the learning stages within a course, namely: hierarchical structure, procedural structure, cluster structure and combination structure

a. In the hierarchical structure, to learn skill A, one must first learn skill B; this is illustrated by two boxes, each containing skill A

and skill B, with the two boxes connected by a vertical arrow pointing upwards.

b. Procedural structure: to learn skill A, one should first learn skill B; this is depicted by two boxes, each containing skill A and skill B, with the two boxes connected by a horizontal arrow. The principle is that learning begins with easier learning material and then progresses to more difficult material.
c. Grouping structure: this structure illustrates several skills that are learned independently within a single skill cluster. Two or more boxes containing skills are connected by lines without arrows.
d. Combination structure: a combination of two or three hierarchical, procedural and grouping structures.

Based on the LLO for the Research Methodology course presented in Table 25, a learning analysis was conducted to describe the stages of student learning in that course. An example of the form of learning analysis is illustrated in the flowchart in Figure 13.

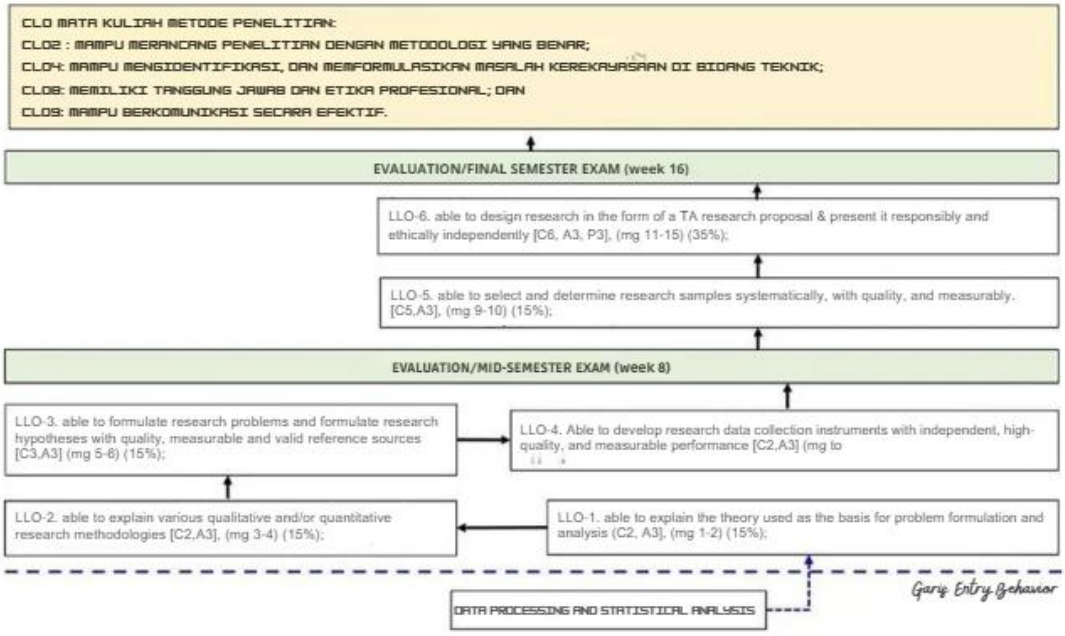


Figure 13. Example of a Flowchart of the Learning Analysis Results for the Research Methodology Course

Key points to note when conducting a learning analysis are as follows:

a. The learning analysis diagram consists of three parts: the first part (top box) is the CLO formulation based on the programme's PLO assigned to the course; the second part (middle box) is a collection of several LLOs, and the third section (the bottom box) is the prior knowledge (if any) required before students take the course.
b. Learning analysis is carried out by the lecturer responsible for designing the learning process, starting from the PLO assigned to the course, formulating the CLO as a breakdown of the PLO, and formulating the LLO as a breakdown of the CLO.
c. Meanwhile, in the implementation of learning, students begin learning from the initial learning stages in LLO1, LLO2, …, LLO8, which cumulatively describe the achievement of the CLO and PLO assigned to the course.

Table 39. Frequently Asked Questions and Responses Regarding Learning Analysis

No	Question	Response
1.	Is it always necessary to conduct a learning analysis when drafting a Course Syllabus?	With reference to Article 12, paragraph (3), sub-paragraph (c), a learning analysis is required when developing the Course Syllabus in order to identify the learning stages within the course to meet the graduate learning outcomes assigned to the course.
2.	What is the purpose of conducting a learning analysis?	• To identify all the competencies that students must master at each stage of learning in accordance with the predetermined CLO; • To determine students' initial and final competencies in the course learning process; • To determine the stages of student learning implementation, whether hierarchical, procedural, or grouped; • Facilitating the revision of course syllabuses for continuous improvement; • To produce a systematic, measurable, and implementable curriculum framework that can be rolled out in stages, efficiently and effectively, whilst avoiding the creation of a curriculum framework that simply copying the table of contents from a textbook.
3.	Are there other types of diagrams for conducting learning analysis, apart from the one shown in Figure 9?	The learning analysis model shown in Figure 9 is not the only one; lecturers or teams of lecturers may develop different analysis models, provided they can illustrate the stages of learning required to achieve the PLOs assigned to the relevant course.

2. Preparation of the Learning Process Plan

The Programme Management Unit coordinates the development of the learning process plan, which is drawn up by the lecturer and/or the team of lecturers responsible for the course. The learning process plan document may be named in accordance with the policies of each higher education institution, including naming it the Semester Learning Plan (SLP) or another name.

a. Principles for incorporating the learning process plan into the SLP:
   1) The learning process plan must include:
      a) learning outcomes that constitute the learning objectives;
      b) methods of achieving learning objectives through learning strategies and methods; and
      c) methods for assessing the achievement of learning outcomes. Study

programmes may include additional elements, such as the duration of study in accordance with the credit weight of the course.

2) The learning process plan is documented so that it can be used at every stage of learning.
3) Learning process planning serves as a guide for students to achieve the PLOs assigned to the course.
4) The learning process plan serves as a guide for course lecturers to assist students in achieving the PLOs assigned to the course.
5) The learning designed is student-centred learning (SCL).
6) The title of the document is flexible, for example, the Semester Learning Plan or other similar terms.
7) The learning process plan must be reviewed and adjusted periodically in line with developments in science and technology.

b. Components of the RPS

1) Name of study programme
   As stated in the licence for the opening/establishment/operation/accreditation of the study programme issued by the Ministry.
2) Name and code, semester, credit hours of the course/module
   Must be in accordance with the established curriculum.
3) Name of lecturer
   More than one person may be listed if teaching is carried out by a team of lecturers (team teaching) or in parallel classes.
4) The PLOs assigned to courses and formulated in the CLO
   The PLOs set out in the SLP constitute a set of graduate learning outcomes assigned to the relevant courses, comprising attitudes, general skills, specific skills, and knowledge. The graduate learning outcomes formulated in the curriculum document may be assigned to several courses, so that the PLO assigned to a course is part of the effort to provide competencies leading to the fulfilment of the study programme's PLO. Some items of the Programme Learning Outcomes (PLOs) assigned to a course may be reformulated with the same meaning but in a more specific context for that course, and may be stated as Course Learning Outcomes (CLOs). The formulation of CLOs is a breakdown of the PLOs assigned to the relevant course. The MBKM programme implemented is also aimed at achieving the GLOs and has the potential to yield additional competencies aligned with the GLOs.
5) Planned final competencies at each stage of learning (LLO).
   These are the competencies for each learning stage (LLO or equivalent terms) derived from the course learning outcomes (CLO or equivalent terms).
6) Study Materials or Learning Materials

   Learning materials are the details of a study material or several study materials belonging to the relevant course. Study materials may originate from

various branches/sub-branches/sections of the academic field or field of expertise developed by the study programme.

Learning materials may be presented in the form of textbooks, teaching modules, lecture notes, practical guidelines, tutorial modules, reference books, monographs, podcasts, videos, and other equivalent forms of learning resources.

Learning materials compiled based on a single subject area from a single field of study or expertise focus more on the in-depth study of that particular field. Meanwhile, learning materials compiled from several subject areas across multiple fields of study or expertise are designed to enable students to study the interconnections between these fields in an integrated manner.

Learning materials are designed and compiled with due regard to the breadth and depth stipulated by the content standards in the SN-Dikti. Learning materials are intended to be regularly updated by lecturers or teams of lecturers in line with developments in science, technology, engineering and mathematics (STEM).

7) Forms of Learning, Learning Methods, and Learning Modalities The selection of forms and methods of learning is based on necessity

that the expected competencies have been defined within a learning stage in accordance with the PLO. The forms of learning include: student exchanges, work placements/internships, teaching assistance in educational institutions, research, humanitarian projects, entrepreneurial activities, independent study/projects, village development/thematic fieldwork, and national defence. Meanwhile, the learning methods prioritised are student-centred methods such as: Team-Based Projects, the Case Method, group discussions, simulations, case studies, collaborative learning, cooperative learning, project-based learning, problem-based learning, or other learning methods, which can effectively facilitate the achievement of graduate learning outcomes and encourage student collaboration and participation in learning. Learning modalities refer to how lecturers can deliver learning in face-to-face, online formats using various platforms, or a blended approach, taking into account students' learning styles and the characteristics of the field of study.

A detailed explanation of Student-Centred Learning is provided in Chapter III.

8) Calculation of credit points and their equivalents

Pursuant to Ministry of Education, Culture, Research and Technology Regulation No. 53 of 2023 on quality assurance in higher education, a credit point is a measure of the time allocated to learning activities assigned to students per week per semester within the learning process through various forms of learning, and represents the recognition of students' successful efforts in participating in curricular activities within a study programme. Learning takes place through the following activities: a. guided learning; b. structured assignments; and/or c. independent study. The allocation of study time is determined by each higher

education institution, with the stipulation that 1 credit is equivalent to 45 hours of learning activities per semester.

Table 40. Forms of Learning and Estimated Time

DEFINITION OF 1 CREDIT UNIT IN THE FORM OF LEARNING (ARTICLE 15&16, SN DIKTI 2023)				MINUTE	HOUR
A	LECTURES, RESPONSES, TUTORIALS				
	Learning process activities 50 minutes/week/semester	Structured Assignment Activities 60 minute/week/semester	Independent Activities 60 minutes/week/semester	170	2,83
B	SEMINAR				
	LEARNING PROCESS ACTIVITY 100 minutes/week/semester	INDEPENDENT ACTIVITIES 70 minutes/week/semester		170	2,83
C	PRACTICAL, STUDIO PRACTICAL, WORKSHOP PRACTICAL, FIELD PRACTICAL, WORK PRACTICAL, RESEARCH, DESIGN, OR DEVELOPMENT, MILITARY TRAINING, STUDENT EXCHANGE, INTERNSHIP, ENTREPRENEURSHIP, AND/OR COMMUNITY SERVICE			170	2,83
	Learning can be conducted within the Study Program or outside the Study Program (BKP-MBKM) (Article 15).				

Article 15:
(1). The learning process is implemented using a semester credit (sks) system.
(2). The learning process as referred to in paragraph (1) is implemented with a curriculum period of 2 (two) semesters per academic year.
(3). In addition to the 2 (two) semesters referred to in paragraph (2), higher education institutions may hold 1 (one) intermediate semester as needed.
(6). The study load of 1 (one) semester credit unit is equivalent to 45 (forty-five) hours per semester.

9) Student learning experiences in the form of assignments

Student learning experiences, as embodied in the descriptions of tasks to be completed by students over the course of a semester, constitute the form of student learning activities expressed through these tasks, enabling students to achieve the expected competencies at each stage of learning. This process includes both formative assessment and summative assessment of student learning outcomes.

10) Criteria, indicators, and assessment weights

Assessment encompasses the principles of being educational, authentic, objective, accountable, and transparent, carried out in an integrated manner. Criteria refer to the standards of student success at a particular stage of learning, whilst indicators are the elements that demonstrate the quality of student performance. Assessment weighting is a measure expressed as a percentage (%) indicating the proportion of the assessment for one stage of learning against the overall pass mark for the course.

11) Bibliography

Contains books or other materials that can be used as learning resources for the course.

12) Format of the Semester Learning Plan

The RPS format may take various forms in accordance with the provisions of the respective study programme or higher education institution. The RPS format must fulfil the minimum elements as stipulated in Article 12, paragraph (3) of SN-Dikti. The RPS format and learning resources are presented in the appendix.

3. Implementation of the Learning Process

Learning is a process of interaction between students, lecturers and learning resources

within a learning environment. According to Ministry of Education, Culture, Research and Technology Regulation No. 53 of 2023, Article 14, the implementation of the learning process is conducted by:

a. creating a learning atmosphere that is enjoyable, inclusive, collaborative, creative, and effective;
    1) An enjoyable learning atmosphere is a learning process that is engaging, not boring, and motivates and encourages students to participate in the learning process.
    2) Inclusive learning involves all students, including those with special needs or from diverse backgrounds, in ensuring they have equal opportunities.
    3) Collaborative learning means that graduates' learning outcomes are achieved through a shared learning process involving interaction between individual learners to capitalise on attitudes, knowledge and skills.
    4) Creative: lecturers utilise various forms, learning methods, learning media, and diverse learning resources, whilst managing a learning environment that encourages student engagement in the learning process, supported by academic policies.
    5) Effective learning states that graduate learning outcomes are achieved successfully by prioritising the proper and accurate internalisation of material within an optimal timeframe. The above characteristics of learning are briefly illustrated in Figure 14.
b. providing equal learning opportunities without discrimination based on educational, social, economic, cultural, or linguistic background, student admission pathways, or special needs;
c. ensuring the safety, comfort, and well-being of the academic community; and
d. providing flexibility in the educational process to facilitate lifelong learning.

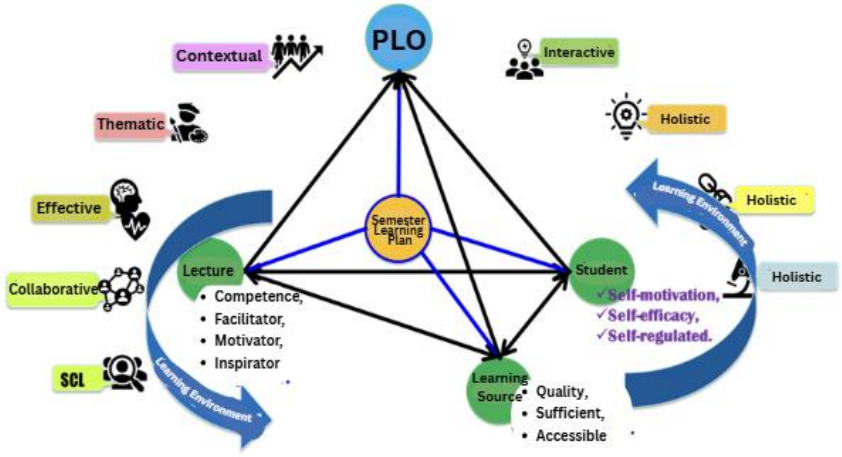


Figure 14. Principles and Characteristics of Student-Centred Learning

4. Assessment and Evaluation of Learning

Assessment and evaluation of learning are integral to the SCL process. Assessment

refers to one or more processes of identifying, collecting, and preparing data to evaluate the achievement of Programme Learning Outcomes (PLOs) and curriculum objectives (ABET, 2021). Assessment must include motivational elements, fostering self-confidence to contribute through the chosen path of life as a lifelong learner. Meanwhile, learning evaluation is one or more processes of interpreting data and evidence accumulated during the assessment process (ABET, 2021).

Regarding assessment, in addition to serving as a tool to test the level of achievement of learning outcomes, it is also important to ensure that students remain engaged in learning (student engagement in learning).

Assessment is one or more processes of identifying, collecting and preparing data and evidence to evaluate students' learning processes and outcomes in order to fulfil Graduate Learning Outcomes. The assessment of students' learning processes and outcomes encompasses assessment principles; assessment techniques and instruments; assessment mechanisms and procedures; the conduct of assessment; assessment reporting; and student graduation. Instruments used for process assessment may include rubrics, whilst portfolios or design projects may be used for outcome assessment. Assessment should be capable of addressing key indicators related to integrity, discipline, communication, decisiveness and confidence that students must possess.

a. Assessment Principles

The assessment principles in accordance with SN-Dikti are outlined in Table 41.

Table 41. Assessment Principles

No	Assessment Principles	Definition
1	**Valid**	Assessment that is consistent with the learning objectives and accurately measures students' learning outcomes.
2	**Reliable**	Assessment that ensures the consistency and reliability of assessment results, which remain stable and dependable over time and across different assessors.
3	**Transparent**	An assessment where the procedures and results are accessible to all stakeholders.
4	**Accountable**	refers to an assessment conducted in accordance with clear procedures and criteria, agreed upon at the start of the course, and understood by students.
5	**Fair**	Assessment that ensures all students have an equal opportunity to demonstrate their understanding and abilities.
6	**Objective**	Assessment based on standards agreed between lecturers and students, and free from the influence of the assessor's and the assessed student's subjectivity
7	**Educational**	assessment that motivates students to be able to a. improve their planning and learning methods; and b. achieve graduate learning outcomes.

b. Assessment Techniques and Instruments

1) **Assessment Techniques**

Assessment techniques are outlined in Table 42.

Table 42. Assessment Techniques and Instruments

Assessment	Technique	Instruments
Attitude	Observation	1. Rubric for assessing the process and/or 2. Portfolio or design work for assessment of outcomes
General Skills	Observation, participation, practical demonstration, written test, oral test, and questionnaire	
Specific Skills		
Knowledge		
The final assessment result is an integration of the various assessment techniques and instruments used.		

a) Assessment of learning outcomes is conducted in the domains of attitude, knowledge and skills, as detailed below:

b) Assessment of the attitude domain is carried out through observation, self-assessment, peer assessment (students assess their peers' performance within a subject area or group), and assessment of personal aspects that emphasise faithful, of noble character, self-confident, disciplined and responsible in interacting effectively with their social environment, the natural world, and the wider world and its civilisations.

c) Assessment of the knowledge domain is conducted through various forms of written and oral tests, which can technically be carried out either directly or indirectly. Direct assessment refers to lecturers and students meeting face-to-face during the assessment, for example during seminars, thesis examinations, and dissertation defence. Indirect assessment, on the other hand, involves the use of written examination papers.

d) Assessment of the skills domain is carried out through performance assessment, which can be conducted via practical sessions, practical work, simulations, fieldwork, and other activities that enable students to enhance their skills.

2) **Assessment Instruments**

a) **Rubric**

A rubric is an assessment guide or guideline that outlines the desired criteria for assessing or grading students' learning outcomes. A rubric consists of the dimensions or aspects being assessed, along with criteria for students' learning outcomes or indicators of their learning achievements. This guide explains analytical rubrics, holistic rubrics, and perception-scale rubrics.

The purpose of assessment using a rubric is to clarify the dimensions or aspects and the levels of assessment of students' learning outcomes. Furthermore, a rubric is expected to serve as a driver or motivator for students

to achieve their learning outcomes.

Rubrics can be comprehensive or general in nature, or they can be specific or apply only to a particular topic. Comprehensive rubrics can be presented in the form of holistic rubrics. There are three types of rubrics, namely:

i. **A holistic rubric** is an assessment guideline for evaluating based on the overall impression or a combination of all criteria. An example of a holistic rubric can be seen in Table 43.
ii. **Analytical rubrics** are assessment guidelines that have described levels of assessment criteria and are provided with an assessment scale or score. An example of an analytical rubric can be seen in Table 44.
iii. **A perception scale rubric** is an assessment guideline that has levels of assessment criteria that are not described, but is still provided with a rating scale or assessment score. An example of a perception scale rubric can be seen in Table 45.

Table 43. Example of a Holistic Rubric for Proposal Design

GRADE	SCORE	ASSESSMENT CRITERIA
Very poor	**<20**	The design presented is disorganised and does not address the problem
Poor	**21–40**	The design presented is organised but does not adequately address the problem
Satisfactory	**41–60**	The design presented is systematic, solves the problem, but is not sufficiently implementable
Good	**61–80**	The design is well-structured, solves the problem, is feasible, but lacks innovation
Very Good	**>81**	The design is presented systematically, solves the problem, is implementable and innovative

Table 44. Example of an Analytical Rubric for Assessing Paper Presentations

Aspects/ Dimensions Assessed	Assessment Scale				
	Very Poor	**Poor**	**Satisfactory**	**Good**	**Very Good**
	(Score < 20)	**(21–40)**	**(41–60)**	**(61–80)**	**(Score ≥ 81)**
Organisations	None organisation that clearly. The facts are not used for support statement.	Fairly focused, but lacks evidence sufficient to used in draw a conclusion.	Presentation has a focus and presenting some evidence that support conclusion.	well-organised well and presents facts that convincing to support conclusion.	organised by presenting facts that supported by examples that have analysed in accordance with concept.
The content	The content is inaccurate or too general. Listeners do not	The content is somewhat inaccurate, because there is no factual data	Content is generally accurate, but incomplete. The	The content is accurate and complete. The listeners	The content is capable inspire listeners to

Aspects/ Dimensions Assessed	Assessment Scale				
	Very Poor	**Poor**	**Satisfactory**	**Good**	**Very Good**
	(Score < 20)	**(21–40)**	**(41–60)**	**(61–80)**	**(Score ≥ 81)**
	learn anything or sometimes misleading.	factual, not enhance understanding listener	listeners can learn some facts that implied, but they do not add any new insights into the topic in question.	broaden their horizons new insights into a topic mentioned.	develop thoughts.
Presentation Style	The speaker is anxious and uncomfortable, and reads from various notes rather than speaking. The audience is often ignored. There is no eye contact as the speaker looks mostly at the whiteboard or screen.	Relying on notes, no ideas are developed beyond the notes, monotonous voice	Generally, the speaker is calm, but with a flat tone and relies quite often on notes. Eye contact with the audience is sometimes neglected.	The speaker is calm and uses appropriate intonation, speaks without relying on notes, and interacts intensively with the audience. The speaker always maintains eye contact with the audience.	Speaks with passion, conveying enthusiasm and excitement to the audience

Table 45. Example of a Perception Scale Rubric for Oral Presentation Assessment

Aspects/Dimensions Assessed	Very Poor	Poor	Fair	Good	Very Good
	<20	(21–40)	(41–60)	(61–80)	≥81
Communication Skills					
Mastery of Subject Matter					
Ability to Handle Questions					
Use of Presentation Aids					
Accuracy in Problem Solving					

Some of the benefits of using a rubric for assessment are as follows:

i. Rubrics can serve as a guide for objective and consistent assessment with clear criteria;
ii. Rubrics can provide information on the weighting of assessment at each level of student ability;
iii. Rubrics can motivate students to learn more actively;
iv. Students can use rubrics to assess their own or their study group's achievement;
v. Students receive prompt and accurate feedback;
vi. Rubrics can be used as a tool for effective reflection on the learning process that has taken place;
vii. As a guide in the learning process and in the assessment of students' learning outcomes.

b) **Portfolio assessment**

Portfolio assessment is a continuous assessment based on a collection of information demonstrating the development of students' learning achievements over a specific period. This information may consist of students' work from the learning process deemed to be their best, or work demonstrating the development of their ability to achieve learning outcomes.

The types of portfolio assessment presented in this book are as follows:

i. Progress portfolio, containing a collection of students' work that demonstrates the progress of their skills in line with the learning stages they have completed.
ii. A showcase portfolio, containing students' work that demonstrates their best learning outcomes.
iii. Comprehensive portfolio, containing students' work in its entirety throughout the learning process.

An example of portfolio assessment, as shown in Table 46, is used to measure students' ability to select and summarise scientific journal articles. Learning outcomes measured:

i. The ability to select reputable and up-to-date journal articles in line with the theme of the impact of industrial pollution;
ii. The ability to summarise journal articles accurately and correctly.

Table 46. Example of Portfolio Assessment

No	Aspects/Dimensions Assessed	Article-1		Article-2		Article-3	
		Low (1–5)	High (6–10)	Low (1–5)	High (6–10)	Low (1–5)	High (6–10)
1	Articles are from indexed journals within the last 3 years.						
2	The article relates to the theme of the impact of industrial pollution.						
3	The articles must, at a minimum, discuss the impact of industrial pollution on humans and the environment.						
4	Accuracy in summarising the content of the key sections of the article abstract,						
5	Accuracy in summarising the key ideas in the article.						
6	The accuracy of summarising the methodology used in the article.						
7	Accuracy in summarising the research findings in the article.						
8	Accuracy in summarising the discussion of the research results in the article.						
9	Accuracy in summarising the conclusions of the research findings in the article.						
10	Accuracy in providing comments on the selected journal article.						
Total score for each article summary							
Average score obtained							

c. Assessment Mechanisms and Procedures

The assessment mechanisms and procedures may follow the guidelines below, though individual higher education institutions may adapt them to suit their specific learning characteristics.

1) Assessment Mechanism

The assessment mechanism, relating to the assessment stages, assessment techniques, assessment instruments, assessment criteria, assessment indicators and assessment weightings, is carried out in accordance with the flowchart shown in Figure 15.

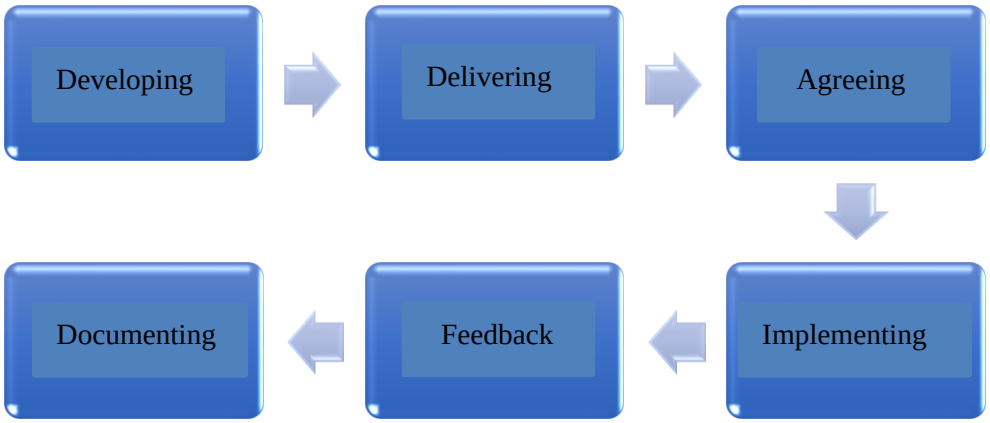


Figure 15. Assessment Mechanism

2) Assessment Procedures

Assessment procedures cover the following stages:

a) Planning (which may be carried out through phased assessment and/or re-assessment),
b) assignment or question-setting activities,
c) performance observation,
d) feedback on the results of the observation, and
e) assigning a final mark.

d. Conducting Assessment

Assessment is carried out in accordance with the learning plan and may be conducted by:

1) the course lecturer or a team of course lecturers;
2) the course lecturer or a team of course lecturers, involving students; and/or
3) the course lecturer or a team of course lecturers, involving relevant stakeholders.

Meanwhile, the assessment for specialist two programmes, doctoral programmes, and applied doctoral programmes must include an external assessment team from a different higher education institution.

e. Assessment Weighting

The assessment weighting is a measure expressed as a percentage (%) indicating the proportion of the assessment for a single learning stage towards the overall pass

mark for the course. Pursuant to the Rector's Decision No. 019.a/SK/UPGRIS/IV/2024 on the Determination of Assessment Component Weights

at UPGRIS, the assessment weighting for such learning activities applies to both the case method and project-based group learning.

Table 47. Course Assessment Component Weights

No	Assessment Component	Weight (%)
1	Active Participation	20
2	Project	40
3	Knowledge-Tasks	5
4	Knowledge-Quiz	5
5	Knowledge - Mid-Term Exam (UTS)	10
6	Knowledge – End-of-Semester Exam (UAS)	20

f. Assessment Reporting

Assessment reporting indicates the level of student success in completing a course. The final mark reflects the quality of mastery/ability, the levels of which are classified in Table 48 and Table 49.

Table 48. Levels of Mastery/Competence in the Bachelor's Programme

Level of Mastery/ Competence Levels (%)	**Designation**	**Grade Letter**	**Score Number**
85%–100%	Very Good	A	4.00
75%–84.9%	Between Very Good and Good	B+	3.50
70%–74.9%	Good	B	3.00
65%–69.9%	Between Good and Fair	C+	2.50
60%–64.9%	Fair	C	2.00
55%–59.9%	Between Fair and Poor	D+	1.50
50%–54.9%	Poor	D	1.00
0%–49.9%	Fail	E	0

Table 49. Level of Mastery/Competence in Postgraduate Programmes

Level of Mastery/ Competence (%)	**Title**	**Score Letter**	**Score Number**
86%–100%	Excellent	A	4.00
81%–85%	Very Good	A-	3.70
76%–80%	Very Good	B+	3.30
71%–75%	Good	B	3.00
66%–70%	Very Good	B-	2.70
61%–65%	Average	C+	2.30
56%–60%	Fair	C	2.00
51%–55%	Poor	D	1.00
0%–50%	Fail	E	0

Student learning outcomes may be expressed as a grade point average or a pass/fail status. The grading scale for the grade point average is as follows:

1) letter A is equivalent to the number 4 (four);
2) the letter B is equivalent to the number 3 (three);
3) the letter C is equivalent to the number 2 (two);
4) the letter D is equivalent to the number 1 (one); or
5) letter E is equivalent to the number 0 (zero).

Higher education institutions may award grades within the range of letter and numerical grades. In accordance with Article 28(4) of Ministry of Education, Culture, Research and Technology Regulation No. 53 of 2023, the assessment of student learning outcomes in a course may also be expressed as a pass or fail: This assessment may be used for courses involving out-of-class activities and/or using summative assessment in the form of competency tests. The results of the assessment of learning outcomes for each semester are expressed as the Semester Grade Point Average, and at the end of the study programme as the Cumulative Grade Point Average.

The Semester Grade Point Average and Cumulative Grade Point Average are calculated solely from the average marks of courses that use a grade point system, using the following formula:

$$IPS = \frac{\sum_{i=1}^{n} (Nilaiangka\ XX\ Besar\ sks\ MK)}{\sum_{i=1}(Besarsks\ MK\ yang\ telah\ ditempuhselama\ 1\ semester)}$$

$$IPK = \frac{\sum_{i=1}^{n} (Nilaiangka\ XX\ Besar\ sks\ MK)}{\sum_{i=1}(sks\ MK\ yang\ telah\ ditempuhpada\ akhir\ program)}$$

g. Student Graduation

Higher education institutions may award graduation classifications in accordance with criteria set by the institution. Graduation classifications at UPGRIS for Bachelor's and Master's programmes are presented in Table 50 and Table 51.

Table 50. Graduation Classifications for Undergraduate Programmes

Grade Point Average Cumulative	Grade	Duration of Study
3.52 – 4.00	With Distinction/Cum Laude	≤ 4.5 years
2.76 – 3.50	Very Satisfactory	> 4.5 years
2.00 – 2.75	Satisfactory	-

Table 51. Master's Programme Graduation Grades

Grade Point Grade	Grade	Duration of Study
3.76 – 4.00	With Distinction/Cum Laude	≤ 2 years
3.51 – 3.75	Very Satisfactory	> 2 years

3.00 – 3.50	Satisfactory	-

M. Implementation Plan for the Right to Study for a Maximum of 3 Semesters Outside the Programme

Ministry of Education, Culture, Research and Technology Regulation No. 53 of 2023 on Quality Assurance in Higher Education regarding Learning Process Standards, specifically Articles 16 and 18, UPGRIS is obliged to facilitate students in fulfilling learning requirements outside their degree programme as stipulated in the study regulations

1. Within a different programme of study at the same higher education institution,
2. Within the same study programme or a different study programme at another higher education institution; and
3. At institutions outside the university.

This explanation demonstrates the curriculum's ability to adapt to the Right to Learn Outside the Degree Programme. This section contains information on the placement of BKP MBKM within the curriculum structure, credit recognition mechanisms, and other related matters.

Learning outside the Degree Programme aims to encourage students to gain learning experiences with various additional competencies outside their degree programme and/or outside their campus. The fulfilment of the duration and workload for undergraduate students may be carried out: 1) by participating in the entire learning process within the degree programme at the higher education institution in accordance with the duration and workload; and 2) by participating in the learning process within the degree programme to fulfil part of the duration and workload, with the remainder fulfilled through learning processes outside the degree programme. This is illustrated in Figure 16.

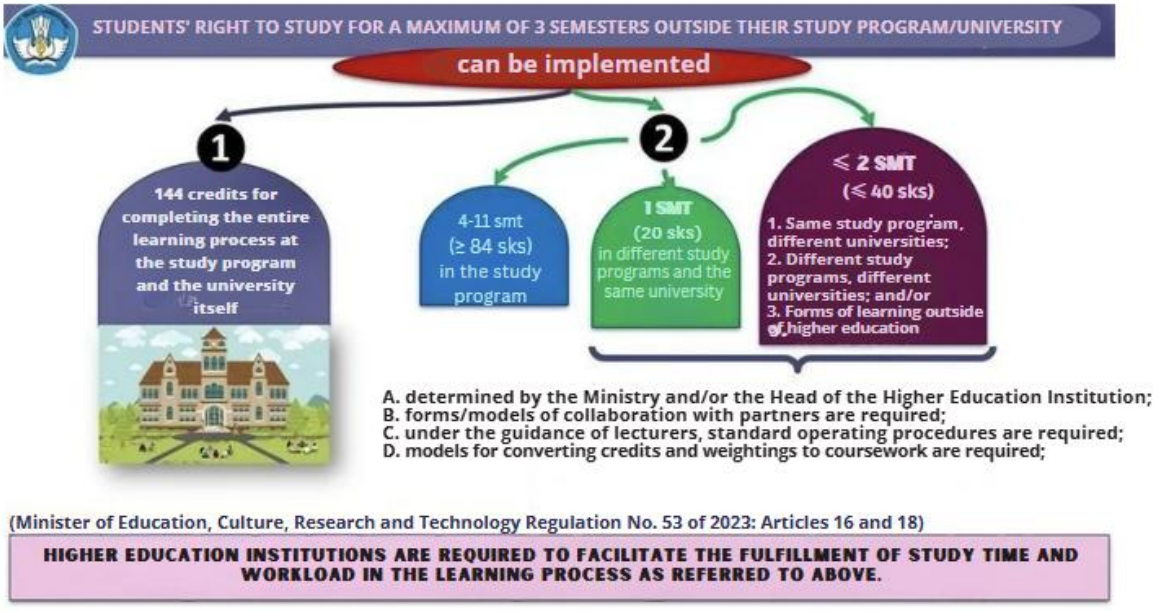


Figure 16. Undergraduate Students' Right to Study (S) for a Maximum of 3 Semesters under the Policy on the Fulfilment of Learning Forms Outside the Study Programme

At least four key points must be considered when developing and implementing a

curriculum that incorporates learning activities outside the degree programme.

1. Firstly, maintain a focus on achieving the Graduate Competency Standards/Graduate Learning Outcomes (SKL/PLO), which form the basis of the expected learning outcomes.
2. Secondly, to ensure the fulfilment of the right to study for a maximum of 3 semesters, students must gain learning experiences with additional competencies that are relevant and directly linked to their programme's PLO, ensuring the integration of theoretical and practical learning.
3. Thirdly, through the implementation of learning activities outside the degree programme, students gain real-world learning experiences that not only broaden their horizons in line with their intended career profile or scope of work, but also hone their interpersonal and adaptability skills in various situations.
4. Fourthly, the curriculum must be designed and implemented in a flexible and responsive manner, capable of adapting rapidly to developments in science, technology and the arts (IPTEKS) as well as the demands and dynamics of the labour market (market signals), whilst taking into account the need for student character development and the objectives of sustainable development.

In the implementation of the policy on the Fulfilment of Learning Forms outside the Study Programme, the PLO formulations for a study programme must be achievable as stipulated. However, to enhance quality and facilitate students' passions, additional competencies may be included in line with their chosen activities.

The Study Programme needs to design the implementation of the curriculum whilst continuing to facilitate the fulfilment of learning activities outside the study programme. The Study Programme may complete Table 52 using the examples provided.

Table 52. Implementation Model for the Provision of Off-Campus Learning

Study Programme

Student Learning Activities at Undergraduate Level, 144 ECTS								
	SMT 1	**SMT 2**	**SMT 3**	**SMT 4**	**SMT 5**	**SMT 6**	**SMT 7**	**SMT 8**
	18 credits	**18 credits**	**20 credits**	**20 credits**	**20 credits**	**20 credits**	**20 credits**	**8 credits**
1	MKWK MK Characteristics MK- Programmes at internal Programme	MKWK MK Characteristics MK- Programmes at in Programme	MKWK MK Characteristics MK-Programme within & At outside Programme in	MKWK MK Characteristics MK-Programme within & At outside Programme in	MK-Programmes at in & at outside & study in outside	MK-Programmes at inside & at outside Programme	Activities Study at outside campus: Internship/ KKNT/…	MK-Programmes at inside & Assignment Final

			within UPGRIS	inside UPGRIS	PT			
2								
…								

Based on the implementation model in Table 52, the Study Programme may classify courses that are MANDATORY to be taken within the Study Programme itself and courses outside the study programme. The study programme may list the courses that MUST be taken within the study programme itself in Table 53, whilst courses taken outside the study programme are listed in Table 54.

Table 53. Courses that MUST be taken within the Study Programme itself

No	Course Code	Course	Credit Weight	Description
1				
2				
3				
4				
…				
	Total credit hours		≥ 84	

Table 54. Course Study Outside the Degree Programme (Example)

No	Course	Credit Weight	Description
1	Outside the programme within/outside off-campus campus	6	The courses taken have the same total credit weight, have alignment with PLOs and that are relevant
2	At , the ' ' programme same off-campus off-campus	20	The courses taken must have a total credit weight that, it is recommended to take courses agreed upon by the association/society of similar study programmes
3	Off-campus (DUDI, etc.)	20	The courses taken have the same total credit weight, with alignment to PLOs and relevant additional competencies
Total Credit Maximum		46	

The Study Programme must facilitate all forms of learning activities that students can undertake, taking into account the Graduate Learning Outcomes. The Study Programme may specify learning activities outside the programme to be carried out in line with the Study

Programme's Graduate Learning Outcomes, and may include additional competencies or activities designed to support the achievement of the Study Programme's Educational Objectives.

Table 55. Examples of Learning Activities Outside the Study Programme

No	Form of Learning Activity	Can be carried out with credit weight		Remarks
		Regular	Learning outside the programme	
1	Internship/Work Placement	2	≤ 20	Activities Internship can be converted into several courses which have suitability PLO and the duration of the learning activity in accordance with the credit weight of the course in question
2	KKN/KKNT	2	≤ 20	KKNT activities, which are an extension of the Regular KKT, may be converted into several courses that have corresponding PLOs and learning activity times consistent with the credit weight of the course in question.
3	Entrepreneurship	2	≤ 20	Entrepreneurial activities can be converted into several courses that have matching PLOs and activity times corresponding to the course credit weighting, including course entrepreneurship.
4	Teaching Assistants at Educational Institutions (AMSP)	4	≤ 20	AMSP activities may be converted into several courses that have corresponding PLOs and learning hours consistent with the credit weight of the course.
5	Research		≤ 20	Can be converted into several courses that have PLO equivalence and a study time that corresponds to the of the course
6	Independent Study/Project		≤ 20	Can be converted into several courses that have PLO compatibility and learning activity time commensurate with the of the course

No	Form of Learning Activity	Can be carried out with credit weight		Remarks
		Regular	Learning outside the programme	
7	Humanitarian Project		≤ 20	Can be converted into several courses that have PLO compatibility and learning activity time commensurate with the of the course
8	Community Service		≤ 20	Can be converted into several courses that have PLO alignment and learning activity time commensurate with the of those courses
9	National defence		≤ 20	Can be converted into several courses that have PLO equivalence and learning activity time commensurate with the of the course

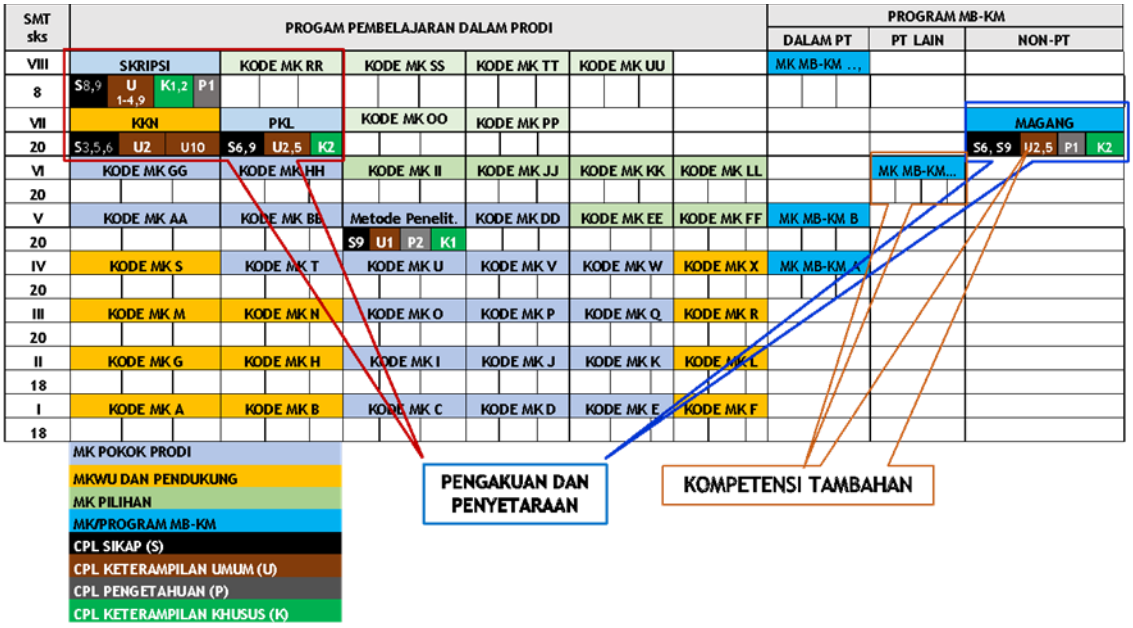
The implementation of the Out-of-Programme Learning Activities programme must be carefully designed to ensure alignment with PLOs and courses within the study programme, as well as through well-established cooperation agreements with partners. Study programmes may plan and offer programmes to students with varied activities and are not required to organise Out-of-Programme Learning Activities for three semesters, depending on the programme's design. Students have the opportunity to participate in the MBKM programmes offered or to undertake them entirely within their own programme. Students may also take the initiative to propose forms of learning outside the study programme with the approval of the Academic Supervisor (DPA) and the programme.

With the mapping of learning activities outside the Study Programme designed by the Study Programme, the Study Programme can create a curriculum structure for learning activities outside the Study Programme in Table 57. An example of a Study Programme Curriculum Map with the Implementation of Learning Activities outside the Study Programme is presented in Table 58.

Table 57. Curriculum Structure for Learning Activities Outside the Study Programme

Semester	**Learning Programmes within the Study Programme**						**Learning Activities Outside the Study Programme**		
Credit Points							**Within the University**	**PL Other**	**Non-PT**
VIII									
VII									
VI									
V									
IV									
III									
II									
I									

Table 58. Example of a Curriculum Map for an Undergraduate Programme with the Implementation of Learning Activities Outside the Programme



From the mapping in Table 57, the Programme obtains an overview of the Learning Outcomes to be achieved through the Learning Modes Outside the Programme undertaken by students. This mapping is presented by the Programme in Table 59 below.

Table 59. Learning Outcomes Achieved through Learning Activities Outside the Degree Programme

No	SMT	Course Code	Course	Credit	PLO allocated for the Course				Form of Study in Outside the Programme	Note
					PLO1	PLO2	…	PLO n		
1					V		V			
2						V		V		

In supporting the implementation of Learning Modes Outside the Degree Programme, there are several points that the Degree Programme takes into account.

1. Online Learning to Facilitate Learning Activities Outside the Study Programme Learning Activities Outside the Study Programme allow students to engage in learning activities outside their degree programme, either within the same university or at institutions other than their home university. There are nine types of learning activities that students can undertake outside their degree programme, including: student exchange, internships/work placements, teaching assistance at an educational institution, research at an organisation or institution, humanitarian projects,

entrepreneurial activities, independent study or projects, or village development/thematic fieldwork. These activities may be undertaken by students over a maximum of 3 (three) semesters.

In addition to the activities mentioned above, students may still have the opportunity to undertake other learning activities (either within their own degree programme or through other learning resources) in accordance with the maximum credit load permitted for students in a given semester. In this regard, the degree programme must also prepare various modes and strategies of learning to accommodate students' learning processes whilst they are undertaking various forms of learning outside the degree programme. As an illustrative example, Figure 17 outlines several scenarios that students might undertake when engaging in Forms of Learning Outside the Study Programme.

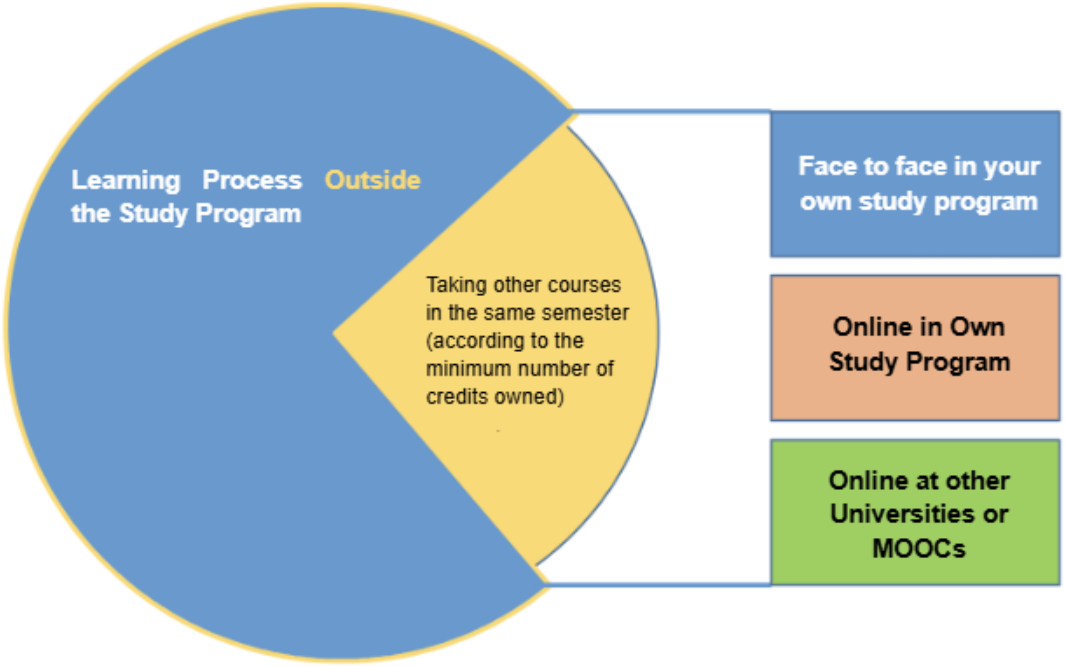


Figure 17. Learning Process in One Semester of Learning Activities Outside the Study Programme

Figure 17 illustrates that within one semester, if a student still has a permitted number of credit points remaining, beyond the number of credit points for a learning activity outside the degree programme they have undertaken, then that student may take several courses within the degree programme (face-to-face or online) and/or outside the degree programme (online). For courses taken outside the degree programme, students may take them online at another institution or university, or take courses available through a recognised Massive Open Online Courses (MOOCs) provider approved by the student's home degree programme. Consequently, even whilst a student is engaged in learning activities outside their degree programme, they may still attend lectures for courses taken within their degree programme or outside it. This will affect the duration of study a student

must complete. Students may still gain insights and knowledge outside their degree programme, yet this does not affect the duration of study required.

Specifically for learning activities involving the acquisition of credits outside the student's degree programme (whether online or face-to-face at their own or another higher education institution), students are also permitted to take courses in accordance with the scenario described above (taking several courses from another higher education institution or MOOC provider), provided that the maximum number of credit points permitted for the relevant semester is still met. This is summarised in the scenario shown in Figure 18.

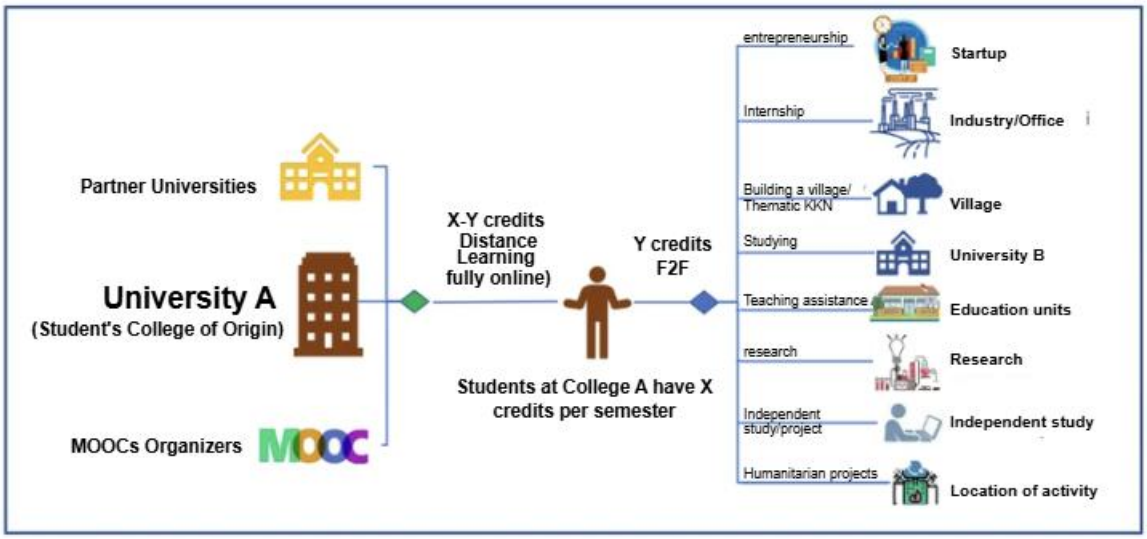


Figure 18. Learning Scenario for One Semester of the Programme: Learning Modes Outside the Degree Programme

The illustration in Figure 18 shows, for example, a student (from University A) who, in a given semester, has a maximum of 21 credits (X credits), and who wishes to undertake an Internship BKP with the aim of gaining recognition for 5 (five) courses totalling 15 credits (Y credits) at a company via face-to-face (F2F) delivery; the remaining 6 credits can still be completed by the student by taking several courses from their home university (University A) online. Conversely, in another scenario, a student (from University A) participates in a Student Exchange Programme. If Y credits are to be taken online from another university (University B) or via a MOOC provider, the student may still attend (X-Y) credits of face-to-face lectures at their home university (University A).

The scenarios outlined above must be prepared for by the relevant academic programmes or universities, particularly to facilitate online learning undertaken by students from their own programmes. In the face of an ever-evolving digital era, academic programmes and universities must prepare themselves adequately, particularly in facilitating online learning. This preparedness is not limited to the use of applications such as Learning Management Systems (LMS) but also includes adequate information technology infrastructure. Advanced infrastructure enables students to access and participate in the learning process effectively from anywhere. This demands flexibility in

the learning system that can support academic activities without being constrained by time and space, adapting to the diverse needs of students.

Furthermore, disruption in higher education, particularly due to technological advancements, is a key issue that must be anticipated. Rapid changes in information and communication technology have created new opportunities and challenges in the learning process. For example, the use of Massive Open Online Courses (MOOCs) offer open access to learning materials from the world's leading universities. This marks a shift from traditional learning models towards a more inclusive and affordable approach. However, challenges such as the digital divide and institutional readiness to adapt to new technologies must be addressed to maximise the benefits of this innovation.

On the other hand, the role of higher education in driving social change and national progress cannot be overlooked. Higher education contributes to the development of high-quality human resources, which is key to addressing global challenges and capitalising on existing opportunities. Consequently, higher education institutions must continually evaluate and update their curricula and teaching methods to ensure that students acquire not only theoretical knowledge but also practical skills relevant to the current needs of industry and society. Initiatives such as partnerships with industry, flexibility in the learning process, improvements to infrastructure to support the learning experience, and enhancements to the quality and capacity of lecturers are crucial steps in creating an educational ecosystem that is responsive and adaptable to the changing times.

The implementation of Independent Study Programmes has become particularly urgent as it offers broader opportunities for higher education institutions and students to deliver such programmes. Independent Study Programmes are an initiative that affirms the autonomy of higher education institutions in delivering these programmes without intervention from the Ministry of Education, Culture, Research and Technology. In its implementation, the higher education institution bears full responsibility for the organisation, funding, and execution of its Out-of-Programme Learning initiatives. With this emphasis on autonomy, the institution has the freedom to design Out-of-Programme Learning initiatives in line with its needs and institutional vision, without reliance on government subsidies or management. Furthermore, the Independent Out-of-Curriculum Learning Programme also facilitates the recognition process, enabling the transfer of credits between higher education institutions and study programmes. This provides students with the opportunity to gain off-campus experience relevant to their future career preparation, whilst accelerating their academic progress. Thus, Independent Non-Curricular Learning not only grants autonomy to higher education institutions but also expands the accessibility and flexibility of higher education for students.

2. Credit Recognition for Learning Outside the Degree Programme

Student learning activities outside their degree programme through the Out-of-Degree-Programme Learning Activities scheme are awarded credit recognition on their

academic transcripts and recorded in the SKPI. As stipulated in Ministry of Education, Culture, Research and Technology Regulation No. 53 of 2023, Articles 17–18, within the Out-of-Degree-Programme Learning Activities scheme,

undergraduate students are granted the freedom to fulfil part of their study load outside their degree programme, subject to the condition of 1 (one) semester or the equivalent of 20 (twenty) credits within the same higher education institution, and a maximum of 2 (two) semesters or the equivalent of 40 (forty) credits outside the higher education institution.

The target study programmes, whether within or outside the university at the national level, are those that have been accredited by BAN-PT, meaning that the credit points for the courses are directly recognised. In addition, the university draws up academic policies and guidelines to facilitate learning activities outside these study programmes and develops partnerships through memoranda of understanding (MoUs) with partner universities both domestically and internationally. Collaboration may be conducted nationally in the form of bilateral agreements, consortia (programme associations), clusters (based on accreditation) or zoning (based on region). Study programmes report the recognition of credit points in credit transfer programmes to the Higher Education Data Repository. Learning activities outside other study programmes at different higher education institutions may be conducted face-to-face or online.

Taking courses outside one's own study programme, whether within or outside the higher education institution, may support the achievement of learning outcomes already outlined in the curriculum structure, or serve to enrich graduates' learning outcomes, which may take the form of elective courses.

3. Credit Recognition for Learning Activities Outside the Study Programme in the Transcript

Article 5 (Paragraph 1) of Permenristekdikti No. 59 of 2018 states that a degree issued by a higher education institution is accompanied by an Academic Transcript and a Certificate of Academic Achievement (SKPI). An Academic Transcript is an official document of a higher education institution serving as valid proof of the accumulation of academic activities or learning outcomes for each course, including credit weightings, as well as the Cumulative Grade Point Average (CGPA), undertaken by students in accordance with the applicable curriculum of a study programme from the first semester through to the final semester. As an official document, the Academic Transcript is produced through standard operating procedures and forms an integral part of the higher education institution's quality assurance system. The standards applied must comply with SN-Dikti. Credit Points (SKS) are themselves legally recognised, as they indicate the time weighting of each course within the academic transcript.

In the 'Learning Activities Outside the Study Programme' scheme, students may undertake optional learning activities for two semesters outside their study programme. These activities include internships or work placements in industry or other workplaces,

community service projects in villages, teaching in educational institutions, student exchanges, research, entrepreneurial activities, independent study or projects, humanitarian programmes and/or national defence programmes. One key aspect of the 'Learning Outside the Degree Programme' scheme is credit recognition, as these activities form part of the learning process leading to credit points (SKS) or recognition. Students are free to

undertake part of their learning activities outside their degree programme, both within and outside their higher education institution. These activities are recognised as part of the academic credits required for students to complete their studies. Recognition in this context is important to provide students with the following opportunities:

a. **Learning Flexibility**: Students are given the opportunity to learn outside their degree programme, which can provide practical experience and a broader exposure.
b. **Competence Development**: By participating in activities outside their degree programme, students can develop skills and competencies relevant to their interests and future career needs.
c. **Integration of Learning**: Experiences gained from off-campus activities are integrated into students' academic programmes, making the learning process more holistic.
d. **Recognition of Learning Process Activities**: Learning Activities Outside the Study Programme, designed to enhance and reinforce expected competencies, form part of the relevant student's learning process and culminate in their recognition.

Two key aspects to consider in the recognition of Learning Activities Outside the Degree Programme are the relevance of learning outcomes and the recognition of activity hours. Learning outcomes refer to the knowledge, attitudes, skills, and competencies expected to be mastered by students upon completing a relevant Learning Activity Outside the Degree Programme that aligns with the programme's PLOs. In the context of Learning Activities Outside the Study Programme, learning outcomes are not only measured through classroom-based methods such as exams, quizzes, and assignments, but also through the application of knowledge and skills in practical activities, such as those undertaken during work placements and/or other Learning Activities Outside the Study Programme. Meanwhile, activity hours refer to Ministry of Education, Culture, Research and Technology Regulation No. 53 of 2023. A semester credit unit is defined as the measure of learning activity time assigned to students per week per semester in the learning process through various forms of learning, and the extent of recognition of students' successful efforts in participating in curricular activities within a study programme. The learning load for 1 (one) semester credit unit is equivalent to 45 (forty-five) hours per semester.

The principles of recognition based on learning outcomes and hours of activity are as follows:

a. Recognition and hours of activity: To obtain credits, students must fulfil the required

number of hours of activity. For example, in work-based learning placements and/or other forms of learning outside the study programme, to be recognised for a maximum of 20 credits, students must complete the entire placement activity for 900 hours, including preparation, planning, implementation, reporting and assessment.

b. Learning outcomes as the basis for recognition: Recognition is based on the achievement of expected learning outcomes. This means that the activities undertaken by students must contribute to the learning outcomes established by the programme. For example, if the programme's PLOs that must be met are critical thinking, communication, and teamwork; then the outcomes and activities of the internship as a form of learning outside the programme can be designed in the form of case studies and/or team-based projects.

c. Hours of activity as a reflection of learning outcomes: The hours spent on a form of learning outside the study programme must reflect the level of effort required to achieve the targeted learning outcomes. Therefore, a balance must be struck between the expected hours of activity and the depth of the learning outcomes. If the design of the internship outcomes is oriented towards higher-order thinking skills (HOTS), then the activities undertaken by students during the internship should be similarly oriented, rather than towards lower-order thinking skills (LOTS).

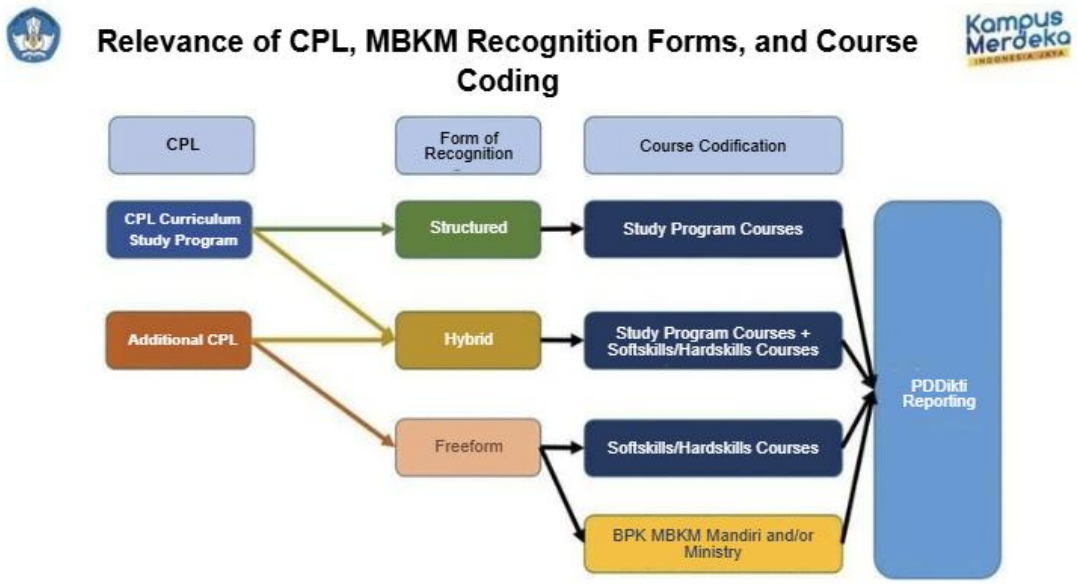


Figure 19. Relevance of PLO, Forms of MBKM Recognition and Course Codification

Recognition of forms of learning outside the study programme can be carried out in free-form, structured, or hybrid formats by the study programme.

a. Free-form

The six-month 'Merdeka Belajar' programme can be equated to 20 credit points without being mapped to specific courses within the curriculum. These 20 credit points are expressed in terms of the competencies acquired by students whilst participating in the programme, encompassing both hard skills and soft skills in line

with the intended learning outcomes.

For example, in the field of engineering, examples of hard skills as part of the learning outcomes include: the ability to define complex engineering problems, the ability to analyse and solve engineering problems based on scientific and mathematical knowledge, and so on. Meanwhile, examples of soft skills include: the ability to communicate in a professional work environment, the ability to collaborate within a team, the ability to uphold professional ethics, and so on. Learning outcomes and their assessment can be expressed in terms of these competencies.

For the purposes of free-form recognition and reporting to PDDikti, higher education institutions may offer hard skills or soft skills courses at university level that can be utilised by all study programmes. These courses are formulated with reference to the KKNI descriptors and are recommended to include the skills required in the Industry 4.0 era towards a Society 5.0, including skills such as the development of a growth mindset and orientation towards future practices; data literacy, the ability to read, analyse, and utilise data and information (big data) in the digital world; technological literacy, the ability to understand how machines, technology applications (coding, artificial intelligence, and engineering principles); humanities literacy, the ability to understand the humanities, communication and design; 21st-century skills that foster HOTS (higher-order thinking skills), including Communication, Collaboration, Critical thinking, Creative thinking, Computational logic, Compassion and Civic responsibility; and an understanding of the transition from the Industry 4.0 era towards a Society 5.0 and its developments.

b. Structured Form

Learning Activities Outside the Study Programme may also be structured in accordance with the curriculum designed by the study programme and undertaken by students. These 20 (twenty) credits are expressed in terms of equivalence with the courses offered, the competencies of which align with the Learning Activities Outside the Study Programme. Students undertaking an internship whose learning outcomes are relevant to the CLO of their degree programme may undertake the internship and have it recognised under the structured form.

c. Hybrid Form (hybrid/blended form)

In addition to these two forms, a hybrid form may also be designed, combining the free form and structured form. This form may be selected to enrich the hard skills and soft skills likely to be acquired at the partner institution.

The formulation of learning outcomes for the above forms of learning activities and the rationalisation of credit weighting based on SN-Dikti are carried out by the programme's curriculum team, and subsequently approved by the programme/faculty. Based on the established learning outcomes, these forms of learning activities can be organised into a sort of "Learning Plans for Learning Activities Outside the Degree Programme", which are based on SN-Dikti, are subsequently approved by the Degree

Programme/Faculty for implementation. Consequently, the credits from these forms of learning activities are officially recognised and recorded on the academic transcript. After obtaining recognition or equivalence from the study programme for learning activities outside the study programme undertaken by students, the study programme reports the credit recognition in the credit transfer programme to the Higher Education Data Centre.

4. Recognition of Credits for Learning Activities Outside the Study Programme in the Diploma Supplement (SKPI)

In accordance with Ministry of Education and Culture Regulation No. 6 of 2022, the SKPI for undergraduate programmes is a document issued by the higher education institution containing information on the fulfilment of graduate competencies in academic education.

Graduate qualifications are described in a descriptive manner, stating the graduates' learning outcomes at the relevant level of the National Qualifications Framework (KKNI), in a standard format that is easily understood by the general public. The SKPI is not a substitute for a degree certificate and is not an academic transcript. The SKPI is also not a document that automatically guarantees its holder recognition.

UNESCO, in the 1979 Convention on the Recognition of Studies, Diplomas and Degrees in Higher Education in European Countries, states that the development of international cooperation in the fields of education, science, culture and communication plays a vital role in promoting and advancing peace and international understanding. By 2005, diplomas or higher education qualifications in Europe were already accompanied by a SKPI or diploma supplement. Similarly, those graduating from vocational schools receive a similar document known as the Europass Certificate Supplement. The Europass Certificate Supplement greatly assists employers or higher education institutions outside Europe in understanding the work skills of the certificate holder or their qualification level within the European Qualifications Framework, thereby facilitating comparison with the qualifications of others from different education systems.

The duration of study and the range of credit units vary between countries at the same level of education. For example, a Bachelor's degree in Indonesia takes four years to complete with a credit range of 144–166; in Malaysia, it takes four years with 120 credits; in Thailand, it takes four years with a credit range of 120–180; and in Japan, it takes four years with 120 credits. These differences in the duration of study and credit ranges for the same level of education or qualification create difficulties in carrying out recognition, equivalence or joint degree programmes, if only accompanied by a degree certificate and academic transcript. For this reason, the description of learning outcomes set out in a Certificate Supplement (SKPI) becomes very important as a means of communication between qualifications. The existence of the SKPI strongly supports the implementation of the KKNI and the recognition of qualification equivalence between countries. Furthermore, the SKPI is also highly useful for recording students' learning information and experiences from learning activities outside the degree programme, not

all of which can be recognised or included in the academic transcript.

In addition to aiming for the equivalence of qualifications, the SKPI also provides significant benefits for graduates and higher education institutions. The benefits of the SKPI are outlined in Table 60.

Table 60. Benefits of the SKPI

Benefits of SKPI for Graduates	Benefits of SKPI for Higher Education Institutions Higher Education
a. As a supplementary document that demonstrates a graduate's work skills, mastery of knowledge, and attitude/ethics, which is easier for employers both domestically and internationally to understand than reading a transcript. b. As an objective explanation of achievements and competencies of the holder. To enhance employability regardless of the rigidity of the type and level of study programme.	a. To explain the qualifications of graduates, this is easier b. for the public to understand than reading a transcript. c. A form of accountability for programme delivery through transparent statements of a programme's learning outcomes. In the medium and long term, this will enhance 'trust' from external parties and the sustainability of the institution. d. To state that the educational institution operates within a nationally recognised qualifications framework and can be compared with programmes at overseas institutions through each country's respective qualifications framework; e. Enhancing understanding of the educational qualifications awarded within the context of .

N. Curriculum Management and Implementation Mechanisms

Curriculum implementation plans and the Internal Quality Assurance System (SPMI) at each higher education institution related to curriculum implementation. Each study programme has its own learning process characteristics; therefore, it requires the necessary qualification/competency prerequisites for successful study. An explanation is required regarding these prerequisites and the mechanism for selecting prospective new students.

1. Quality Control Courses

The quality of both the learning process and its outcomes must be ensured through control over various aspects of implementation, including specific stages or steps within the

learning process. Consequently, minimum learning outcomes for course delivery are established through courses within a group known as Quality Control Courses for each study programme. The minimum results that students must achieve for their participation in the aforementioned courses must be equal to or higher than a B grade. Study Programmes may list Quality Control Courses in Table 61.

Table 61. Quality Control Courses

Quality Control Courses for All Students in the Study Programme .....

No	Course Code	Course	Credit
		Total Credits	

Quality Control Course for Field of Study/Competency/Cluster .....

No	Course Code	Course	Credit
		Total Credits	

Quality Control Course for Field of Study/Competency/Cluster .....

No	Course Code	Course	Credit Points
		Total Credits	

2. Prerequisite Courses

The study programme needs to map courses based on the relationships between them so that students can plan their studies more easily. By looking at this course structure, students are encouraged to take each course seriously as they are linked to the next one. The study programme can enter Prerequisite Courses in Table 62.

Table 62. Prerequisite Courses

No	Course Code	Course	Prerequisite for			
			Requirements	Semester	Course Code	Course
			L			
			PT			
			B			
			L(B)			

Notes: L = Passed, PT = Previously Taken, B = Concurrent, meaning taken concurrently with a prerequisite course, L(B) = Passed with a minimum grade of B subject to the field of study.

3. Quality Assurance for Activities Outside the Study Programme

To ensure that the delivery of learning activities outside the Study Programme is of guaranteed quality, certain quality standards must be established, including:

a. Quality of participant competence
b. Quality of implementation
c. Quality of internal and external supervision processes
d. Quality of reporting and presentation of results
e. Quality of assessment

The Study Programme may also establish Standard Operating Procedures (SOPs) for lecturers acting as academic tutors, supervisors, and for students. Furthermore, the Study Programme needs to design an evaluation of learning activities outside the Study Programme, as shown in Table 63.

Table 63. Evaluation of Learning Activities Outside the Study Programme

No	Forms of learning outside the Study Programme	Requirements	Description
1	Enter the form of learning outside the Study Programme as determined by the Study Programme	Write the requirements set by the study programme for the implementation of the first form of learning outside the study programme	Provide any additional important information that cannot be included in column 2. For example: What forms are required by students in: Plan (P) = submission of a form for learning activities outside the degree programme; if available online, provide the link Do (D) = form/template for recording activities as a logbook Check (C) = any forms required by the coordinator/PIC for the form of

No	Forms of learning outside the Study Programme	Requirements	Description
			learning within the Study Programme to carry out monitoring and evaluation of the implementation of forms of learning outside the Study Programme, etc.
	Example Educational Placement	Microteaching (grade B) Has completed a minimum of 100 credits	1. Students must register with the programme to participate in the educational placement (P) 2. Students must register for the MBKM course via SIMEKAR, selecting the Educational Internship (P) activity 3. Students carry out activities in accordance with the instructions of the Educational Internship committee (D) 4. Students complete the forms appearing in SIMEKAR: course logbook, daily activity log, critical analysis, etc. (D) 5. The supervising lecturer monitors the MBKM SPADA and Course Logbook (C) 6. The Internship Supervisor monitors the outcomes of the student interns (C) The MBKM assessor conducts an overall evaluation of student outcomes (C)

Furthermore, the Study Programme needs to explain curriculum and learning management that refers to the Management Standards and is aligned with the Organisational Structure. This management can be outlined in Table 64.

Table 64. Learning Management in the Study Programme

No	Activity	Official
1	Person responsible for curriculum development	
2	Person in charge of teaching materials (Semester Learning Plan (SLP), Assessment and Evaluation Plan (AEP), Assignment Plans (RT)) for Courses in the	

No	Activity	Official
	Curriculum	
3	Person in charge of monitoring and evaluating curriculum implementation (referring to learning materials) a. Verification of the alignment of questions with the CLO and/or PLO b. Verification of assessment duration with credit weight of the course	
4	PIC for Monitoring and Evaluation of the Implementation of Learning Activities Outside the Study Programme a. Verification of activity duration b. Verification of of acquired with PLO c. Assessment of form and technique in PLO d. Review guidelines for students, field supervisors, and programme supervisors	
5	PIC for monitoring and evaluation of PLO achievement, as well as reporting on PLO achievement	

The Study Programme may add activities to Table 64 in accordance with the organisational structure or bodies within the UPPS.

O. Procedures for student admission at various stages of the curriculum,

This section outlines the procedures for student admission at each stage of the curriculum implementation, in accordance with the policies and standards at UPGRIS and in reference to the applicable legislation in Indonesia.

UPGRIS offers various admission pathways for new students, namely the regular pathway, the merit pathway, the SLP pathway, the employee pathway, the Kartu Indonesia Pintar (KIP) pathway, the postgraduate pathway, the Hafidz Qur'an pathway, and the postgraduate RPL pathway. The Study Programme may explain these admission pathways and the learning processes applicable to each pathway within the Study Programme. The Study Programme may also explain any differences in the curriculum applicable to each pathway, if any. Furthermore, the Study Programme may explain the learning mechanisms for each pathway if there are differences.

CHAPTER III
STUDENT-CENTRED LEARNING

In the era of Industry 4.0 and Society 5.0, the world of education has not been spared from the impact of the accompanying changes. The way students learn, the way lecturers teach, and the way learning is managed have also changed. Learning is required to be more open, more flexible, and not averse to the use of technology. Similarly, the challenges faced by the world of higher education have shifted from being domestic to regional and are now international. The globalisation of education is now inevitable.

The era of Education 4.0 and Society 5.0 demands that lecturers and educational administrators provide students with even more choices than before, as well as more personalised learning options tailored to their interests and talents. Education that focuses not only on students' learning outcomes but also on the development of character and noble moral values. Education that does not merely focus on mastering knowledge within one's specific field, but is also required to develop multidisciplinary, interdisciplinary, and transdisciplinary knowledge and technology. This is fully in line with Article 4 of Law No. 12 of 2012 on Higher Education, namely: 1) developing capabilities and shaping the character and civilisation of a dignified nation in order to enlighten the nation's life; 2) to develop an academic community that is innovative, responsive, creative, skilled, competitive, and cooperative through the implementation of the three pillars of higher education; and 3) to develop science and technology whilst taking into account and applying humanistic values.

Student-Centred Learning (SCL) has long been widely recognised as an approach to learning. Traditional teaching, which positions the lecturer as the expert and primary source of learning, has resulted in classes that are tedious for students. A change in the academic atmosphere is required so that students' learning processes can develop optimally to achieve the expected competencies. A shift in the educational paradigm has driven the learning process from one that was originally lecturer-centred to one that is student-centred.

Student-centred learning is a characteristic of learning that gives students an active role in enhancing their ability to learn independently and grants them the trust to act as responsible adults fully accountable for their own learning, whilst providing space to develop beyond the designed capabilities. With these characteristics, it is hoped that graduates of the study programme will possess the ability to learn independently and will become lifelong learners capable of adapting to the changes that occur. Conversely, educators shift their roles to become designers, facilitators, and motivators of the learning process. O'Neil and McMahon (2005) concluded that student-centred learning, as a concept of student choice in their education, involves students doing more than lecturers (active versus passive learning). In a broader sense, it describes the power of interaction between

students and lecturers. Various SCL methods have been developed, and Lea (Lea et al., 2003) formulated the principles of SCL as follows: 1) a preference for active rather than passive learning; 2) an emphasis on deep learning and understanding; 3) increased responsibility and accountability among students; 4) increased student independence in learning; 5) mutual dependence and mutual respect between lecturers and students; and 6) a reflective approach to the teaching and learning process by both lecturers and students.

SCL is based on constructivist learning theory, which emphasises that learners must construct their own knowledge in order to learn effectively (Attard et al., 2010). This is in line with the five principles of SCL outlined by Weimer (2002), namely:

1. encouraging active learning and peer engagement, as well as a shift in the power of learning from lecturers to students,
2. positioning the lecturer as a facilitator and contributor,
3. fostering critical thinking as a tool for developing knowledge,
4. placing responsibility for learning on students, so that they can identify their strengths and weaknesses, and guide the construction of their knowledge, and
5. using assessment that motivates learning, as well as providing information or practical guidance for the future.

The selection of learning formats, methods and modalities is an effort to find the right strategies so that students can achieve their learning outcomes, by developing active interaction between students, lecturers and learning resources. The learning modalities in question are students' learning styles (e.g. visual, auditory, kinesthetic, verbal and others) which lecturers must take into account when designing their teaching. Based on the learning outcomes, the appropriate assessment techniques, criteria and weightings are also determined in line with the knowledge, skills and attitudes acquired by students during the learning process. The current learning environment is also a key factor in determining learning success. The availability of learning resources is increasingly widespread in various printed and electronic forms. The learning atmosphere, facilities and infrastructure, and the diversity of students' circumstances constitute a learning resource in their own right, encouraging students to learn through collaboration and empathy. Figure 20 illustrates the student-centred learning process and its components.

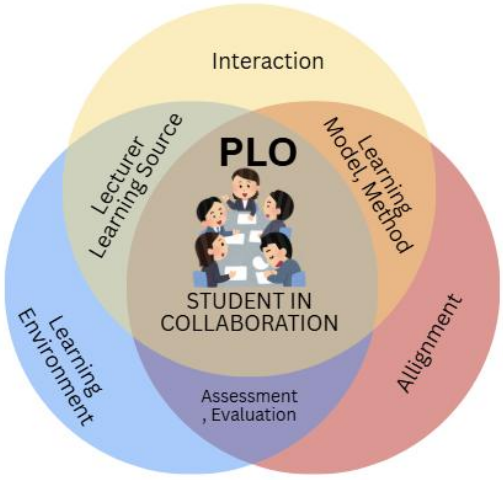


Figure 20. Student-Centred Learning Process

Forms of learning outside the degree programme are a vital manifestation of SCL. These forms of learning present challenges and opportunities for students to develop innovation, creativity, capacity and personality (intra- and interpersonal skills), as well as to foster independence in seeking, discovering and constructing knowledge in the real world.

Currently, higher education institutions are facing the era of Industry 4.0 and Society 5.0, which enables the implementation of SCL to be more efficient and effective. A blended learning approach, often referred to as hybrid learning, is a combination of conventional classroom-based or face-to-face learning and online learning. Blended learning involves Information and Communication Technology (ICT) based on the Internet of Things (IoT); if implemented properly, it naturally constitutes SCL. Online learning allows for flexibility in terms of time, place and pace of learning, thereby giving students the opportunity to take control of their own learning.

Blended learning is highly suited to the learning styles of Millennials and Generation Z, and provides students with the opportunity to utilise ICT to conduct information searches based on big data. The use of blended learning by students will strengthen digital literacy and technological literacy; this is, of course, highly aligned with the skills required in the era of Industry 4.0 and Society 5.0.

When implementing forms of learning outside the degree programme, blended learning is also suitable for use by the degree programme. Blended learning can not only be used to improve the quality of student learning, but also has the potential to be applied to facilitate the learning process when students participate in activities outside the degree programme.

A. Forms, Strategies and Methods of Learning

1. Forms of Learning

Forms of learning are learning activities which may take the form of lectures; tutorials and tutorials; seminars; and practicals, studio practice, workshop practice, field practice; work placements, research, design, or development; military training, student exchanges, internships, entrepreneurship, and/or other forms of community service (Ministry of Education, Culture, Research and Technology Regulation No. 53 of 2023: Article 16(1)). The study load for these forms of learning is expressed in semester credit units, where a study load of 1 (one) semester credit unit is equivalent to 45 (forty-five) hours per semester.

The selection of learning formats in students' learning activities for a course can be used to estimate study time, which can then be used to calculate the course's credit weight. Table 65 provides an example of learning formats, learning processes, and their estimated times.

Table 65. Learning Form for One Credit Point, Learning Process Activities, and Estimated Learning Time

No.	Forms and learning process activities		Estimated (min/month/semester)
1	Lecture, response or	guided learning activities	170
		structured assignment work	

No.	Forms and learning process activities		Estimated (min/month/semester)
	tutorial	independent study	
2	Seminars or similar formats		170
3	Practical sessions, studio practice, workshop practice, field practice, work placement, research, design, or development, military training.		170
	Outside the degree programme – independent learning: student exchange, work placements, entrepreneurial activities, teaching assistance in educational institutions, research at research institutions, independent study/projects, village development/thematic community service or humanitarian projects		

2. **Learning Strategies**

Teaching strategies can be designed by lecturers as part of their delivery of the course. In student-centred learning, teaching strategies refer to the approaches or methods students use to understand, process and retain information. This involves techniques and activities undertaken by students to actively construct knowledge, such as problem-solving, critical thinking, collaboration, self-reflection and metacognition. These strategies empower students to take ownership of their learning process and adapt it to their individual needs and preferences, thereby fostering a deeper understanding and retention of the material.

Some examples of learning strategies within the SCL approach include:

a. Project-Based Learning: students work together to complete projects or tasks relevant to the learning material, enabling them to apply their knowledge in a real-world context.
b. Group Discussions: students participate in group discussions guided by open-ended or prompting questions, allowing them to share ideas, consider other perspectives, and deepen their understanding through collaboration.
c. Cooperative Learning: students work together in small groups to complete tasks or projects, where each group member has specific roles and responsibilities.
d. Problem-Based Learning: students identify, analyse, and seek solutions to real-world problems or scenarios related to the subject matter, promoting critical thinking and problem-solving.
e. Inquiry-Based Learning: students are given the opportunity to study a specific topic independently or in groups, developing their own questions, gathering evidence, and drawing conclusions.
f. Peer Teaching: students teach or explain concepts to their classmates, reinforcing their own understanding whilst helping their peers to understand the material.
g. Flipped Learning: is a learning strategy that utilises information and communication

technology (ICT). In flipped learning, lecturers record and create interactive materials. Students can study these materials before the class session, so that the class session is used for discussion and clarification.

h. Self-paced learning: is another learning strategy, also known as individualised learning or self-instruction, where students work at their own pace and actively engage in various learning tasks and experiences to achieve learning outcomes.

3. **Teaching methods**

A method can be defined as the approach used to facilitate students' learning activities, which are oriented towards pre-determined learning outcomes. The learning methods developed for each topic or stage of a course are tailored to the learning outcomes of that topic (Sub-CLO). Sub-CLO) are described as the final competencies expected to be internalised by students. Consequently, the learning methods within a course are diverse (multi-method) depending on the CLO orientation. Several learning methods that are essentially student-centred include group discussions, simulations, case studies, collaborative learning, cooperative learning, project-based learning, problem-based learning, or other learning methods that can effectively facilitate the fulfilment of graduate learning outcomes.

Currently, there are various student-centred learning methods applied within the learning process of a course, such as: group discussions, role-playing and simulations, case-based learning (CBL), collaborative learning (CL), cooperative learning (CoL), project-based learning (PjBL), problem-based learning (PBL), discovery learning and inquiry, self-directed learning (SDL), and contextual instruction (CI).

The forms and methods of learning are selected in accordance with the characteristics of the course to achieve specific learning outcomes set out in the course as part of the fulfilment of the PLO. Examples of the selection of forms, methods, and learning assignments are shown in Table 66.

Table 66. Examples of the Selection of Learning Formats, Methods, and Assignments

No	Form of Learning	Learning Method	Example of assignment
1	Learning Activities	· Student presentations in class · Group discussion · Debate	Problem-solving tasks, Information-gap tasks, reasoning-gap tasks, opinion-gap tasks, or minute papers.
2	Structured Assignment Activities	· Project-based learning · Case-based learning · Collaborative learning	Creating projects, discussing specific cases worked on collaboratively
3	Independent activities	· Literature review · Summarising (summarising)	Creating a portfolio of independent activities

4	Practical	· Group work and discussion	Carrying out activities and reporting on practical work results

B. Implementation of the Learning Process

The selection of various SCL methods depends heavily on the characteristics of the learning material, the curriculum, learning resources, the learning environment, and the circumstances of both lecturers and students. On the other hand, various technological developments and changing demands of the workplace have encouraged lecturers to continuously develop their skills so that they can deliver appropriate SCL. The application of appropriate SCL methods is expected to support improved learning quality and effectiveness for students in achieving course learning outcomes. The use of technology, particularly internet technology, has enabled lecturers to conduct learning processes in the classroom through face-to-face teaching, online learning, or a combination of face-to-face and online learning (blended and hybrid).

1. Face-to-Face Learning Process

   Face-to-face learning processes may be determined by lecturers based on the learning design outlined in the Course Syllabus (RPS). Face-to-face learning activities must support effective interaction between lecturers and students. Examples of face-to-face activities include group discussions and role-play in the classroom as part of the implementation of various learning methods such as problem-based learning or collaborative learning.

2. Online Learning

   The online learning process is determined by the lecturer to facilitate online learning activities, whether synchronous or asynchronous, with the aim of facilitating online interaction between lecturers and students as well as access to various online learning resources. Examples of activities include asynchronous discussion forums within learning management systems. Synchronous online interactions between lecturers and students, or group discussions facilitated via video conferencing applications such as Zoom, Google Meet, MS Teams and others, are examples of online learning.

3. Blended Learning

   Blended learning is an educational approach that harmoniously, structurally, and systematically combines the strengths of face-to-face and online learning. Blended learning has gained popularity alongside the rapid development of ICT, where the integration of the internet and computing capabilities enables more efficient and effective learning in the development of students' learning outcomes. As previously mentioned, blended learning enables students to engage actively in the learning process, and thus learning is student-centred (SCL). In the implementation of the MBKM programme, blended learning has become one of the effective learning strategies to support students whilst they are participating in learning processes outside their degree programmes.

In blended learning, students not only gain learning experiences whilst being guided by lecturers in or outside the classroom, but also acquire a broader range of learning experiences

through independent study. When learning in class with a lecturer, students receive learning materials and learning experiences (orientation, exercises and feedback), best practices, examples and direct motivation from the lecturer. Meanwhile, when studying online, students can manage their own study time, learn anywhere and at any time, and are not restricted by the lecturer's teaching methods. Students can study independently or interact with both lecturers and fellow students, and have access to a variety of online learning resources that can be easily accessed using the devices and applications at their fingertips. The range of learning materials is richer, and may include e-books or e-articles, simulations, animations, augmented reality (AR), virtual reality (VR), educational videos, or other multimedia that can be accessed online. The classification of blended learning in terms of the use of ICT in the learning process is presented in Table 57.

Allen et al. (2007) provide a clear definition of the proportion of online learning within blended learning, as shown in Table 57. Blended learning may involve a proportion of online learning ranging from 30–79%. However, the delivery of content and the learning process, including assessment, are predominantly conducted online. Face-to-face and online learning modes are implemented in an integrated and systematic manner, oriented towards learning outcomes. Within the parameters of Table 67, the use of webpages solely for hosting the Syllabus, learning materials and other learning instruments is not classified as blended learning, but may be termed web-facilitated learning. Unlike purely online learning, the learning process is structured and systematic and is conducted entirely online.

Table 67. Definitions of Blended and Non-Blended Learning

Proportion of Online Learning	**Form of Learning**	**Description**
0%	Face-to-face	Lectures without the use of online technology. Learning materials are delivered in written or oral form.
1%–29%	Web-enabled (web-enhanced)	Lectures delivered via network-based technology, focusing primarily on key elements as a supplement to reinforce face-to-face learning. For example, using a webpage to post the syllabus, learning materials, and assignments
30%–79%	Blended Learning Learning / Hybrid Learning)	Learning is delivered through a blended approach, combining online and face-to-face methods. A substantial proportion of the delivery of learning materials and the learning process, including assessment, is conducted online. Generally the delivery of online and face-to-face learning is systematically integrated and focused on learning outcomes.

Proportion of Online Learning	Form of Learning	Description
>= 80%	Fully Online Learning (Fully online)	Learning takes place almost entirely or entirely online; face-to-face sessions in the classroom no longer occur, though virtual face-to-face interaction is possible. All learning materials and processes are conducted online.

Source: Allen et al. (2007). Blending in the Extent and Promise of Blended Education in the United States.

In practice, blended learning, from both the lecturer's and the student's perspectives, has several best practice models. Study programmes can implement various blended learning models, such as the rotation model, flex model, self-blend model, enriched virtual model or flipped learning, which are appropriate to their learning environment. One of the rotation models, namely flipped learning (flipped classroom), is briefly explained below, whilst specific explanations of blended learning models will be provided in a separate dedicated guide on online learning.

The flipped learning model is one of the rotational models within blended learning. Students study and complete assignments in accordance with the learning plan provided by the lecturer online outside of class. Then, during the next face-to-face session in class, students clarify with their study groups what they have learnt online, and also discuss it with the lecturer. The aim of this flipped learning model is to activate students' learning activities outside the classroom; students will be encouraged to master the concepts and theories of new material outside class by utilising 2 x 60 minutes of structured assignments and self-directed learning for each credit. Out-of-class learning is carried out by students using information technology, for example, the Learning Management System (LMS) or the Online Learning System (SPADA). SPADA is an online learning platform provided by the Ministry of Education, Culture, Research and Technology. Out-of-class learning may also utilise educational videos, e-books, and other learning resources that students can access via the internet. In the subsequent stage, students will learn in the classroom by demonstrating the learning outcomes from the previous stage, engaging in discussions, reflecting, presenting, clarifying, and deepening their understanding with lecturers and fellow students. This flipped learning model can be applied to each learning stage, which may take one week, two weeks, or longer, depending on the level of difficulty in achieving the final competency (Sub-CLO). An illustration of the flipped learning rotation model can be seen in Figure 20.

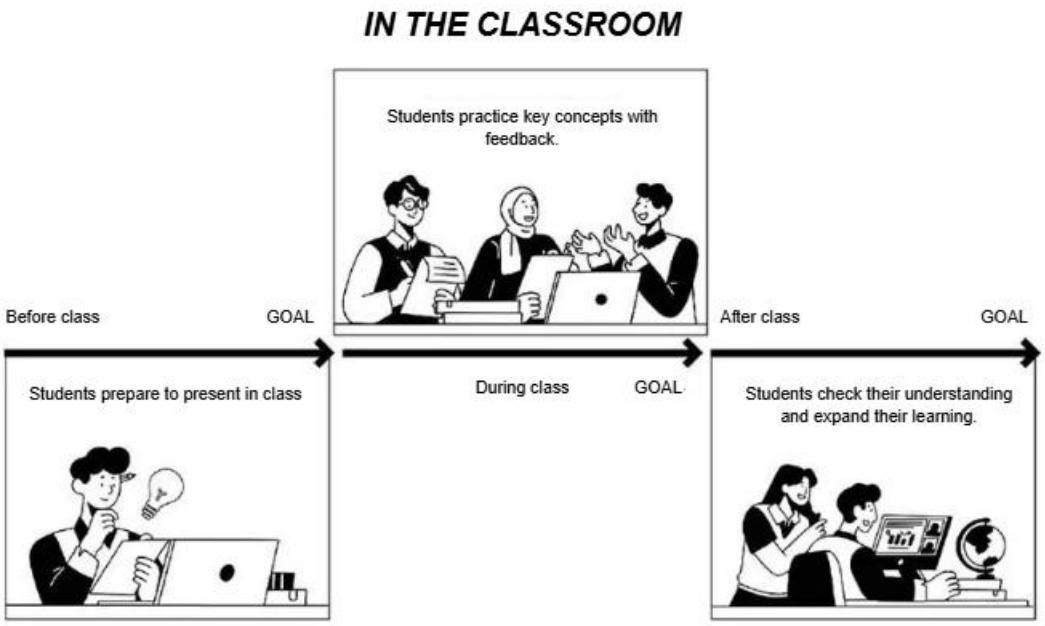


Figure 20. The Flipped Learning Rotation Model

Student-centred learning can also utilise various online learning resources, including Massive Open Online Courses (MOOCs). As a learning resource, MOOCs are characterised by course content offered online via the internet to thousands or even millions of participants worldwide, either free of charge or at a very low cost. The use of MOOCs in SCL can be implemented in the following ways:

1. Flexible Content Selection: in a student-centred learning approach, students have the freedom to choose learning materials that suit their interests, needs, and learning styles. MOOCs offer a wide variety of content across various fields and levels of difficulty, allowing students to select the content most relevant to their interests.
2. Customisation and Personalisation of Learning: MOOCs often offer features such as initial diagnostic tests and personalised content recommendations based on individual progress and needs. By utilising these features, lecturers can help students tailor their learning experience to their needs and level of understanding.
3. Interactive and Collaborative: MOOCs provide a platform for discussion and collaboration among participants, enabling students to interact with lecturers/facilitators and fellow participants. In SCL, this interaction and collaboration can be used to facilitate social and constructivist learning, where students can support and learn from one another.
4. Project-Based Learning: Lecturers/facilitators can use MOOCs as a source of content and instruction to support project-based learning that emphasises the application of knowledge in real-world contexts. Students can be assigned projects that require them to apply concepts learnt in MOOCs to practical situations or case studies.
5. Progress and Transparent Feedback: MOOCs generally provide tools to track students' progress and provide regular feedback. In SCL, this transparency can be used to help students monitor their own progress and make adjustments where necessary.
6. Promoting Lifelong Learning: With their open access and flexible scheduling, MOOCs

can serve as a means to promote lifelong learning, enabling students to continue learning and developing their skills throughout their lives.

By utilising these features, lecturers/facilitators can use MOOCs as an effective tool to support the implementation of SCL, where the focus is on students' needs and interests, as well as their ability to take an active role in the learning process.

CHAPTER IV
CURRICULUM
QUALITY ASSURANCE

The curriculum quality assurance system follows the PPEPP cycle, namely: (i) Curriculum Design (P), (ii) Curriculum Implementation (P), (iii) Curriculum Evaluation (E), (iv) Curriculum Control (P), and (v) Curriculum Improvement (P).

The curriculum is reviewed at least once every 4–5 years by the university management, which determines the programme's educational profile and objectives, the PLOs, the courses and their credit weights, and an integrated curriculum structure. The implementation of the curriculum is carried out through the learning process, with a focus on the achievement of PLOs, whether for graduates (PLO), CPs at the course level (CLO), or CPs at each stage of learning within a course (LLO). Curriculum implementation is based on the Course Syllabus (RPS) prepared by a lecturer or a team of lecturers, ensuring that the achievement of PLOs at the course level, CLO, and LLO at the course level supports the achievement of the PLOs assigned to each course.

Curriculum evaluation aims to monitor curriculum implementation and ensure continuous improvement in its delivery. Evaluation is conducted in two stages: the formative stage and the summative stage. Formative evaluation is carried out during the curriculum implementation process, taking into account the achievement of PLOs assigned to each course. PLO achievement is assessed through the evaluation of CLO and LLO achievement, which are set at the start of the semester by lecturers/teams of lecturers and the Study Programme. Evaluation is also carried out on the forms of learning, teaching methods, assessment methods, the Course Syllabus (SLP) and supporting learning materials. Summative evaluation is carried out periodically every 4–5 years, involving internal and external stakeholders, and is reviewed by experts in the programme's field of study, industry, associations, as well as in line with developments in science and technology and user needs. Curriculum implementation is monitored every semester using indicators measuring the achievement of PLOs. Curriculum monitoring is carried out by the Study Programme and is monitored and supported by the university's quality assurance unit/institution.

Continuous improvement of curriculum implementation is based on the results of curriculum evaluation, both formative and summative. The complete curriculum quality assurance cycle can be found in the Higher Education Curriculum Cycle in Figure 1.

CHAPTER V
CURRICULUM EVALUATION

Curriculum changes are based on several factors, including developments in knowledge, government policy, the needs of graduate employers, and the results of ongoing curriculum evaluation. There are several models that can be used to evaluate the curriculum, including 1) the Formative-Summative Evaluation Model; 2) the Provus Discrepancy Evaluation Model;
3) Daniel Stufflebeam's CIPP (Context, Input, Process, Product) Evaluation Model; 4) Donald L. Kirkpatrick's Four-Level Evaluation Model; and others; each model has its own strengths and weaknesses. This KPT development guide uses the Provus Discrepancy Evaluation Model as an example to evaluate the curriculum based on national higher education standards, on the grounds that every higher education institution has educational standards formulated in accordance with SN-Dikti.

The curriculum evaluation model using the Provus Discrepancy method consists of six stages that are interlinked, with each stage leading to the next, as shown in Figure 61.

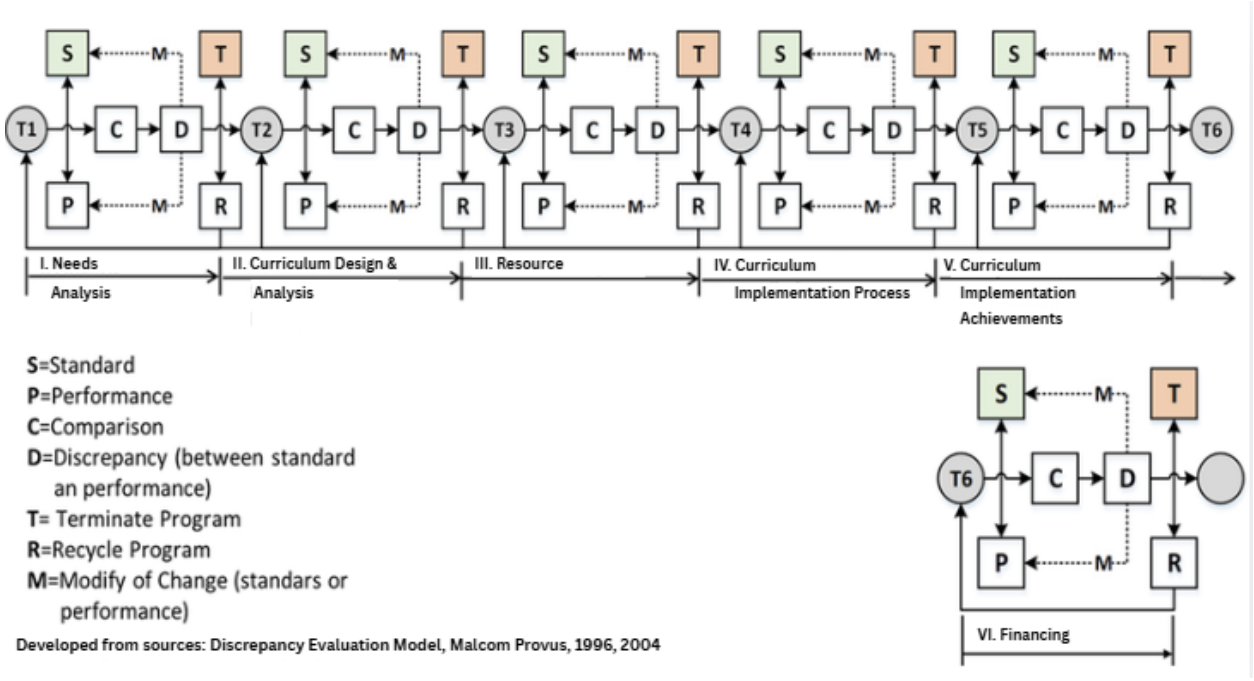


Figure 61. Provus Discrepancy Evaluation Model

Figure 61 illustrates that each stage is evaluated by comparing the quality performance of the assessed element against the established standards. Any gap between quality performance and the standards serves as a basis for making modifications. Modifications are made to performance that does not meet the established standards, or the standards themselves may be modified if performance has exceeded them. A decision is then made

whether improvements should be made to the quality performance or the standards, or whether the quality performance is deemed satisfactory following the evaluation process.

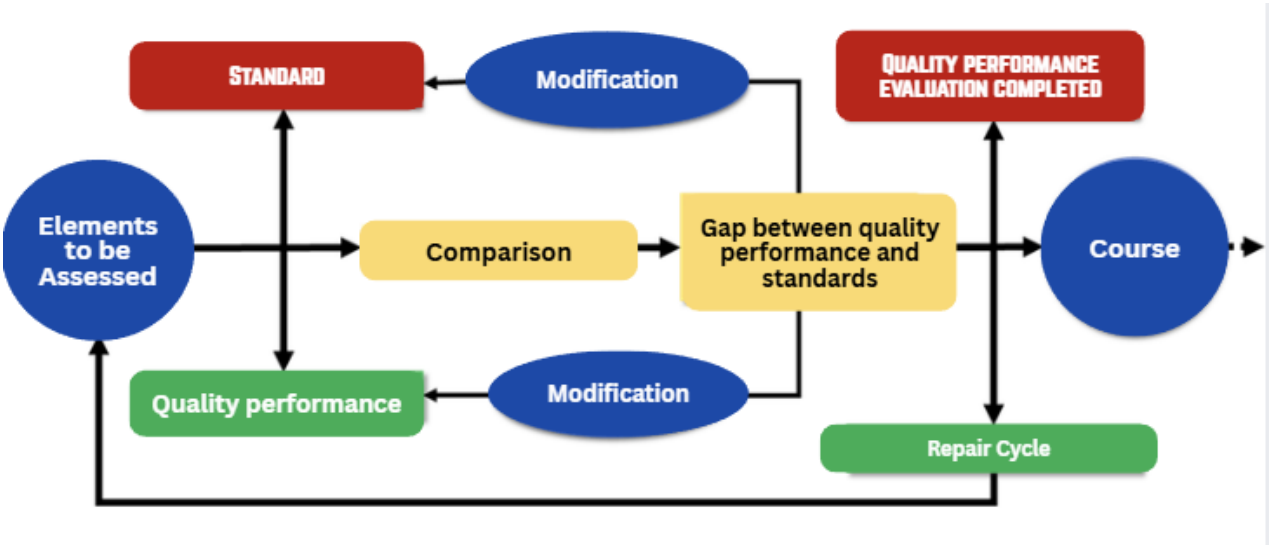


Figure 62. Evaluation Mechanism of the Provus Discrepancy Evaluation Model

Furthermore, in the example of curriculum evaluation in accordance with the higher education curriculum cycle in Figure 62, each study programme or higher education institution may select different quality performance elements for evaluation from the following example. In the example in Table 81, there are six (5) evaluation stages ranging from needs analysis, curriculum design and development, resources, curriculum implementation processes, to curriculum implementation outcomes. Each stage may consist of one or several elements to be evaluated in accordance with that stage, as explained in Table 81.

Table 81. Example of Curriculum Evaluation Stages using the Provus Non-Conformance Model

Evaluation Stage	Quality Performance	Quality Performance Standards	Gap	Follow-up
I Needs Analysis	Based on the tracer study, graduates working in their field of of study 30%	1. Programme Objectives 2. Graduate Profile	The graduate profile no longer aligns with user needs	Reformulation profile graduate and their descriptions

Evaluation Stage	Quality	Quality Performance Standards	Gaps	Follow-up
II Curriculum Design and Development	1. The PLO formulation has not yet accommodated the academic vision of the study programme 2. Learning resources: the formulation of CLO and sub-CLO in the RPS is not yet in line with The PLO assigned to subjects and assessment techniques are not aligned with the learning objectives (CLO)	1. Academic vision (programme curriculum document) 2. Distribution of PLOs assigned to each course	1. Research conducted by lecturers and students, publications and available courses do not sufficiently reinforce the programme's academic vision 2. Some of the Course Syllabus (RPS) has not yet been developed in accordance with the PLOs assigned to the courses	1. FGD on the programme's research roadmap, PLO analysis and study materials related to the programme's academic vision, and identification of study materials that could form new courses. 2. Training on the formulation of the Course Syllabus
III Human Resources	1. Lecturers & Academic Staff (Qualifications & Adequacy); 2. Learning resources; 3. Learning facilities;	1. Law No. 12 of 2012, 2. Ministry of Education and Culture Regulation No. 53 2023	Lecturer and academic staff qualifications have been met, but the ratio of lecturers to students is lower than the standard	Proposal to recruit new lecturers

IV Curriculum Implementation Process	1. Implementation of teaching; 2. Lecturer competence; 3. Staff competence; 4. Learning resources 5. Learning facilities;	1. SN-Dikti, SP-MI-PT, RPS-MK; 2. SN-Dikti, SPT, RPS-MK; 3. SN-Dikti, SPT; 4. SN-Dikti, SPT; 5. SN-Dikti, SPT;	1. some practical sessions could not be carried out due to a lack of equipment 2. The teaching methods used by lecturers were not innovative 3. Only one out of 10 academic staff members holds a competency certificate relevant to their field of work	1. Procurement of practical equipment and revision of practical guidelines 2. Participation of lecturers in Pekerti and AA training and other forms of training 3. Sending teaching staff to attend training and take competency certification exams in accordance their respective fields
V Curriculum Implementation Outcomes	1. PLO Outcomes; 2. Duration of Study;	1. Programme PLO, Programme Curriculum; 2. SN-Dikti, SPT, 3. Programme Curriculum;	1. Programme sets a minimum PLO achievement score of 70; if any student's PLO score is below 70, 2. The average duration of study for undergraduate students is 5 years and 2 months, with an average time for completing the final project of 8 months	1. Conduct an evaluation of the achievement of several PLO-related courses that have low achievement in terms of planning, implementation and assessment. 2. Accelerating the duration of study by intensifying final project supervision and providing several alternative final projects in accordance with Quality

				Standards Higher Education

Figure 63 is an example of an evaluation mechanism for the formulation of a study Pogramme's PLO, utilising the KKNI Descriptor standards, SN-Dikti, and Graduate Profile.

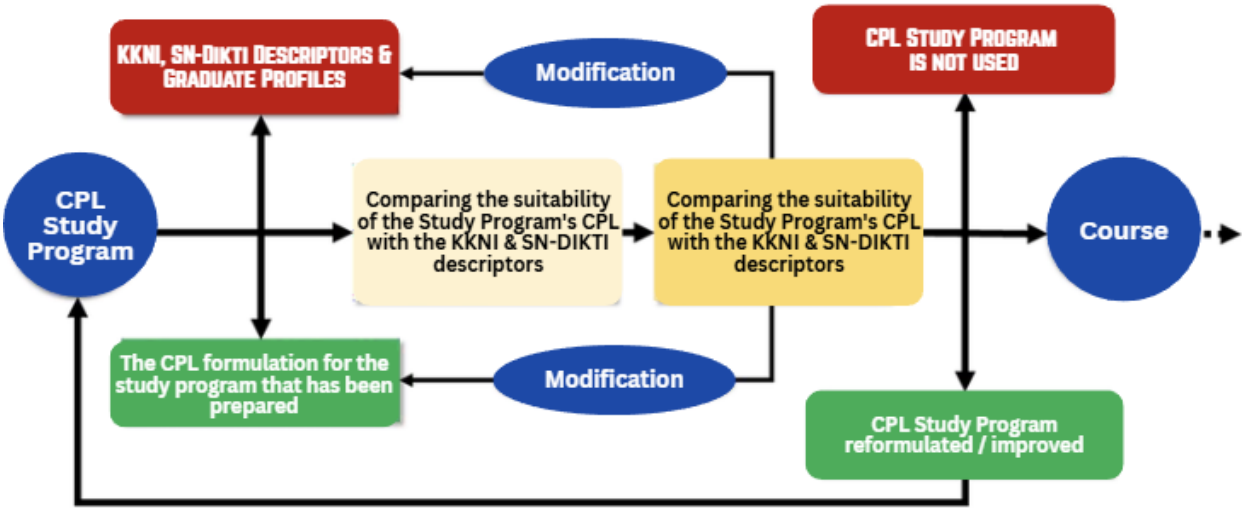


Figure 63. Example of a Programme PLO Evaluation Mechanism

The programme's PLO statements must be compared with the relevant standards, namely the KKNI descriptors, SN-Dikti, the PLOs agreed upon within the programme association, and the established graduate profile. Do the programme's PLO statements align with the KKNI descriptors appropriate to the programme's level? This applies particularly to the aspects of knowledge and specific skills. Have the programme's PLOs also adopted the SN-Dikti and are they consistent with the programme's level? Overall, do the programme's PLOs reflect the established graduate profile? If there are discrepancies or inconsistencies with the standards, the programme's PLOs must be modified or revised; if they are entirely inconsistent, the programme's PLOs should not be used. Naturally, the evaluation of the Programme Learning Outcomes (PLOs) is conducted for each individual PLO. Following revision, the PLOs are finalised and serve as a reference for subsequent evaluation processes, such as the evaluation of individual courses (MK). Curriculum evaluation across all quality performance elements occurs sequentially across five stages, as presented in Table 76.

However, the stages of curriculum evaluation may be based on the sequence in accordance with SN-Dikti: (1) Graduate Competency Standards (SKL) or Graduate Learning Outcomes (PLO);

(2) Learning content standards; (3) Learning process standards; (4) Learning assessment standards; and so on.

It is important to evaluate the achievement of PLOs in a course by taking into account the PLOs assigned. The formulation of CLOs and sub-CLOs in accordance with PLO requirements guides the form, methods, and learning strategies selected, right down to the assessment techniques and instruments.

Table 82. Example of the distribution of assessment weighting against the PLOs assigned to a Course

PLO Code	CLO	Sub-CLO	Assessment Techniques and Instruments	Bobo t (%)
PLO-1	CLO-1	Sub-CLO-1	Written test Test questions essay	10
	CLO-2	Sub CLO -2	Written test Test questions essay	15
PLO-3	CLO-3	Sub-CLO-3	Written Test Test Questions essay	20
	CLO-4	Sub CLO -4	Portfolio Project Assessment Rubric	20
PLO-5	CLO-5	Sub-CLO-5	Portfolio Project assessment rubric	20
		Sub CLO-6	Observation Attitude and Participation Assessment Rubric	15

*This course contributes to PLO 1, PLO 3, and PLO 5

Each course contributes to a PLO, and each PLO is fulfilled by several courses. Therefore, the contribution of a course to a specific PLO can be weighted.

Table 83. Example of a matrix for weighting course contributions towards a specific PLO.

PLO	Course	CLO	ASSESSMENT TECHNIQUES AND INSTRUMENTS	WEIGHT (%)
PLO 1: Mastering basic knowledge about the structure, properties of molecules, identification, separation, characterization, transformation, synthesis of organic and inorganic compounds and their applications	Course A	CLO A1		1
		CLO A2		1
		CLO A3		0,5
	Course B	CLO-B1 Apply the concepts of intramolecular properties, energetics, kinetics, catalysis, and stereochemistry in relation to organic reaction mechanisms.	written test essay and objective test questions	1
		CLO-B2 Skillfully use chemistry application programs to explain organic reaction mechanisms.	portfolio team-based project assessment rubric	2
	Course C	CLO C1		2
		CLO C2		0,5
PLO 2	Course B	CLO B3		1
	Course D	CLO D1		2
PLO X	Course X	CLO X		X
			Total	100

The Study Programme must report on the achievement of the established PLOs. Table 84 shows the CLO achievement for each course, Figure 64 shows the PLO achievement flow for each semester, and Figure 65 shows the PLO achievement report per student.

Table 84. CLO achievement for each course

CPL Assessment per Student | CPMK Assessment per Student

No.	NRP	Name	Numerical value	CPMK 1	CPMK 2	CPMK 3	CPMK 4	CPMK 5	CPMK 6	CPMK 7
1.	02311940000009	Denty Calista Azariah	82.78	8.40454	9.945	9.375	8.125	16.72072	18.95728	11.25
2.	02311940000018	Bagus Adam Prasetyo	88.51	8.71662	11.1875	9.875	10.625	17.1832	19.29518	11.625
3.	02311940000019	Aditia Ahmad Yanuar	85.71	8.20996	10.5	10	10	16.72072	19.03358	11.25
4.	02311940000025	Mazaya Pavita Manyari	86.9	8.46	9.5625	10.5	12.5	16.41992	18.20954	11.25
5.	02311940000028	Arda Fridua Putra	80.54	8.08776	10.535	8.5	7.5	16.48008	18.80904	10.625
6.	02311940000037	Yustinus Naiborhu	89.61	8.5916	10.4375	11	12.5	16.98392	18.47114	11.625
7.	02311940000040	Millads Anwary Fandiaz	17.66	3.49962	3.5	10.65584				
8.	02311940000058	AHMAD MIFTAHUL HUDA	87.23	8.42334	11	10.125	9.375	16.89556	19.90776	11.5
9.	02311940000063	ARINI EVITA RUMAPAR	84.42	7.82268	10.2225	10	10	16.19996	19.23632	10.9375
10.	02311940000080	REYNALDI RAHMAD SYAHPUTRA HANAFI	85.87	8.28046	11.2575	9.8125	9.6875	16.22064	19.36058	11.25

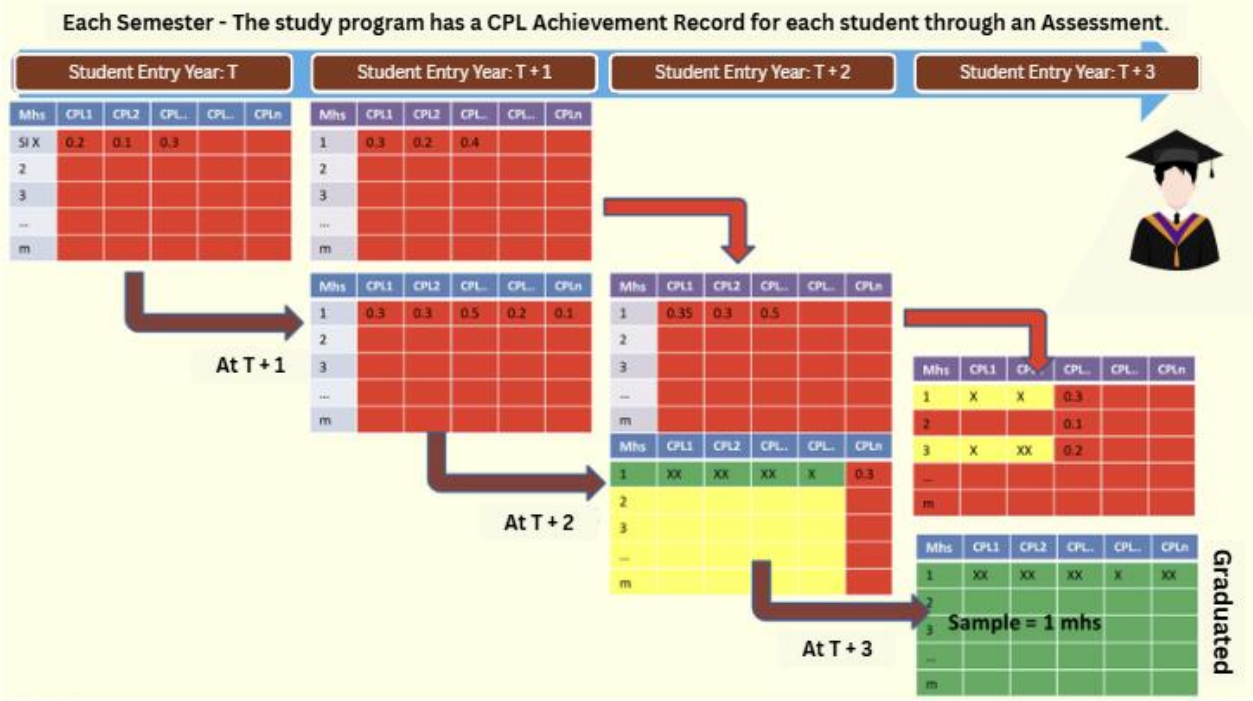


Figure 64. PLO Achievement Flowchart for Each Semester

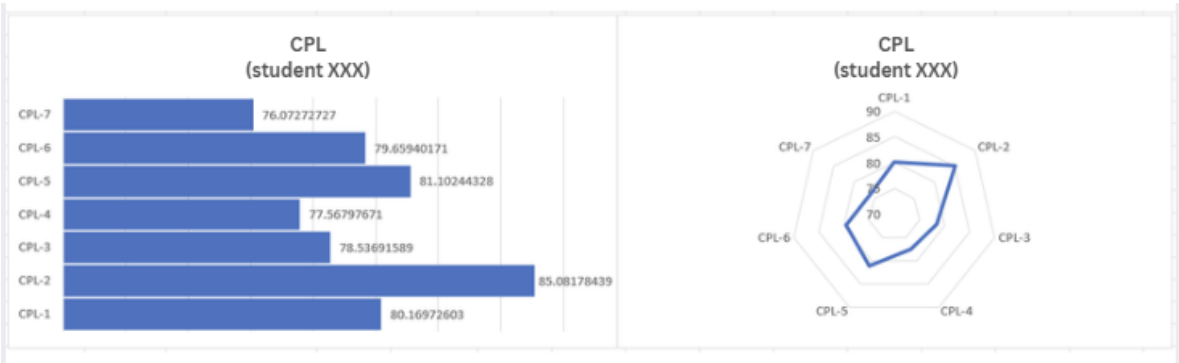


Figure 65. PLO Achievement Report per Student