UNESA CURRICULUM DEVELOPMENT, IMPLEMENTATION, AND EVALUATION GUIDELINES

Ministry of Education, Culture, Research and Technology

Surabaya State University
2023

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PREFACE

Praise Allah, the Almighty God, so the 2023 UNESA Curriculum Development, Implementation, and Evaluation Guidelines can be completed. This guideline is an update of the 2016 Unesa Curriculum Development Academic Paper. This guideline accommodates various higher education curriculum development regulations such as Law Number 20 of 2003 concerning the National Education System, Law Number 12 of 2012 concerning Higher Education, and Presidential Decree Number 8 of 2016. 2012 concerning the Indonesian National Qualifications Framework (KKNI), and Permendikbud Number 3 of 2020 concerning Higher Education National Standards (SN-Dikti). This guide also considers the Independent Learning-Independent Campus Curriculum Development Guidelines, the Outcome-Based Education (OBE) concept, and the core components of Education 4.0.

This manual consists of 5 (five) main sections. First, the Introduction discusses the background, objectives, and benefits of the basis for curriculum development. Second, Theory Study describes the principles of curriculum development, which include relevance, flexibility, continuity, efficiency, and effectiveness. Third, Curriculum Development discusses everything from content to procedures for curriculum development for study programs (Prodi). Fourth, implementing the curriculum contains a discussion of approaches, strategies, learning resources, learning media, assessment of learning processes and outcomes, and Semester Learning Plans (RPS). Fifth, Curriculum Evaluation describes the principles, approaches, and curriculum evaluation models. Finally, Governance describes the parties responsible for the development, implementation,

An important aspect that needs to be considered by each study program in developing its curriculum is the obligation to build student character by the UNESA PTNBH vision, which includes: tough, adaptive, and innovative based on an entrepreneurial spirit. In addition, the study program curriculum at Unesa must accommodate the development of student abilities, including knowledge, general skills, and specific skills, which are carried out by facilitating students to program courses across study programs, across faculties, and/or across universities according to their interests and talents.

Hopefully, the 2023 Surabaya State University (Unesa) Curriculum Development, Implementation, and Evaluation Guidelines can benefit all related parties. Constructive criticism and suggestions are expected to improve this academic paper in the next edition. Thank You.

Vice Rector for Academic, Student and Alumni Affairs

Prof. Dr. Madlazim, M.Sc.

RECTOR'S REMARKS

The successful implementation of each program is determined, among other things, by good planning. This is also the case with educational programs implemented at Unesa. The form good educational program planning is the provision of relevant learning experiences according to the needs of stakeholders and the times and being able to empower students as a whole (comprehensively) so that they become competitive and characterized individuals. Therefore, reviewing and developing the curriculum needs always to be carried out by every study program at Unesa. For this reason, it is necessary to update guidelines related to the curriculum so that they can be used as a basis and direction for study programs in developing, implementing, and evaluating curricula.

Unesa, as a PTNBH institution, has a curriculum as a plan and arrangement regarding objectives, content, learning materials, and the methods used as guidelines for organizing learning activities to achieve educational goals. Curriculum as a development direction and purpose has dynamics to achieve the expected goals. These dynamics are a consequence of the development of society that must be able to be accommodated.

Curriculum development requires a guideline as a direction and foundation so that the process of developing, implementing, and evaluating curriculum is carried out in line with the overall national education system, Unesa's vision and mission, and the demands of community life, which must be accommodated. These guidelines are helpful as follows: 1) guidelines in developing study program curriculum, 2) quality assurance services in curriculum evaluation, 3) fundamental academic justification in the process of curriculum development, implementation, and evaluation, and 4) references in answering problems that arise in development, implementation, and evaluation of the curriculum.

Surabaya, May 2023
Rector of Surabaya State University

Prof. Dr. Nurhasan, M. Kes.

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CHAPTER I INTRODUCTION

A. Background

Based on the Government Regulation of the Republic of Indonesia Number 37 of 2022, Surabaya State University has transformed into a Legal Entity State University. Changes in vision, mission, goals, and curriculum accompanied this change in status. Curriculum changes are in line with changes in Unesa's vision.

Unesa PTNBH's vision, "a tough, adaptive, and innovative educational university based on entrepreneurship," requires a new curriculum to achieve this vision. The curriculum is a means to earn Unesa PTNBH's vision. For this reason, it is necessary to adjust the curriculum in line with this vision. PTNBH's Unesa curriculum is directed at preparing generations of lifelong, sustainable, and timeless learners by utilizing digital transformation. This curriculum development is a process to respond to emerging needs and challenges that students will face in the future.

Currently, the Study Program (Prodi) within Unesa already has an adaptive curriculum that is KKNI, SNDIKTI, and MBKM oriented. The Study Program has been accredited nationally and internationally. However, several curriculum adjustments according to the latest vision have yet to be fully accommodated in the previous guidelines. Thus a new guideline is needed.

B. Purpose of Guidelines for Curriculum Development, Implementation and Evaluation

In general, the objectives of the guidelines for the development, implementation, and evaluation of this curriculum are as follows:

1. become a guide for UNESA in internalizing higher education quality standards;
2. become a guide for Universities, Faculties, and Study Programs in developing and implementing learning achievement-based curricula that are oriented to UNESA PTNBH policies;
3. explain the review mechanism, curriculum change, and curriculum evaluation based on learning outcomes that are oriented to UNESA PTNBH policies;
4. reflects UNESA's commitment to continuous quality improvement, especially in curriculum and learning to achieve the Vision and Mission of Unesa PTNBH.

C. Benefits of Curriculum Development, Implementation, and Evaluation Guidelines

Curriculum development must provide benefits for all system components

involved in the institution and also for related stakeholders. Therefore, this Curriculum Development, Implementation, and Evaluation Guide can provide the following benefits.

1. For students, as an experience that must be internalized in carrying out academic and non-academic activities (self-development) to achieve goals and realize their life expectations.

2. For lecturers, as a guide in carrying out professional duties as educators to realize graduate profiles by the vision and mission.

3. For institutions, as the direction of carrying out tasks and managerial in accommodating the institution's activities to achieve the vision and mission.

4. For the community, as accountability for the demands of science and technology development and accommodation of community needs for their welfare.

5. For the nation and state, as proof of commitment to achieving national development goals.

D. Juridical Foundation

The 2023 Curriculum Development, Implementation and Evaluation Guidelines are prepared based on applicable regulations and policies including:

1. Pancasila and the 1945 Constitution;

2. Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System;

3. Law of the Republic of Indonesia Number 14 of 2005 concerning Teachers and Lecturers (State Gazette of the Republic of Indonesia of 2005 Number 157, Supplement to the State Gazette of the Republic of Indonesia Number 4586);

4. Law of the Republic of Indonesia Number 12 of 2012 concerning Higher Education (State Gazette of the Republic of Indonesia of 2012 Number 158, Supplement to the State Gazette of the Republic of Indonesia Number 5336);

5. Government Regulation of the Republic of Indonesia No. 66 of 2010 concerning Amendments to Government Regulation Number 17 of 2010 concerning Management and Implementation of Education;

6. Republic of Indonesia Government Regulation No. 4 of 2014 concerning Implementation of Higher Education and Management of Higher Education;

7. Republic of Indonesia Government Regulation No. 37 of 2022 concerning State

Universities Legal Entities, State University of Surabaya;

8. Regulation of the President of the Republic of Indonesia Number 8 of 2012 regarding the Indonesian National Qualifications Framework (KKNI);

9. Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 73 of 2013, concerning the Application of IQF in Higher Education;

10. Regulation of the Minister of Research, Technology and Higher Education of the Republic of Indonesia Number 62 of 2016 concerning the Higher Education Quality Assurance System;

11. Minister of Research, Technology, and Higher Education Regulation Number 59 of 2018, concerning Diplomas, Competency Certificates, Professional Certificates, Degrees, and Procedures for Writing Degrees in Higher Education;

12. Decree of the Minister of Research, Technology and Higher Education No. 123 of 2019 concerning Internships and Recognition of Industrial Internship Semester Credit Units for Applied Undergraduate and Undergraduate Programs;

13. Regulation of the Minister of Education and Culture No. 3 of 2020 concerning National Higher Education Standards;

14. Regulation of the Minister of Education and Culture No. 5 of 2020 concerning Accreditation of Study Programs and Higher Education;

15. Regulation of the Minister of Education and Culture No. 7 of 2020 concerning Establishment Change, Dissolution of State Universities, and Establishment, Amendment, and Revocation of Permits of Private Higher Education;

16. Minister of Education, Culture, Research and Technology Regulation No. 13 of 2022 concerning Amendments to the Regulation of the Minister of Education and Culture Number 22 of 2020 concerning the Strategic Plan of the Ministry of Education and Culture for 2020-2024;

17. Regulation of the Minister of Education and Culture No. 23 of 2015 concerning Growth of Character;

18. Regulation of the Rector of Surabaya State University No. 55 of 2022 concerning Curriculum Development and Curriculum Evaluation at Surabaya State University;

19. Strategic Plan of the Ministry of Education, Culture, Research and Technology 2020-2024;

20. State University of Surabaya PTNBH Strategic Plan (Renstra) 2020-2025;

21. Surabaya State University Long Term Development Plan (RPJP) 2022-2045;

22. Strategic Plan for the Postgraduate Program and the Faculty of Unesa.

E. Definition of Terms

The 2023 Curriculum Development, Implementation, and Evaluation Guidelines use the terms.

1. A curriculum is a set of plans and arrangements regarding objectives, content, learning materials, and the methods used as guidelines for organizing learning activities to achieve Higher Education goals.

2. Higher Education is the level of education after secondary education, which includes diploma programs, bachelor programs, master programs, doctoral programs, and professional programs, as well as specialist programs organized by tertiary institutions based on Indonesian culture.

3. National Curriculum Compulsory Courses must contain courses.
   a. Religion;
   b. Pancasila;
   c. Citizenship; And
   d. Indonesian.

4. Learning is a process of student interaction with lecturers and learning resources in a learning environment.

5. A study Program is a unit of educational and learning activities with a specific curriculum and learning methods in one type of academic education, professional education, and/or vocational education.

6. Graduate Profiles are characteristics or roles that graduates can perform in a particular field of expertise or work after completing their studies.

7. The Program Educational Objective (PEO) is a general statement that describes what graduates are expected to achieve within a few years after graduation. PEO is based on needs and predictions of future capabilities.

8. Learning Outcomes are abilities acquired through internalizing knowledge, attitudes, skills, competencies, and work experience accumulation (Presidential Decree No. 8 of 2012 concerning the Indonesian National Qualifications Framework).

9. Graduate Competency Standards (SKL) are the minimum criteria regarding the qualifications of graduates' abilities, which include attitudes, knowledge, and skills stated in the Graduate Learning Outcomes (CPL) formulation

(Permendikbud No. 3 of 2020: Article 5 (1)).

10. Study materials (subject matters) contain knowledge from specific disciplines or knowledge students learn and can be demonstrated by students (Anderson & Krathwohl, 2001:12-13).

11. Learning Materials are knowledge (facts, concepts, principles, theories, and definitions), skills, processes (reading, writing, counting, dancing, critical thinking, communicating, etc.), and values.

12. Subjects are units of study taught (and studied by students) at the tertiary level (source: KBBI), which are structured based on the CPL assigned to them, contain learning materials, learning forms and methods, and assessments, and have a minimum weight of one-semester credit unit (scs).

13. Semester Learning Plan (RPS) for a course is a learning process plan that is prepared for learning activities for one semester to meet graduate learning outcomes assigned to the study. Semester learning plans, or other terms, are determined and developed by lecturers independently or together with a group of experts in a field of science and/or technology in the study program.

14. The Learning Assessment Standard is a minimum criterion for assessing student learning processes and outcomes in fulfilling graduate learning outcomes.

15. Learning Experience (learning experience) is a student learning activity through interaction with external conditions in the learning environment (Tyler, 1949:63). Learning activities that transform learning materials into meaningful knowledge that can be used to do new things (Ornstein & Hunkins, 2004:216) and provide benefits.

16. Forms of Learning are learning activities that can be in the form of lectures; responses and tutorials; seminars; and practicum, studio practice, workshop practice, field practice; work practice, research, design, or development; military training, student exchange, apprenticeship, entrepreneurship, and/or other forms of community service.

17. Learning Methods are methods to realize learning strategies by optimally using learning resources, including learning media (Joyce & Weil, 1980).

18. Assessment is one or more processes of identifying, collecting, and preparing data to evaluate the achievement of graduate learning outcomes (CPL), and curriculum objectives (ABET, 2016). The compulsory assessment contains motivational content and fosters self-confidence to contribute to life path choices as lifelong learners. Then use special skills to work in the superteam

of his choice.

19. Learning Evaluation is one or more processes of interpreting the data and the evidence accumulated during the assessment process (ABET, 2016).

20. Evaluation of the Curriculum Program as a process or series of data and information collection processes then analyzed. The results are used as a basis for more optimal and effective improvement of curriculum performance (formative evaluation), or used as a basis for concluding and decision-making (summative evaluation) (Ornstein & Hunkins, Curriculum: Foundations, Principles, and Issues, 2004).

21. Assessment criteria (assessment criteria) are benchmarks used as a measure or reference for learning achievement based on predetermined indicators. The assessment criteria are guidelines for assessors so that assessments are consistent and unbiased. Assessment criteria can be quantitative or qualitative (Brookhart & Nitko, 2015).

22. Assessment indicators are specific and measurable statements that identify the achievement of learning outcomes or student learning outcomes accompanied by evidence.

23. Data Literacy is an understanding to read, analyze, and use data and information (big data) in the digital world.

24. Technology Literacy is understanding how machines work and technology applications (coding, artificial intelligence, and engineering principles).

25. Human Literacy is an understanding of humanities, communication, and design.

26. Forms of MBKM Learning Activities are learning activities outside the study program that students can take part in for a maximum of three semesters both inside and outside of tertiary institutions, which consist of 8 (eight) forms, including student exchange, apprenticeship/work practice, teaching assistance at educational units, research/research, humanitarian projects, entrepreneurial activities, independent studies/projects, building villages/thematic real work colleges.

27. A learning Management System (LMS) is a system that is used to carry out the learning process by utilizing Information and Communication Technology (ICT) and is the result of systematic integration of learning components with due regard to quality, learning resources, and characteristics learning interaction (engagement) across time and space. The important goal of the LMS is to provide access and facilities for students to build their knowledge

independently and in a directed manner, as well as to give the lecturer an essential role as a designer, initiator, facilitator, and motivator of learning.

28. Mixed Learning is a learning approach that combines harmoniously, structured, and systematically the advantages of face-to-face and online learning.

29. Curriculum Audit is an activity intended to conduct an overall curriculum assessment in study programs.

F. Limitation

This guide regulates specific matters relating to the development, implementation, and evaluation of the UNESA curriculum. More detailed issues regarding curriculum development, performance, and evaluation can be seen in the Guidelines for Developing Higher Education Curriculum in the Industrial Age 4.0 to Support Independent Learning-Independent Campus at the linkhttps://dikti.kemdikbud.go.id/wp-content/uploads/2020/10/BUKU-PANDUAN-PENYUSUNAN-KURIKULUM-PENDIDIKAN-TINGGI-MBKM.pdfAnd Free Learning-Free Learning Guidebook on the linkhttps://dikti.kemdikbud.go.id/wp-content/uploads/2020/04/Buku-Panduan-Merdeka-Belajar-Kampus-Merdeka-2020.

CHAPTER II STUDY OF CURRICULUM CONTEXT

A. Curriculum Development Study

Curriculum development is a process to respond to emerging needs and challenges that will be faced in the future. Studies on curriculum development are needed to provide direction for the curriculum to suit the community's needs, applicable policies, and developments in science and technology. The study of curriculum development at Unesa can be described as follows.

1. Unesa Vision, Mission and Goals

Based on Government Regulation of the Republic of Indonesia Number 37 of 2022 concerning State Universities Legal Entities at Surabaya State University, Unesa's vision is to become a "tough, adaptive and innovative educational university based on entrepreneurship." The description of UNESA's vision is as follows:

1) The university is UNESA which organizes academic, vocational, and professional education in various disciplines based on entrepreneurship and character;

2) An educational university (a teaching university) means that UNESA is a university whose primary focus is educating students to become successful individuals after graduation;

3) Tangguh means that UNESA can face various challenges through the development of science and technology;

4) Adaptive means that UNESA has human resources and graduates who can adapt to various changes and developments in science and technology;

5) Innovative means that UNESA has human resources and graduates who can think to create new knowledge and technology.

6) Entrepreneurship means that UNESAable is to develop creativity and innovation to create change by taking advantage of opportunities and resources to generate added value.

Along with this vision, Unesa's mission is as follows:

1) Organizing education in the educational and non-educational fields with strong, adaptive, and innovative character based on entrepreneurship;

2) conducting research and improving the quality of innovation in education and non-education based on entrepreneurship;

3) carry out community service and disseminate innovations in education and non-education based on entrepreneurship for the welfare of society;

4) organize higher education tridharma through a multi-campus system in a synergistic, integrated, harmonious, and sustainable manner by taking into

account Unesa's excellence;

5) carry out effective, efficient, transparent, and accountable governance that sustainably guarantees quality; And

6) organize productive national and international cooperation in creating, developing, and disseminating innovations based on entrepreneurship in the educational and non-educational fields.

Based on the vision and mission mentioned above, Unesa is committed to achieving the following goals:

1) produce human resources (HR) with character, professionalism, multiple intelligences, fighting spirit, and highly competitive, innovative, and entrepreneurial spirit;

2) produce and improve the quality of innovation in education and non-education based on entrepreneurship;

3) disseminating innovations in educational and non-educational fields based on entrepreneurship;

4) produce scientific works in the implementation of superior, quality, and innovative higher education tridharma in the educational and non-educational fields based on entrepreneurship by taking into account Unesa's excellence;

5) realizing effective, efficient, transparent, and accountable governance that guarantees sustainable quality; And

6) realizing productive collaboration with national and international institutions in creating, developing, and disseminating innovations in education and non-education based on entrepreneurship.

Vision is the direction in the development of an institution, while the mission is the task carried out to achieve this vision. At the same time, goals are achievements pursued to realize the mission. Achievement of goals cumulatively is an indicator of achieving the vision. As an educational institution, this must be implemented in all activities carried out, both academic and non-academic. Thus, the designed and developed curriculum must lead to the attainment of the vision and implementation of the mission.

The curriculum developed to achieve the vision, carry out the mission, and complete the goals must fully accommodate educational purposes by considering Unesa's characteristics as a local learning setting. This is a background demand for curriculum development.

2. Scientific Vision of the Study Program

Apart from achieving the institutional vision at the university and faculty levels, curriculum development at Unesa is also carried out by taking into account the achievement of the scientific vision that each study program has developed. This scientific vision is the goal of the study program in studying and developing specific knowledge that characterizes the field of expertise of the study program to respond to the development of science and technology and its application for the benefit of society to improve the quality of life of the people in it, both individually and collectively. Each study program in each scientific field at Unesa has specific characteristics by the ideals, the institution's uniqueness, the development of science and technology, and its application to improve the quality of people's lives.

For example, the Unesa Mathematics Undergraduate Study Program has the following scientific vision: "The Mathematics Undergraduate Study Program has a reputation for producing mathematicians who are strong in science, excel in competition in the world of work, and have the spirit of techno-ecopreneurship-maths." The scientific vision of this study program aspires to produce a mathematician who is competent in the field of mathematics and excels in the competitive world of work, is responsive to technological developments, has an environmental perspective, and has an entrepreneurial spirit. In achieving this scientific vision, the mathematics study program can develop a curriculum that includes several study materials such as study material in the scientific field of mathematics, study material for the world of work, study material for technological developments, study material for environmental insights,

3. Job Qualification Needs

Curriculum development at Unesa also pays attention to the demands for job qualification requirements mandated through Presidential Decree No. 08 of 2012 on the Indonesian National Qualifications Framework (KKNI). This Presidential Decree is a reference in preparing the learning outcomes of graduates from every level of education nationally. With Presidential Decree No.08 of 2012 and Higher Education Law No.12 of 2012 Article 29 paragraphs (1), (2), and (3), curriculum development and management of tertiary institutions in each study program at Unesa will lead to the need for job qualifications based on learning outcomes.

Curriculum development according to the needs of work qualifications will change the way of looking at a person's competence no longer through certificates or diplomas obtained but by looking at the nationally agreed qualifications framework

as a basis for recognizing one's educational results in an accountable and transparent manner. In addition, Presidential Decree No. 08 of 2012 also states that this qualification framework allows recognition and equalization of qualifications in the IQF with other countries' qualification frameworks or vice versa, both bilaterally and multilaterally, which are carried out based on mutual recognition cooperation agreements regulated by provisions legislation.

The process of recognizing Unesa graduates with work qualifications equivalent to graduates from other universities abroad is carried out through an international accreditation process for each study program by accreditation institutions from other countries where one of the demands of these institutions is the development OBE (Outcome Based Education) curriculum. In line with the requirements of the IQF, the OBE curriculum also focuses on learning outcomes where students are expected to be able to fulfill aspects of knowledge, skills, and attitudes by focusing on outcomes, not only on the material to be completed.

The process of developing a curriculum at Unesa that is by the needs of national work qualifications or answers the demands of the OBE curriculum can be carried out through several stages as follows: 1) determining Study Program Graduate Profiles, 2) formulation of Learning Outcomes, 3) formulation of Study Material Competency, 4) Learning mapping Outcomes of Study Materials, 5) course packaging, 6) determination of credit load, 7) preparation of the Curriculum Framework, and 8) preparation of Lecture Plans.

4. Community Needs

The primary function of the curriculum is to provide learning experiences for students' self-development so that they can live life successfully in their time. Therefore, the developed curriculum must accommodate the demands of students' future life. Thus the learning experience and self-development must be by future needs. This learning experience and self-development are aimed at realizing superior Indonesian human resources.

Society is a dynamic institution. This dynamism occurs due to the demands of a rapidly growing society and the need for a more established order of life. Curriculum development is required to accommodate the development of society and the issues that developed at that time. For example, in the 21st century, issues related to human resource development include the following.

a. HR skills needed in the 21st century (the 21st century skills)

Rapid changes in the economic and technological fields occurred at the turn

of the 20th century towards the 21st century. Human resources tend to move jobs from one job to another significantly. Such job mobility creates a demand for different skills. These conditions require higher education to equip students with skills that enable people to adapt flexibly to various career fields and jobs. These skills are known as 21st-century skills (21st-century skills).

21st-century skills are a combination of knowledge, skills, expertise, and literacy that students must master to succeed in work and everyday life. This skill, as formulated byP21 (2019)divided into four main aspects (Figure 2.1), namely:

1) learning and innovation skills which include critical thinking and problem-solving skills, communication, collaboration, creativity, and innovation;

2) digital literacy skills, which include information literacy, media literacy, and information and communication technology literacy (information, communication, and technology literacy);

3) life skills and career skills, which include flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability (productivity and accountability); and the ability to lead and responsibility (leadership and responsibility);

4) 21st-century themes cover global awareness, financial, economic, business, entrepreneurial, civic, health, and environmental literacy.

The development of 21st-century student skills can be carried out through learning supported by an innovative system, including: 1) standards and assessments, 2) curriculum and teaching, 3) professionalism development, and 4) learning environment.
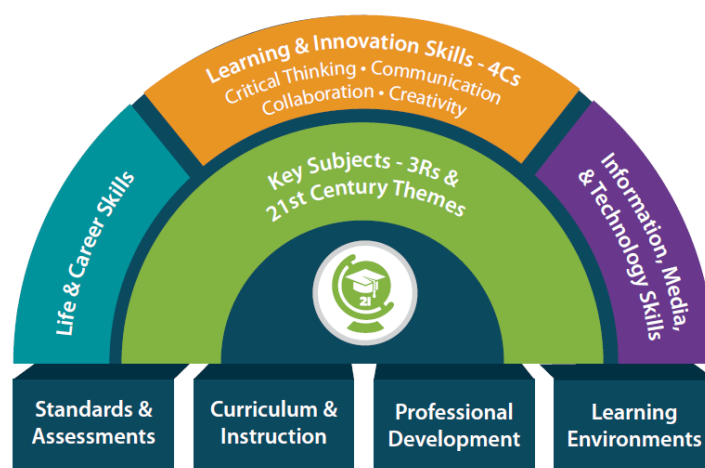
Figure 2.1.21st Century Learning Framework(P21, 2019)

b. Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs), declared on September 25

2015, are a form of international commitment to improving the welfare of society globally. In response, the Indonesian government poured out commitments related to SDGs in Presidential Decree Number 59 of 2017 concerning the Implementation of Achieving Sustainable Development Goals. TPB can be defined as "development that maintains an increase in the economic welfare of the community on an ongoing basis, a development that maintains the sustainability of the social life of the community, a development that maintains the quality of the environment, and development that guarantees justice and the implementation of governance that can maintain an increase in the quality of life from one generation to the next."(Ministry of National Development Planning, 2020). In other words, SDGs generally focus on four aspects of life, including economic, social, environmental, and governance.

SDGs consist of 17 goals and 169 targets that are inclusive and multidimensional as the goals and scope of the global development agenda up to 2030. The seventeen goals of SDGs are presented in Figure 2.2.

Figure 2.2. Seventeen Sustainable Development Goals

Education plays an important role in realizing TPB. Knowledge-building, research, and skills development activities in higher education contribute to implementing SDGs.Higher education must learn Education for Sustainable Development (PPB)/Education for Sustainable Development (ESD). This UN program encourages changes in knowledge, skills, values , and attitudes in a fair, equitable, and sustainable manner. ESD empowers the younger generation using an integrated approach economically, socially, and environmentally integrated into the formal and informal curriculum or through the integration of the main issues of sustainable development in learning and, for example, integrating learning on climate change,

disaster risk reduction, biodiversity, poverty reduction, and sustainable consumption reduction. Of course, this requires participatory learning methods that motivate and empower students to change behavior and participate in sustainable development. This kind of education promotes competencies such as critical thinking, imagining future scenarios, and making decisions collaboratively(Heleta & Good, 2021).

c. Education 4.0

Education 4.0 is when higher education implements new learning methods, innovative learning and management tools, and intelligent and sustainable infrastructure, specially equipped with new and developing ICTs to enhance the processes of knowledge formation and information transfer(Miranda et al., 2021). Education, 4.0 in higher education, has four core components, as presented in Figure 3, and can be described as follows.

1) Competence

Professional competency development for students consists of transverse competencies and competencies related to the field. Transverse competencies (soft skills) are general competencies that need to be developed by graduates of higher education including: (1) critical thinking skills, (2) cooperation, (3) collaboration, and (4) creativity and innovation. Competencies related to the field of study (hard skills) are knowledge or skills that can be applied to a particular area of study, including: (1) the development of functional, technical, and technological knowledge as well as performance skills needed for success in the world of work, (2) capacity to carry out investigations, designing, creating, and implementing new technologies, (3) the ability to propose technology-based solutions.

2) Learning methods

In Education 4.0, learning methods involve strategies, technology, and activities that allow students to access learning in a timely and efficient. Two aspects of the learning method in Education 4.0 consist of modes of delivery of learning and learning methods. The ways of delivery of learning that are often used in Education 4.0 include: (1) face-to-face, (2) online, and (3) blended learning. Learning methods include innovative approaches, models, strategies, or methods used during the learning process in different modes, for example, problem-based learning, learning-by-doing, and gamification-based learning.

3) Information and Communication Technology (ICT)

Components of ICT in Education 4.0 include: (1) the application of technologies

that support learning, such as artificial intelligence and Machine Learning, data processing using Data Science, Data Analytics, and Cloud Computing, as well as virtual image processing based on the Internet of Things (IoT) and (2) the application of web-based digital information technology including email, blogs, wikis and learning platforms for face-to-face online (for example, ZOOM, Google Meets, Webex, M-Teams) and Learning Management Systems (for example, Blackboard, CANVA, Google Classroom, Moodle, Sakai, and Edmodo).

4) Infrastructure

The learning environment in Education 4.0 must be supported by appropriate infrastructure to accommodate student learning needs and overcome management and learning activities challenges. Infrastructure that needs to be provided in higher education includes two levels, namely at the class and institutional levels. Infrastructure at the class level aims to facilitate learning activities so that they can run smoothly and comfortably, including: (1) the use of furniture and innovative learning tools, (2) the selection of specific architectures, colors, sounds, and temperatures that support learning, and (3) utilization of virtual and digital resources. Infrastructure at the institutional level accommodates the implementation and management of learning within an educational institution, including: ICT platforms to support virtual classrooms, web conferencing,
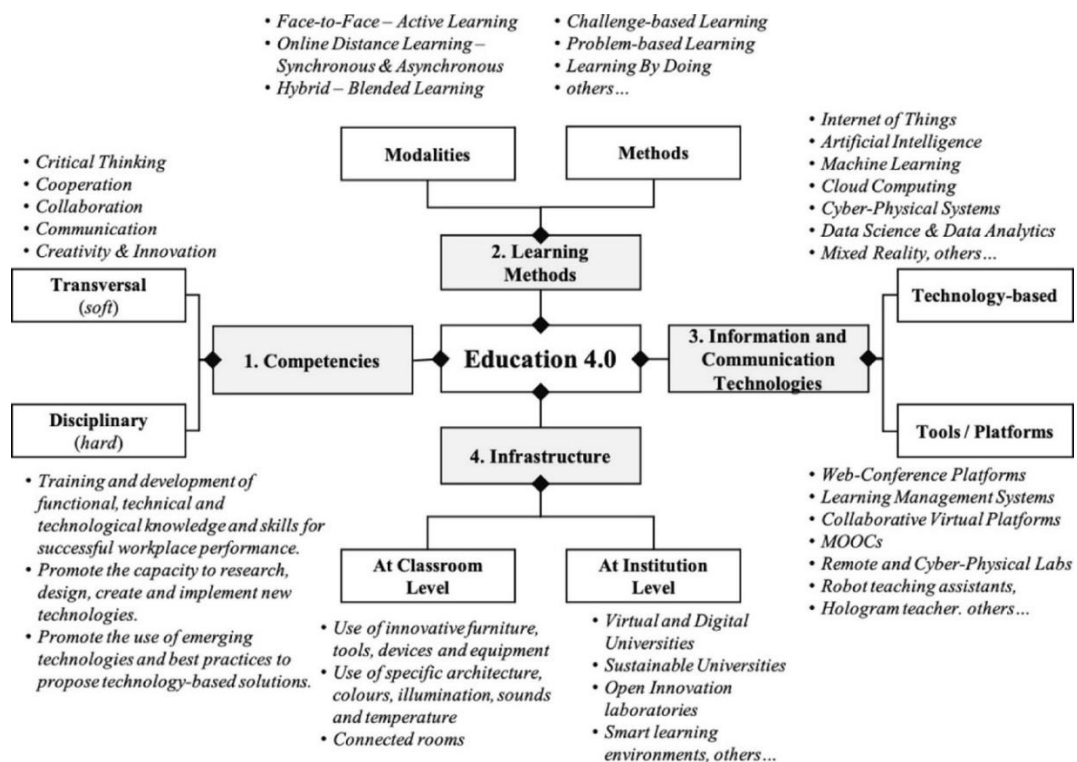
Figure 2.3. Core Components of Education 4.0 Higher Education(Miranda et al.,

d. Independent Learning-Independent Campus (MBKM)

To realize university autonomy and flexibility, the Minister of Education and Culture, Nadiem Anwar Makarim, launched the MBKM policy in early 2020. One of the MBKM policy programs is the Right to Study Three Semesters for Students Outside Study Programs. This program aims to provide opportunities for students to develop competence, innovation, creativity, capacity, personality, and independence and build knowledge through direct experience in the field. The MBKM program relies on the philosophical principles of Progressivism Education, which emphasizes meeting the needs and interests of students through learning to build life experiences [11, 12]. MBKM learning activities can be carried out inside and outside the Study Program. The form of MBKM activities is presented in Figure 2.4.

Figure 2.4. Forms of MBKM Activities (Directorate General of Higher Education, 2020)

Based on the human resource development issues above, the Unesa curriculum must be able to prepare its graduates to have competencies in the form of knowledge, attitudes and skills that are able to compete in global life.

5. Development of Science, Technology and Art (IPTEKS)

The continuous development of science and technology is one of the drivers for curriculum development. This development occurred as a demand for the development of human life and civilization in his day. Curriculum development must be able to accommodate issues due to the development of science and technology by the times and changes. Science and technology issues that impact the education and management of education that are developing in the 21st century are as follows.

a. *Dual Degree/Double Degree*

b. *Earning Credits*

c. Distance Education (Distance learning)

    1) *Massive Online Courses (MOC)*

    2) *E-learning*

    3) *Blended/Hybrid learning*

    4) *Mobile learning*

    5) *Internet of Things*

d. International/global competition and collaboration

Thus, Unesa must provide a flexible curriculum to accommodate learning needs by the demands and needs of the times and the development of society and science and technology.

B. Curriculum Development Foundation

An ideal curriculum is developed using a solid foundation, both philosophically, sociologically, psychologically, historically, and juridically. This ensures that the resulting curriculum is a product of a comprehensive and systemic thinking system in accommodating all activities carried out to achieve goals. The activities in question are academic and non-academic to support the achievement of Unesa's vision and mission. The foundation of curriculum development is described as follows.

1. Philosophical

Philosophical foundations are assumptions or formulations from thinking deeply, analytically, logically, and systematically in planning, implementing, fostering, and developing a curriculum. The philosophical basis for curriculum development in educational institutions is a philosophy-based foundation related to the meaning or essence of education. Several philosophies in curriculum

development, including perennials, essentialism, experimentalism, reconstructionism, romantic naturalism, and existentialism, need to be accommodated to support the achievement of the vision and mission. Unesa's curriculum development adheres to an eclectic philosophy, which pays attention to the advantages of appropriate philosophical foundations(Akinsanya, 2014)to achieve Unesa's vision as a tough, adaptive, and innovative educational university based on entrepreneurship.

2. Sociological

The sociological foundation directs the study of curriculum development about the conditions and culture of the local community. This foundation is used because students come from the community, get an education in a community environment, and are directed to community life. Changes and developments in the values that exist in society will affect the order of social life. Therefore, the curriculum must respond to the challenges, demands, and developments of society locally and globally as the target user of graduates resulting from the developed curriculum.

As part of the Indonesian people and nation, the Unesa curriculum is developed based on social life in Indonesia, which is based on Pancasila with the practice of the values contained therein. Indonesia is also a large nation with a plurality of cultures, so this curriculum needs to accommodate this to strengthen national culture. The development of culture with local wisdom where Unesa grows and develops is a feature that displays Unesa's characteristics as part of the broad diversity of Indonesian society. In addition, the Unesa curriculum also considers the development of global community so that graduates are expected to be able to collaborate and compete at the international level.

3. Psychological

The psychological basis is based on the characteristics of humans as individuals, which are expressed in various forms of cognitive, affective, and psychomotor behavior as a result of individual interactions with their environment. The psychological aspects of students influence the learning process(Slavin, 2006). Given the importance of the psychological aspect, curriculum development needs to accommodate the conditions of students so that learning can achieve the expected goals.

Unesa students are psychologically at the stage of formal thinking, the stage of moral development which generally has reached post-conventional(Kohlberg &

Gilligan, 2014), and the stage of social development that has reached the age of adolescence with distinctive characteristics. For this reason, the developed Unesa curriculum needs to pay attention to the steps of student psychological development. In addition, students are individuals who are in a dynamic development process according to their characteristics and level of maturity. Therefore, Unesa's curriculum development needs to pay close attention to the dynamics of these developments to produce a curriculum that makes students feel comfortable and serves to obtain maximum results. This can be accommodated in curriculum implementation according to needs, namely the deepening of knowledge as scientific strengthening and freedom of learning methods as a form of appreciation for humanization and democratization of learning.

Through heutagogy and seamless learning approaches, curriculum development at Unesa will be able to encourage students as adult learners who are independently responsible for the learning process, which is carried out without any restrictions on subjects, space, and time of study through the use of digital transformation so that they can carry out lifelong learning. sustainably.

4. Historical

Historically, the development of the Unesa curriculum went in the same direction as the institution's development, which began with BI and B-II teacher courses in the 1950s, which later developed into the Teacher Education Academy to FKIP and IKIP Surabaya. In subsequent developments, IKIP Surabaya turned into a university as an extension of its mandate to establish non-educational programs in addition to the long-running educational programs. This curriculum development was also carried out following this process in line with the rules and regulations that were in effect then.

The curriculum at Unesa has developed quite dynamically. These developments are adjusted to the needs and rules that apply when curriculum development is carried out. For example, when the education consortium determined the national curriculum, the resulting curriculum did not achieve Unesa's vision and mission. When regulations regarding curriculum development apply, the curriculum begins to be organized by the correct directions and procedures.

Based on this historical basis, the curriculum development process needs to pay attention to various kinds of strengths and weaknesses as well as the characteristics of the curriculum that has been produced and used. This needs to

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be used as a basis for making a better curriculum by considering the conditions and regulations that apply.

5. Juridical

Curriculum development is carried out by referring to the applicable legal basis so that the resulting curriculum has validity to be enforced. The list of references to the legal basis for developing the UNESA curriculum is presented in Chapter I part D.

Based on the description above, the curriculum at Unesa was developed by considering aspects, including: Unesa's vision, mission, and goals, issues related to human resource development and science and technology development, as well as philosophical, sociological, psychological, historical, and juridical foundations. Visually, curriculum development at Unesa can be presented in Figure 2.5.
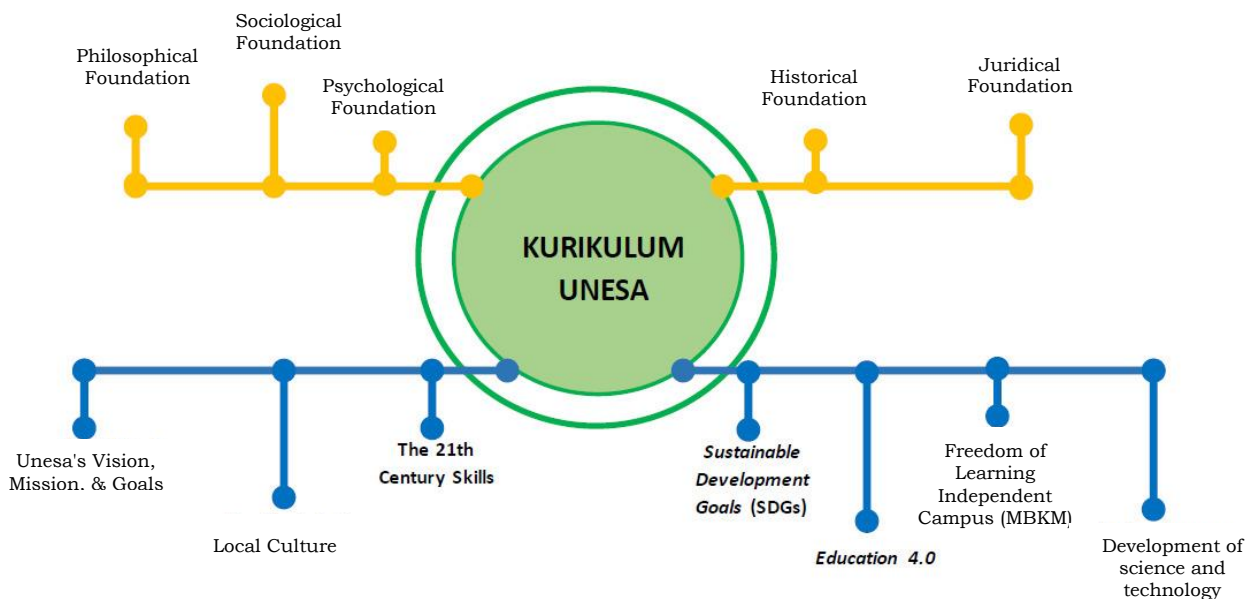
Figure 2.5. Aspects underlying UNESA Curriculum Development

C. Principles of Curriculum Development

A robust curriculum results from a curriculum development process that contains relevant, flexible, sustainable, efficient, and practical principles. Therefore, curriculum development at Unesa also follows these principles to realize Unesa's vision and mission. In general, Unesa's curriculum development principles are presented in Figure 2.6 and are described in the following paragraphs.
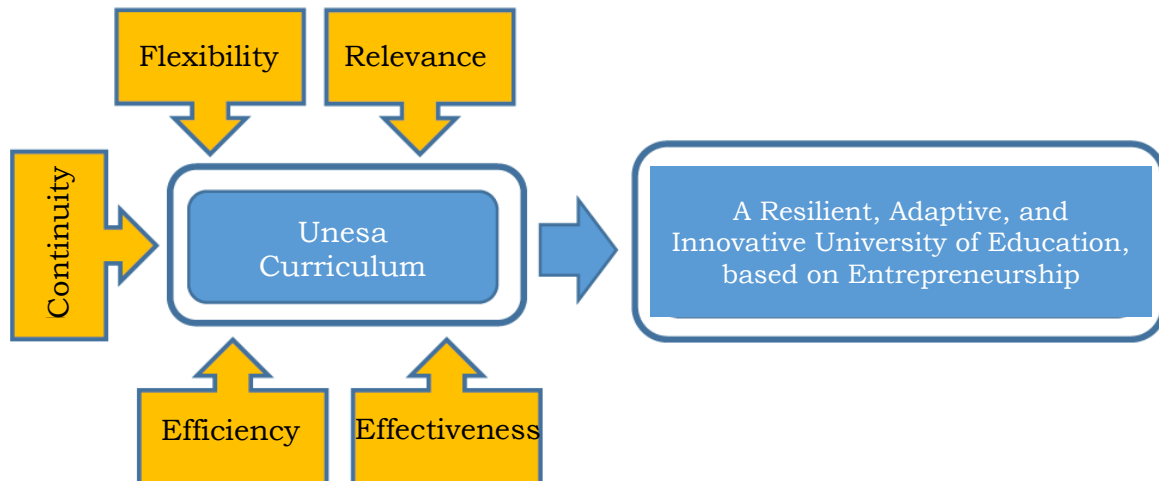
Figure 2.6. Principles in UNESA Curriculum Development

1. **Relevance**

    The developed curriculum must have a relationship between the field of knowledge (discipline/content) and the needs of society (social needs) as users of graduates. The linkage meant that the curriculum was developed in addition to meeting the needs of users/markets and implementing an in-depth study of the field of science being designed. Therefore, curriculum development considers the needs of society and users and developments in science and technology.

2. **flexibility**

    The developed curriculum has flexibility towards implementation in the field. The field in question is the implementation of the curriculum in learning or the results of the curriculum in the world of work implemented by graduates of the curriculum. This principle of flexibility is used so that the ideal curriculum developed can be adapted to conditions in the field.

3. **Continuity**

    The developed curriculum has the principle of continuity (continuity) horizontally between disciplines. In addition, the developed curriculum also considers the ability to create to a higher level. This is necessary so the curriculum does not seem disconnected between sections or is a circle centered in one place.

4. **Efficiency**

    The developed curriculum needs to pay attention to efficiency aspects to gain efficiency in the system as a whole. Efficiency in curriculum development is achieved by selecting courses that match graduate profiles, providing student workload, and

carefully and precisely using time, effort, costs, and other resources to achieve optimal results by the objectives.

5. effectiveness

The developed curriculum needs to take the goals seriously to achieve them by utilizing/managing the right processes and resources to achieve optimal results by the plans. Periodic evaluations need to be carried out to monitor the effectiveness of the curriculum that has been developed.

CHAPTER III DEVELOPMENT OF STUDY CURRICULUM

UNESA organizes academic, professional, and vocational education in various fields of knowledge, tiered from D-4, S-1, professional education, Master, and Doctoral degrees in educational and non-educational fields. The education program is managed by study programs (Prodi). The Study Program is tasked with designing, implementing, and evaluating the curriculum to meet relevance and quality aspects to achieve UNESA's vision. These aspects are fulfilled when the curriculum is relevant to user needs, equivalent to competency levels based on the IQF (Perpres No. 8 of 2012) and National Higher Education Standards (Permenristekdikti No. 3 of 2020), and by the standards set at UNESA.

In order to fulfill the aspects of relevance and quality, a basic framework for the study program curriculum is needed to provide direction in curriculum development so that it is in accordance with the vision and mission of the faculty/SPs, the vision and mission of UNESA, as well as in line with Indonesia's national education goals. In addition, the basic framework for the study program curriculum can also be used as a reference in solving problems that arise in the study program curriculum development process, as well as an effort to guarantee academic quality within UNESA. Thus the basic framework of the study program curriculum is the signs that are determined and used as a guideline in preparing the study program level curriculum.

In the UNESA context, the curriculum is a set of plans and arrangements regarding objectives, content, learning materials, and the methods used as guidelines for implementing learning to achieve specific study program goals. The study program curriculum is developed concerning the basic curriculum framework, which contains the study program's vision, mission, goals and objectives, study program achievements, curriculum structure and maps, and course descriptions, which are appropriate to the type and level of education.

The curriculum changes from time to time according to developments and changing times. Along with the times, now that we are in the era of the industrial revolution 4.0, society 5.0, and education 4.0, the study program curriculum must adapt to these changes and developments so that the graduates produced are relevant to the community's needs. The study program curriculum that applies at UNESA has changed since 2014. Gradually the Study Program has developed and implemented the Study Program curriculum based on KKNI, SNPT, and Merdeka Learning – Merdeka Campus. In addition, the importance of international

accreditation to support internationalization, the development of study program curriculum at UNESA needs to be accommodated through the implementation of the Outcome-Based Education (OBE) approach while still referring toPermendikbud RI No.3 of 2020 concerning National Higher Education Standards (SNPT).

A. Study Program Curriculum Components

The curriculum that applies to each study program at UNESA is an experiential design to develop students' abilities (competencies) according to the graduate competency level according to the KKNI in the study program and by the study program's characteristics. Competence is a set of intelligent and responsible actions that a person has as a condition for being considered capable of carrying out tasks in a particular field of work. In this context, competence is a harmonious integration of mastery in a person's cognitive, affective, and psychomotor domains. Students' competence in a study program at UNESA refers to Permendikbud RI No. 3 of 2020 concerning National Higher Education Standards (SNPT), which includes attitudes, knowledge, and skills stated in the formulation of Graduate Learning Outcomes.

The study program curriculum contains four main elements: content, teaching-learning strategy, assessment processes, and evaluation processes. The assessment and evaluation process here includes the lecture context and curriculum implementation. The four components are in the study program curriculum document, which consists of the following matters.

1. **Study Program Identity**, includes: Name of Higher Education, Faculty, Study Program, Accreditation, Education Level, Graduate Degree, Vision and Mission.

2. **Curriculum Evaluation and Tracer Study**, explaining the results of evaluating the implementation of the curriculum that has been and is currently running by presenting the mechanisms and results of curriculum evaluation. The tracer study results are also explained as a form of needs analysis based on stakeholder needs.

3. **Basis for Curriculum Design and Development**, explains the basis for curriculum development including philosophical, sociological, psychological, historical, juridical, and others.

4. **Formulation of Vision, Mission, Goals, and Basic Values**, mentioning in full the formulation of the vision, mission, goals, and fundamental values. The study program's vision, mission, and plans are related to the vision, mission, and objectives of the faculty and UNESA. The scientific vision of the study program is the goal of the study program to study and develop specific knowledge that is

superior and characteristic of the study program's field of expertise to respond to the development of science and technology and its application for the benefit of society to improve the quality of life of the people in it, both individually and collectively. The scientific vision of the study program was formulated based on input from the entire academic community of the study program. The mission is a task that must be carried out or must be carried out to achieve the vision that has been set within a specific time to become a reference for the preparation of the study program's main program. The main mission of the study program is the tridarma of higher education. The study program aims to produce graduates as reflected in the graduate profile that has been set in the study program curriculum. The goal is the estuary of the mission, meaning that the goal is achieved when the task has been carried out correctly. The basic value can give meaning to all efforts and work and provide signs of realizing the vision. Fundamental values are philosophies or beliefs that generate high enthusiasm for efforts to realize the vision. The basic values that grow and are believed in Unesa as listed in the Statutes of Unesa are as follows, after this known as UNESA TANGKAAS REK:

- **Tough**: Internalisation Pancasila values in everyday life and have fighting power.
- **Adaptive**: adapting independently and taking responsibility for change through a continuous learning process.
- **Innovative**: able to think critically and creatively in finding solutions or new ideas in solving problems according to the times that are based on an entrepreneurial spirit and scientific principles.
- **Inclusive**: supporting all individuals regardless of differences, facilitating the success of all, and respecting differences in thinking and diversity.
- **Lifelong learning**: be aware of areas of strength and areas that need improvement, and actively find effective ways to continue developing and improving themselves through a continuous learning process.

5. **Formulation of Graduate Competency Standards (SKL)** which is stated in the Graduate Learning Achievements (CPL) or study program learning outcomes which consist of aspects: Attitudes and General Skills at least adopted from SN-Dikti, as well as parts of Knowledge and Special Skills formulated referring to the IQF descriptors according to the level and formulated together with the association study program and profession. This component also contains information about the graduate profile of the study program.

6. **Determination of Study Materials,** determined based on the CPL and/or Body of Knowledge of a Study Program, is then used to form new courses and evaluate and reconstruct old or ongoing courses.

7. **Formation of Courses (MK) and Determination of Credit Weights**, explaining the mechanism for forming courses based on CPL (along with its derivatives at the MK level) and study materials, as well as determining the weight of the credits.

8. **Matrix and Curriculum Map**, describes the course organization or curriculum map in a logical and systematic structure by the CPL Study Program. The distribution of courses is arranged in a series of semesters during the study period of the Study Program graduates.

9. **Semester Learning Plan (RPS),** is a lecture plan in outline that will be carried out for one semester and is compiled from the results of the learning design, written in full for all courses in the Study Program, accompanied by other learning tools including: assignment plans, assessment instruments in the form of rubrics and/or portfolios, and materials teach.

10. **Implementation Plan for the Right to Study Outside the Study Program**, is the implementation of the "Free Learning-Independent Campus" policy which is stated in the determination: 1) study outside the study program at the same university, 2) study at the same study program outside the university, 3) study at a different study program outside the university, and 4) study outside PT.

11. **Management and Mechanism of Curriculum Implementation**, explaining the curriculum implementation plan and the Internal Quality Assurance System (SPMI) related to curriculum implementation.

B. Study Program Content Curriculum

Study program curriculum content is packaged in study program curriculum documents. The study program curriculum is directed at building graduate competencies capable of integrating skills (1) learning and innovation (learning and innovation skills), (2) mastery of information, media, and technology (information, media, and technology skills), and (3) career development and skills life (life and career skills); and become lifelong learners.

The competency elements formulated in the study program curriculum include (1) attitudes, (2) general skills, (3) knowledge, (4) special skills. Attitude competence is correct and cultured behavior due to the internalization and actualization of values and norms reflected in spiritual and social life. General skill competencies reflect general work abilities that every graduate must own to ensure

equality of graduate abilities according to program level and type of Higher Education. Knowledge competency is a systematic mastery of concepts, theories, methods, and/or philosophy of a particular field of science. Specific skill competencies reflect special work abilities that must be owned by each graduate in the scientific field of the Study Program. The four competencies are obtained through reasoning in the learning process, student work experience, research, and/or community service related to learning. Competency attitudes, knowledge, general skills, and unique skills developed by UNESA students refer to the KKNI, SNPT, and UNESA Vision.

UNESA has a vision of being a challenging, adaptive, and innovative educational university based on entrepreneurship. One of UNESA's goals related to this vision is to produce excellent and characterized academic, vocational, and professional staff. The parameter of excellence for graduates is in the form of competitiveness, reflected in the superiority of English language skills. One of the efforts to realize this advantage is the existence of English courses for all study programs at UNESA, with the TEP score as the benchmark. This English course is one of UNESA's hallmark courses. Students must have a TEP score according to the requirements to graduate from a particular study program. Determination of the minimum TEP score for passing is regulated in academic regulations set by the Rector.

Parameters for the excellence of graduates' character are challenging, adaptive, innovative, and responsible character. Efforts to develop these characteristics are carried out through academic and non-academic activities. Courses that can be applied to all D-4 and S-1 study programs at UNESA to create strong, adaptive, and innovative characters are Entrepreneurship, physical and fitness education, and digital literacy. Entrepreneurship courses are intended to develop an entrepreneurial spirit in prospective UNESA graduates. Physical Education and Fitness courses, as well as Digital Literacy, are courses to build character and competence by the demands of the times. The packaging of the study material in courses is shown in Table 3.1.

For non-academic activities, a system was developed to measure the participation of UNESA students in extracurricular student activities determined by the Rector. This system is known as the Non-Academic Assessment System (SIPENA) as an effort to encourage active participation of students in extracurricular activities and realize their achievements and creativity in various local, regional, national, and even international activities.

Table 3.1. UNESA Characteristic Study Materials and their Packaging into Courses

No	Superiority	Courses/Study Materials	Information
1.	Communicate in English	English	Stand alone as a course
2.	Tough, adaptive, and innovative	Entrepreneurship	Standing alone as an MKWKI course
3.	Tough and adaptive	Physical Education and Fitness	Standing alone as an MKWKI course
4.	Adaptive and innovative	Digital Literacy	Standing alone as an MKWKI course
5.	responsibility, independence, and collaboration	UNESA soft skills	In the form of student activities
6.	tough, adaptive, and innovative	UNESA communication skills	Standing alone as an elective course for MKWKI
7.	logical thinking, critical, creative, and responsibility	UNESA international conference	Standing alone as an elective course for MKWKI
8.	logical thinking, critical, creative, and responsibility	UNESA national conference	Standing alone as an elective course for MKWKI
9.	Adaptive and innovative	inclusion	Integrated content in educational courses
10.	Adaptive and innovative	Cultural Diversity	Integrated content in study program courses

In addition to UNESA's defining courses, study programs must include the courses in Table 3.2 as elective courses. These courses are not held through learning, but through recognition as part of the MBKM.

Table 3.2. Elective Courses for Study Programs Obtained by Students through Recognition

No	Subject	Course Description	SKS	Course Learning Outcomes	Evidence for Confession
1	Emotional and Social Learning	Recognition of the learning achievements students get in building self-awareness, managing emotions and motivation, engaging socially better, developing good interpersonal relationship skills, making critical and	2 (0-2)		

No	Subject	Course Description	SKS	Course Learning Outcomes	Evidence for Confession
		responsible decisions in dealing with change, adapting to the environment, adaptability, creativity, and working well with others.			
2	Event Management	This course serves as a form of recognition for the learning achievements obtained by students when participating in an event management or committee activity on a regional, national, or international scale.	2 (Regional Events) 3 (National Events) 4 (International Events)	Students can apply skills in event management, which includes planning activities, logistics organization, financing, publication, promotion, legality, documentation, and organizing an event	1. Certificate of Activity as a Core Committee ● Chairman ● Vice Chairman ● Secretary ● Treasurer 2. Certificate of Activity as a Supporting Committee
3	Critical and Creative Thinking	Recognition of learning outcomes that students get from their ability to:* Think critically, namely active, persistent, and careful consideration of a belief or form of knowledge. It includes analysis and judgment about the ideas and conditions supporting the beliefs and the following conclusions. Critical thinking involves analyzing and evaluating one's thinking and the thinking of others subject to intellectual standards, including clarity, accuracy,	2(0-2)		

No	Subject	Course Description	SKS	Course Learning Outcomes	Evidence for Confession
		precision, relevance, significance, depth, breadth, logic, and fairness.* Creative thinking is the generation of new ideas in or across disciplines. It exploits or violates the discipline's rules and procedures and actively engages students in assembling existing ideas into new configurations; developing new properties or possibilities for something that already exists, and discovering or imagining something completely new. Standards for assessing creative thinking include originality, appropriateness, flexibility, and contribution to the domain.			
4	Inclusive Leadership	Provide experience to students on studies of theories, concepts, typologies, styles, and models/approaches of leadership in general, which are then linked to leadership in the field of education and educational institutions in Indonesia, including the characteristics and abilities needed for an educational leader to manage an organization or institution education. Leadership skills that students can learn are decision-	2	1. Able to utilize learning resources and ICT to find information relevant to leadership in the field of education. 2. Have knowledge of theories, concepts, typologies, styles and models/appr oaches of leadership in general, which are then linked to leadership	1. Certificate / charter / trophy / medal / vandel / other forms; 2. Decree/Assig nment Letter/Permi t Letter; 3. Attendance list (for regular activities); 4. Real work and or documentati on 5. Activity Credit Unit (SKK) is a credit value that is determined

No	Subject	Course Description	SKS	Course Learning Outcomes	Evidence for Confession
		making skills to influence, mobilize, develop, and empower all potential educational resources. Learning is carried out using a constructivist approach and ends with an exercise in planning the management of an educational institution in group discussion and reflection activities.		in the field of education and educational institutions in Indonesia. 3. Able to make the right decisions in overcoming problems in educational organizations by applying leadership skills to influence, mobilize, develop and empower all potential existing educational resources through case analysis. 4. Have a leadership attitude that is independent, caring and responsible for all learning tasks that have been designed both individually and in groups.	as a reward for students after participating in student activities. **International:** Chairman = 90 SKK Vice Chair = 80 Secretary=70 Other core administrators = 60 Members = 50 **National :** Chairman = 80 SKK Vice Chair = 70 Secretary=60 Other core administrators = 55 Members = 40 **regional** Chairman = 75 SKK Vice Chair = 65 Secretary=55 Other core administrators = 40 Members = 35 **University** Chairman = 70 SKK Vice Chair = 60 Secretary = 50 Other core administrators = 40 Members = 30 **Faculty** Chairman = 60 SKK Vice Chair = 50 Secretary=40 Other core administrators = 30 Members = 20

No	Subject	Course Description	SKS	Course Learning Outcomes	Evidence for Confession
					Department/Pr odi Chairman = 50 SKK Vice Chair = 40 Secretary=30 Other core administrators =25 Members = 15 **UKM** Chairman = 50 SKK Vice Chair = 40 Secretary=30 Other core administrators =25 Members = 15
5	Empathy and Emotional Intelligence	Recognition of student learning outcomes related to social and emotional skills that underpin positive relationships in relating to others. It covers the basic and related skills of empathy and "emotional intelligence," also known as EQ, which refers to the ability to identify and regulate our feelings, tune in to other people's feelings and understand their perspectives, and use this knowledge to: * Constructive social interactions, for more effective teamwork, problem-solving, and recovery from setbacks; * Strengthens empathy, trust,	2(0-2)		
6	Communicatio n and Teamwork	This course serves as a form of recognition for the learning outcomes that students gain from		• Distinguish between groups and teams, including the	

No	Subject	Course Description	SKS	Course Learning Outcomes	Evidence for Confession
		experience in public speaking activities and teamwork.		characteristics of the different types of teams • Develop the team and optimize the factors that contribute to team success • Communicate effectively within the organization, and find solutions to common barriers to effective communication • Selecting effective communication channels, flows, and networks within an organization based on the situation • Identify common risks and ethical issues associated with verbal, written and social media communications	
7	Unesa Softkills				
8	Unesa Communication Skills	This course examines and applies oral and written communication skills based on communication theory and based on ethics and morals	2 (0-2)	• Students are able to communicate verbally by paying attention to the principles of communication based on ethics and morals	• scientific work • seminar certificate as a speaker • works in the form of projects • entrepreneurship

No	Subject	Course Description	SKS	Course Learning Outcomes	Evidence for Confession
				● students are able to communicate in writing by paying attention to rules, ethics and morals in language	
9	Unesa international conference	This course serves as a form of recognition for the learning achievements obtained by students when participating as speakers, both in the form of oral presentations and posters at international scientific forums.	3 (0-2)	● Students can develop the ability to communicate orally and in writing, critical thinking, creatively, innovatively, responsively, and analytically. ● Students can disseminate their knowledge and competencies in conference/seminar activities	● Seminar papers ● Certificate as a speaker ● Certificate as the best presenter (if any....grade A)
10	Unesa national conference	This course serves as a form of recognition for the learning achievements obtained by students when participating as speakers, both in the form of oral presentations and posters at national scientific forums.	2 (0-2)	● Students can develop the ability to communicate orally and in writing, critical thinking, creatively, innovatively, responsively, and analytically. ● Students can disseminate their knowledge and competencies in conference/seminar activities	● Seminar papers ● Certificate as a speaker ● Certificate as the best presenter (if any....grade A)

C. Learning Outcomes and Study Program Curriculum Structure

UNESA organizes education in various educational and non-educational study programs, which consist of 2 pathways, namely academic and professional pathways. On the academic track, there are bachelor, master, and doctoral levels, while on the professional path, there is the Teacher Professional Program (PPG).

1. Academic Track

a.   S-1 level

The S-1 level at UNESA is held to prepare graduates with undergraduate qualifications. The main profile of a bachelor's degree in education is as academics/ educators/ education staff who are ready to be trained further to become teachers or professional education staff according to their fields. The main profile of the non-educational bachelor's degree is academics or experts ready to be further trained to become professionals according to their fields. The study Program can add additional profiles based on needs analysis.

a) Graduate Learning Outcomes (CPL)

Based on the KKNI, SNDIKTI, and UNESA Vision, the learning outcomes for graduates (CPL) of Unesa's S-1 are as follows.

Table 3.3. Learning Outcomes of Graduates of S-1 Education

No	CPL realm	CPL	
		Bachelor	**Diploma Four/ Applied Bachelor**
1	General Skills	1) Develop logical, critical, creative thinking in the context of the development or implementation of science and technology by the field 2) Demonstrate independent, quality, and measurable performance and be able to make the right decisions in	1) Develop logical, critical, creative thinking in carrying out specific work in the field of expertise and in accordance with work competency standards in the field concerned 2) Demonstrate independent, quality, and measurable performance and be able to make the right decisions in solving problems

		solving problems 3) Able to continuously develop themselves, communicate, and collaborate	3) Able to continuously develop themselves, communicate, and collaborate
	Attitude	1) Able to demonstrate religious values, nationality and national culture, as well as academic ethics in carrying out their duties 2) Demonstrate a strong character, adaptive, innovative, inclusive, entrepreneurial, and responsible	
3	Knowledge	The study program formulation refers to study program associations and professions, as well as the peculiarities of the UNESA study program.	
4	Special skill	The study program formulation refers to study program associations and professions, as well as the peculiarities of the UNESA study program.	

b) Curriculum Structure

The basic education study for the UNESA Bachelor of Education is packaged as follows.

Table 3.4. Packaging of Educational and Learning Study Materials into Courses

No	Study Materials	Subject
1.	The nature and role of education in the framework human formation (nature, educational philosophy, educational foundation, education system)	Basic Education
2.	Development of students and learning theory that underlies learning practice	Learning Theory
3.	Curriculum and essential concepts/principles/theories subjects / guidance	School Curriculum
4.	Types, selection, and development of teaching materials	Development of Teaching Materials
5.	Assessment in learning	Evaluation of Learning and Learning
6.	Designing classroom learning that is oriented towards active learning	Learning Planning
7.	Application of educational theoretical concepts and	Teaching Skills and Microlearning

No	Study Materials	Subject
	learning in an artificial context	
8.	The application of the scientific method to solve problems in the field of education	Thesis

UNESA Undergraduate Education Study Program curriculum structurefollowing the basic framework according to Table 3.5.

Table 3.5. Basic Framework for Undergraduate Education Curriculum

Subject	Number of credits	Setting Level and Description
National MKWK		
Religious education • Islam • Christianity • Catholic religion • Hindu religion • Buddhism • Confucianism	2	National, institutionally managed
Pancasila Education	2	National, institutionally managed
Civic education	2	National, institutionally managed
Indonesian	2	National, institutionally managed
Institutional MKWK		
Physical Education and Fitness	2	Institutional, institutionally managed
Digital Literacy	2	Institutional, institutionally managed
Entrepreneurship	2	Institutional, managed by the faculty/study program
Expertise and Scientific Courses		
Related courses with academic competence the substance of the main study (content knowledge) according to each study program	Defined study program	study program
Basic Skills Courses		
Research methods	3	Institutional, managed by the faculty/study program
Statistics	2	Institutional, managed by the faculty/study program
Basic Education	2	Institutional, managed by the faculty/study program
Learning Theory	2	Institutional, managed by the

Subject	Number of credits	Setting Level and Description
		faculty/study program
School Curriculum (related to Field of Study)	2	Institutional, managed by the faculty/study program
Learning Planning (related Field of study)	2	Institutional, managed by the faculty/study program
Learning and Learning Evaluation (related to Field of Study)	2	Institutional, managed by the faculty/study program
Development of Teaching Materials (related to the Field Studies)	2	Institutional, managed by the faculty/study program
Teaching Skills and Microlearning	2	Institutional, managed by the faculty/study program
Work Skills Course		
Schooling Field Experience (PLP)	3	Institutional, managed by institutions in accordance with the CPL Study Program
PLP Program Planning	2	
PLP Program Evaluation	2	
MK Study Program/MK of choice of institution	13	
Proposal Seminars	2	Institutional, managed by the faculty/study program
Thesis	4	Institutional, managed by the faculty/study program
Social Life Course		
Program Planning	2	MK learning activities are in the form of Internships/Work Practices, Teaching Assistance, Humanitarian Research/Research Projects, Entrepreneurial Activities, Independent Studies/Projects, Building Villages/Thematic Real Work Lectures, or Defending the Country. Specifically for the Student Exchange form, there does not have to be an MK for Program planning and Program Evaluation
Program Evaluation	2	
MK Study Program/MK of choice of institution	16	

UNESA Non-educational Undergraduate Study Program curriculum structurefollowing the basic framework according to Table 3.6

Table 3.6. Basic Framework of Non-educational Undergraduate Curriculum

Subject	Number of credits	Setting Level and Description
National MKWK		
Religious education • Islam • Christianity • Catholic religion • Hindu religion • Buddhism • Confucianism	2	National, institutionally managed
Pancasila Education	2	National, institutionally managed
Civic education	2	National, institutionally managed
Indonesian	2	National, institutionally managed
Institutional MKWK		
Physical Education and Fitness	2	Institutional, institutionally managed
Digital Literacy	2	Institutional, institutionally managed
Entrepreneurship	2	Institutional, managed by the faculty/study program
Expertise and Scientific Courses		
Related courses with academic competence the substance of the main study (content knowledge) according to each study program	Defined study program	study program
Basic Skills Courses		
Research methods	3	Institutional, managed by the faculty/study program
Statistics	2	Institutional, managed by the faculty/study program
Work Skills Course		
Apprenticeship	3	Institutional, managed by institutions in accordance with the CPL Study Program
Internship Program Planning	2	
Apprentice Program Evaluation	2	
MK Study Program/MK of choice of institution	13	
Proposal Seminars	2	Institutional, managed by the faculty/study program
Thesis	4	Institutional, managed by the faculty/study program

Subject	Number of credits	Setting Level and Description
Social Life Course		
Program Planning	2	MK learning activities include Internships/Work Practices, Teaching Assistance, Humanitarian Research/Research Projects, Entrepreneurial Activities, Independent Studies/Projects, Building Villages/Thematic Real Work Lectures, or Defending the Country. Specifically for the Student Exchange form, there does not have to be an MK for Program Planning and Program Evaluation.
Program Evaluation	2	
MK Study Program/MK of choice of institution	16	

Curriculum structure of D-4 or Applied Bachelor Study Programsfollowing the basic framework according to Table 3.7.

Table 3.7.D-4 or Applied Undergraduate Curriculum Framework

Subject	Number of credits	Setting Level and Description
National MKWK		
Religious education • Islam • Christianity • Catholic religion • Hindu religion • Buddhism • Confucianism	2	National, institutionally managed
Pancasila Education	2	National, institutionally managed
Civic education	2	National, institutionally managed
Indonesian	2	National, institutionally managed
Institutional MKWK		
Physical Education and Fitness	2	Institutional, institutionally managed
Digital Literacy	2	Institutional, institutionally managed
Entrepreneurship	2	Institutional, managed by the faculty/study program
Expertise and Scientific Courses		

Subject	Number of credits	Setting Level and Description
Related courses with academic competence the substance of the main study (content knowledge) according to each study program	Defined study program	study program
Basic Skills Courses		
Research methods	3	Institutional, managed by the faculty/study program
Statistics	2	Institutional, managed by the faculty/study program
Work Skills Course		
Field Work Practice I	4	Institutional, managed by institutions in accordance with the CPL Study Program
Field Work Practice II	4	
Final Project Seminar	2	Institutional, managed by the faculty/study program
Thesis	4	Institutional, managed by the faculty/study program
Social Life Course		
Program Planning	2	MK learning activities are in the form of Internships/Work Practices, Teaching Assistance, Humanitarian Research/Research Projects, Entrepreneurial Activities, Independent Studies/Projects, Building Villages/Thematic Real Work Lectures, or Defending the Country. Specifically for the Student Exchange form, there does not have to be an MK for Program planning and Program Evaluation
Program Evaluation	2	
MK Study Program/MK of choice of institution	16	

Courses determined at the national and institutional level under the management of the relevant university and faculty Academic Fields. Specifically for entrepreneurship courses, the management of these courses is left to study programs or faculties. Meanwhile, the KKN and PLP courses are managed under the MBKM sub-directorate.

Based on the Regulation of the Minister of Education and Culture No. 3 of 2020, concerning the National Higher Education Standards, the entire study load for undergraduate education programs is a minimum of 144 credits which can be taken in 14 semesters at most and a maximum of

150 credits. The structure of the S-1 curriculum consists of a core curriculum that is intended to develop key competencies (85% of the total credits that students must take) and an elective curriculum that is meant to strengthen key competencies/competencies. supporting other competencies (ideally 15% of the total credits that students must take) offered in the form of elective courses. The number of credits of elective courses offered is at least 2 times the number of elective courses that must be programmed.

Institutional courses are programmed across study programs with the provision that each study group consists of at least three different study programs. Elective courses can be chosen from other study program courses according to their interests for a maximum of 6 credits to complete the 15% quota.

To fulfill the principle of flexibility, if the fields of study of educational and non-educational study programs are the same, then the label (name, of course), weight, and description should be the same. Thus the developed curriculum can facilitate educational students to program specific courses in non-educational study programs and vice versa, as well as to enable recognition of classes that have been taken if the student in question wants a double degree.

In the context of character development, apart from academic activities realized in courses with a certain credit load and integrated with learning activities, students must participate in student activities that will be converted into specific points and become one of the graduation requirements. Further arrangements regarding this matter follow the stipulated Guidelines for Implementing the Non-Academic Assessment System through the decision of the Rector of UNESA. In addition, student organization activities can also be converted into general courses provided by UNESA, including: UNESA soft skills, UNESA communication skills, UNESA international conference, and UNESA national conference.

For recognition, study programs can carry out recognition of student activities outside the study program:

1) MK core study program
2) MK of study program choice
3) The MK of institutional choice adopted by the study program

b. <p align="center">**Level S-2**</p>

The UNESA Masters program is held to prepare graduates with the main qualifications as masters, with profiles as academics or experts in specific fields (according to the study program) who are challenging, adaptive, innovative, and responsible. Additional qualifications for UNESA Masters graduates are determined by the study program based on the analysis of the study program concerned.

1. Graduate Learning Outcomes (CPL)

   Based on KKNI, SNDIKTI, and UNESA Vision, UNESA's CPL S-2 is at least as shown in Table 3.8.

<p align="center">**Table 3.8.** Learning Outcomes Graduates of S2</p>

No	CPL realm	CPL
1.	Attitude	1) Able to demonstrate religious values, nationality, and national culture, as well as academic ethics in carrying out their duties 2) Demonstrate a strong, adaptive, innovative, inclusive character, have an entrepreneurial spirit, and be professionally and ethically responsible
2.	General Skills	1) Develop logical, critical, systematic and creative thinking based on scientific rules, procedures and ethics. 2) Continuously develop yourself and collaborate
3.	Knowledge	formulated by the Study Program refers to the association of the Study Program and the peculiarities of the UNESA Study Program
4.	Special skill	formulated by the Study Program refers to the association of the Study Program and the peculiarities of the UNESA Study Program

2. Curriculum Structure

   The UNESA Masters of Education curriculum structure follows the basic framework according to Table 3.9.

<p align="center">**Table 3.9.** The Basic Framework for Master of Education Curriculum</p>

Subject	Study Materials	Number of credits	Setting Level and Description
Educational	The study of ontology,	2	Institutional,

Subject	Study Materials	Number of credits	Setting Level and Description
Philosophy (according to study program)	epistemology, and axiology of science according to the Study Program		managed by study program
Research methodology	The application of the scientific method to quantitative, qualitative, and mixed approaches in the field of education according to the study program Study of the latest research results according to the area of study, including the work of lecturers that are relevant to research interests	3	Institutional, managed by study program
Field Study/Internship	Application of management and competence in the task of educating or training or field studies	2	Institutional, managed by study program
Thesis Proposal Publication	Development of knowledge, technology, or art in the field of education and learning methods through research with an inter or multi-disciplinary approach	6 2 2	Institutional, managed by study program
Courses related to academic competence	The substance of the main study (content knowledge), according to the study program concerned Study of the latest research results according to the field of study, including the work of lecturers that are relevant to research interests	Determined by Study Program	study program

The UNESA non-educational Masters program curriculum structure follows the basic framework according to Table 3.10.

Table 3.10. Basic Framework of Non-educational Masters Curriculum

Subject	Study Materials	Number of credits	Setting Level and Description
Philosophy of Science (according to study program)	The study of ontology, epistemology, and axiology of science according to the Study Program	2	Institutional, managed by study program
Research methodology	The application of the scientific method to quantitative, qualitative, or mixed approaches in the field of education according to the study program Study of the latest research results according to the field of study, including the work of lecturers that are relevant to research interests	3	Institutional, managed by study program
Field Study/Internship	Application of management and competencies to specific skills assignments or field studies	2	Institutional, managed by study program
Thesis Proposal Publication	Development of knowledge, technology, or art in fields relevant to study programs and learning methods through research with an inter- or multi-disciplinary approach	6 2 2	Institutional, managed by study program
Courses related to academic competence	The substance of the main study (content knowledge) according to the study program concerned. Study of the latest research results according to the field of study, including the work of lecturers that are relevant to research interests	Product set	study program

Based on the Regulation of the Minister of Education and Culture No. 3 of 2020, concerning the National Higher Education Standards, the study load for master programs is at least 36 (thirty-six) and a maximum of 48 credits after completing the D4/S-1 program, which is taken for a maximum of 4 years. To achieve master general skills competence, students taking the thesis examination have attended national or

international seminars as speakers and already have articles ready to be published.

Students have published articles in Sinta-indexed national journals, indexed international seminar proceedings, or international journals as a graduation requirement. The student concerned is the main writer, and the supervisor is an additional writer. The student concerned uses Surabaya State University as an affiliate in published articles.

c.   **Level S-3**

UNESA's S-3 program is held to prepare graduates with the main qualifications as doctorates with profiles as challenging, adaptive, innovative, and responsible academics or researchers who can develop knowledge in specific fields according to the study program. Additional qualifications for UNESA Doctoral Program graduates are determined by the study program based on the analysis of the study program concerned. By Level 9 of the IQF, UNESA S-3 graduates have the competence formulated in the study program CPL prepared by the study program association or the Higher Education's determination regarding this matter.

1. Graduate Learning Outcomes (CPL)

   Based on KKNI, SNDIKTI, and UNESA Vision, the CPL of UNESA's S-3 study program is as follows.

Table 3.11. UNESA Masters Degree Study Program CPL

No	CPL realm	CPL
1.	Attitude	1) Able to demonstrate religious values, nationality and national culture, as well as academic ethics in carrying out their duties 2) Demonstrate a strong, adaptive, innovative, inclusive character, have an entrepreneurial spirit, and be professionally and ethically responsible
2.	General Skills	1) Finding or developing new theories/conceptions/ideas through logical, critical, systematic, and creative thinking based on scientific rules, procedures, and ethics 2) Continuously develop yourself and collaborate
3.	Knowledge	formulated by the Study Program refers to the association of the Study Program and the peculiarities of the UNESA Study

		Program		
4.	Special skill	formulated by the Study Program refers to the association of the Study Program and the peculiarities of the UNESA Study Program		

2. Curriculum Structure

The curriculum structure of the UNESA Doctoral Program of Education follows the basic framework according to Table 3.12.

Table 3.12. UNESA Educational Doctoral Curriculum Basic Framework

Subject	Study Materials	Number of credits	Setting Level and Description
Educational Philosophy … (according to study program)	The study of ontology, epistemology, and axiology of science according to the Study Program The study of logic, rhetoric and dialectics in education according to the Study Program	2	Institutional, managed by study program
Advanced Research Methodology: Qualitative	Case studies of the application of the scientific method to qualitative and mixed approaches in the field of education according to the study program Study of the latest research results according to the area of study, including the work of lecturers that are relevant to research interests	2	Institutional, managed by study program
Advanced Research Methodology: Quantitative	Case studies of the application of the scientific method to quantitative and mixed approaches in the field of education according to the study program Study of the latest research results according to the field of study, including the work of lecturers that are relevant to research interests	2	Institutional, managed by study program
Dissertation Proposal Research Results Seminar Scientific Publications	Discovery of knowledge, technology, or art in the field of education that is relevant to study programs through research with inter, multi, or trans-disciplinary approaches	9 3 5 5	Institutional, managed by study program

Courses related to academic competence	The substance of the main study (content knowledge) according to the study program concerned.	Determined by Study Program	study program
	Study of the latest research results according to the field of study, including the work of lecturers that are relevant to research interests		

Meanwhile, the curriculum structure for non-educational Doctoral Programs follows the basic framework according to Table 3.13.

Table 3.13. UNESA Non-Educational Doctoral Program Curriculum Basic Framework

Subject	Study Materials	Number of credits	Setting Level and Description
Philosophy of Science … (according to study program)	The study of ontology, epistemology, and axiology of science according to the Study Program Study of logic, rhetoric, and dialectics in the study program	2	Institutional, managed by study program
Advanced Research Methodology: Qualitative	Case studies of the application of the scientific method to qualitative and mixed approaches in the field of education according to the study program Study of the latest research results according to the area of study, including the work of lecturers that are relevant to research interests	2	Institutional, managed by study program Study programs can determine certain types of Research Methods (for example, only quantitative) with credit weights that are not the same as this basic framework, according to the scientific characteristics of the study program
Advanced Research Methodology: Quantitative	Case studies of the application of the scientific method to quantitative and mixed approaches in the field of education according to the study program Study of the latest research results according to the field of study, including the work of lecturers that are relevant to research interests	2	
Dissertation Proposal Research	Discovery of knowledge, technology or art in a field relevant to the study	9 3 5	Institutional, managed by study program

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Results Seminar Scientific Publications	program through research with an inter, multi or trans disciplinary approach	5	
Courses related to academic competence	The substance of the main study (content knowledge) according to the study program concerned.

Study of the latest research results according to the field of study, including the work of lecturers that are relevant to research interests | Determined by Study Program | study program |

Based on the Regulation of the Minister of Education and Culture No. 3 of 2020, concerning National Higher Education Standards, the study load for doctoral programs is at least 42 (forty-two) and a maximum of 50 credits with a maximum study period of 7 years after completing the master's program. Students with high academic achievement and the potential to produce very innovative research, as determined by the higher education senate, can join the doctoral program concurrently with the completion of the master's program at least after taking the master's program for 1 (one) year. The dissertation examination can be carried out if the student has completed the stages of completing the dissertation,

As a graduation requirement, doctoral students have at least 1 article published in a reputable international journal. The student concerned is the main writer, and the supervisor is an additional writer. The student concerned uses Surabaya State University as an affiliate in published articles.

The Doctoral Program can propose to award an honorary doctorate to someone who contributes to developing educational theory in a field appropriate to the study program. The UNESA Rector Regulation regulates further mechanisms regarding this matter.

Masters and Doctoral programs can adapt the MBKM principles in implementing their curriculum. Adaptable principles are:

1) The application of Recognition of Past Learning for Masters and Doctoral students, especially for students who have worked or taken similar learning in the past, refers to the Minister of Research, Technology and Higher Education Regulation Number 26 of 2016 concerning Recognition of Past Learning, with a mechanism determined by the Rector. This recognition results in equivalent experience with a particular course or

CPL.

2) Students are allowed to take courses in other Masters/S3 Study Programs at UNESA or other universities, provided that: a) the course is relevant to the focus of their research interest, b) The intended study program has the same or higher accreditation than the student's study program, c) GPA students above 2.75.

3) It is possible for students to take Internship/internship / other forms of courses that are loaded with other relevant courses, with a longer Internship duration.

4) Opening the possibility of a double degree (double degree) for graduates based on applicable regulations.

5) Opening the possibility of Distance Learning (PJJ) based on the applicable regulations

2. Education Profession

Professional education programs are carried out after academic (S-1) or vocational (D4) education programs. The S-1 program is obtained through higher education with a minimum study load of: 144 credits. In comparison, the professional teacher program is received with a study load of 36 credits with a study period of 1-2 years or a maximum of 3 years after completing the S-1/D4 Program (Regulation of the Minister of Education and Culture No. 3 of 2020, concerning National Higher Education Standards).

a. Teacher Professional Education Program (PPG)

Teacher professional education is carried out through two mechanisms: in-service PPG and pre-service PPG. PPG in the office is reserved for PNS teachers and permanent foundation teachers. Pre-service PPG is intended for prospective teachers. This curriculum development guide for PPG is general and opens opportunities to be adapted to innovative programs from the Ministry of Education and Culture, it contains the following general provisions:

1. The PPG program must have a PPG curriculum
   a) The PPG curriculum contains at least identity, evaluation of the implementation of the previous curriculum, academic/professional vision, educational mission, goals, graduate profiles, graduate learning achievements (CPL), fields of study, list of courses/workshop subjects, and learning tools (RPS)).

b) In addition to following the determination of the PPG CPL from the Ministry of Education and Culture, the PPG study program adds CPL, which is the specialty of the UNESA PPG based on UNESA's vision and excellence

c) There are learning stages to train reflective thinking for professional teacher performance: deepening the material, designing learning based on problem-solving solution ideas in class, reviewing design results, peer teaching, comprehensive exams, and field experience programs (PPL).

d) Learning activities designed in RPS can be carried out online or hybrid, depending on the Ministry of Education and Culture provisions. Learning/workshops/workshops designed at RPS are interactive, holistic, integrative, scientific, contextual, thematic, practical, collaborative, and student-centered.

2. The PPG Prajab curriculum contains a boarding education curriculum

a) The boarding school curriculum includes the vision and mission goals, curriculum structure, dormitory activity programs, boarding life assessment, mentoring and reflection, as well as rules, violations and sanctions.

b) Activities include periodic/routine activities and scheduled/programmed activities.

b. Other Professional Education Programs

By the demands of professional staff other than teachers in the education and non-educational fields, UNESA can organize professional education by government regulations and professional associations overseeing professional education. This implementation is based on the needs of stakeholders and does not conflict with applicable laws. The curriculum developed for professional education refers to the learning achievements of level 7 of the KKNI and CPL, which is the specialty of UNESA based on UNESA's vision and excellence.

D. KKNI-Based UNESA Curriculum Development, Oriented OBE, Education 4.0, SDGs, and MBKM

By Republic of Indonesia Government Regulation No. 37 of 2022, UNESA is a Legal Entity State University mandated to produce educational staff and experts in various fields. Curriculum development at UNESA must be directed to achieve

UNESA's vision and mission as a PTNBH. UNESA PTNBH's vision is to become a "tough, adaptive, and innovative educational university based on entrepreneurship." This vision must be adapted in formulating the study program curriculum at UNESA.

On the other hand, Presidential Regulation Number 8 of 2012 concerning the Indonesian National Qualifications Framework (KKNI), which is also regulated in the SN-DIKTI, raises demands for graduates to have specific qualifications. The IQF regulates the qualifications for the abilities and skills of each graduate of an educational level from level 1 to level 9. This requires each study program at UNESA to restructure the curriculum according to that level. In the process of restructuring the curriculum, each study program must be able to formulate a graduate profile to match the level of ability/skill based on the IQF provided through learning experiences so that they can fill the world of work appropriately.

The importance of internationalization of higher education is also a consideration for the curriculum development of study programs at UNESA. To support the internationalization of UNESA, study program curriculum development needs to adapt internationally accepted curricula, for example, an Outcome-Based Education (OBE) oriented curriculum. OBE is an approach in the education system with a clear focus. It organizes everything in the education system so that what skills are essential to students can be carried out at the end of their learning experience (Spady, 1994). OBE-oriented curriculum development can be explained through the following three interacting models.

a. Outcome-Based Curriculum(OBC), namely curriculum development based on the profile and Graduate Learning Outcomes (CPL) or the Learning Outcomes Program (PLO). Based on this CPL, study materials, curriculum maps, RPS, teaching materials, and assessment instruments were compiled and developed.

b. Outcome-Based Learning and Teaching(OBLT), namely the implementation of learning activities, including the selection of learning methods and the interaction of lecturers, students, and learning resources that refer to a predetermined CPL.

c. Outcome-Based Assessment and Evaluation(OBAE), namely the assessment and evaluation of the achievement of CPL to improve the quality of continuous learning.

In addition to the OBE approach, curriculum development at UNESA also considers issues and demands in today's society. Some are Education 4.0 and SDGs (Sustainable Development Goals) or Sustainable Development Goals (TPB). These two

issues are accommodated in curriculum development at UNESA to ensure that students can develop competence and knowledge according to the demands of society and the world of work. Education 4.0 is a shift in education due to the industrial revolution 4.0. Miranda et al. (2021) describe the four core components of Education 4.0: competencies, learning methods, ICT, and innovative and technology-based infrastructure (see pages 6-7).

Furthermore, UNESA, as an HR printing company, needs to consider the 17 SDGs, which are international commitments to improve the welfare of humanity globally. Education, research, and community service activities must be directed to support SDGs. Therefore, curriculum development must be required to facilitate students to build knowledge, attitudes, and competencies to support SDGs.

The MBKM policy initiated by the Ministry of Education and Culture in 2020 also needs to be accommodated in developing the study program curriculum at UNESA to fulfill CPL. Through MBKM activities, students can develop competence, innovation, creativity, capacity, personality, and independence and build knowledge through direct experience in the field. The right to study for three semesters for students outside the study program can be facilitated if the study program develops an appropriate curriculum.

Curriculum development guidelines at UNESA based on the foundations described above can be visualized briefly in Figure 3.6. The Guidelines for Study Program Curriculum Development at UNESA were prepared with the aim of providing guidelines for study program managers to:

1. update the existing curriculum or develop a new curriculum for new study programs;
2. organize and monitor curriculum development carried out by study programs;
3. implementing curriculum;
4. conduct a CPL achievement assessment

Figure 3.1. UNESA Curriculum Development Guidelines Diagram
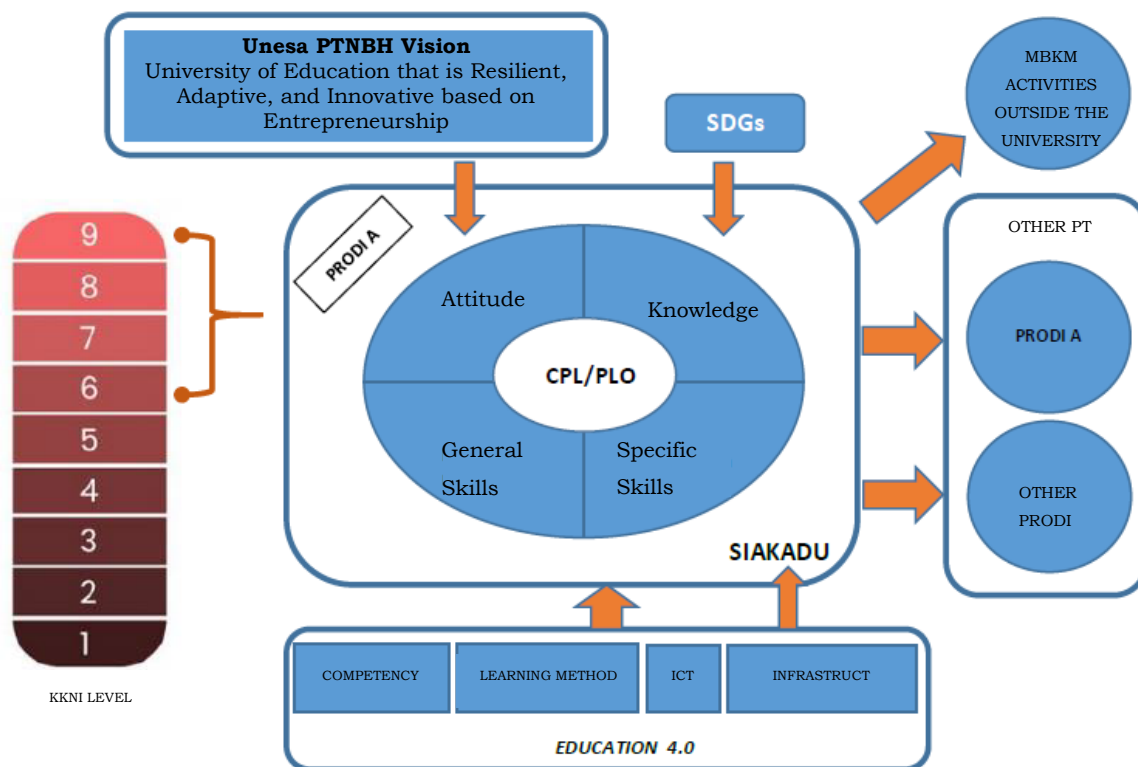
E. Stages of Study Program Curriculum Development

Curriculum development for study programs at UNESA is carried out through five series of activities, including:

1. Preliminary Study: Needs Analysis and Feasibility Study, and/or Comparative Study; Graduate Tracing Studies (Tracer Study); and Evaluation of the on Going Curriculum;
2. Designing a New Curriculum (Designing New Curriculum);
3. New Curriculum Sanctioning Through Workshop (Evaluation Workshop);
4. New Curriculum Publication Test;
5. New Curriculum Implementation (Implementation);

The series of activities can be illustrated in Figure 3.6.
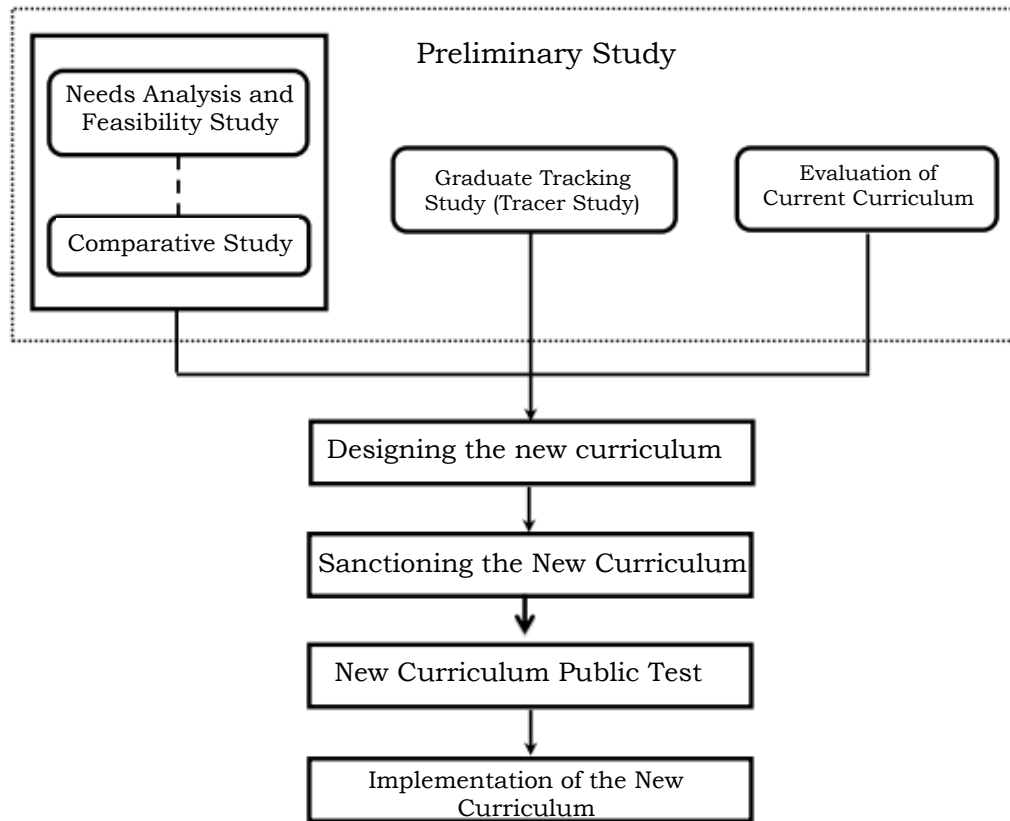
Figure 3.2. UNESA Study Program Curriculum Development Procedures

The description of each series of activities in curriculum development at UNESA can be described as follows.

1. **Preliminary studies**

   Preliminary studies in curriculum development can be in the form of needs analysis and feasibility studies, and/or comparative studies, graduate tracking studies, and ongoing curriculum evaluation. The summary of these activities is as follows.

   a. Needs analysis and feasibility study

      Needs analysis in curriculum development is necessary to obtain the required information so that the curriculum developed by the study program genuinely meets the needs and desires of stakeholders (students, lecturers, graduate users, and the community) and the experience of similar study programs. In addition, the same information is also analyzed to determine the level of readiness of UNESA in developing new study programs or the level of preparedness of study programs to restructure the curriculum. The information that must be obtained in this stage is as follows:

      1) study program resources;

2) Models and Best practices of similar study programs;

3) Professional needs; And

4) Stakeholder needs and desires.

b. Comparative Study

When developing a curriculum, it is important to carry out comparative studies to tertiary institutions (PT) Benchmarks for study programs at UNESA. The purpose of the comparative study, among others, is as follows.

1) Obtain information and empirical description of the curriculum applied to a study program at PT Benchmark.

2) Obtain information and empirical descriptions about the implementation of the lecture process carried out by the Study Program at PT Benchmark.

3) Obtain information and empirical descriptions of lecture learning resources used by the Study Program at PT Benchmark.

4) Obtain information about institutional development, between others: staff development, cooperation, alumni, and others.

5) Obtain information about the position of UNESA (related Study Program) towards the Study Program at PT Benchmark.

6) Gaining new experiences elsewhere (Prodi at PT Benchmark) so as to increase the thinking horizons of UNESA residents in order to realize UNESA's vision and mission.

Aspects that are the focus of comparative studies include: curriculum documents, lecture and assessment processes, teaching materials, learning resources, governance, facilities and infrastructure, development of intellectual behavior, academic atmosphere, and best practices.

c. Graduate Tracking Studies

One of the objectives of developing/updating the curriculum is to increase graduate competency in order to meet the needs of graduate users. For this reason, a tracer study is needed which aims to:

1) obtain information from alumni regarding competency developments required by the labor market for curriculum improvement materials;

2) obtain information about positive things in implementing the curriculum at UNESA that need to be maintained;

3) obtain UNESA alumni data such as place of work, field of work, waiting time to get a job, first salary;

4) to obtain information from graduate users about the quality of graduates (performance, mastery, and skills that need to be improved).

5) *Tracer study*It is also necessary to obtain information from graduates regarding the obstacles and problems faced with regard to employment, as well as the needs of the labor market. Thus a tracer study needs to be carried out on as many respondents as possible including: (a) graduates, both those who are/have not worked, jobs that are relevant/not relevant to the program's competence; (b) graduate users. Tracer studies are carried out using questionnaires/written questionnaires as well as online.

d. Current Curriculum Evaluation

In curriculum development, evaluation of the curriculum that is being used (on going curriculum) is needed to obtain information related to the relevance of the current curriculum to the curriculum that will be developed. The objectives of curriculum evaluation are:

1) Obtain information about the implementation of the current curriculum which includes implementation, practicality, and effectiveness of the curriculum.

2) Obtaining data and information related to the current curriculum curriculum, for making decisions about improvements at the quality level of implementation and for future curriculum development of UNESA programs, including things that need to be maintained, changed, corrected, reduced or added, as well as suitability with the development of science and technology.

Evaluation of the current curriculum is in the form of conformity to the level required by the IQF, the essence of the curriculum (the current school curriculum for the educational curriculum at UNESA), a review of learning outcomes or competencies needed by the market, and an evaluation of the relevance of courses to CPL according to alumni and graduate users. Evaluations are also carried out by experts, in Focus Group Discussions (FGD) which also involve stakeholders such as lecturers, students, alumni, graduate users, and other stakeholders. The data and information obtained from this process are used as a basis for designing and establishing study program curricula that are in accordance with the IQF and the demands of the times.

2. New Curriculum Design

Designing a new curriculum or updating an existing curriculum needs to be done through the following steps/stages.

1) Self-evaluation through analysis of comparative study results, analysis of tracer study results, results of ongoing curriculum evaluation (on Going Curriculum Evaluation) and study program SWOT analysis.
2) Determination of study program specific characteristics and determination of graduate profiles.
3) Determination of the competence of study program graduates/learning outcomes of study programs and their qualifications.
4) Determination of learning competencies that will be achieved through lecture courses/learning outcomes (learning outcomes).
5) Identification of competency elements (personality foundation, mastery of knowledge and skills, ability to work, attitudes and behavior in work, understanding of the rules of social life) that exist in each learning competency.
6) Determination of Study Material (based on scientific trees) and inventory of relevant essential concepts.
7) Determination of courses included in study material and distribution of essential concepts.
8) Estimation and Determination of Study Load (credits) and preparation of course descriptions.
9) Compilation of Curriculum Map.
10) Compilation of Curriculum Structure.
11) Preparation of Semester Learning Plans (RPS).

To carry out the design at each stage, the study program must refer to the bookGuidelines for Developing a Higher Education Curriculum in the Industrial Age 4.0 to Support Free Learning-Independent Campus (Ministry of Education and Culture, 2020).

3. *Sanctioning* New Curriculum Through Workshop

The new curriculum that has been developed by the study program before being implemented needs to ask for input/sanctions from many parties, which include elements of stakeholders, users, and experts. Sanctioning process in the form of workshops or workshops that aim to see coherence between curriculum content. The coherence in question is how the integration (unity), connectedness

(connectedness), and relevance (relevance) between curriculum content that has been developed. Workshop participants are grouped into 2 categories, participants from internal study programs and participants from external study programs. Workshop participants are selected to represent as many users as possible (students and lecturers), experts, and stakeholders with the criteria set by the study program.

4. Public Test/New Curriculum Publication

The new curriculum that has gone through a sanctioning process is then revised according to the input obtained after first considering its urgency. After that, the revised curriculum was tested publicly with the aim of:

1) Obtaining input on the draft study program curriculum and other programs at UNESA
2) Get support from all components and stakeholders of study programs and other programs at UNESA for the implementation of the developed curriculum
3) Obtain certainty that lecturers, laboratory assistants, technicians, and administrative staff of study programs and other programs at UNESA can carry out the curriculum.

The public test is carried out on a limited basis by involving several subject lecturers to try out the syllabus and tools that have been developed in lectures/peer teaching. After that, the results of the trial observations were discussed in FGDs involving study program coordinators, supporting lecturers, students, stakeholders, and technical assistance (if needed). The results of the FGD will later be used as a basis for revising the curriculum that has been developed.

5. New Curriculum Implementation

After conducting a public test of the new curriculum that has been developed, study programs implement the curriculum no later than the start of the nearest new academic year. In general, the purpose of implementing the new curriculum is as an effort to achieve the vision and mission of the study program as well as the desired graduate profile. Specifically, the objectives of implementing the new curriculum are as follows:

1) determine the direction of study program education in accordance with developments;

2) create an atmosphere or learning climate as expected;

3) improve the quality of education; And

4) produce graduates who are beneficial to the community in accordance with the CPL, so that in 3 to 5 years graduates can achieve the graduate profile set by the study program.

Furthermore, the study program coordinator arranges a new curriculum implementation schedule for all new students in the study program, starting in the first semester and in the following semesters. During implementation, regular observations are made on the implementation of lectures based on the syllabus that has been developed and the results are reported at the end of the semester as material for evaluating and revising the curriculum.

CHAPTER IV IMPLEMENTATION OF CURRICULUM

The curriculum is structured and implemented to achieve the vision and mission, which are the ideals and conceptual ideals, as well as the duties of UNESA. Curriculum implementation requires signs that function to direct (directive), build (constructive), prevent (preventive) the occurrence of practices outside the predetermined curriculum design, and correct things that are not appropriate (corrective). The scope of curriculum implementation guidelines described in this section includes: (1) learning approaches, (2) learning resources and learning media, (3) assessment of learning processes and outcomes, and (4) Semester Learning Plans.

A. Learning Forms and Methods

Implementation of the learning process is a process of interaction between lecturers, students, and learning resources in the learning environment. The learning process through curricular activities must be carried out systematically and structured through various courses and measurable learning loads. The learning process is carried out using effective learning methods in accordance with the characteristics of the courses in fulfilling graduate learning outcomes. Learning methods include group discussions, simulations, case studies, collaborative learning, cooperative learning, project-based learning, problem-based learning, or other learning methods, which can effectively facilitate the fulfillment of graduate learning outcomes.

Each course can use a combination of several learning methods accommodated in a form of learning. The form of learning can be in the form of: lectures; responses and tutorials; seminars; practicum, studio practice, workshop practice, field practice, work practice; research, design or development; military training; student exchange; apprenticeship; businessman; and/or other forms of community service.

Applied Bachelor (D-4), Undergraduate (S-1), Professional, Master (S-2), and Doctoral (S-3) education programs are required to add learning forms in the form of research, design, or development. This form of learning is learning under the guidance of lecturers to develop attitudes, knowledge, skills, and authentic experiences and improve people's welfare and national competitiveness.

The form of community service learning must be given to the Applied Undergraduate (D-4), Undergraduate (S-1), Professional, and Specialist programs. This form of community service learning is a student activity under the guidance of a lecturer in the context of utilizing science and technology to promote community

welfare and educate the nation's life.

This form of learning can be carried out within and outside the Study Program. Implementation of learning forms that are outside the Study Program, consisting of:

1. Learning in other study programs at the same university.
2. Learning in the same study program at different tertiary institutions;
3. Learning in other study programs at different tertiary institutions; And
4. Learning in non-university institutions.

The implementation of learning in points 2, 3, and 4 is based on cooperation agreements between universities or other institutions regarding courses recognized through the credit transfer mechanism. The learning process outside the Study Program is an activity that can be determined by the ministry and/or Higher Education Leaders. Implementing this form of lecture outside the study program is under the guidance of lecturers. It is intended for undergraduate and applied undergraduate programs outside the health sector.

The development of attitudes, knowledge, general skills, and specific skills are obtained through intra-curricular, co-curricular, and extra-curricular activities. Intracurricular activities are the main activities of students programmed in the form of courses that students must take. Co-curricular activities are mandatory activities followed by students that aim to improve student soft skills, which include Introduction to Campus Life for New Students (PKKMB), soft skills coaching, or other programmed activities. extracurricular activities are activities related to the development of student talents and interests that can be followed in student activity units that are on or off campus.

B. Learning approaches

Based on the suitability of the characteristics of various learning approaches with the character that UNESA aspires to, student-centered learning approaches, such as collaborative (collaborative), scientific (scientific), and humanistic (humanistic) approaches are considered appropriate for use in learning. This is also in line with the National Higher Education Standards (Article 11) which outlines that the characteristics of the learning process are interactive, holistic, integrative, scientific, contextual, thematic, effective, collaborative, and student-centered.

1. Mutual Cooperation/Collaborative Approach

Collaborative learning is a learning approach that requires students to work together in groups to achieve the same goals. The collaborative approach aims to allow students to build their knowledge through dialogue and share information with

fellow students and lecturers so that students can improve their mental abilities at a high level. In collaboration, individuals learn to listen to each other, understand and respect others. In addition, collaborative learning also aims to improve individual abilities in overcoming conflicts, communicating effectively, and broadening perspectives and new ideas through interactions with others. Through collaborative learning, individuals also learn to appreciate the roles and contributions of others and improve their skills in leading and organizing groups. Collaborative learning is an important skill in work and everyday social life and is essential to develop at every stage of education.

In collaborative learning activities, students work together to solve the same problem, not individually solve separate parts of the problem. Thus, during collaboration, students work together to build the same understanding and concept and complete each part of the problem or task. Therefore, collaborative learning teaches more than just cooperative activities, coordination activities, and the organization of learning experiences because it involves the collaboration of findings and results rather than just new learning. Collaborative learning approaches can also help students build more meaningful knowledge than individual learning. Besides that, By carrying out collaborative learning activities and projects, students will indirectly learn skills such as how to communicate. These activities are described simply in Figure 4.1.
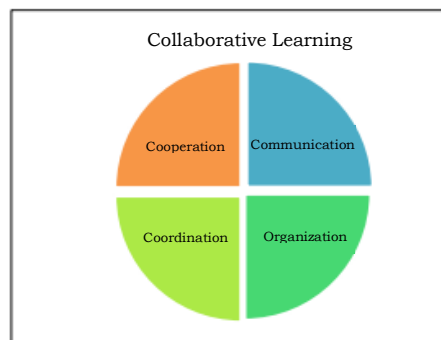
Figure 4.1. Activities in Collaborative Learning

The role of the lecturer in a collaborative approach is as a mediator. Lecturers create conveniences by managing the physical environment and learning resources and equipment that can assist the learning process. In addition, lecturers also provide a supportive social environment, such as grouping students heterogeneously and inviting students to develop a social structure that encourages appropriate behavior for student collaboration. The lecturer also gives the task of provoking the emergence of interactions between students and the physical and social environment around them so that learning activities can be student-centered.

Collaborative learning can be realized in various forms. Some of them include: team-based project learning and the case method. Team-based project learning can involve more than one subject in one study program or different study programs. Each study program regulates the implementation of this collaboration.

2. Scientific/Scientific Approach

Learning with a scientific approach is a learning process designed so that students actively construct concepts, laws, or principles through observing (to identify or find problems), formulating problems, submitting or formulating hypotheses, collecting data with various techniques, and analyzing data. , conclude and communicate "found" concepts, laws, or principles. The involvement of students in each stage makes them agents or actors of learning. The scientific approach is intended to provide students with an understanding of various materials.

The formulation of understanding, concepts, and theoretical understanding based on empirical facts obtained from observations involves students constructing the new learning experiences they learn. Students do not just accept the finished formula but experience the occurrence of the procedure. Thus, students' cognitive processes are involved not only at the level of knowledge and understanding but at a higher level, such as application, analysis, synthesis, and even evaluation. In such learning, of course, all dimensions of students will be actualized. Students develop completely and fully in all its dimensions.

In other words, learning with a scientific approach has the following characteristics: (1) student-centered, (2) involving science process skills in constructing concepts, laws, or principles, (3) involving potential cognitive processes in stimulating intellectual development, especially high-order thinking skills, and (4) can develop student character. Students actively actualize themselves in the student process according to the stages of observing, asking, exploring, associating, and communicating.

The scientific approach has many variations, ranging from the simplest, starting with questions to ending with answers. Several variations of the scientific method, for example: Problem-based learning, inquiry-discovery, 5E learning cycle (engage, explore, explain, elaborate, and evaluation), investigative groups, POE (Predict-Observe-Explain), PDEODE (predict -Discuss-Explain-Observe-Discuss-Explain).

3. Humane/Humanistic Approach

The humanistic approach is marked by an emphasis on respect for (1)

uniqueness, (2) freedom, and (3) the dignity of students as human beings (Figure 4.3). Students as human beings are unique, no one student is the same. This means that it is necessary to develop learning that is tolerant of the individual uniqueness of students. The embodiment, for example, is that although students must have the same basic competencies, they are involved in designing content and learning outlines. The second feature emphasized by the humanistic approach is freedom. None of the students in the learning process want to be pressured and pressured by others. They want to study in a psychological condition that is free, flexible, and without pressure. Lecturer lectures that dominate learning activities without opening opportunities for students to respond to lecture content and assignments without consulting with students reduce this level of freedom. Therefore, the humanistic approach offers various alternative learning activities that students can choose according to their wishes and interests.
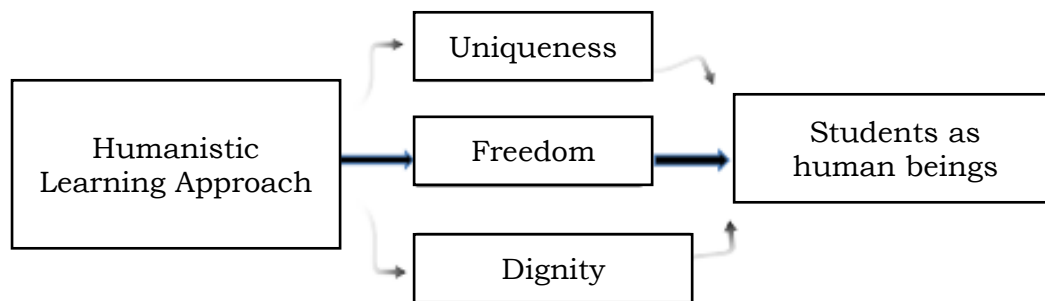
Figure 4.2. The Human Dimension in Humanism

In turn, learning with a humanistic approach can lead students to achieve their dignity as human beings. With the learning they participate in, students actualize themselves as personal and social beings. As an academic community, every student is stimulated and facilitated to grow into an intellectual, scientist, and academic so that he or she will become an independent, capable, tough, and responsive scholar. This aligns with the learning characteristics the National Higher Education Standards aspired to, which state that student-centered learning requires that graduate learning outcomes are achieved through a learning process that prioritizes the development of creativity, capacity, personality, and student needs.

Such learning requires lecturers who appreciate (appreciate) heterogeneity and accept heterogeneity as wealth that is continuously being developed, not subverted or standardized. For this reason, it is also required that lecturer profiles have an attitude of tolerance toward the diversity of student learning outcomes. This attitude

is based on the view that student mistakes/lack of success in achieving certain competencies is an integral part of the learning process. In Ki Hadjar Dewantara's language, lecturers are expected to be present among students to raise enthusiasm (ing madya mangun karsa), but their power or ability is hidden (tut wuri handayani), and indeed because of that ability,

Various Forms of MBKM Learning Activities and Blended Learning embody humanistic learning.

C. Learning Resources and Learning Media

Learning is an interaction process between various parties, namely students and other students, students and lecturers, and students and learning resources. In this interaction, communication occurs involving message traffic (message) from the message source (sender) to the message receiver (receiver) through the message distributor (media). This shows the importance of learning resources and media in the learning process. Both of these aspects will be described in this section.

Learning resources areeverything: data, people,materials, tools, or mediawhich can be used to obtain information/learning experience. Learning resources can be physical or digital. Learning resources can be classified into six groups, including: (a) people: for example resource persons, lecturers, teachers, facilitators, tutors, assistants, preachers, or experts in their respective fields; (b) messages: for example information about teaching materials, folklore, fairy tales, or saga; (c) materials: such as audio cassettes, recordings, films or videotapes; (d) the environment: such as a lab room, school grounds, pond, river, lake, or studio; (e) approaches/techniques: for example workshops, discussions, seminars, or problem solving; and (f) tools: such as computers and cameras. Learning resources can be provided by lecturers, educational institutions, or obtained independently by the students themselves.Learning resources provide students with the information, knowledge, and skills needed to acquire and master new concepts and skills. The effectiveness of learning resources depends on how well designed, attractive, and how well they meet student needs.

Learning media is a channel for conveying messages (Boeve, 1997). AECT (2000) formulates that the substance of learning media is a channel used to deliver messages, information, or learning materials to message recipients or students. Learning media are various components in the student environment that can stimulate students to learn.

Experts try to compile a taxonomy and classify learning media on a certain

basis. The following is a classification of media based on their physical characteristics, arranged from the most concrete to the most abstract, namely:

1. Realia: is media made of real or actual objects such as people, events/events, certain objects or objects.
2. Simulation: imitation of situations that are deliberately held to approach/resemble actual events or circumstances. For example, the behavior of a driver while driving is shown on a video screen or movie screen.
3. Model: ie imitation of the original object in three dimensions.
4. Live images (motion pictures): films or video tapes from shooting/recording actual objects or events, as well as films from shooting images (animation).
5. Silent film, which is a film or moving picture but without sound.
6. Still pictures: portraits taken of various objects or events that may be presented in books, filmstrips, slides or magazines/newspapers.
7. Sound recording (audio recorder): namely sound recording only using verbal language and sound effects of music (sound effect).
8. Graphic presentations: charts, graphs, maps, diagrams, paintings, posters, cartoons and caricatures.
9. Verbal presentations: print media, words projected through film frames (slides), transparencies, whiteboard prints, magazines and chalkboards.
10. Program: also known as programmed teaching, namely a sequence of verbal, visual or audio information that is deliberately designed to stimulate a response from students. Often this way of learning is programmed and implemented using a computer.

Based on the form and way of presentation, learning media are grouped into 6 (six) basic categories of media, namely:

Table 4.1. Basic Categories of Learning Media

Media Type	Media Formats
Text	Books, computer applications
audios	CDs, live presenters, podcasts
Visual	Pictures, photos
Videos	DVDs, documentaries, streamed videos
manipulative	Real or virtual objects
Person	Master, expert

Electronic media and ICT use in education has grown rapidly known as e-

learning. In this innovation, all forms of educational technology are used in the teaching and learning. So famous is this kind of learning source, that it has many synonyms such as multi-media learning, technology engaged learning (TEL), computer-based instruction (CBI), computer-based training (CBT), internet-based training (IBT), web-based training (WBT), online education, virtual education and so on. The difference is only in the focus of the emphasis. All types of media and information presentation models are used in e-learning such as text, audio, images, animations, etc. E-learning can occur in the classroom or outside the classroom.

Learning will be more meaningful if it takes place contextually, using the real environmental context as a source of information. Dewey argues that the school is a laboratory of society. To prepare students to live successfully in society can be done by giving real experiences to students, for example by bringing problems in the environment into the classroom, so that students can practice solving them. In other conditions students are invited to the environment to learn and find information in real contexts. Based on this description, media in a lesson cannot be eliminated.

1. Media Selection

The learning outcomes to be achieved in learning are very diverse, therefore the media used to convey learning messages must also be diverse. There is no single media that can be used equally well to channel all learning messages. Lecturers must choose the media that really fits the message to be conveyed.

There are several things that need to be considered and considered in choosing learning media, namely:
   a. Purpose: The selected media should support the formulated learning objectives. For psychomotor purposes that require movement skills, the best medium is modeling.
   b. Appropriateness: If the material to be learned is an essential part of the subject, then pictures such as charts and slides can be used. If what is studied is aspects related to motion, then film or video media will be more appropriate. The use of a variety of materials generates and enhances academic achievement.
   c. State of students: Media will be used effectively if it does not depend on inter-individual differences between students. For example, if students are classified as auditive/visual types, students who are classified as auditive can learn with visual media, while students who are classified as visual can also learn using auditive media.

d. Availability: Even though a media is considered very appropriate to achieve learning objectives, the media cannot be used if it is not available. According to Wilkinson, the media is a teaching and learning tool, this equipment must be available when needed to meet the needs of students and lecturers.

e. Efficiency: The costs incurred to acquire and use the media, should really be balanced with the results to be achieved.

f. Practicality: The selected media must be easy to operate, not complicated, and does not have elements that are harmful to the user. Media that is too heavy with many parts that must be aligned will certainly take up a lot of study time.

2. Learning Media Development Stages

There are many models of learning media development. One of the media development models is the ASSURE model (Smaldino et al., 2014). The ASSURE model has six stages, including: Analyze learner (analyze student characteristics), State standard objectives (formulate learning objectives), Select strategies, technology, media, and materials (choose strategies, technology, media, and learning materials), Utilize technology, media, and materials (using technology, media, and materials in learning), Require learner participation (encouraging student involvement), and Evaluate and revise (evaluation and revision). Each of these stages is described as follows.

a. Analyze learner. The first step in planning learning is to identify and analyze the characteristics of students involved in learning. This information will guide decision-making to design lessons. The main aspects that need to be considered during the analysis of student characteristics include: (1) general characteristics, (2) specific initial competencies (knowledge, skills, and attitudes related to learning topics), and (3) learning styles.

b. State standard objectives. The second step is formulating specific learning standards and goals according to the curriculum and technology standards. Good learning objectives specify students as objectives, actions (behavior) to be demonstrated, conditions under which behavior or performance is observed, and the extent to which new knowledge or skills must be mastered. Conditions on objectives include using technology or media to support learning and assess the achievement of standards or learning objectives.

c. Select strategies, technology, media, and materials. After analyzing student characteristics and setting learning objectives, the next step is to determine

learning strategies, technology, and media, as well as appropriate materials to achieve the learning objectives that have been set.

d. Utilize technology, media, and materials. This stage involves teaching planning using technology, media, and materials to achieve learning objectives. The steps taken at this stage are: previewing technology, media, and materials; preparing technology, media, and materials; preparing the environment; preparing students; and provide learning experiences.

e. requirelearner participation. Effective learning requires active mental involvement of students. Therefore, at this stage students are asked to practice new knowledge and skills and receive feedback on their efforts before being assessed formally. Feedback can come from lecturers, computers, colleagues, or self-evaluation.

f. Evaluate and revise. This stage aims to evaluate the impact of the application of technology, media, and material on achieving learning objectives and also examines the entire learning process. When there is no match between learning objectives and student learning outcomes, it is necessary to improve the learning plan.

3. BenefitMedia in the Learning Process

As a component of an instructional system, the media has practical values in the form of abilities, including to (Nuryanto, 2014):

a. concretize abstract concepts. In biology, systems in the body such as nerves cannot be seen directly, visualization with media allows students to make observations;

b. bringing messages from objects that are dangerous and difficult, or even impossible to bring into the learning environment (wild animals, volcanic eruptions);

c. displays objects that are too large (Borobudur Temple, Monas, even the earth and the universe);

d. displays objects that are too small, cannot be observed by the naked eye (viruses, bacteria, molecules, metal structures);

e. observe movement that is either too fast (jump or spinning of a decelerated wheel), or too slow (blooming of a fast-actuated flower);

f. allows students to interact directly with the environment;

g. enable uniform observation and perception of student learning experiences;

h. arousing student motivation;

i. giving the impression of individual attention to study group members;

j. present learning information consistently and can be repeated or stored according to needs.

D. Process Assessment and Learning Outcomes

As it is known that the assessment is the interpretation and meaning of data and information collected through the assessment process. Learning assessment collects quantitative and qualitative data about student learning processes and outcomes. An example of an assessment process is administering a learning achievement test followed by scoring. The score is interpreted and interpreted as an assessment. Meanwhile, learning evaluation is making decisions about learning processes and outcomes based on assessment results. Evaluation is not possible without assessment. The data used as the basis for decision making must be comprehensive, intact, continuous, collected using valid and reliable instruments, and carried out according to the principles of correct assessment.

Lecturers' learning outcomes are assessed to monitor the process, learning progress, and continuous improvement of student learning outcomes. Assessment of learning outcomes has a role, among other things, to help students determine learning outcomes. Based on the assessment of learning outcomes, information can be obtained about the weaknesses and strengths of learning and learning that has been implemented. By knowing their weaknesses and strengths, lecturers and students have a clear direction regarding what must be improved and carried out in further learning and learning. The assessment results can also be used as a basis and direction for developing remediation learning or enrichment programs for students who need them, as well as improving the Semester Learning Plan (RPS) and/or the learning process at the next meeting.
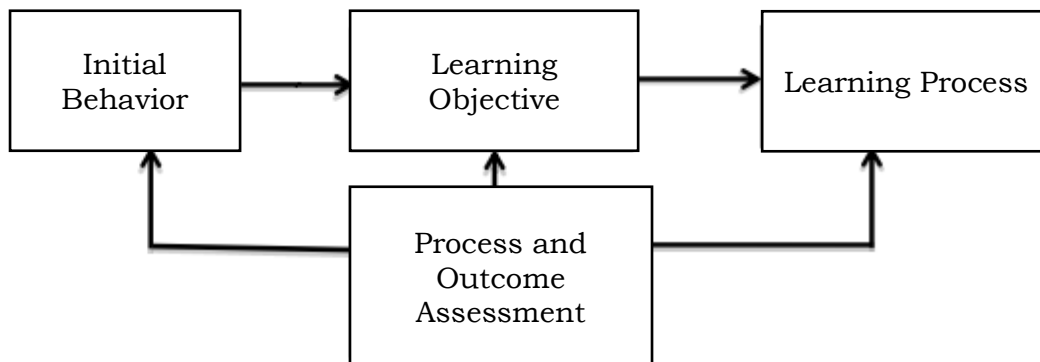

Figure 4.3. Position of Assessment in Learning

Based on this, each UNESA lecturer is tasked with (a) developing valid assessment instruments by the competencies/indicators/final abilities to be

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measured; (b) carry out the assessment process seriously according to the principles: educational, open/transparent, thorough/comprehensive, integrated with learning activities, objective and systematic, sustainable, fair and based on criteria. UNESA has two assessment standards, Academic Assessment and Non-Academic Assessment, each of which is described as follows.

1. Academic Assessment

a. Principles and Objectives of Assessment

Academic assessment includes student learning processes and outcomes carried out using principles by the National Higher Education Standards (Article 22 paragraph 1), namely educative, authentic, objective, accountable and transparent which are carried out in an integrated manner. Each of these principles is described as follows.

1) The educational principle is an assessment that motivates students to improve planning and learning methods and achieve graduate learning outcomes.

2) The authentic principle is an assessment oriented towards a continuous learning process and learning outcomes that reflect students' abilities during the learning process.

3) The objective principle is an assessment based on agreed standards between lecturers and students and is free from the influence of the subjectivity of the assessor and those being assessed.

4) The principle of accountability is an assessment carried out by clear procedures and criteria, agreed at the beginning of the lecture, and understood by students.

5) The principle of transparency is an assessment whose procedures and assessment results can be accessed by all stakeholders.

The goals of academic assessment at UNESA include student learning outcomes in the classroom/laboratory/workshop/studio/field, doing assignments, and preparing final assignments, theses, theses or dissertations. Each objective of the assessment is described as follows.

1) The objectives of assessing the learning outcomes of students participating in the course in the classroom/laboratory/workshop/studio/field consist of: (1) mastery of knowledge, skills, (2) student participation/performance, (3) work results in the form of written works/reports/ works of art/design, (4) affection, for example willingness to cooperate and discipline.

2) The objectives of assessing student learning outcomes in carrying out assignments for a course consist of: (1) up-to-date references and correctness of concepts, (2) depth of content, use of language and structure of report writing, (3) quality of work in the form of written works/artwork/ design, and (4) student participation/performance.

3) The goals of assessing student learning outcomes in the preparation of the final assignment, thesis, thesis, or dissertation, consist of: (1) mastery of knowledge, attitudes and skills and their utilization in the preparation of the final assignment, thesis, thesis, or dissertation, (2) depth of content, use the language and structure of writing the final project, thesis, thesis, or dissertation, (3) creativity in presentation, (4) scientific truth and originality, (5) the application of applicable academic norms, and (6) the ability to defend thesis, thesis, or dissertation .

b. Assessment Techniques, Instruments, and Approaches

1) Assessment Techniques

Assessment of learning outcomes is carried out in the realm of attitudes, knowledge and skills. The assessment techniques for each assessment domain are described in detail as follows.

a) Assessment of the attitude domain is carried out through observation, self-assessment, assessment between students (students assess the performance of their colleagues in one field or group), and assessment of personal aspects that emphasize aspects of faith, noble character, self-confidence, discipline and responsibility in interacting effectively with the social environment, the natural surroundings, and the world and its civilization.

b) Assessment of the realm of knowledge is carried out through various forms of written tests and oral tests which technically can be carried out directly or indirectly. Directly means that lecturers and students meet face to face during assessments, for example during seminars, thesis exams, theses and dissertations, while indirectly, for example using written exam question sheets.

c) Assessment of the realm of skills through performance assessment which can be carried out through practicum, practice, simulations, field practice, and others that enable students to be able to improve their skills and/or product assessments when students make a particular product.

d) Portfolio assessment is a continuous assessment in the realm of attitudes,

knowledge and skills based on a collection of information that shows the development of student learning outcomes in a certain period. This information can be in the form of student work from the learning process that is considered the best or student work that shows the development of their ability to achieve learning outcomes. Types of portfolio assessment are as follows:

- The development portfolio, contains a collection of student works that show progress in achieving their abilities according to the stages of learning that have been undertaken.
- exhibition portfolio (showcases) contains the results of student work that shows the results of their best learning performance.
- Comprehensive portfolio, containing the results of student work as a whole during the learning process.

e) Project assessment is an assessment in the realm of knowledge, skills, and attitudes carried out on student assignments that must be completed within a certain period.

f) Participatory assessment is an assessment in the realm of knowledge, skills, and attitudes that is carried out on student participation in group discussion activities, class discussions, role playing, case analysis, asking questions, conveying arguments, and/or responding to questions.

2) Assessment Instrument

a) Forms of assessment instruments include tests and non-tests. Forms of test assessment, including (1) objective tests: filling in, and matching, multiple choice; (2) subjective test: free description, brief description), (3) performance test. Non-test instrument forms include observation sheets, self-assessment sheets, peer assessment sheets, attitude assessments, questionnaires, checklists, or product assessment sheets. These instruments are equipped with an assessment guide known as a rubric.

b) Rubricis a guide or assessment guide that describes the desired criteria in assessing or giving levels of student learning performance results. The rubric consists of the dimensions or aspects that are assessed and the criteria for the ability of student learning outcomes or indicators of student learning achievements. The purpose of the assessment using a rubric is to clarify the dimensions or aspects and levels of assessment of student learning outcomes. In addition, the rubric is expected to be a driving force or motivator for students to achieve their learning outcomes. Rubrics can

be comprehensive or generally applicable and can also be specific or only apply to a particular topic.

3) Assessment Approach

The curriculum in a study program is a competency-based curriculum, the assessment of learning outcomes in the study program uses the Criteria Reference Approach (PAK). The Criteria Reference Approach (PAK) is an interpretation of the assessment score by comparing the learning achievements of the course with predetermined criteria.

c. Assessment implementation

The assessment is carried out according to the lesson plan and can be carried out by:

1) supporting lecturer or supporting lecturer team;
2) supporting lecturers or a team of supporting lecturers by involving students;
3) supporting lecturers or a team of supporting lecturers by involving relevant stakeholders;
4) supporting lecturers or a team of supporting lecturers by involving external assessors from different tertiary institutions, specifically for doctoral dissertation assessments.

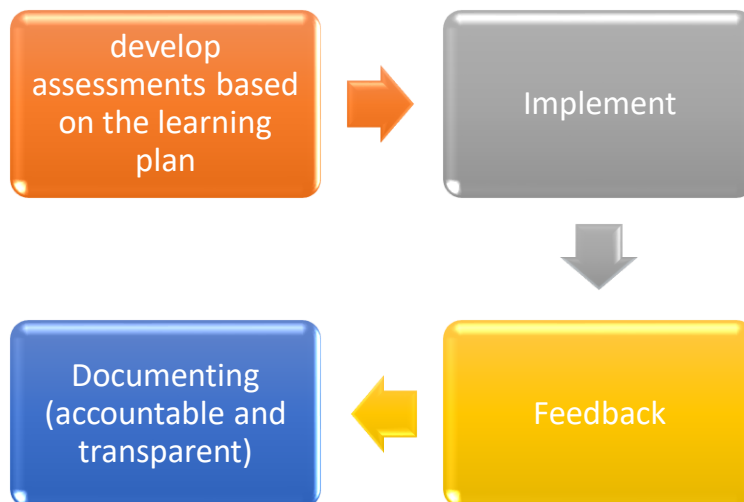The mechanism for implementing the assessment includes four stages as presented in Figure 4.4.

Figure 4.4. Assessment Implementation Mechanism

Evaluationstudent success in courses is carried out by combining all assessment results from quizzes, assignments, exams, and/or completion of product projects assigned by lecturers in accordance with the RPS that has been designed.

The scoring system for determining the final grade uses the Benchmark Reference Assessment (PAP). The score for each assessment component is expressed as a number in the range of 0 – 100. The weight for each assessment component is determined based on the level of complexity, complexity, depth or complexity of competency formation. For example, in courses that implement project-based learning, a minimum of 50% of the final grade is determined based on project assessment. In courses that apply the case method, a minimum of 50% of the final grade is determined based on participatory assessment.

UNESA organizes two types of subject exams simultaneously, namely subsummative exams and summative exams. The description of each exam is presented as follows.

1) Subsumative Examination

- Subsumative exam assessment is carried out to measure mastery of a certain final ability (attitude, knowledge and skills).
- Done more or less after 50% of the study material is taught.
- Conducted at least once in each semester (at the 8th meeting).
- It is carried out in the form of a written exam, but with certain considerations it can also be carried out in the form of a non-test, giving assignments, or even an oral test that is adjusted to the final ability to be achieved.

2) Summative Exam

- Summative exam assessment is carried out to measure mastery of final abilities (attitudes, knowledge and skills).
- Conducted after all study material is taught.
- Conducted once in each semester (after the 15th meeting).
- It is carried out in the form of a written exam, but with certain considerations it can also be carried out in the form of a non-test, giving assignments, or even oral tests that are tailored to the competencies to be achieved.

d. Assessment Reporting

Assessment of student learning achievements in a course is expressed in the form of numbers 0 (zero) to 100 (one hundred), then as a conclusion value is converted into a value of numbers 0 (zero) to 4 (four) and the letters A, B, C, D , and E using the conversion as shown in Table 4.2. Reporting of the assessment is carried out through an information system known as SIAKADU.

Table 4.2. Letter Values, Intervals, and Number Values that apply at Unesa

Letter	intervals	Number
A	85 ≤ A < 100	4
A-	80 ≤ A- < 85	3.75
B+	75 ≤ B+ < 80	3,5
B	70 ≤ B < 75	3
B-	65 ≤ B- < 70	2.75
C+	60 ≤ C+ < 64	2,5
C	55 ≤ C < 60	2
D	40 ≤ D < 54	1
E	0 ≤ E < 40	0

Reports on student learning achievement assessment results are manifested in the form of: a) the results of the learning achievement assessment in each semester expressed by the Semester Achievement Index (IPS), and b) the cumulative assessment results for the semester that has been taken which are expressed by the Cumulative Grade Point Average (GPA). The number of credits that can be taken by a student in one semester is determined by the Semester Achievement Index (IPS) obtained by the student in the previous semester with the conditions as presented in Table 4.3.

Table 4.3. IP Range and Number of Credits Students Can Take

IPS obtained in the previous semester	Credits that can be taken in the following semester
	D4/S1 program
3.50 – 4.00	24 (after 2nd semester)
2.75 – 3.49	20
2.00 – 2.74	16
< 2.00	12

e. Graduation

Students are declared to have passed if they have taken all the specified study load within a certain period of time and have graduate learning outcomes targeted by the study program with a GPA according to the provisions shown in Table 4.4.

Table 4.4. Terms of Study Load, Study Period, and GPA for Student Graduation

No	Program	Minimum study	Longest study	Minimum

		load (SKS)	period (Academic year)	GPA
1	Bachelor of Applied/Bachelor	144	7	2.00
2	Profession	24	3	3.00
2	Masters	36	4	3.00
4	Doctor	42	7	3.00

Study Program can determine other provisions for student graduation according to predetermined learning outcomes.

The student study load is expressed in Semester Credit Units (SKS), and effective learning is carried out for 16 weeks each semester,, including midterm and final semester exams. One academic year consists of two semesters: Odd Semester and Even Semester. However, study programs can hold intermediate semesters to accelerate student study completion, specifically for 12th and 13th semesters students.

Implementing the intermediate semester is held 16 (sixteen) face-to-face meetings in at least 8 (eight) effective weeks carried out in the form of lectures, including the intermediate midterm exams and the final intermediate semester exams. Student study load in taking semesters is between a maximum of 9 (nine) SKS. The intermediate semester aims to provide opportunities for students in the 12th and 13th semesters to improve the grades of courses taken in the previous semesters. The intermediate semester is held at the end of the Even Semester. Active students can only attend it by paying the intermediate semester fee by the credits taken. The study load in the intermediate semester is 1 credit, equal to 370 minutes per week per semester.

Graduating students from the Applied Undergraduate, Undergraduate, Professional, Masters, or Doctoral Programs can be given satisfactory, very satisfactory, or praise ratings if they achieve a certain GPA as shown in Table 4.5.

Table 4.5. GPA Range and Program Graduation Predicate

Applied Undergraduate (D4) and Undergraduate (S1) Programs	Professional and Masters Programs (S2)	Doctoral Program (S3)	Rating
3.51 – 4.00	3.76 – 4.00	3.76 – 4.00	With Compliments (cumlaude)

3.01 – 3.50	3.51 – 3.75	3.51 – 3.75	Very satisfactory
2.76 – 3.00	3.00 – 3.50	3.00 – 3.50	Satisfying

Determination of the Praise pass title for Applied Undergraduate and Undergraduate Programs is carried out with the provision that the maximum study period is 4 years.

2. Non-academic Assessment

Non-academic assessment is a form of recognition of student achievement in non-academic fields when studying at the Bachelor or Applied Bachelor levels at UNESA. The description of this assessment is presented as follows.

a. Assessment Purpose

The non-academic assessment of students at UNESA aims as follows.

1) Instill a scientific attitude, stimulate creativity and innovation, and develop dignified character;

2) Improving students' abilities in collaboration (team work), communication, management skills, organization and leadership;

3) Increase student involvement and participation in student activities;

4) Give recognition and appreciation of student activities and achievements;

5) Provide documents accompanied by authentic evidence of all student activities and achievements that are useful for stakeholders when entering the world of work.

b. Forms, Techniques, Instruments and Assessment Approaches

1) Assessment form

Assessment of student non-academic activities is carried out in the form of validating academic advisor lecturers on evidence of relevant activities that have been reported by students using the format and instruments provided. The non-academic assessment component at Unesa consists of 5 elements of activity, namely: organization and leadership, reasoning and scholarship, interests, talents, hobbies, and well-being, community service, and other fields of activity.

2) Assessment Techniques

Student non-academic assessment techniques use portfolio assessment which records all activities (reasoning and knowledge, interests and talents, organization and leadership, and social concern) with the following mechanism.

a) Every semester students together with academic advisor lecturers plan non-academic activities together with advisory/study planning time.

b) Every semester students are required to submit non-academic activity assessments to academic advisor lecturers for activities that have been realized.

c) Those who have the right to provide an assessment of student non-academic activities are academic advisor lecturers by taking into account evidence or certificates that are considered valid and accountable.

d) The proofs or certificates mentioned above are valid for a maximum of 1 year (two semesters) starting from the current semester.

e) Academic adviser lecturers also have the right to assess activities that are not regular. The non-regular activities in question are activities whose existence is incidental in nature, such as social activities/natural disaster management, and so on.

f) Students are required to fulfill a minimum number of non-academic assessment points (based on the Unesa Student Non-academic Activity Technical Manual) through activities: reasoning and scholarship, interests and talents, organization and leadership, and social concern.

g) The non-academic assessment is used as one of the graduation requirements for graduation.

3) Assessment Instrument

The non-academic aspects of students are assessed using the following assessment instruments.

a) Achievement Card Form (KHP). This card contains activities that have been carried out by students during one semester.

b) Student Activity Transcript (TKM). Student Activity Transcripts will be published by the academic service when the student is declared to have passed the graduation.

4) Assessment Approach

Non-academic assessment at UNESA uses the Benchmark Reference Assessment Approach (PAP) by applying the weight of points that must be met by students. The benchmark for non-academic assessments is set out in the Guidelines for Implementing the Non-academic Assessment System.

E. Semester Learning Plan (RPS)

The learning process is intended to facilitate students to achieve a predetermined CPL. To achieve these goals, learning requires good and systematic planning and preparation. Article 12 paragraph (1) Regulation of the Minister of

Education and Culture No. 3 of 2020 outlines that learning process planning is prepared for each course in the form of lesson plans. On that basis, UNESA made a policy that lecture planning in the form of lesson plans was developed by each lecturer, both individually and in a group of expertise that supports and fosters courses in the curriculum structure.

1. **Definition of RPS**

RPS is a lecture plan in outline which will be carried out for one semester. According to Article 12 paragraph (3) of the Minister of Education and Culture Regulation No. 3 of 2020, the RPS contains at least:

a. study program name, course name and code, semester, credits, name of the supporting lecturer;

b. CPL which is charged to the course;

c. final capabilities planned at each stage of learning to meet graduate learning outcomes;

d. study material related to the capability to be achieved;

e. learning methods;

f. the time provided to achieve skills at each stage of learning;

g. student learning experience which is manifested in the description of tasks that must be done by students for one semester;

h. criteria, indicators, and assessment weights; And

i. list of references used.

2. **RPS Development Principles**

RPS was developed referring to the principles of RPS development, namely: operational, actual, contextual, systematic and comprehensive. Each of these principles can be described as follows.

a. The operational principle means that RPS must be developed in such a way that it is relevant to needs and can be applied in the field.

b. The actual principles show the range of indicators, study materials, lecture activities, and assessment systems taking into account the latest developments in science, technology and art. Therefore the RPS must be reviewed and adjusted periodically.

c. The contextual principle means the scope of study materials and lecture methods based on real life and using events that occur around students. The concepts discussed in lectures must be related to their application in everyday life.

d. The systematic principle implies that in operating the RPS components they are

functionally interconnected in realizing the ultimate capability.

e. The principle of comprehensiveness means that the RPS components such as final abilities and their indicators cover the entire realm of human capabilities, including both spiritual and social attitudes, knowledge, and skills. Comprehensive can also be interpreted that all activities and components in the RPS are a unit that interacts and functions in an integrated and harmonious manner in order to realize the final capabilities that have been formulated.

Even though the RPS is developed in outline, in its implementation it is also necessary to pay attention to the following principles.

a. Pay attention to the individual differences of students. Implementation of RPS needs to pay attention to individual student differences such as paying attention to differences in initial abilities, intellectual level, interests, learning motivation, talents, potential, social abilities, emotions, learning styles, special needs, learning speed, cultural background, norms, values, and/or student environment.

b. Encourage active participation of students. The lecture process is designed to be student-centered to encourage motivation, interest, creativity, initiative, inspiration, independence, and enthusiasm for learning.

c. Develop a culture of reading and writing. The lecture process is designed to develop a passion for reading, understanding various readings, and expression in various forms of writing.

d. Provide feedback and follow up. RPS is implemented in such a way that it contains positive feedback, reinforcement, enrichment, and remediation programs.

e. Linkage and integration. RPS is implemented by taking into account the linkages and integration between CLO (course learning outcomes), KA (final skills), study materials, lecture activities, learning achievement indicators, assessments, and learning resources in one whole learning experience.

f. Implement information and communication technology. RPS is implemented by considering the application of information and communication technology in an integrated, systematic and effective manner in accordance with the situation and conditions.

3. RPS Components

The RPS developed at Unesa has the following components.

a. RPS identity, which contains:

(1) the name of the university, faculty, and study program where the RPS is

implemented according to the name listed on the study program establishment permit issued by the Ministry;

(2) document code to show the changes made to the developed RPS;

(3) course name;

(4) course code;

(5) group of courses chosen based on the type of subject, including: National MKWK, Institutional MKWK, Institutional Elective MK, Study Program/Faculty MKWK, or Study Program Elective MK;

(6) course weight in credits and ects;

(7) semester indicating the time when the RPS was implemented;

(8) the date of preparation of the RPS;

(9) authorization or ratification is written in the name of the authorizing agent, namely the study program coordinator;

(10) names of RPS developer lecturers;

(11) name of course coordinator;

(12) study program coordinator name;

b. Learning outcomes, which contain:

(1) CPL study program is assigned to related courses which consist of components of attitude, general skills, specific skills, and knowledge;

(2) Course Learning Outcomes (CPMK) is a description of CPL which is formulated more specifically for related subjects;

(3) The final ability of each learning stage (Sub-CPMK) is the ability to be achieved at each learning stage and is a description of CPMK;

c. A brief description of the course describes briefly the courses listed in the RPS, including the concepts to be studied, benefits, and/or an outline of lecture strategies;

d. TPB/SDGs that are supported in the learning process;

e. Study Materials or learning materials, contains a detailed list of study materials or materials to be studied in related courses. Learning materials can be presented in the form of textbooks, teaching modules, dictates, practicum instructions, tutorial modules, reference books, monographs, podcasts, videos, and other learning resources. Learning materials must be updated regularly according to developments in science and technology while still paying attention to the depth and breadth of the material according to the type of program (see Table 4.8);

f. Library, contains a list of main and supporting references in the form of books, journal articles, or other forms that can be used as learning resources for related

subjects. Relevant learning sources from the research results of supporting lecturers are suggested to be written in this section to enrich the learning process.

g. Name of the lecturer in charge of the course, filled in with a list of lecturers in charge of the course and there can be more than one in number if the learning is carried out by a teaching team;

h. Prerequisite courses, namely courses that must be programmed before programming this course,

i. Learning process matrix which includes:

(1) Week- which indicates when each final ability is taught,

(2) Final Ability is the ability to be achieved at each stage of learning,

(3) Rating grid, which includes:

- Assessment indicators are specific and measurable statements that identify the abilities or performance of student learning outcomes accompanied by evidence,

- Assessment criteria are benchmarks that are used as a measure or benchmark of learning achievement in assessment based on predetermined indicators. The assessment criteria are guidelines for assessors so that assessments are consistent and unbiased in the form of scoring guidelines or rubrics. Criteria can be either quantitative or qualitative,

- Assessment techniques in the form of tests or non-tests (observation, performance appraisal, product assessment, portfolio assessment),

- The weight of the assessment is the percentage of the success assessment of each achievement of the CPMK sub-subject to the overall success score in the course and the total is 100%.

(4) Forms of learning, learning methods, student assignments, estimated time, contains:

- Forms of learning can be in the form of lectures, responses, tutorials, seminars, practicums, studio practices, workshop practices, field practices, research, community service, thematic KKN, student exchanges, internships or work practices, teaching assistance, humanitarian projects, entrepreneurial activities, studies /independent projects, and/or other equivalent forms of learning,

- Learning methods can be in the form of group discussions, simulations and role playing, case studies, collaborative learning, cooperative learning, project-based learning, problem-based learning, contextual learning,

discovery learning, self-directed learning, and other equivalent methods.

- The learning mode can be online, offline, or blended learning.
- Student assignments are in the form of student learning activities in the form of assignments to achieve final abilities at each stage of learning. In this section, the tasks that must be completed by students during one semester are briefly described.
- Estimated time for each learning activity is written based on the weight of the subject and the form of learning following the provisions of the National Higher Education Standards as presented in Table 4.6.

Table 4.6. Definition of 1 credit based on the form of learning

Kegiatan Proses Belajar (PB)	Kegiatan Penugasan Terstruktur (PT)	Kegiatan Mandiri (KM)	Menit	Jam
KULIAH, RESPONSI, DAN TUTORIAL				
50 menit/minggu/semester	60 menit/minggu/semester	50 menit/minggu/semester	170	2,83
SEMINAR atau Bentuk Pembelajaran Sejenis				
100 menit/minggu/semester	-	70 menit/minggu/semester	170	2,83
PRAKTIKUM, PRAKTIK STUDIO, PRAKTIK BENGKEL, PRAKTIK LAPANGAN, PRAKTIK KERJA, PENELITIAN, PERANCANGAN, ATAU PENGEMBANGAN, PELATIHAN MILITER, PERTUKARAN PELAJAR, MAGANG, WIRAUSAHA, DAN/ATAU PENGABDIAN KEPADA MASYARAKAT				
			170	2,83

(5) Learning materials and libraries, contain learning materials at each stage of learning accompanied by a list of references that students can use to study the material.

4. RPS Development Steps

As stated earlier, RPS refers to course learning outcomes. Each course has course learning outcomes which are the result of the accumulation of learning experiences and final abilities that have been achieved. Starting from this understanding, in each course one lesson plan is developed to give an overview of the lectures for that course for one semester. The steps for developing RPS are as follows.

a. **Fill in identity** RPS

b. **Identify CPL Prodi** charged to related subjects, including attitudes, general skills, specific skills, and knowledge. The determination of the CPL imposed on course subjects is agreed upon by the curriculum team and study program coordinator, and is stated in the study program curriculum document. An example of Study Program CPL being charged for research methodology courses in the Undergraduate program is presented in Table 4.10.

c. **Formulate CPMK** or Course Learning Outcomes (CLO) which are more specific based on the CPL imposed on related courses. The process of determining CPMK

can be done by task analysis. With task analysis, RPS developers identify what knowledge, skills, attitudes can be built through the learning experiences provided by certain courses, which support the CPL study program. CPMK is used as an assessment guide in determining the graduation of students who program certain courses. CPMK is formulated in the form of a verb accompanied by the scope of knowledge, skills and/or attitudes that reflect aspects of the content of the CPMK. An example of the CPMK formulation for a research methodology course in the Undergraduate program is presented in Table 4.7.

Table 4.7. CPL Prodi charged to MK Research Methodology

kode	CPL Prodi yang dibebankan pada mata kuliah
SIKAP (S)	
S9	Menunjukkan sikap bertanggungjawab atas pekerjaan di bidang keahliannya secara mandiri.
PENGETAHUAN (P)	
P3	Menguasai konsep teoritis IPTEKS, serta menguasai formulasi penyelesaian masalah prosedural di industri.
KETERAMPILAN UMUM (KU)	
KU2	Mampu menunjukkan kinerja mandiri, bermutu, dan terukur.
KETERAMPILAN KHUSUS (KK)	
KK4	Mampu merancang dan menjalankan penelitian dengan metodologi yang benar khususnya terkait dengan pengembangan bidang IPTEKS.

(Source:Junaidi et al. (2020))

Table 4.8. Formulation of CPMK in MK Research Methodology

Kode	Capaian Pembelajaran Mata Kuliah (CPMK)
CPMK1	Menunjukkan sikap bertanggungjawab atas pekerjaan di bidang keahliannya secara mandiri (CPL-1).
CPMK2	Menguasai konsep teoritis IPTEKS, serta memformulasi penyelesaian masalah prosedural di teknik (CPL-2).
CPMK3	Mampu menunjukkan kinerja mandiri, bermutu, dan terukur (CPL-3).
CPMK4	Mampu merancang penelitian dengan metodologi yang benar terkait dengan pengembangan bidang teknik(CPL-4).

(Source:Junaidi et al. (2020))

d. **Formulate final capability (Sub-CPMK)**. Each CPMK is further elaborated into several final capabilities (Sub-CPMK) which are narrower in scope. Final ability

is a combination of integrated knowledge, skills and attitudes needed by someone to carry out a unit of study material/a particular task. In general, a person can be considered competent in specific study materials/work/tasks if that person has the minimum knowledge, skills, and work attitude that can be used to complete the task. To achieve CPMK, students must first master some final skills that build the CPMK. The final ability formulation uses action verbs from cognitive, affective, or psychomotor areas and comprises behavioral elements and the scope of course content (references). A suitable Sub-CPMK formulation uses SMART principles (Specific, Measurable, Achievable, Realistic, and Time-bound). The Sub-CPMK formulation must clearly and specifically describe the desired abilities (specific), have a measurable target of learning outcomes (measurable), the desired abilities can be achieved by students (achievable), in the form of realistic abilities (realistic) and can be completed in time according to the weight of credits (time-bound). An example of the formulation of final abilities for research methodology courses in undergraduate programs is presented in Table 4.9. the desired abilities can be achieved by students (achievable), in the form of realistic abilities (realistic) and can be achieved within the appropriate time of credit (time-bound). An example of the formulation of final abilities for research methodology courses in undergraduate programs is presented in Table 4.9. the desired abilities can be achieved by students (achievable), in the form of realistic abilities (realistic) and can be achieved within the appropriate time of credit (time-bound). An example of the formulation of final abilities for research methodology courses in undergraduate programs is presented in Table 4.9.

Table 4.9. Formulation of Sub-CPMK in MK Research Methodology

Kode	Sub Capaian Pembelajaran Mata Kuliah (Sub-CPMK)
Sub-CPMK1	mampu menjelaskan tentang Pengetahuan, Ilmu, filsafat & etika dan plagiasi dlm penelitian. (CPMK-2)
Sub-CPMK2	mampu menjelaskan berbagai metodologi penelitian kualitatif dan kuantitatif.(CPMK-4)
Sub-CPMK3	mampu merumuskan permasalahan penelitian dan merumuskan hipotesis penelitian dengan sumber rujukan bermutu, terukur dan sahih.(CPMK-2)
Sub-CPMK4	mampu menjelaskan validitas dan reliabilitas pengukuran dalam penelitian.(CPMK-4)
Sub-CPMK5	mampu memilih dan menetapkan sampel penelitian dengan sistematis, bermutu, dan terukur.(CPMK-4)
Sub-CPMK6	mampu merancang penelitian dalam bentuk proposal penelitian TA & mempresentasikan nya dengan tanggung jawab dan etika. (CPMK-1, CPMK-3, CPMK-4)

(Source:Junaidi et al. (2020))

e. **Describe** Sub-CPMK into indicators.So that the achievement of Sub-CPMK (final ability) can be measured, the Sub-CPMK is first described as an assessment indicator. The elaboration of Sub-CPMK into an assessment indicator is carried out through task analysis and material analysis. Task analysis is carried out by breaking down the behavior in the Sub-CPMK into more operational sub-behaviours. Material analysis is done by breaking down lecture material into sub-materials with a narrower breadth. It should be noted that the formulation of indicators should consist of behavior (operational verbs) and references or course content. Indicators serve as a guide in choosing lecture materials and strategies, forms, and assessment instruments. An example of a description of the Sub-CPMK to the assessment indicators in the research methodology course in the Undergraduate program is presented in Table 4.10.

Table 4.10. Example of Formulation of Sub-CPMK Assessment Indicators in MK Research Methodology

Sub-CPMK	Assessment Indicator
Sub-CPMK 1: able to explain about knowledge, science, philosophy and ethics, as well as plagiarism in research	1.1 Accuracy in explaining knowledge, science, and philosophy. 1.2 The accuracy of explaining the meaning of ethics in research. 1.3 Accuracy explains the meaning of plagiarism,

	preventing plagiarism, and the consequences of plagiarism.
Sub-CPMK 2: able to explain the stages of qualitative and quantitative research methodology	2.1 Accuracy distinguishes the meaning and characteristics of qualitative and quantitative research. 2.2 Accuracy in explaining the stages of qualitative and quantitative research methodology.
Sub-CPMK 3: able to formulate research problems and hypotheses with quality, measurable, and valid reference sources	3.1 Accuracy in compiling systematics and summarizing journal articles. 3.2 The accuracy and suitability of formulating descriptive, comparative, associative, and comparative-associative problems and hypotheses.
etc...	

(Source:Junaidi et al. (2020))

f. **Determinestudy materials/lecture materials**. The selection of study material must be relevant and support the achievement of final abilities. For this reason, the selection of study material can be done by referring to the formulation of the assessment indicators, especially the phrases behind the verbs of each indicator. An example of selecting study materials based on assessment indicators in research methodology courses in undergraduate programs is presented in Table 4.11.

Table 4.11. Example of the Selection of Study Materials based on the Formulation of Assessment Indicators in MK Research Methodology

Indicator formulation	Study Materials
1.1 Accuracy in explaining knowledge, science, and philosophy.	Definition of knowledge, science and philosophy, scientific and non-scientific approaches, science assignments, and research.
1.2 The accuracy of explaining the meaning of ethics in research.	Ethics in research.
1.3 Accuracy explains the meaning of plagiarism, preventing plagiarism, and the consequences of plagiarism.	Plagiarism in research.
2.1 Accuracy distinguishes the meaning and characteristics of qualitative and quantitative research.	The characteristics of historical research, descriptive research, developmental research, case and field research, correlational research, comparative causal research, real experimental research, quasi-experimental research, action research.

Indicator formulation	Study Materials
2.2 Accuracy in explaining the stages of qualitative and quantitative research methodology.	Historical research methodology, descriptive research, developmental research, case and field research, correlational research, comparative causal research, real experimental research, quasi-experimental research, action research.

(Source:Junaidi et al. (2020))

g. **Choose learning strategies that are relevant to achieve the final abilities that are formulated**. Some indicators can only be taught in one way, so like it or not, the lecturer has to choose that method as a learning strategy. For example skilled at making research proposals. The chosen strategy is the practice of making research proposals. While the indicators explaining knowledge, science, and philosophy can be achieved through various strategies, such as reading assignments, discussions, listening to explanations, etc. If the conditions allow it to be achieved through various strategies, then the aspect that needs to be considered in choosing this learning strategy is the intensity of student involvement.

h. **Choosing Media / learning resources**. Media is a channel to convey messages. Therefore the selected media is adjusted to the message to be conveyed. Considerations in choosing media include indicators or goals to be achieved, practicality, and effectiveness. Likewise learning resources, the determination of learning resources is done by selecting learning resources that (a) have relevance and suitability with indicators; (b) pay attention to the currentness and correctness of the concepts offered. In addition, learning resources can also be in the form of people who are experts in their fields.

i. **Formulate lecture activities/learning experiences**. Lecture activities written in the RPS are not detailed lecture scenarios but only the main activities planned to be carried out. Lecture experience is formulated to consist of three things, namely (a) student activities (student assignments), (b) study materials, and (c) learning resources. Often one indicator requires separate lecture activities, while several other indicators can be achieved through several lecture activities. An example of a formulation of lecture activities in research methodology courses in the Undergraduate program is presented in Table 4.12.

Table 4.12. Example of Lecture Activity Formulations in MK Research Methodology

Indicator	Learning Activities/Assignments

1.1 Accuracy in explaining knowledge, science, and philosophy.	Compile a summary in the form of a paper on the meaning of knowledge, science, and philosophy along with examples.
1.2 The accuracy of explaining the meaning of ethics in research.	Compile ethical case study papers in research related to plagiarism.
1.3 Accuracy explains the meaning of plagiarism, preventing plagiarism, and the consequences of plagiarism.	

As mentioned above, if indicators can be achieved through several types of lecture activities, lecture activities should be chosen that involve students more intensively. For example, indicator 1.1: accuracy in explaining knowledge, science, and philosophy can be achieved through various activities such as: reading books, discussing with colleagues, listening to lecturers' explanations, and so on. In such cases, choose the "best" based on the intensity of student involvement physically and mentally. Compilation of summaries in the form of papers by students helps students understand and recall the information compared to the task of reading or hearing the information. For project-based learning activities, assignment plans for students need to be stated clearly and specifically to help students achieve the expected learning outcomes. An example of a Student Task Plan (RTM) in a research methodology course in the Undergraduate program is presented in Table 4.13.

Table 4.13. Example of RTM in MK Research Methodology

LOGO	**NAME OF HIGHER EDUCATION** **FACULTY** **DEPARTMENT/STUDY PROGRAM**
STUDENT ASSIGNMENT PLAN
SUBJECT	Research Methology (S1)
CODE	TF141361
LECTURER	Dr. Ir. Syamsul Arifin, MT.
TASK FORM	
Final Project	
TASK TITLE	
Assignment-8ABC Final Project: Develop a research proposal and present independently	
SUB COURSE LEARNING OUTCOMES	
Sub-CLO 6: able to design research in the form of a TA research proposal & present it with responsibility and ethics. (C6A3,P3) (CPMK1, CPMK3, CPMK4)	
TASK DESCRIPTION	
This assignment aims to enable students to prepare research proposals in accordance with international standards. Students learn to read and summarize journal articles according to the desired research theme. Then formulate problems, and make hypotheses, compile a research framework, and present it to improve scientific communication skills in the form of presentations.	
ASSIGNMENT METHOD	

1. Select and review at least 10 national & international journals according to the field of interest;
2. Make a summary of at least 10 journals that have been selected;
3. Determine the title of the research proposal;
4. Formulate research problems and hypotheses;
5. Select and design a research methodology;
6. Develop a research proposal;
7. Developing research proposal presentation materials & slides;
8. Presentation of research proposal in class.

ORM AND FORMAT OF OUTPUT

a. Object of work: Preparation of Thesis Research Proposal (Final Project)

b. Form of Output:
1. A collection of journal summaries written with Ms. Word with the systematics of writing journal summaries, collected with the extension format (*rtf), with the file name system: (Task-9-Rigkasan-no nrp mhs-first name mhs.rtf);
2. The proposal is written in MS. Word with systematics and form according to the standard proposal writing guidelines, collected in the extension format (*rtf), with the file name system: (Task-9-Proposal-no nrp mhs-first name mhs.rtf);
3. PowerPoint Presentation slides, consisting of: Text, graphics, tables, images, animation or video clips minimum 10 slides. Collected in softcopy extension format (*rtf), with the file name system: (Task-9-Slide-no nrp mhs-first name mhs.ppt).

INDICATORS, CRITERIA, AND ASSESSMENT WEIGHT

a. Summary of journal review results (20% weight)
Journal summarization with predetermined systematics and format, journal recency (last 5 years), clarity and sharpness of summarization, consistency and neatness in writing presentation.

b. Research Proposal (30%)
1. The accuracy of the systematics of proposal preparation in accordance with the standard proposal writing guidelines;
2. The accuracy of proposal writing in accordance with correct Indonesian spelling and in accordance with APA standards in the presentation of tables, figures, writing references and writing citations;
3. Consistency in the use of terms, colors (if any), symbols and symbols;
4. Neatness of the presentation of the proposal book collected;
5. Completeness of the use of features in Ms. Word in writing and presenting research proposals.
6. The proposal is written in A4 format, 3-2-2-2 margins, Cambria font size 12 (main text), 11 (captions of figures, tables, graphs, table contents).
7. Presentation of color in the proposal only if necessary

c. Preparation of Presentation Slides (20% weight)
Clear and consistent, simple & innovative, displaying images & system blocks, writing using fonts that are easy to read, if needed supported by relevant images and video clips.

d. Presentation (30% weight)
Communicative language, mastery of material, mastery of audience, time control (10 minutes presentation + 5 minutes discussion), clarity & sharpness of presentation, mastery of presentation media.

e. Assessment weight 30% of the overall assessment of this course

IMPLEMENTATION SCHEDULE

tablishment of Title and Outline search	ay 1, 2020
mmarizing Journal	pril 25 - May 1, 2020
oposal Writing & Assistance	pril 25 - May 9, 2020
oposal Presentation	ay 17 - 24, 2020
signment Output Collection	ay 17, 2020
THER	
The assessment weight of this assignment is 30% of 100% of the assessment of this course; The assignment is done and presented independently;	
LIST OF REFERENCES	
Creswell, J.W. (2012). *Educational Research:Planning,Conducting, and Evaluating Quantitative, and Qualitative Research* (4 ed.). Boston: PEARSON Katz, M. (2006). *From Research to Manuscript:A Guide to Scientific Writing*. London: Springer Kothari, C.R. (2004). *Research Methodology: Methods and Techniques* (Second Revised ed.). New Delhi: New Age Internasional (P) Limited. Singh, V. (2006). *Fundamental of Research Methodology and Statistics*. New York: New Age Internasional. Tuckman, B. W., & Harper, B.E. (Februari 9, 2012). *Conducting Educational Research* (6 ed.). Maryland, USA: Rowman & Littlefield Publishers.	

(Source:Junaidi et al. (2020))

j. **Determine the strategy, form, and assessment instruments**. The selection of assessment strategies, forms and instruments is guided by the behaviors embodied in the formulation of indicators. The formulation of the verb with its measuring assessment must be adequate. The word adequacy implies a high level of accuracy. Just for illustration: measure the mass of the ring, must use the scale (appropriate). If rice scales are used, of course this is not (accurately) --- Adequacy includes these two characteristics. Table 4.14 below shows the adequacy of indicators, strategies, and forms and examples of assessment items.

Table 4.14. Indicators, Strategies, Forms, and Examples of Assessments

Indicator	Assessment Strategy	Form of Assessment	Instrument Item
Explain the meaning of style	Oral or written	Description	Explain the meaning of style
Mention examples of the concept of style	Oral	Answer short	Give examples of the concept of style
Skilled in swimming breaststroke	Performance	Sheet observation	Swimming assignments, observation sheets, and scoring rubrics
Determine the properties of prime numbers	Paper and Pencil Test	Multiple choice	The following are characteristics of prime numbers, namely having...

Indicator	Assessment Strategy	Form of Assessment	Instrument Item
			A. two factors B. three factors C. four factors
Skilled in compiling practicum reports	Report Products	Sheet evaluation product	Product assessment sheet and assessment rubric
Able to work together	Observation	Sheet Observation attitude	Attitude observation sheet and assessment rubric

k. Determine the time allocation to achieve the final capability. Determining the time allocation to reach each train (Sub-CPMK) is carried out by first determining the average time allocation by dividing the time allocation for CPMK by the number of trains. Then analyze the complexity and level of difficulty of achieving each KA based on experience. Trains that are less complex can reduce the time allocation to be given to trains that are more complex. The time allocation statement in the RPS is realized through the planned number of weeks. Thus, it is possible that a new train can be reached after 2 or 3 weeks (meetings), while another train may only take one week (meetings).

5. **SRP format**

The RPS format used at Unesa with the RPS components described above can be compiled automatically through the SINDIG application that Unesa has developed. This application can be accessed via the link https://sindig.unesa.ac.id to make it easier for lecturers to prepare lesson plans in an agreed format.

CHAPTER V CURRICULUM EVALUATION

In order to improve the quality of education, the curriculum needs to be evaluated for its effectiveness and efficiency so that it is in line with scientific developments, government and institutional policies, and the needs of graduate users.

A. Purpose of Curriculum Evaluation

Evaluation of curriculum implementation is carried out to evaluate the direction of curriculum implementation. In the development process, improvements are needed whose input is obtained from the evaluation results. This information is used as input to optimize the curriculum. In addition, evaluation is also required as a form of accountability to various entities such as stakeholders, graduate users, and other parties who support curriculum development.

Evaluation of curriculum implementation must be done as a whole, starting from individual lecturers, supporting lecturer teams, study program curriculum development teams, and authorities. In addition, the internal quality assurance system is also involved in measuring the quality of curriculum implementation.

B. Curriculum Evaluation Model

The Discrepancy Evaluation Model can be used as a reference for curriculum evaluation models (Kemenristekdikti, 2018). Evaluation in this model is defined as an improvement process by evaluating performance by comparing it with predetermined standards. The comparison results then produce discrepancy information (Steinmetz, 2000).

In developing the curriculum, it is also necessary to prepare an evaluation mechanism to ensure the success of Study Program Graduate Learning Outcomes (CPL) in meeting existing standards. Unesa Curriculum Guidelines, prepared based on IQF Descriptors, SN-Dikti, Higher Education Standards, and Graduate Profiles, become reference standards in evaluating study program learning achievements. Figure 3.1 illustrates the CPL evaluation mechanism for Prodi based on the discrepancy model.
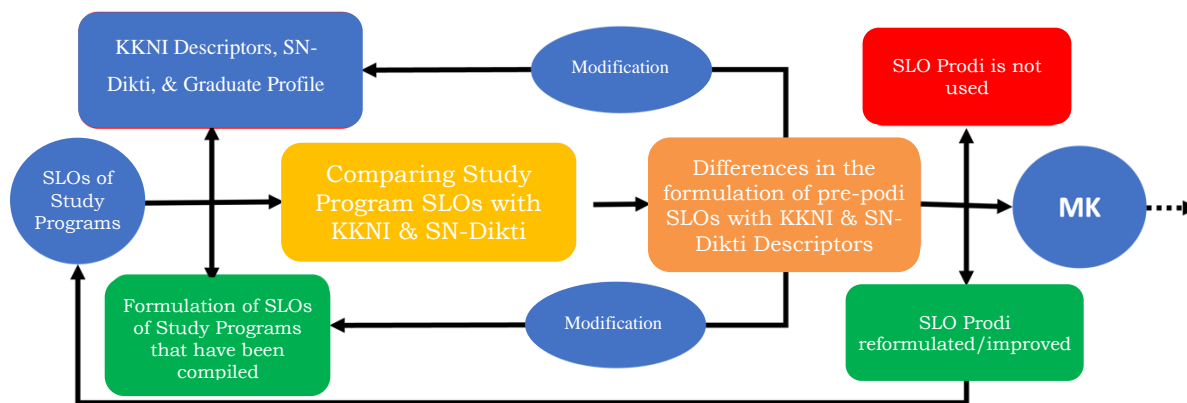
Figure 5.1. Discrepancy Model for Study Program Curriculum Evaluation

The CPL Study Program that has been formulated, compared to the standard, in this case, is the Unesa Curriculum Guide, KKNI Descriptors, SN-Dikti, and graduate profiles that have been set. This comparison yields whether the formulation of the CPL Study Program is by the standards in terms of specific knowledge and skills aspects (KKNI Descriptors) and general attitudes and skills aspects (SN-Dikti).

If there are discrepancies or discrepancies with the standards, then the CPL Prodi formula needs to be modified, or if it is not appropriate, then the CPL Prodi is not used. This evaluation is carried out for each CPL Prodi item. After revisions have been made, the Study Program CPL is determined and becomes a reference in the next evaluation process, for example, an evaluation of the course structure (MK). In detail, the CPL evaluation is described in the Guidelines for Assessment of Learning Achievement in the Study Program Curriculum.

C. Futures Curriculum Evaluation

Curriculum evaluation is categorized into formative and summative evaluations. Formative evaluation aims to improve the implementation of the curriculum, while summative evaluation aims to determine student learning outcomes.

1. Partial Curriculum Evaluation (Formative Evaluation)

Formative evaluation is carried out during the curriculum every semester or annually. Formative evaluation can be referred to as short/medium-term evaluation. The lecturers supporting the course (DPMK) must evaluate CPMK during the learning process. Lecturers can evaluate one or a group of materials where statistics on the achievement of assignment scores, tests, and class atmosphere are considered. Then, periodically the lecturer team coordinates with the lecturers in the field of expertise

by accommodating evaluations from each DPMK. In this process, the achievements of CPL Study Programs were also recapitulated, which were borne by MK and adjusted to the needs output of research and community service of lecturers. The results of this evaluation are used as input for improving methods and learning devices (RPS, teaching materials, etc.).

2. Comprehensive Curriculum Evaluation (Summative Evaluation)

Meanwhile, summative evaluation is comprehensive to review and improve the entire contents of the curriculum according to the validity period. This evaluation can be prepared in stages, starting in the third year of implementing the curriculum until it can produce a revised curriculum formulation in the fourth or fifth year. At this stage, the review also involves:

1. internal and external stakeholders,
2. analysis of curriculum effectiveness from a team of lecturers or experts in the field of science,
3. analysis of tracer study results,
4. graduate user needs analysis,
5. SWOT analysis of Prodi capabilities,
6. analysis of science and technology development, association recommendations, and Prodi research roadmap,

ProcessCurriculum control is carried out by Study Programs and monitored and assisted by Higher Education quality assurance units/institutions. Curriculum improvement is based on the results of curriculum evaluation, both formative and summative.

CHAPTER VI GOVERNANCE

Curriculum development, implementation and evaluation requires governance in accordance with the main tasks and functions of each element involved. Governance guidelines as follows.

A. Implementation of Curriculum

1. Role of Related Parties

a. University

    1) Universities make cooperation documents (Memorandums of Understanding / MoU) with partners, both among universities, schools, as well as the business world and industry or others related to the curriculum.

    2) The university ratifies UNESA curriculum development, implementation and evaluation guidelines.

b. University Academic Senate (SAU)

    • SAU gives consideration to the UNESA curriculum development, implementation, and evaluation guidelines before being ratified.

c. Academic Directorate

    1) The Academic Directorate compiles guidelines governing the development, implementation and evaluation of the UNESA curriculum.

    2) The Academic Directorate prepares a list of university-level compulsory/elective courses that students can take.

    3) The Academic Directorate assists study programs in curriculum development, implementation and evaluation.

    4) The Academic Directorate facilitates information systems and curriculum management in an applicable and comprehensive manner.

d. Faculties/SPs

    1) Faculties/SPs determine study program curriculum documents.

    2) Faculties/SPs prepare a list of compulsory/elective courses at the Faculty/SPs level that students can take.

    3) Faculties/SPs make cooperation documents (Cooperation Notes/MoA and/or Cooperation Agreements/IA) with partners, both among universities, schools, as well as the business world and industry or others related to the curriculum.

e. study program

   1) The study program restructures or revitalizes the study program curriculum in accordance with UNESA curriculum development, implementation and evaluation guidelines.

   2) Study Program compiles study program curriculum documents in accordance with UNESA curriculum development, implementation and evaluation guidelines.

   3) The study program implements the study program curriculum in accordance with UNESA curriculum development, implementation and evaluation guidelines.

   4) The study program evaluates the study program curriculum in accordance with UNESA curriculum development, implementation and evaluation guidelines.

   5) Study Program follows up on the results of curriculum audits in the framework of curriculum restructuring/revitalization.

   f. Quality Assurance Institution (LPM)

   1) LPM establishes quality policies and quality standards for the UNESA curriculum.

   2) LPM conducts curriculum audits on UNESA study programs based on the Curriculum Audit Guidelines.

g. Student

   - Students provide feedback to study programs regarding the structure and implementation of the curriculum.

h. alumni

   - Partners provide feedback to study programs regarding curriculum structure, curriculum implementation, and the needs of the business/industrial world.

i. Partners

   1) Partner parties collaborate in the form of Memorandums of Understanding/MoU, Memorandum of Cooperation/MoA, and Cooperation Agreements/IA related to the curriculum.

   2) Partners provide feedback to study programs regarding the curriculum structure and the needs of the business/industrial world.

2. Coordination and Management

a. Internal Level

1) Curriculum development, implementation and evaluation at the university level is under the coordination and management of the Vice Rector for Academic Affairs, Student Affairs and alumni, cq Directorate of Academic Affairs.

2) Curriculum development, implementation, and evaluation at the faculty/SPs level is under the coordination and management of the Dean/Director, cq Deputy Dean/Deputy Director for Academic, Student Affairs, Alumni, Research, and PKM.

3) Implementation of curriculum audits around the university under the coordination and management of LPM.

b. External Level

1) Collaboration on curriculum development, implementation and evaluation at the university level with partners is under the coordination and management of the Vice Rector for Planning, Development, Cooperation, and Information and Communication Technology and the Vice Rector for Academic, Student and Alumni Affairs.

2) Collaboration on curriculum development, implementation and evaluation at the faculty/SPs level with partners is under the coordination and management of the Dean, cq Deputy Dean/Deputy Director for Academic, Student Affairs, alumni, Research and PKM, and Coordinating Study Programs.

3. Enactment

The 2023 Curriculum Development, Implementation and Evaluation Guidelines come into force from the odd semester of 2023/2024 until there are changes.

B. Curriculum Audit

1. Principle

a. Curriculum audit is an activity that is intended to conduct an overall assessment of the curriculum in UNESA study programs.

b. Curriculum audits are carried out based on UNESA curriculum audit guidelines.

c. The results of the curriculum audit are used as material for planning, determining, implementing, monitoring, evaluating, and continuously improving to achieve the standards and criteria set.

2. **Criteria**

    a. Curriculum audit criteria refer to quality policies, quality standards and/or curriculum quality manuals that have been set.

    b. Curriculum audit criteria are determined based on the UNESA Curriculum Audit Guidelines.

3. **Operationalization**

    a. Curriculum audit is carried out periodically at least once a year.

    b. Curriculum audits are coordinated and managed by LPM.

    c. The audit stages consist of: planning, preparation, implementation, processing and presentation of audit results.

    a. The curriculum audit implementation is based on the Curriculum Audit Guidelines.

CHAPTER VII CLOSING

The curriculum must continue to be updated regularly to provide students with experiences and competencies that align with society's demands and needs. UNESA also actively reviews and updates the curriculum. The 2023 UNESA Curriculum Development, Implementation, and Evaluation Guidelines are a form of updating the curriculum in response to global issues, MBKM policies, and changes in UNESA's vision as PTNBH.

The 2023 UNESA Curriculum Development, Implementation and Evaluation Guidelines were prepared to provide direction for study programs within UNESA in developing, implementing, and evaluating curricula. Leaders and quality assurance teams can also use this guideline in formulating policies or rules related to the curriculum. With these guidelines, it is hoped that applicable regulations can develop, implement, and evaluate the curriculum.

The 2023 UNESA Curriculum Development, Implementation and Evaluation Guidelines were well-completed thanks to the hard work and intelligent work of the UNESA curriculum team. However, on the other hand, there may still be some technical matters that have not been described in this guide. For this reason, this guideline is not final but will undergo revision by constructive input from the expert team.

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